DRAFT ENVIRONMENTAL IMPACT ASSESSMENT` AND ENVIRONMENT MANAGEMENT PLAN

FOR OBTAINING

Environmental Clearance under EIA Notification – 2006

Schedule Sl. No. 1 (a) (i): Mining Project

"B1" CATEGORY – MINOR MINERAL – CLUSTER – NON-FOREST LAND

CLUSTER EXTENT = 11.83.90hectares

At

Punnam Village, Pugalur Taluk,
Karur District, Tamil Nadu

ToR Identification No. TO25B0108TN5570948N on 07.11.2025, File No.12764

NAME AND ADDRESS OF THE PROPOSED PROJECT PROPONENT

Name and Address	Extent & S.F.No.	Mineral Production
Mr.T.Prabhakaran S/o.Tamilarasan, No.201, Old Post Office Street, Vengamedu, Karur District – 639 006.	5.43.40Ha & 1083(P),1084/1(P), 1084/2(P),1086/1(P), 1089/1(P),1089/2(P)	Rough Stone-1076126m^3 or 2959346 Ts Gravel-131604m^3 or 263208Ts

ENVIRONMENTAL CONSULTANT

GEO TECHNICAL MINING SOLUTIONS

No: 1/213-B, Ground Floor, Natesan Complex
Oddapatti, Collectorate Post office,
Dharmapuri-636705. Tamil Nadu.
E-mail: info.gtmsdpi@gmail.com,
Website: www.gtmsind.com
NABET ACC. NO: NABET/EIA/23-26/RA 0319
Valid till: 31.12.2026

ENVIRONMENTAL LAB

INTERSTELLAR TESTING CENTRE Pvt. Ltd
Plot.No.2, Site No.12/2A,
Industrial Estate, Perungudi, Chennai, Tamil Nadu
NABL Certificate Number:TC-6952,
Valid Until: 30.07.2026

Baseline study period-March through May 2025

TERMS OF REFERENCE (ToR) COMPLIANCE

ToR File No.12764

TOR Identification No. TO25B0108TN5570948N, dated.07/11/2025

T. Prabhakaran Rough Stone and Gravel Quarry

1. Seac Conditions - Site Specific

S.No	Terms of Reference		Remarks
1.1	1	The PP Shall furnish NOC from BPCL since gas pipeline is at 110m from the proposed site in northern direction.	NOC from BPCL will be submitted in final EIA report.
	2	The PP Shall obtain NOC from Electrical Inspector of mines as per the central Electricity Authority Notification dated: 08.07.2023, Since HT power line is passing in the southern direction of proposed site.	NOC from Electrical inspector of mines will be submitted in final EIA report.
	3	A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:	The proponent will organize a Cluster Management Committee (CMC) following all said conditions and affidavit for the same will be submitted during the final EIA appraisal meeting.

		(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	
	4	The Boundary pillars to be erected as per the mine rules and the evidence should be submitted along with the EIA report		Boundary pillars will be erected and evidence will be submitted in final EIA report.
	5	The details of enumeration of structures including schools, colleges, primary health centers should be submitted along with the EIA report.		The details of enumeration of structures are furnished in chapter-III, page no-84.
	6	The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m & up to 1km 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. and spell out the mitigation measures to be proposed for the protection of the above structures, if any during the quarrying operations.		The structures within 500m radius are enumerated and discussed in section 3.9 under chapter III in the EIA report page – 84.
	7	The proponent shall furnish photographs of adequate fencing, garland drainage built with siltation tank & green belt along the periphery including replantation of existing trees;		Green Belt and Wire Fencing Photos are Enclosed in Annexure VII.

		maintaining the safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	
	8	The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.	The detailed biodiversity study report is discussed in section 3.6 under chapter III page no.55-69.
	9	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine	A detailed environment management plan has been prepared following the suggestion made by SEAC and included as Chapter X in the EIA report page 131-138. The sworn affidavit stating to abide the EMP for the entire life of mine will be submitted in final EIA report.
	10	The PP shall carry out the comprehensive studies on the cumulative environmental impacts of the existing & proposed quarries which included drilling & blasting, loading & hauling on the surrounding village and structures.	Cumulative environmental impacts of existing and proposed quarries are discussed in section 7.4 under chapter VII in the EIA report page-119-125.
	11	The PP shall prepare a conceptual action plan accommodating the inclusion of haul road accessibility keeping the benches intact, by ensuring the slope stability of the working benches to be constructed and existing quarry wall.	A conceptual action plan design has been prepared and included in Chapter II, page no-21.
	12	The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/video graphic evidence along with the EIA report	Will be submitted during final presentation.

2. Seac Standard Conditions

S.No	Terms of Reference			Remarks
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	It is a fresh quarry lease.
		(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.		The VAO certificate is attached as Annexure IV, page no-263&264.

	3	The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc	The map showing the details of structures within the radius of 500m are tabulated in chapter-III of EIA report, page no-84.
	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.	Detailed hydrological study will be submitted in the final EIA report.
	5	The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.	The details of Bio diversity from the reputed institution will be submitted in the final 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.	The DFO letter will be submitted in the final EIA report.
	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	It is a newly proposed fresh quarry lease.

		involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.	
	8	However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.	This is a fresh lease; slope stability report will be submitted once the working depth reaches 30m 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, II/I Class mines manager appointed by the proponent.	The affidavit for blasting will be submitted in 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.	A conceptual design of blasting has been given in Section 2.5.1 under Chapter II in the EIA report page 17-19.

	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 proponent has no any other quarries.
	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.	It is a fresh quarry lease, hence not applicable.
		• 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/Toposheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should	All corner coordinates of the mine lease area have been superimposed on a high-resolution Google Earth Image, as shown in Figure 2.2 under

		clearly show the land use and other ecological features of the study area (core and buffer zone).	Chapter II in the EIA report page 9.
	16	The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.	The drone video will be submitted during final presentation.
	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.	Green Belt & Wire Fencing Photos are Given in Annexure VII.
	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 Resources and Reserves of Rough Stone were calculated based on cross-section method by plotting sections to cover the maximum lease area for the proposed project. The details reserve estimation has been shown in Table 2.4 under Chapter II in the EIA report page 12-16.
	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.	Details of manpower required for this project have been given in Table 2.14 under Chapter II in the EIA report page 23.
	20	The Project Proponent shall conduct the hydro-geological study considering the	The hydrogeological study is discussed in the Section 3.3.3

		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.	under Chapter III in the EIA report page 38-44.
	21	The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.	The baseline data were collected for the environmental components including land, soil, water, air, noise, biology, socio-economy, and traffic and the results have been discussed Chapter III in the EIA report page 24-84.
	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	Results of cumulative impact study due to mining operations are given in Section 7.4 under Chapter VII in the EIA report page 119-125.

		keeping the concerned quarry and the surrounding habitations in the mind.	
	23	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	As part of rainwater harvesting measures, the rain water from garland drainage system will be diverted to nearby check dams after treating the water in settling tanks. The detailed rain water harvesting report will be submitted in the final EIA report.
	24	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	Land use 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 has been discussed in Section 3.9 under Chapter III in the EIA report page 84. The details of surrounding sensitive ecological features have been provided in Table 3.36 under Chapter III in the EIA report page 84. Land use plan of the project area showing pre-operational, operational and post-operational phases are discussed in Table 2.9 under Chapter II in the EIA report page 21.

	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.	This condition is not applicable to this project because no dumps have been proposed outside the lease area.
	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.	Not Applicable. Project area / Study area is not declared in 'Critically Polluted' Area and does not come under 'Aravalli Range.
	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.	As part of rainwater harvesting measures, the rain water from garland drainage system will be diverted to nearby check dams after treating the water in settling tanks.
	28	Impact on local transport infrastructure due to the Project should be indicated.	Details regarding the impact of the project on traffic are given in Section 3.8 under Chapter III in the EIA report page 82 & 83.
	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.	A detailed tree survey was carried out within 300 m radius and the results have been discussed in Section 3.6 under Chapter III in the EIA report page 55-64.

	30	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	A progressive mine closure plan has been discussed in section 4.10 of chapter-IV, page-107-108. The budget details for the progressive mine closure plan are shown in Table 10.1 under Chapter X in the EIA report page 137.
	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.	The EIA coordinator and the FAE for ecology and biodiversity visited the study area and educated the local students about the importance of protecting the biological environment.
	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.	A detailed greenbelt development plan has been provided in table 4.14 under Chapter IV in the EIA report page 104.
	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	The FAE of ecology and biodiversity has advised the project proponent that saplings of one year old raised in the eco-friendly bags should be purchased

		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.	and planted with the spacing of 3 m between each plant around the proposed project area as per the advice of local forest authorities/botanist. The same is discussed in section-7.7.4 of chapter -VII, page no-124-125.
	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 for the project has been provided in Section 7.3 under Chapter VII in the EIA report page 118-119.
	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.	A risk assessment plan for the project has been provided in Section 7.2 under Chapter VII in the EIA report page 115-118.
	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 have been discussed in detail in Section 4.8 under Chapter IV in the EIA report 106-107.
	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	No public health implications are anticipated due to this project. Details of CSR and CER activities have been discussed in

		measures should be detailed along with budgetary allocations.	Sections 8.6 and 8.7 under Chapter VIII in the EIA report page 128-129.
	38	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	No negative impact on socio-economic environment of the study area is anticipated and this project shall benefit the socio-economic environment by offering employment for 22 people directly and added as Chapter VIII in the EIA report page 127-129.
	39	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.	No litigation is pending in any court against this project.
	40	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	The benefits of the project are included as Chapter VIII in the EIA report page 127-129.
	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.	It is a fresh quarry lease.

	42	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.	A detailed environment management plan has been prepared following the suggestion made by SEAC and included as Chapter X in the EIA report page 131-138. The sworn affidavit stating to abide the EMP for the entire life of mine will be submitted during final EIA report.
	43	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.	This EIA report has been prepared keeping in mind that fact concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may lead to withdrawal of this terms of reference besides attracting penal provisions in the Environment (Protection) Act, 1986.

3. Seiaa Specific Conditions:

S.No	Terms of Reference	Remarks
3.1	After detailed discussions, the Authority accepts the recommendation of SEAC-II and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 10,76,126m^3 of Rough Stone & 1,31,604m^3 of Gravel up to the depth of 50m BGL and the annual peak	The proponent thanking the authorities for granting the ToR along with public hearing for foresaid quantity of rough stone and gravel.

	production is 1,39,400m^3 of Rough Stone & 51,060m^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 following condition & conditions as recommended by SEAC-II & normal conditions & the SEIAA Standard conditions in addition to the following SEIAA Specific conditions:		And will undergo a combined EIA study and separate EMP as per the recommendations of SEAC & SEIAA.
	1	The PP should furnish the details of the water table in the proposed quarry site, duly certified by the competent/qualified authority along with the EIA Report.	The details will be included in final EIA report.

4. Seiaa Standard Conditions:

S.No	Terms of Reference		Remarks
Cluster Management Committee			
4.1	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.	A cluster management committee including all the proponents of the rough stone quarrying projects within the cluster will be constituted for the effective implementation of green belt development plan, water sprinkling, blasting, etc.
	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.,	The members of the cluster management committee will be instructed to carry out EMP in coordination.

	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.	The list of members of the committee formed will be submitted to AD/Mines before the execution of mining lease and will be updated every year.
	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.	All the information has been discussed in Section 2.5 under Chapter II in the EIA report page 17-23.
	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.	The plan has furnished in section 7.2, chapter -VII of EIA report page-115-118.
	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.	The Environmental policy are framed and discussed in section 10.1, page-131,132. The roles and methods are discussed in chapter -VI, page 110-114.
	7	The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.	The restoration strategy is discussed in section 7.4.4, chapter VII of EIA report page-124,125.

	8	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.	The workers will be provided with appropriate safety aids such as face masks, first aid kits, helmets etc., and regular health check ups will be conducted regularly for workers and free medical camps will be organised periodically for the local people. The information on the health of the workers and the local people will be updated periodically.
	Agriculture & Agro-Biodiversity		
	9	Impact on surrounding agricultural fields around the proposed mining Area.	There shall be negligible air emissions or effluents from the project site. During loading the truck, dust generation will be likely. This shall be a temporary effect and not anticipated to affect the surrounding vegetation significantly. The same is discussed in Section 4.6 under Chapter IV in the EIA report page 102-104.
	10	Impact on soil flora & vegetation around the project site.	The details on flora have been provided in Section 3.6.6 under Chapter III in the EIA report page 59-64. There is no schedule I species of animals observed within study area as per Wildlife Protection Act, 1972 and no species falls in vulnerable, endangered or threatened category as per IUCN. There is no endangered red list species found in the study area.

	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.	Details of vegetation in the lease area have been provided in Section 3.6 under Chapter III in the EIA report page 59-64. Details about transplantation of plants have been provided in Section 4.6.2 under Chapter IV in the EIA report page 102-104.
	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 with mitigation have been provided in Section 4.6 under Chapter VI in the EIA report page 102-105.
	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 VII in the EIA report page 124-126.
	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 4.6 under Chapter IV in the EIA report page 102-105.
		Forests	
	15	The project proponent shall detail study on impact of mining on Reserve forests free ranging wildlife.	The project proponent shall do barbed wire fencing work to restrict the movement of RF free wildlife into the mining area.

			The evidence for the same will be submitted during the final presentation.
	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 ecology and biodiversity have been discussed in Section 4.6 under Chapter IV in the EIA report page 102-105.
	17	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	The impacts of the project on standing trees and the existing trees have been discussed in Section 4.6 under Chapter IV in the EIA report page 102-105.
	18	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	The protected areas, National Parks, Corridors and Wildlife pathways near project site within 10 km radius has been provided in Table 3.36 under Chapter III in the EIA report page 84.
	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.	The hydrogeological study is discussed in the Section 3.3.3 under Chapter III in the EIA report page 38-44.

	20	Erosion Control measures.	Garland drainage structures will be constructed around the lease area to control the erosion, as discussed in Section 4.3 under Chapter IV in the EIA report page 88-90.
	21	Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.	The matter has been discussed under Chapter IV in the EIA report page 85-108.
	22	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	An analysis for food chain in aquatic ecosystem has been discussed in Section 3.6.8 under Chapter III in the EIA report page 67-.68.
	23	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	The impacts of the proposed project on the surrounding environment have discussed in Chapter IV in the EIA report page 85-108.
	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 impact of the proposed project on aquatic plants and animals in water bodies has been discussed in Section 3.6.8 under Chapter III in the EIA report page 67,68.
	25	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact of mining on soil environment has been discussed in Section 4.2 under Chapter IV in the EIA report page 87,88.

	26	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The impacts on water bodies, streams, lakes have been discussed in Section 4.3 under Chapter IV in the EIA report page 88-90.
	27	The EIA shall include the impact of mining activity on the following:	
		a) Hydrothermal / Geothermal effect due to destruction in the Environment.	The proposed mining area and the surrounding falls under hard rock formation i.e., Charnockite Formation and the district has not recorded any Hydrothermal / Geothermal effect and as per the Seismic Zonation Map of India, the district falls under the Zone II of seismic zones classification. The resultant of this open cast mining shall not have any Hydrothermal/Geothermal effect on the surrounding environment.
		b) Bio-geochemical processes and its foot prints including environmental stress.	No, Bio-geochemical processes and its foot prints including environmental stress are anticipated and at the end of life of mine the proposed quarry shall be left as an artificial reservoir structure and allowed to collect rain water and shall enrich the ecosystem.
		c)Sediment geochemistry in the surface streams.	Sediment geochemistry is discussed in the Table 3.4 and 3.4a under the Chapter III in the EIA report page 32 & 33.
	Energy		

	28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.	The measures taken to control noise, air, water, and dust have been given under Chapter IV in the EIA report page 85-104.
	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 4.6 under Chapter IV in the EIA report page 102-103.
	30	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features.	The soil characteristics has been discussed in Chapter III in the EIA report page 31-33.
	31	Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.	There will be no emission impact to local livelihood from this quarry project. All the vehicles used for transportation of the quarry materials will be maintained regularly to keep the GHGs emissions with in statuary limits.
	Mine Closure Plan		

	32	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	A progressive mine closure plan has been attached as Annexure in page 256. The budget details for the progressive mine closure plan are shown in Table 10.1 under Chapter X in the EIA report page-137.
	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.	A detailed Environment Management plan has been given as Chapter X in the EIA report page 131-138.
	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.	A detailed Environment Management plan has been given in Tables 10.1 & 10.2 under Chapter X in the EIA report page 132-138.
	Risk Assessment		
	35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	The risk assessment and management plan for this project has been provided in Section 7.2 under Chapter VII in the EIA report page 115-118.
	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	The disaster management plan for this project has been provided in Section 7.3 under Chapter VII in the EIA report page 118,119.

		mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.	
		Others	
	37	The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.	The VAO certificate of 300 m radius have been attached in the attached as Annexure in page-263,264.
	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.	Will be submitted in the final EIA presentation.
	39	The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.	The plastic waste management has been given in Section 7.5 under Chapter VII in the EIA report page 125 & 126.

Standard Terms of Reference for (Mining of minerals)

1.

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.	Not applicable. It is fresh quarry lease.
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.	The proposed site for quarrying is a private land in the name of proponent as in approved mining plan page-191. A copy of the document showing that the proponent is the rightful lessee has been enclosed as Annexure in page-230-236.
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.	All the documents are 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 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).	All corner coordinates of the mine lease area have been superimposed on a high- resolution Google Earth Image, as shown in Figure 2.2 under Chapter II in the EIA report page 9.

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.	Toposheets of Survey of India have been used for showing sampling locations of air, soil, water, and noise, as shown in Chapter III in the EIA report page-33,34,50,55.
1.6	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.	The lease area was inspected by the officers of Department of Geology along with revenue officials and found that the land is fit for quarrying under the policy of State Government.
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	The Environmental Policy is discussed in the Section 10.1 under Chapter X in the EIA report page 131,132.
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining	It is an opencast quarrying operation proposed to operate in Manual

	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	method. The rough stone formation is a hard, compact and homogeneous body. The height and width of the bench will be maintained as 6m with 90^{o} bench angles. Quarrying activities will be carried out under the supervision of Competent Persons like Mines Manager, Mines Foreman and Mining Mate. Necessary permissions will be obtained from DGMS after obtaining Environmental Clearance.
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.	The study area considered for this study is of 5 km radius for air, soil, water, and noise level sample collections, while the study area is 10 km radius for ecology and biodiversity studies and all data contained in the EIA report such as waste generation etc., is for the life of the mine / lease period.
1.10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	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 has been discussed in Section 3.1.2 under Chapter III in the EIA report page 27-29.

		The details of surrounding sensitive ecological features have been provided in Table 3.9 under Chapter III in the EIA report page 84. Land use plan of the project area showing pre- operational, operational and post- operational phases are discussed in Table 2.9 under Chapter II in the EIA report page 21.
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.	Not applicable. It is a 100% recovery mineral, so no dumps will originate in this project. The entire quarried out rough stone will be transported to the needy customers.
1.12	Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.	Not applicable, as there is no forest land involved within the proposed project area.
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)	It is not applicable as the proposed project area does not involve any forest land.

	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.	Not Applicable. The project doesn't attract Recognition of Forest Rights Act, 2006 as there are neither forests nor forest dwellers / forest dependent communities in the mine lease area. There shall be no forest impacted families (PF) or people (PP). Thus, the rights of Traditional Forest Dwellers will not be compromised on account of the project.
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	No Reserve Forest is found within the study area. Table-3.36, page-84
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.	There is no any wildlife/protected area within 10 km radius from the periphery of the project area. Information regarding the same has been given in Table 3.36 under Chapter III in the EIA report page 84.
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	There are No National Parks, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves within 10 km radius from the periphery of the project area. Information regarding the same has been given in Table 3.36 under Chapter III in the EIA report page 84.

	the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.	
1.18	A detailed biological study of the study area [core zone and buffer zone (10 KM radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	A detailed biological study was carried out in both core and buffer zones and the results have been discussed in Section 3.6 under Chapter III in the EIA report page 55-69.
1.19	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravalli Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.	Not Applicable. Project area / Study area is not declared. in 'Critically Polluted' Area and does not come under 'Aravalli Range.

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 The project doesn't attract the C.R.Z. Notification, 2018.
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 aspect should be discussed in the Report	Not Applicable. There are no approved habitations of SCs/STs and other weaker sections in the lease area. Therefore, R&R Plan / Compensation Plan for the Project Affected People (PAP) are not provided.
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	Baseline data were collected for the period of October - December 2024 & March-May 2025 as per CPCB notification and MoEF & CC Guidelines. Primary baseline data and the results have been included in

	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.	Sections 3.1-3.9 under Chapter III in the EIA report page 24-84.
1.23	Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also consider the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling 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 GLCs of pollutants was carried out using AERMOD view 11.2.0. The model results have been given in Section 4.4 under the Chapter IV in the EIA report page 91-96.
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 water requirement for the project, its availability and source have been provided in Table 2.11 under Chapter II in the EIA report page 22.

1.25	Necessary clearance from the competent Authority for drawl of requisite quantity of water for the project should be provided.	Not Applicable. Water for dust suppression, greenbelt development and domestic use will be sourced from accumulated rainwater/seepage water in mine pits and purchased from local water vendors through water tankers on daily requirement basis. Drinking water will be sourced from the approved water vendors.
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.	Part of the working pit will be allowed to collect rain water during the spell of rain. The water thus collected will be used for greenbelt development and dust suppression. The mine closure plan has been prepared for converting the excavated pit into rain water harvesting structure and serve as water reservoir for village during droughts.
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	Impact studies and mitigation measures of water environment including surface water and ground water have been discussed in Section 4.3 under Chapter IV in the EIA report page 88-90.
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	The ground water table is found at the depth of 60m below ground level. The ultimate depth of quarry is 50m BGL. Therefore, the mining activity

	working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	will not intersect the ground water table. Data regarding the occurrence of groundwater table have been provided in Section 3.3 under Chapter III in the EIA report page 34-44.
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 are no streams, seasonal or other water bodies passing within the project area. Therefore, no modification or diversion of water bodies is anticipated
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.	The highest elevation of the project area is 194m AMSL. Ultimate depth of the mine is 50m BGL. Depth to the water level in the area is 60m 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	Greenbelt development plan has been given in Section 4.6 under Chapter IV in the EIA report page 102-104.

	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.	Traffic density survey was carried out to analyses the impact of transportation in the study area as per IRC guidelines 1961 and it is inferred that there is no significant impact due to the proposed transportation from the project area. Details have been provided in Section 3.8 under Chapter III in the EIA report page 82-83.
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.	Infrastructure & other facilities will be provided to the mine workers after the grant of quarry lease and the same has been discussed in Section 2.5.6 under Chapter II in the EIA report page 21.
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.	Progressive mine closure plan has been prepared for this project and is given in Section 4.10 under Chapter VI in the EIA report page 107.
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	Occupational health impacts of the project and preventive measures have been explained in detail in

	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.	Section 4.8 under Chapter IV in the EIA report page 107.
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 public health implications are anticipated due to this project. Details of CSR and CER activities have been discussed in Sections 8.6 and 8.7 under Chapter VIII in the EIA report page 128-129.
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.	No negative impact on socio-economic environment of the study area is anticipated and this project shall benefit the socio-economic environment by offering employment for 22 people directly as discussed in Section 8.1 under Chapter VIII in the EIA report page 127.
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.	A detailed Environment Management Plan has been prepared and provided in Tables 10.1 & 10.2 under Chapter X in the EIA report page 132-138.
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	The outcome of public hearing will be submitted during the final EIA report.

	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	No litigation is pending in any court against this 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.1,46,14,000/- & CER Cost is Rs.5,00,000/-. In order to implement the environmental protection measures, an amount of Rs. 1,37,38,716 as capital cost and recurring cost as Rs. 44,22,519 as recurring cost/annum is proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 10 years will be Rs. 7,06,21,374 as shown in Tables 10.1 & 10.2 under Chapter X in the EIA report page 132-138.
1.42	A disaster management plan shall be prepared and included in the EIA/EMP Report.	The disaster management plan for this project has been provided in Section 7.3 under Chapter VII in the EIA report page 118-119.
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.	Benefits of the project details have been added as Chapter VIII in the EIA report page 127-129.
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.	All the documents have been 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.	List of tables and source of the data collected have been mentioned.
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.	Original Baseline monitoring reports are added in Annexure X.
d)	Where the documents provided are in a language other than English, an English translation should be provided.	All the documents provided here are in English language.
e)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The questionnaire will be submitted in the final EIA report.
f)	While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF & CC vide O.M. No. J- 11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.	Instructions issued by MoEF & CC O.M. No. J-11013/41/2006-IA. II (I) dated 4th August, 2009 have been followed while preparing the EIA report.
g)	Changes, if any made in the basic scope and project parameters (as submitted in Form-Iand 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	No changes are made in the basic scope and the project parameters.

	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.	As it is a new lease area, the condition is not 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.	All the plans including surface & geological plans, and progressive closure plan have been included in Annexures, pages 250-262.

Standard Terms of Reference

1.	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.	Not applicable. It is a fresh quarry lease.

2.	A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.	The proposed site for quarrying is a private land as in mining plan book, page no-191. Evidence of the document showing that the proponent is the rightful lessee has been enclosed in Annexure, pages- 230-236.
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.	All the documents are in the name of the lessee.
4.	All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	All corner coordinates of the mine lease area have been superimposed on a high-resolution Google Earth Image, as shown in Figure 2.2 under Chapter II in the EIA report page 9.
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.	Toposheets of Survey of India have been used for showing sampling locations of air, soil, water, and noise, as shown in Chapter III in the EIA report pages 33,34,50,55.
6.	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use	The lease area was inspected by the officers of Department of Geology along with revenue officials and found that the

	policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.	land is fit for quarrying under the policy of State Government.
7.	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the. prescribed operating process/ procedures to bring into focus any infringement/ deviation/ violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report	The Environmental Policy is discussed in the Section 10.1 under Chapter X in the EIA report page 131.
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	It is an opencast quarrying operation proposed to operate in mechanized method. The rough stone formation is a hard, compact and homogeneous body. The height and width of the bench will be maintained as 6m with 90^{o} bench angles. Quarrying activities will be carried out under the supervision of Competent Persons like Mines Manager, Mines Foreman and Mining Mate. Necessary permissions will be obtained

		from DGMS after obtaining Environmental Clearance.
9.	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc., should be for the life of the mine / lease period.	The study area considered for this study is of 5 km radius for air, soil, water, and noise level sample collections, while the study area is 10 km radius for ecology and biodiversity studies and all data contained in the EIA report such as waste generation etc., is prepared for the life of the mine / lease period.
10.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	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 has been discussed in Section 3.1 under Chapter III in the EIA report page 25-30. The details of surrounding sensitive ecological features have been provided in Table 3.36 under Chapter III in the EIA report page 84. Land use plan of the project area showing pre- operational, operational and post- operational phases are discussed in Table 2.9 under Chapter II in the EIA report page 21.
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.	This is a100% recovery mineral, so no dumps have been proposed outside the lease area. The entire quarried out rough

		stone will be transported to the needy customers.
12.	Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative ofthe State Forest Department to assist the Expert Appraisal Committees.	It is not applicable as there is no forest land involved within the proposed project area. The details have been discussed in Table 3.36 under Chapter III in the EIA report page 84.
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.	It is not applicable as the proposed project area does not involve any forest land.
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 as there are neither forests nor forest dwellers / forest dependent communities in the mine lease area. There shall be no forest impacted families (PF) or people (PP). Thus, the rights of Traditional Forest

		Dwellers will not be compromised on account of the project.
15.	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	No forest land involved, the details are furnished in table 3.36 under Chapter III in the EIA report page 84.
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.	There is no any wildlife/protected area within 10 km radius from the periphery of the project area. Information regarding the same has been given in Table 3.36 under Chapter III in the EIA report page 84.
17.	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/ (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.	There are No National Parks, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves within 10 km radius from the periphery of the project area. Information regarding the same has been given in Table 3.36 under Chapter III in the EIA report page 84.
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	A detailed biological study was carried out in both core and buffer zones and the results have been discussed in Section 3.6 under Chapter III in the EIA report page 55-69.

	furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.	
19.	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravalli Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.	Not Applicable. Project area / Study area is not declared. in 'Critically Polluted' Area and does not come under 'Aravalli Range.
20.	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).	Not Applicable The project doesn't attract the C.R.Z. Notification, 2018.
21.	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished.	Not Applicable.

	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 aspect should be discussed in the Report	There are no approved habitations of SCs/STs and other weaker sections in the lease area. Therefore, R&R Plan / Compensation Plan for the Project Affected People (PAP) are not provided.
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-	Baseline data were collected for the period of October - December 2024 and March-May 2025 as per CPCB notification and MoEF & CC Guidelines. Primary baseline data and the results have been included in Sections 3.1-3.8 under Chapter III in the EIA report page 24-84.

	dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.	
23.	Air quality modelling 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 modelling 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 GLCs of pollutants was carried out using AERMOD view 11.2.0. The model results have been given in Section 4.4 under the Chapter IV in the EIA report page 91-96.
24.	The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should be indicated.	The water requirement for the project, its availability and source have been provided in Table 2.11 under Chapter II in the EIA report page 22.
25.	Necessary clearance from the competent Authority for drawl of requisite quantity of water for the project should be provided.	Not Applicable. Water for dust suppression, greenbelt development and domestic use will be sourced from accumulated rainwater/seepage water in mine pits and purchased from local water vendors through water tankers on daily requirement basis. Drinking water will be sourced from the approved water vendors.

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.	Part of the working pit will be allowed to collect rain water during the spell of rain. The water thus collected will be used for greenbelt development and dust suppression. The mine closure plan has been prepared for converting the excavated pit into rain water harvesting structure and serve as water reservoir for the nearby villages during droughts.
27.	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	Impact studies and mitigation measures of water environment including surface water and ground water have been discussed in Section 4.3 under Chapter IV in the EIA report page 88-90.
28.	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	The ground water table is found at the depth of 60m below ground level. The ultimate depth of quarry is 50m BGL. Therefore, the mining activity will not intersect the ground water table. Data regarding the occurrence of groundwater table have been provided in Section 3.3 under Chapter III in the EIA report page 34-44.
29.	Details of any stream, seasonal or otherwise, passing through the lease area and modification	Not Applicable.

	/ diversion proposed, if any, and the impact of the same on the hydrology should be brought out	There are no streams, seasonal or other water bodies passing within the project area. Therefore, no modification or diversion of water bodies is anticipated
30.	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.	The highest elevation of the project area is 194m AMSL. Ultimate depth of the mine is 50m BGL. Depth to the water level in the area is 60m BGL
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	Greenbelt development plan has been given in Section 7.4.4 under Chapter IV in the EIA report page 124,125.
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	Traffic density survey was carried out to analyses the impact of transportation in the study area as per IRC guidelines 1961 and it is inferred that there is no significant impact due to the proposed transportation from the project area.

	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.	Details have been provided in Section 3.8 under Chapter III in the EIA report page 82,83.
33.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.	Infrastructure & other facilities will be provided to the mine workers after the grant of quarry lease and the same has been discussed in Section 2.5.6 under Chapter II in the EIA report page 21.
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.	Progressive mine closure plan has been prepared for this project and is given in Section 2.5.4 under Chapter II in the EIA report page 21.
35.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	Occupational health impacts of the project and preventive measures have been explained in detail in Section 4.8 under Chapter IV in the EIA report page 106-107.
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 public health implications are anticipated due to this project. Details of CSR and CER activities have been discussed in Sections 8.6 and 8.7 under Chapter VIII in the EIA report page 128-129.

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.	No negative impact on socio-economic environment of the study area is anticipated and this project shall benefit the socio-economic environment by offering employment for 22 people directly as discussed in Section 8.1 under Chapter VIII in the EIA report page 119.
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.	A detailed Environment Management Plan has been prepared and provided in Tables 10.1 & 10.2 under Chapter X in the EIA report page 127-129.
39.	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.	The outcome of public hearing will be submitted during the final EIA report.
40.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given	No litigation is pending in any court against this project.
41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.	Project Cost is Rs.1,46,14,000/- & CER Cost is Rs.5,00,000/- In order to implement the environmental protection measures, an amount of Rs. 1,37,38,716 as capital cost and recurring cost as Rs. 44,22,519 as recurring cost/annum is

		proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 10 years will be Rs. 7,06,21,374 as shown in Tables 10.1 & 10.2 under Chapter X in the EIA report page 132-138.
42.	A disaster management plan shall be prepared and included in the EIA/EMP Report.	The disaster management plan for this project has been provided in Section 7.3 under Chapter VII in the EIA report page 118-119.
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.	Benefits of the project details have been given as Chapter VIII in the EIA report page 127-129.
44	Besides the above, the below mentioned general points are also to be followed:	
a)	Executive Summary of the EIA/EMP Report.	Executive summary has been enclosed as a separate booklet.
b)	All documents to be properly referenced with index and continuous page numbering.	All the documents have been properly referenced with index and continuous page numbering.
c)	Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.	List of tables and source of the data collected have been mentioned.
d)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC/NABL accredited	Baseline data were collected for the period of October - December 2024 and March-May 2025 as per CPCB

	laboratories. All the original analysis/testing reports should be available during appraisal of the Project.	notification and MoEF & CC Guidelines. Primary baseline data and the results have been included in Sections 3.1-3.8 under Chapter III in the EIA report page 24-84 and Lab Report given in Annexure X.
e)	Where the documents provided are in a language other than English, an English translation should be provided.	All the documents provided here are in English language.
f)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The questionnaire will be submitted in the final EIA report.
g)	While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF & CC vide O.M. No. J- 11013/41/2006-IA. II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.	Instructions issued by MoEF & CC O.M. No. J-11013/41/2006-IA. II (I) dated 4th August, 2009 have been followed while preparing this EIA report.
h)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation	No changes are made in the basic scope and the project parameters.

i)	As per the circular no. J-11011/618/2010- IA. II(I) Dated: 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.	As it is a new lease area, the condition is not applicable.
j)	The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.	All the plans including surface & geological plans, and progressive closure plan have been included as Annexures, pages-250-262.

TABLE OF CONTENTS

S No.	TITLE	PAGE No.
I	**Introduction**	**1-4**
1.0	Preamble	1
1.1	Purpose of the report	1
1.2	Environmental clearance	1
1.3	Terms of Reference (ToR)	2
1.4	Post Environment Clearance Monitoring	2
1.5	Transferability of Environmental Clearance	3
1.6	Identification of the Project Proponent	3
1.7	Brief Description of the Project	3
1.8	Scope of the Study	4
1.9	Legislation Applicable to Mining of Mineral Sector	4
II	**PROJECT DESCRIPTION**	**5-22**
2.0	Description of the Project	5
2.1	Location and Accessibility	6
2.2	Leasehold Area	7
2.2.1	Geo Coordinates	8
2.3	Geology	12
2.4	Quantity of Reserves	12
2.5	Mining Method	17
2.5.1	Conceptual Blasting Design	17
2.5.2	Magnitude of Operation	19
2.5.3	Extent of Mechanization	19
2.5.4	Post Mining Land Use	21
2.5.5	Conceptual Mining Plan	21
2.5.6	Infrastructures	21
2.5.7	Water Requirement	21
2.5.8	Energy Requirement	22
2.5.9	Capital Requirement	22
2.6	Manpower Requirement	23
2.7	Project Implementation Schedule	24
III	**DESCRIPTION OF THE ENVIRONMENT**	**24-84**
3.0	General	24

3.1	Land Environment	25
3.1.1	Geology and Geomorphology	25
3.1.2	Land Use/Land Cover	27
3.1.3	Topography	29
3.1.4	Drainage pattern	30
3.1.5	Seismic sensitivity	30
3.2	Soil Environment	31
3.3	Water Environment	34
3.3.1	Ground Water Quality Result	35
3.3.1.1	Physical Parameter	35
3.3.1.2	Chemical Parameters	35
3.3.2	Surface Water	36
3.3.3	Hydrogeological Studies	38
3.3.3.1	Rainfall	38
3.3.3.2	Groundwater Levels and Flow Direction	38
3.3.3.3	Electrical Resistivity Investigation	44
3.4	Air Environment	46
3.4.1	Meteorology	46
3.4.1.1	Climatic Variables	46
3.4.1.2	Wind Pattern	47
3.4.2	Ambient Air Quality Study	48
3.5	Noise Environment	53
3.6	Biological Environment	55
3.6.1	Biodiversity assessment methods	55
3.6.2	Objectives of Biological Studies	56
3.6.3	Methodology	57
3.6.4	Flora Study	57
3.6.5	Fauna Study	57
3.6.6	Flora Composition in Core Zone	59
3.6.7	Fauna	64
3.6.8	Aquatic Vegetation	67
3.7	Socio-Economic Environment	70
3.7.1	Objectives of the Study	70

3.7.2	Methodology	70
3.7.3	Demographic Profile of Karur District	72
3.7.4	Profile of Study Area - Punnam Village	73
3.7.5	Workforce Participation	78
3.8	Traffic Density	82
3.9	Site Specific Features	84
IV	**ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**	**85-108**
4.0	General	85
4.1	Land Environment	86
4.2	Soil Environment	87
4.3	Water Environment	88
4.4	Air Environment	91
4.4.1	Modelling of Incremental Concentration	93
4.5	Noise Environment	97
4.5.1	Ground Vibrations	99
4.6	Ecology and Biodiversity	102
4.6.1	Impact on Ecology and Biodiversity	102
4.6.2	Mitigation Measures on Flora	102
4.6.3	Anticipated Impact on Fauna	104
4.6.4	Impact on agriculture and horticulture crops in 1km Radius	104
4.6.5	Mitigation Measures on agriculture and horticulture crops	105
4.7	Socio Economic Environment	105
4.8	Occupational Health and Safety	106
4.8.1	Respiratory Hazards	106
4.8.2	Noise	106
4.8.3	Physical Hazards	106
4.8.4	Occupational Health Survey	107
4.9	Mine Waste Management	107
4.10	Mine Closure	107
4.10.1	Mine Closure Criteria	107
V	**ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)**	**109**
5.0	Introduction	109
5.1	Factors behind the Selection of Project Site	109

5.2	Analysis of Alternative Site	109
5.3	Factors behind Selection of Proposed Technology	109
5.4	Analysis of Alternative Technology	109
VI	**ENVIRONMENTAL MONITORING PROGRAM**	**110-114**
6.0	General	110
6.1	Methodology of Monitoring Mechanism	110
6.2	Implementation Schedule of Mitigation Measures	112
6.3	Monitoring Schedule and Frequency	112
6.4	Budgetary provision for Environment Monitoring Program	113
6.5	Reporting schedules of monitored data	114
VII	**ADDITIONAL STUDIES**	**115-126**
7.0	General	115
7.1	Public Consultation for Proposed Project	115
7.2	Risk Assessment for Proposed Project	115
7.3	Disaster Management Plan for Proposed Project	119
7.3.1	Emergency Control Procedure	119
7.4	Cumulative Impact Study	119
7.4.1	Air Environment	122
7.4.1.1	Cumulative Impact of Air Pollutants	123
7.4.2	Noise Environment	123
7.4.3	Socio Economic Environment	124
7.4.4	Ecological Environment	124
7.5	Plastic Waste Management Plan for Proposed Project	125
7.5.1	Objective	126
VIII	**PROJECTS BENEFITS**	**127-129**
8.0	General	127
8.1	Employment Potential	127
8.2	Socio-Economic Welfare Measures Proposed	127
8.3	Improvement in Physical Infrastructure	127
8.4	Improvement in Social Infrastructure	127
8.5	Other Tangible Benefits	128
8.6	Corporate Social Responsibility	128
8.7	Corporate Environment Responsibility	129
8.8	Summary Of Project Benefits	129

IX	**ENVIRONMENTAL COST BENEFIT ANALYSIS**	**130**
X	**ENVIRONMENTAL MANAGEMENT PLAN**	**131-138**
10.0	General	131
10.1	Environmental Policy	131
10.1.1	Description of the Administration and Technical Setup	131
10.2	Budgetary Provision for Environmental Management	132
10.3	Conclusion	138
XI	**SUMMARY AND CONCLUSION**	**139-142**
11.1	Introduction	139
11.2	Project Description	139
11.3	Description of the Environment	139
11.3.1	Land Environment	139
11.3.2	Soil Environment	140
11.3.3	Water Environment	140
11.3.4	Air Environment	140
11.3.5	Noise Environment	140
11.3.6	Biological Environment	141
11.3.7	Socio-Economic Environment	141
11.4	Environment Management Plan	141
11.5	Conclusion	141
XII	**DISCLOSURE OF CONSULTANT**	**143-148**

LIST OF TABLES

TABLE No.	CONTENTS	PAGE No.
1.1	Details of Quarries within the cluster area of 500 m radius	2
1.2	Details of Project Proponent	3
2.1	Proposed project area and excavation details	5
2.2	Site Connectivity to the Project Area	7
2.3	Lease hold area details	7
2.3a	Present Land use pattern of the project area	8
2.4	Geographic coordinates of the Project area	8
2.5	Estimated Resources and Reserves of the Project	12

2.6	Conceptual Blasting Design	18
2.7	Operational Details for Proposed Project	19
2.8	Machinery Details	19
2.9	Land Use at the end of mine Life	21
2.10	Ultimate Pit Dimension	21
2.11	Water Requirement for the Project	22
2.12	Fuel Requirement Details	22
2.13	Capital Requirement Details	23
2.14	Employment Potential for the Proposed Project	23
2.15	Expected Time Schedule	23
3.1	Monitoring attributes and frequency of monitoring	24
3.2	LULC statistics of the study area	29
3.3	Soil sampling locations	31
3.4	Assigning Scores to Soil Quality Indicators	32
3.4a	Soil Quality of the Study Area	33
3.5	Water Sampling Locations	35
3.6	Surface and Ground Water Quality Result	36
3.7	Pre-monsoon water level of Open wells within 2 km radius	39
3.8	Post-monsoon water level of Open wells within 2 km radius	39
3.9	Pre-monsoon water level of Bore wells within 2 km radius	40
3.10	Post-monsoon water level of bore wells within 2 km radius	40
3.11	Vertical electrical sounding data	45
3.12	Onsite Meteorological Data	46
3.13	Methodology and Instrument used for AAQ analysis	48
3.14	National ambient air quality standards	49
3.15	Ambient air quality (AAQ) monitoring locations	49
3.16	Summary of AAQ result	50
3.17	Noise Monitoring Locations	53
3.18	Ambient Noise Quality Result	53
3.19	Number of flora life in study area	60
3.20	Flora in Mine Lease Area	60

3.21	Species Richness (Index) in mine lease area	61
3.22	Flora in Buffer Zone	62
3.23	Methodology applied during survey of fauna	64
3.24	Fauna in Core Zone	65
3.25	Fauna in Buffer Zone	66
3.26	Aquatic Fauna and Flora	68
3.27	Major Crops in 1km radius	69
3.28	Major Field Crops & Horticulture cultivation in 1km radius	69
3.29	Demographic Status of Punnam Village	74
3.30	Demographic Profile of the Study Area	76
3.31	Details of Workforce Participation of the Study Area	79
3.32	Traffic Survey Locations	82
3.33	Existing Traffic Volume	82
3.34	Rough Stone Transportation Requirement	82
3.35	Summary of Traffic Volume	82
3.36	Details of Environmentally Sensitive Ecological Features in the Study Area	84
4.1	Impact identification matrix	85
4.2	Empirical Formula for Emission Rate from Overall Mine	92
4.3	Estimated Emission Rate	93
4.4	Incremental & Resultant GLC of $PM_{2.5}$	93
4.5	Incremental & Resultant GLC of PM_{10}	93
4.6	Proposed Mitigation Measures for Air pollution	96
4.7	Activity and noise level produced by machinery	97
4.8	Permissible noise levels adopted by CPCB, 2000 and OSHA	97
4.9	Predicted PPV Values due to Blasting	99
4.10	Predicted PPV Values due to Blasting at 100-500 radius	99
4.11	Carbon Released During Five Years of Rough Stone and Gravel Production	102
4.12	CO_2 Sequestration	103
4.13	Recommended Species for Greenbelt Development Plan	103
4.14	Greenbelt development plan	104
6.1	Implementation schedule for proposed project	112
6.2	Proposed monitoring schedule post EC for the proposed quarry	113

6.3	Environment monitoring budget	114
7.1	Risk assessment& control measures for proposed project	116
7.2	Salient Features of P1	120
7.3	Salient Features of the Cluster E1	120
7.4	Salient Features of the Cluster E2	121
7.5	Cumulative Production Load of Rough Stone	122
7.6	Cumulative Production Load of Gravel	122
7.7	Cumulative Impact Results from the proposed projects	123
7.8	Cumulative Impact of Noise for one Cluster Projects	123
7.9	Cumulative Effect of Ground Vibrations Resulting from cluster Project	124
7.10	Socio Economic Benefits from the Cluster Project	124
7.11	Employment Benefits for Cluster Project	124
7.12	Greenbelt Development Benefits from the Cluster Project	125
7.13	Action Plan to Manage Plastic Waste	126
8.1	CER – action plan	129
8.2	Project Benefits to the state Government	129
10.1	EMP budget for proposed project	132
10.2	Estimation of overall EMP budget after adjusting 5% annual inflation	138
11.1	LULC Statistics of the Study Area	139

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
2.1	Key Map Showing Location of Project Site	6
2.2	Google Earth Image Showing Pillar Coordinates of Lease Area	9
2.3	Google Earth Image of the cluster	10
2.4	Surface & Geological Plan	11
2.5	Year wise Development & Production Plan (First Five years)	13
2.5a	Year wise Development & Production Section (First Five years)	14

2.6	Year wise Development & Production Plan (Second Five years)	15
2.6a	Year wise Development & Production Section (Second Five years)	16
2.7	Mine Layout Plan and Land Use Pattern	20
3.1	Geology Map of 5Km Radius from proposed project site	26
3.2	Geomorphology Map of 5 km Radius from Proposed Project Site	27
3.3	LULC Map of 5km radius from the proposed project site	28
3.4	Drainage Map of 5 km Radius from Proposed Project Site	30
3.5	Soil Map of Karur District	31
3.6	Map Showing Soil Sampling Locations within 5 km Radius around Proposed Project Site	33
3.7	Map Showing Water Sampling Locations within 5 km Radius around Proposed Project Site	34
3.8	Long-Term Monthly Average Rainfall Vs Monthly Rainfall	38
3.9	Water level chart	41
3.10	Static groundwater elevation map of open well - Pre Monsoon Season	41
3.11	Open Well Static Groundwater Elevation Map – Post Monsoon Season	42
3.12	Hydraulic head chart of open wells	43
3.13	Borewell Static Groundwater Elevation Map – Pre-monsoon Season	43
3.14	Borewell Static Groundwater Elevation Map - Post-Monsoon Season	44
3.15	Graph showing occurrence of water bearing fracture zones at the depth in the proposed project site	45
3.16	Windrose Diagram for 2021-2022(March to May)	47
3.17	Windrose Diagram for 2023-2024 (March to May)	47
3.18	Onsite Wind Rose Diagram – 2025	48
3.19	Map Showing Ambient Air Quality Monitoring Station Locations	50
3.20	Bar Chart showing the avg conc of PM2.5, PM10, NOx and SO2	52
3.21	Bar Chart showing the summary of AQ Data	52
3.22	Bar Chart Showing Day Time Noise Levels Measured in Core and Buffer Zones	54
3.23	Bar Chart Showing Night Time Noise Levels Measured in Core and Buffer Zones	54
3.24	Map Showing Noise Level Monitoring Station Locations around 5 km Radius from Proposed Project Site	55

3.25	Species Richness (Index) in Mine Lease area	61
3.26	Details Village Boundaries within 1 km and 5 km Radius of the Project Lease area	71
3.27	Details of the gender, social groups, and literacy rate in the study villages	77
3.28	Details of Workforce in the Study Villages	80
3.29	Traffic Density Map	83
4.1	Predicted Incremental Concentration of PM_{10}	94
4.2	Predicted Incremental Concentration of $PM_{2.5}$	94
4.3	Predicted PPV Values due to Blasting at 100-500m radius	101
6.1	Proposed environmental monitoring chart	111
7.1	Disaster management team layout for proposed project	119

LIST OF ANNEXURES

Annexure No.	Contents	Page No.
I	Copy of ToR letter	149-170
II	Copy of 500 m radius letter	171-173
III	Approved Mining Plan Letter	174-262
IIIa	Approved mining plan along with mining plan AD/DD letter/original mining plan plates / modified plates	
IV	VAO Letter	263-264
V	Nabet Certificate	265
VI	Precise Area Letter	266
VII	Green Belt & Wire Fencing Photos	269
VIII & IX	Revenue Letter & A1 Notice	271
X	Lab Report	301-630

CHAPTER I
INTRODUCTION

1.0 PREAMBLE

Environmental Impact Assessment (EIA) study is a process used to identify the environmental, social and economic impacts of a project prior to decision-making. EIA systematically examines both beneficial and adverse consequences of the proposed project and ensure that these impacts are considered during the project designing. According to the Ministry of Environment and Forests, Govt. of India, EIA notification S.O. 1533(E) of 14th September 2006 and its subsequent amendments the projects are categorized into A, B1 & B2 to determine the level of scrutiny and process. The mining projects whose extent is ≥ 5 ha or the cluster of quarries (if homogeneous mineral) within 500m radius extent is greater than 5ha falls under category B1. These projects require preparation and submission of an EIA report after public consultation to SEIAA to obtain environmental clearance as per the Office Memorandum F.No. L-11011/175/2018-IA-II (M) Dated: 12.12.2018.

1.1 PURPOSE OF THE REPORT

The purpose of the report is to evaluate the project's potential environmental, social and economic effects of the before it is implemented adhering to the guidelines outlined in the MoEF & CC Notification, S.O. 996 (E) dated 10.04.2015 and MoEF & CC Office Memorandum dated 29.08.2017.

1.2 ENVIRONMENTAL CLEARANCE

The Environmental Clearance process for the project will comprise of four stages. These stages are screening, scoping, public consultation & appraisal.

Screening

The project had applied in PARIVESH 2.O proposal no. SIA/TN/MIN/552153/2025, Dated: 19.09.2025 to obtain terms of reference.

Scoping

The mechanism for issuing online system generated Standard ToR as well as reference to SEAC has been enabled on the PARIVESH Portal on the acceptance of the complete application online. The concerned Member Secretary of SEAC shall refer the project to the concerned SEAC for prescribing additional ToR as per the circular F.No. IA 3-22/15/2022-IA-III [Computer No 178038] Dated: 6th May 2022.

Public Consultation

In this stage, an application along with the draft EIA and EMP report will be made to the Member Secretary of the Tamil Nadu Pollution Control Board (TNPCB) and request to conduct Public Hearing as per EIA notification 2006. The outcome of the public hearing Details given in Final EIA Report.

Appraisal

In this stage, the final EIA report will submit in PARIVESH 2.O to SEIAA, TN. Based on the recommendations of SEAC the SEIAA, TN will grant EC or castoff.

1.3 TERMS OF REFERENCE (ToR)

The total extent of quarries within the 500m radius is greater than 5 ha. The details of the quarries within the cluster are given in Table 1.1.

Table 1.1 Details of quarries within the cluster of 500m radius

Proposed Quarries					
Code	**Name of the Owner**	**S.F. No**	**Village & Taluk**	**Extent (ha)**	**Status**
P1	T.Prabhakaran	1083(P),1084/1(P), 1084/2(P),1086/1(P), 1089/1(P),1089/2(P)	Punnam & Pugalur	5.43.40	Proposed Area
Existing Quarries					
E1	Tvl.V.S.T Blue Metals	1199/2,1199/3, 1199/4,1199/5, 1199/6,1199/7, 1199/8,1199/9, 1200/4,1200/5, 1200/6,1200/7, 1200/8,1200/9, 1200/10,1200/11, 1200/12,1201 (P)	Punnam & Pugalur	3.82.50	15.11.2022 to 14.11.2028
E2	Tvl.V.S.T Blue Metals	1197/1(P),1197/5, 1197/6,1197/7	Punnam & Pugalur	2.58.0	08.05.2023 To 07.05.2028
Total Cluster Extent				**11.83.9**	**---**

Source: DD Letter: Rc.No.869/Mines/2025, Dated:11.09.2025

The file was appraised in 629th SEAC meeting on 10.10.2025 and issued terms of reference (ToR) identification no **TO25B0108TN5570948N** on **07.11.2025** by SEIAA, TN.

1.4 POST ENVIRONMENT CLEARANCE MONITORING

- The project proponent shall prominently advertise in the newspapers indicating that the project has been accorded environmental clearance and the details of the website where it is displayed.
- The project proponent will submit a half-yearly compliance report of the stipulated environmental conditions to Regional Office, MoEF & CC & SEIAA on 1st June and 1st December of every year.

1.5 TRANSFERABILITY OF ENVIRONMENTAL CLEARANCE

The prior environmental clearance granted for a project or activity may be transferred as per the provisions of para 11 of the Environmental Impact Assessment Notification, 2006 and its subsequent amendments and the office memorandum File No. IA3-22/19/2023-IA.III [E226246] Dated: 3rd November 2023.

1.6 IDENTIFICATION OF THE PROJECT PROPONENT

The details of the project proponent are given in Table 1.2 below.

Table.1.2 Details of Project Proponent

Name of the Project Proponent	T.Prabhakaran
Address	S/o.Tamilarasan, No.201, Old Post Office Street, Vengamedu, Karur District – 639 006.
Status	Project Proponent

1.7 BRIEF DESCRIPTION OF THE PROJECT

The method adopted for rough stone excavation is open cast semi mechanized method involving formation of benches with 5m height and 5m width and the overall bench slope is less than 65°. The quarry operation involves shallow jackhammer drilling, slurry blasting, excavation, loading and transportation.

The overall extent of the project site is 5.43.40ha and it is located in Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu.

The proposed project deals with excavation of rough stone and gravel which is primarily used in construction projects. The increasing demand for rough stone fueled by a booming construction industry presents a valuable opportunity. This project will not only meet the rising demand for rough stone but also create jobs for the surrounding villages.

1.8 SCOPE OF THE STUDY

The main scope of the EIA study is to quantify the cumulative impact of the quarries in the cluster and formulate the effective mitigation measures. The baseline monitoring study has been carried out during the period of **March to May 2025** for various environmental components such as land, soil, air, water, noise, ecology, etc. to assess the anticipated impacts of the cluster on the environment and suggest suitable mitigation measures for likely adverse impacts due to the proposed project.

1.9 Legislation Applicable to Mining of Mineral Sector

A few important legislations are given below:

- The Mines Act, 1952
- The Mines and Mineral (Development and Regulation) Act, 1957
- Mines Rules, 1955
- Mineral Concession Rules, 1960
- Mineral Conservation and Development Rules, 1988
- State Minor Mineral Concession Rules, 1960
- Granite Conservation and Development Rule, 1999
- The Water (Prevention and Control of pollution) Act, 1974
- The Air (Prevention and Control of pollution) Act,1981
- The Environment (Protection) Act, 1986
- The Forest (Conservation) Act, 1988
- The Wildlife (Protection) Act, 1972.

CHAPTER II
PROJECT DESCRIPTION

2.0 DECSCRIPTION OF THE PROJECT

The proponent T.Prabhakaran is involved in the mining and its auxiliary activities. The proponent had applied for quarry lease on 18.08.2025 to extract rough stone and gravel. The precise area communication letter was issued by Deputy Director of Geology and Mining, Karur vide (Rc.No.869/Kanimam/2025, Dated 06.09.2025). The mining plan thus prepared was approved by Deputy Director Department of Geology and Mining, Karur (Rc.No.869/Mines/2025 Dated 11.09.2025). The project area and the proposed excavation details were given in Table 2.1.

Table 2.1 Proposed project area and excavation details

Name of the Quarry	T.Prabhakaran	
Type of Land	Patta Land	
Extent	5.43.40ha	
S.F. No	1083(P),1084/1(P),1084/2(P),1086/1(P),1089/1(P),1089/2(P)	
Toposheet No	58 F/13	
Highest Elevation	194m AMSL	
Latitude	10°58'50.43"N to 10°59'3.18"N	
Longitude	77°59'4.95"E to 77°59'12.95"E	
Proposed depth as per ToR	50m BGL	
Ultimate depth for ten years	50m BGL	
Geological Resources	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	3656123 & 10054338.25	163707 & 327414
Mineable Reserves	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	1175226 & 3231871	131604 & 263208
Proposed production for 10 years	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	1076126 & 2959346	131604 & 263208
Method of Mining	Open cast mechanized mining method	
Topography	Flat Terrain	
Machinery requirements	Jack hammer	2
	Excavator	2
	Compressor	2
	Tipper	5
Proposed Manpower Deployment	22	
Project Cost	Rs.1,46,14,000/-	
Proposed Water Requirement	3.5 KLD	

2.1 LOCATION AND ACCESSIBILITY

The proposed quarry project is located in Punnam village, Pugalur Taluk, Karur District, Tamil Nadu as shown in Figure 2.1.

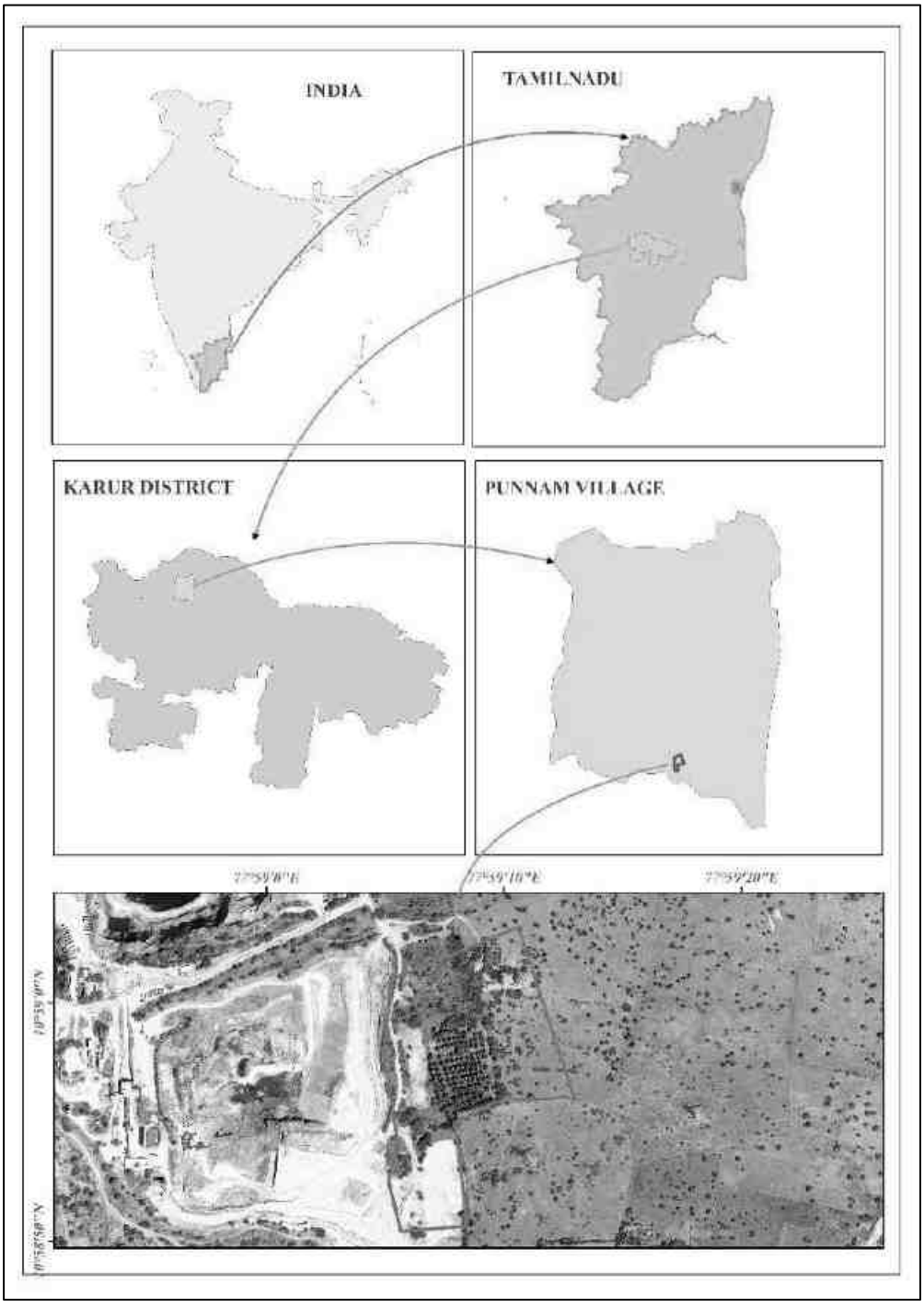


Figure 2.1 Key Map Showing Location of Project Site

The aerial distance between the project site and its district headquarter Karur is about 8.33km towards west. To reach the site by road, need to travel up to 5.95km in Karur-Erode bypass and reach Punnam road. To reach the site from Punnam road from bypass is about 4.2km of metal road. Accessibility details to the proposed project site have been given in Table 2.2.

Table 2.2 Site Connectivity to the Project Area

Type of Features	Name/Location	Distance (km)	Direction
Bituminous road	Punnam metal road	0.28	N
Nearest Roadways	NH – 81 Coimbatore - Trichy	2.5	S
Nearest Town	Karur	7.7	E
Nearest Airport	Trichy	81.0	E
Nearest Villages	Punnam	1.0	N
	Sadaiyampuram	2.8	E
	Malaiyur	1.4	S
	Andippatti	4.0	W

2.2 LEASEHOLD AREA

The details of the field survey number, subdivision and their extent and the overall extent of the proposed project site is given in Table 2.3.

Table 2.3 Lease hold area details

Survey No	Sub Division	Total Extent in Ha	Patta No.	Village and Name of the Land Owner	Mine lease Applied S.F.No.	Applied area out of total area in Ha
1083	-	3.53.5	10486	T.Prabhakaran S/o.Tamilarasan	1083 (P)	0.61.5
1084	1	1.69.0			1084/1 (P)	0.77.0
1084	2	0.45.0			1084/2 (P)	0.34.9
1086	1	1.25.0			1086/1 (P)	1.08.5
1089	1	2.32.0			1089/1 (P)	0.87.5
1089	2	2.32.0			1089/2 (P)	1.74.0
Total Extent		**11.56.5**	**Applied lease area extent**			**5.43.4**

The proposed project is site specific. There is no mineral beneficiation or processing proposed inside the project area. There is no forest land involved in the proposed area and is devoid of major vegetation and trees.

The overall extent of the project area is 5.43.4Ha as per the precise area communication letter vide Rc.No.869/Kanimam/2025, dated 06.09.2025 issued by Dept of Geology and Mining, Karur District lies near the Punnam village, Punnam post, Karur District, Tamil Nadu. The breakup of the existing land use for mining and ancillary feature is given in Table 2.3a.

Table 2.3a Present Land use pattern of the project area

Sl. No.	Land Use	Present area (Hect.)
1.	Area under Mining	Nil
2	Infrastructure	Nil
3	Roads	Nil
4	Unutilized	5.43.4
5	Green Belt	Nil
6	Settling Tank & Drainage	Nil
	Grand Total	**5.43.4**

2.2.1 Geo Coordinates

The proposed lease area is flat topography. The maximum elevation (194m) was observed north side of the lease area. The boundary corner and the intermediate stone geographic coordinates is given in Table 2.4 and shown in Figure 2.2. The quarries within the cluster of 500m radius as per the letter Rc.No.869/Mines/2025 dated: 11.09.2025 is enclosed as Annexure II is shown in Figure 2.3.

Table 2.4 Geographic coordinates of the Project area

PILLAR No	LATITUDE	LONGITUDE
1	10°59'3.18"N	77°59'10.60"E
2	10°58'55.94"N	77°59'12.95"E
3	10°58'56.04"N	77°59'12.58"E
4	10°58'55.88"N	77°59'9.74"E
5	10°58'54.98"N	77°59'7.90"E
6	10°58'51.33"N	77°59'8.35"E
7	10°58'50.64"N	77°59'8.36"E
8	10°58'50.43"N	77°59'5.61"E
9	10°58'52.51"N	77°59'5.11"E
10	10°58'54.23"N	77°59'5.49"E
11	10°58'57.95"N	77°59'4.95"E
12	10°59'1.02"N	77°59'5.28"E

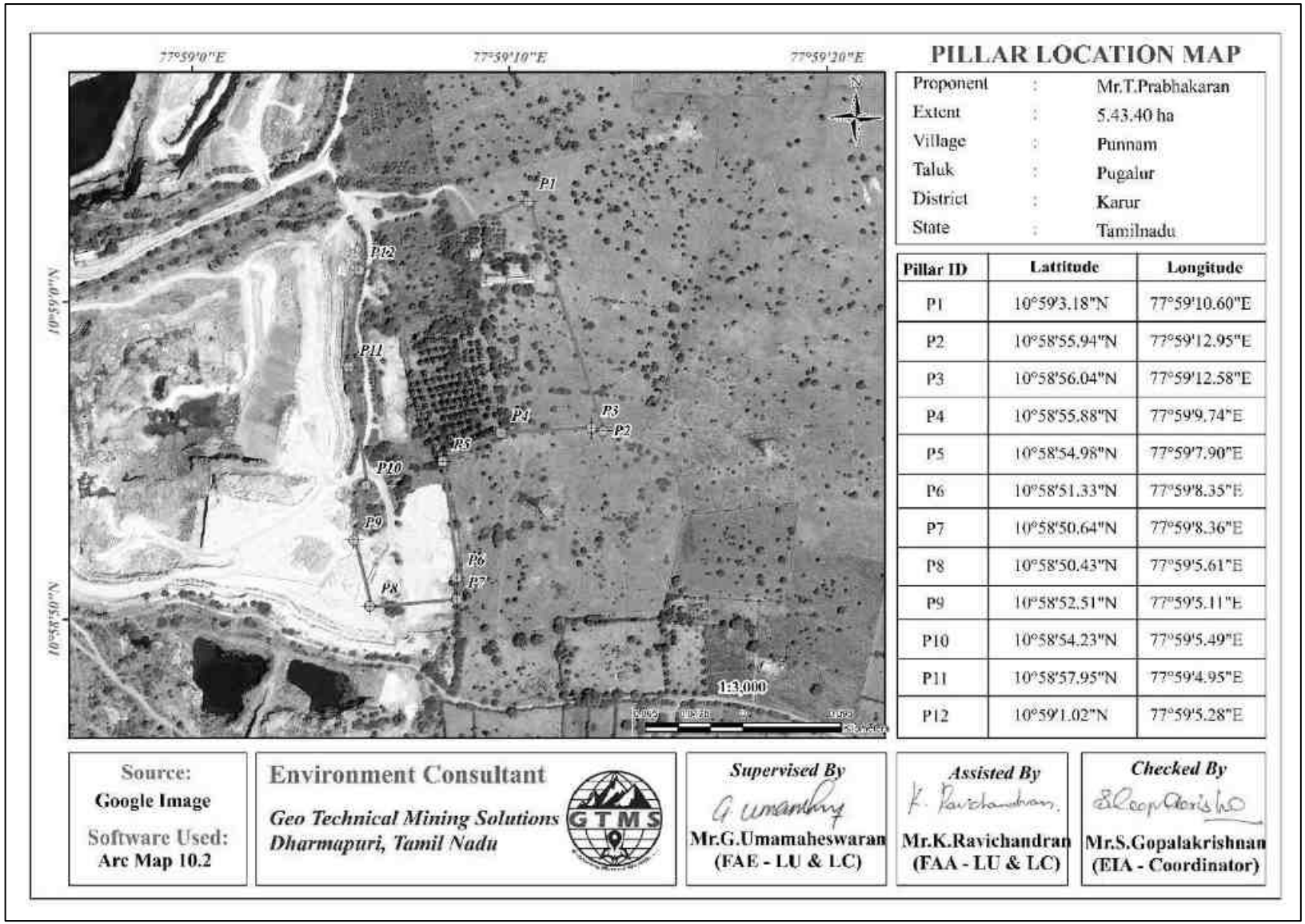


Figure 2.2 Google Earth Image Showing Pillar Coordinates of Lease Area

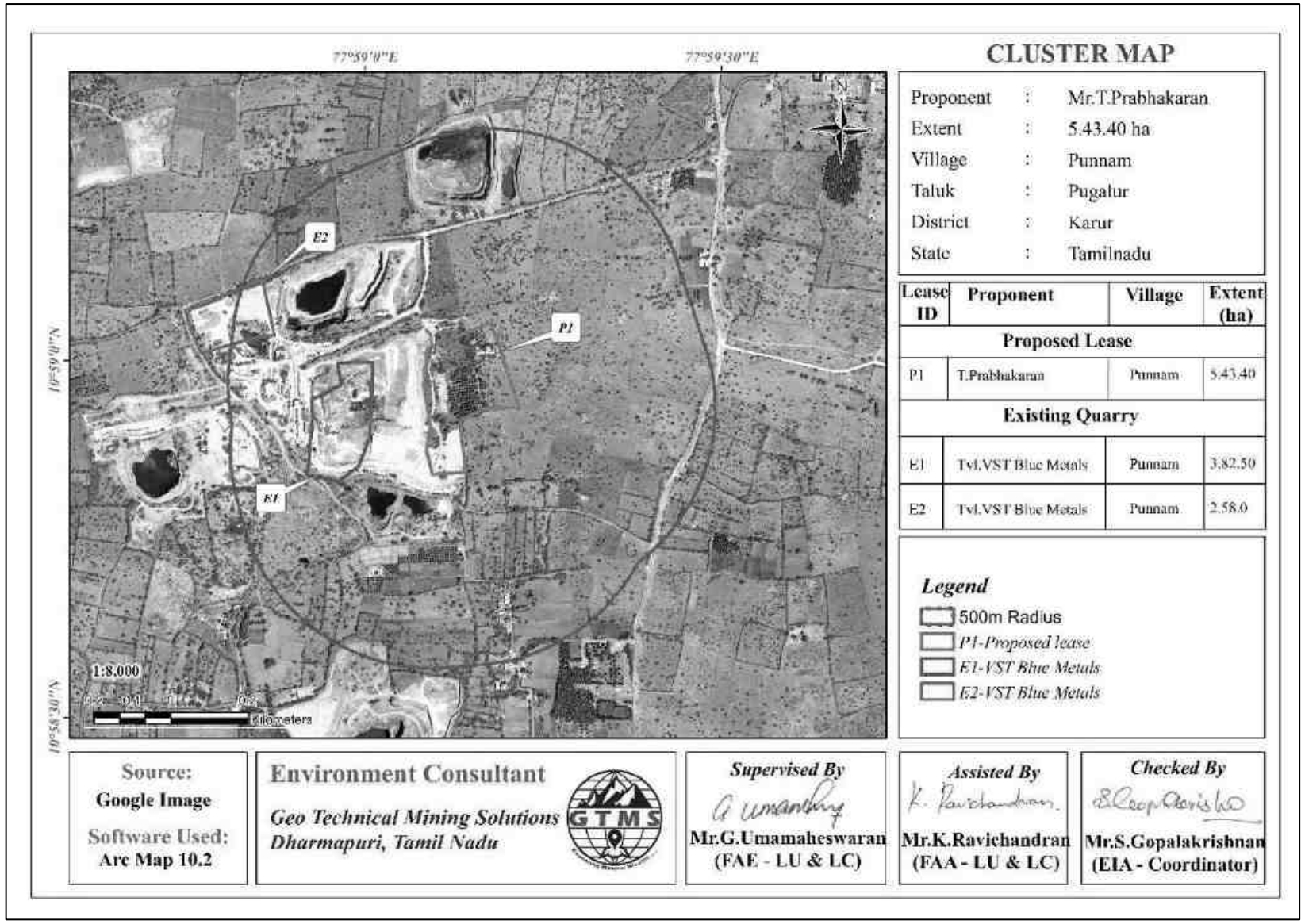


Figure 2.3 Google Earth Image of the cluster



Figure 2.4 Surface & Geological Plan

2.3 GEOLOGY

The District forms part of the Archean complex of Peninsular gneiss. The general rock types of this area are Biotite gneiss. The arrangement of alternate layers of felsic and mafic minerals in linear pattern and exhibits wavy pattern in the rock and giving structure for the rock type. The order of superposition of the proposed lease area is

Age	Group	Rock Formation
Recent to Sub recent	----	Top Soil (1-2m Thick)
Proterozoic	Acid Intrusive	Pink medium grained granite/Granite gneiss.
Archean	Charnockite Group	Pyroxene Granulite, Charnockite (acid to intermediate)/Crystalline Limestone/Qurtzite.

The gravel is obtained at average depth of 0-3m and rough stone starts from 3-70m below ground level.

2.4 QUANTITY OF RESERVES

The resources and reserves of rough stone and gravel were calculated based on cross-section method by plotting sections to cover the maximum lease area for the proposed project. Based on the availability of geological resources, the mineable reserves are calculated by considering excavation system of bench formation and leaving essential safety margins, as shown in Figure 2.5 and deducting the locked-up reserves during bench formation (also called as Bench Loss). The mineable reserves are calculated up to the depth of 50m BGL considering there is no waste / overburden / side burden (100% Recovery anticipated) for the proposed project. The results of geological resources and reserves is given in Table 2.5 and the approved year wise development plan is enclosed as Figure 2.5 & 2.5a.

Table 2.5 Estimated Resources and Reserves of the Project

Resource Type	Rough Stone in m^3 & Tons	Gravel in m^3 & Tons
Geological Resource in (m^3 & Ts)	3656123 & 10054338	163707 & 327414
Mineable Reserves in (m^3 & Ts)	1175226 & 3231871	131604 & 263208
Proposed production for 10 years (m^3 & Ts)	1076126 & 2959346	131604 & 263208

Source: Approved Mining Plan & ToR

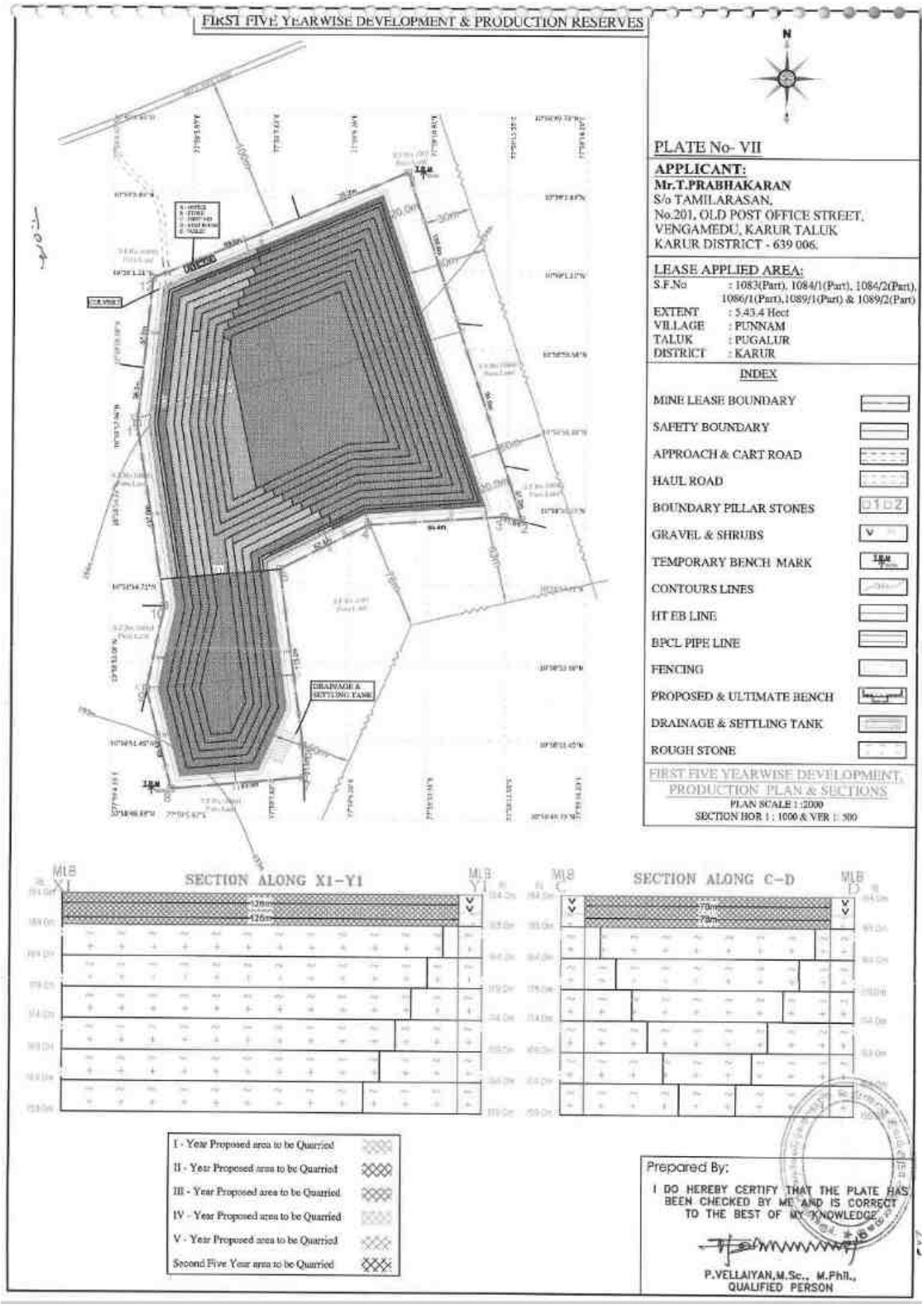


Figure 2.5 Year wise Development & Production Plan (First Five years)

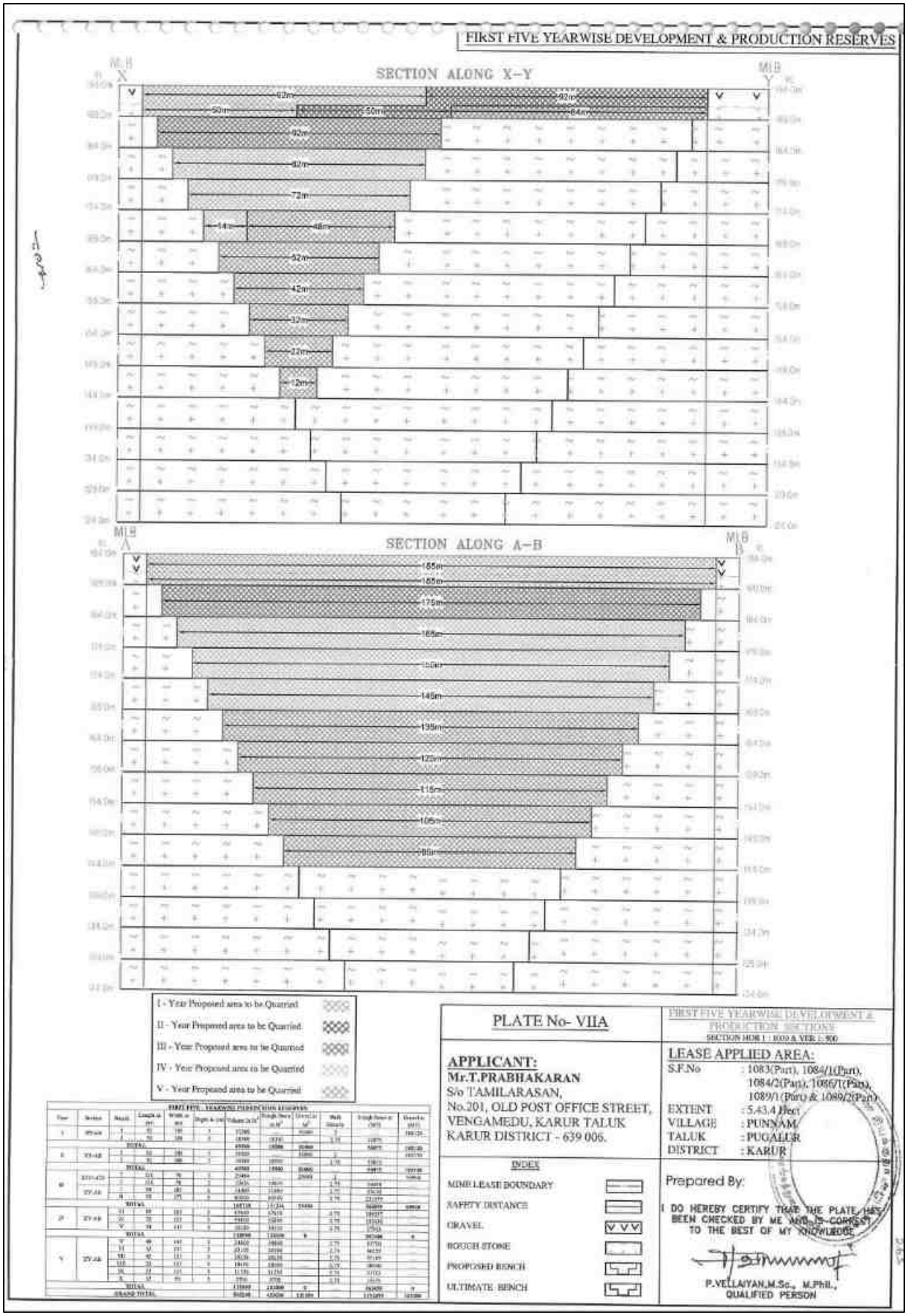


Figure 2.5a Year wise Development & Production Section (First Five years)

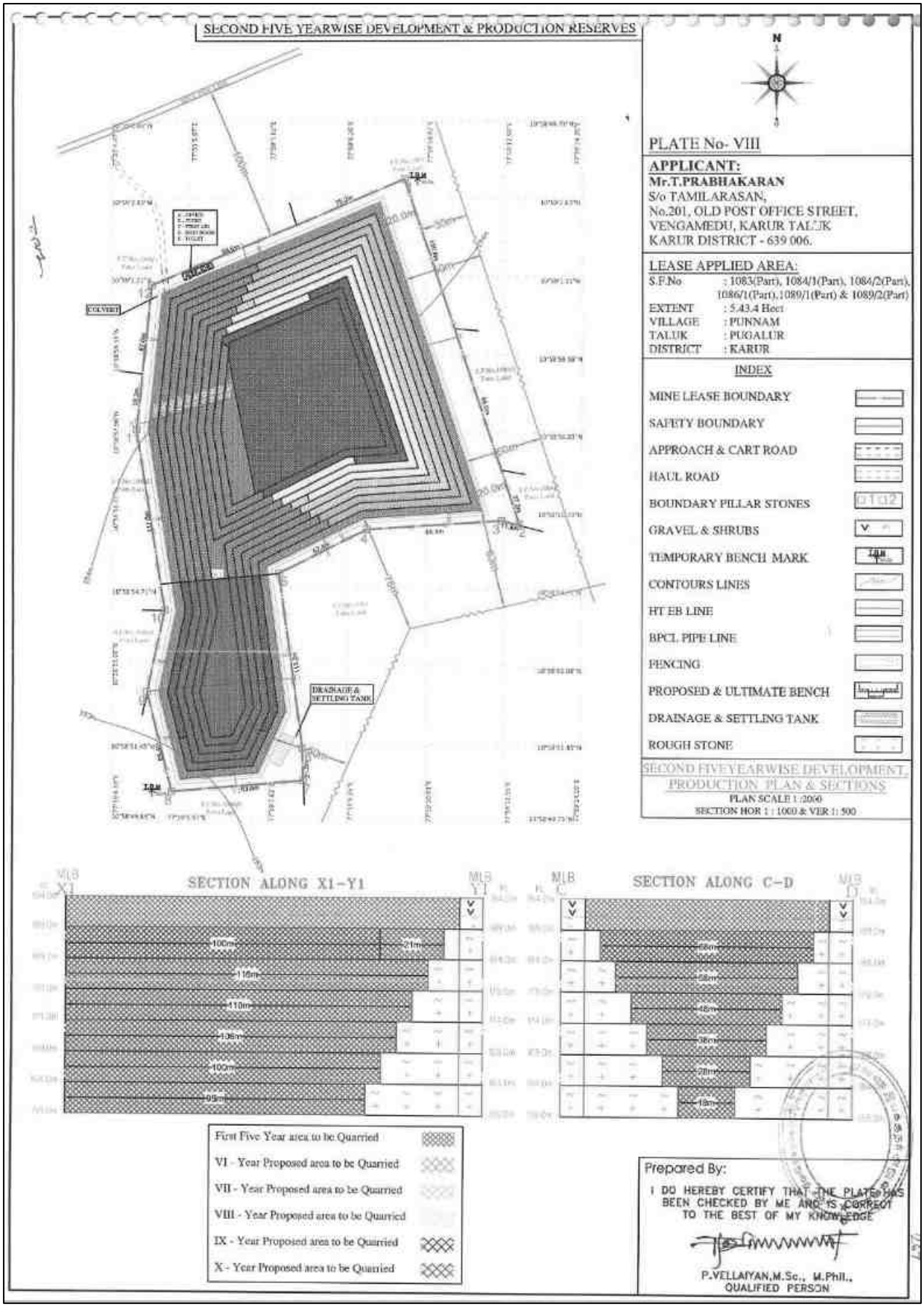


Figure 2.6 Year wise Development & Production Plan (Second Five years)

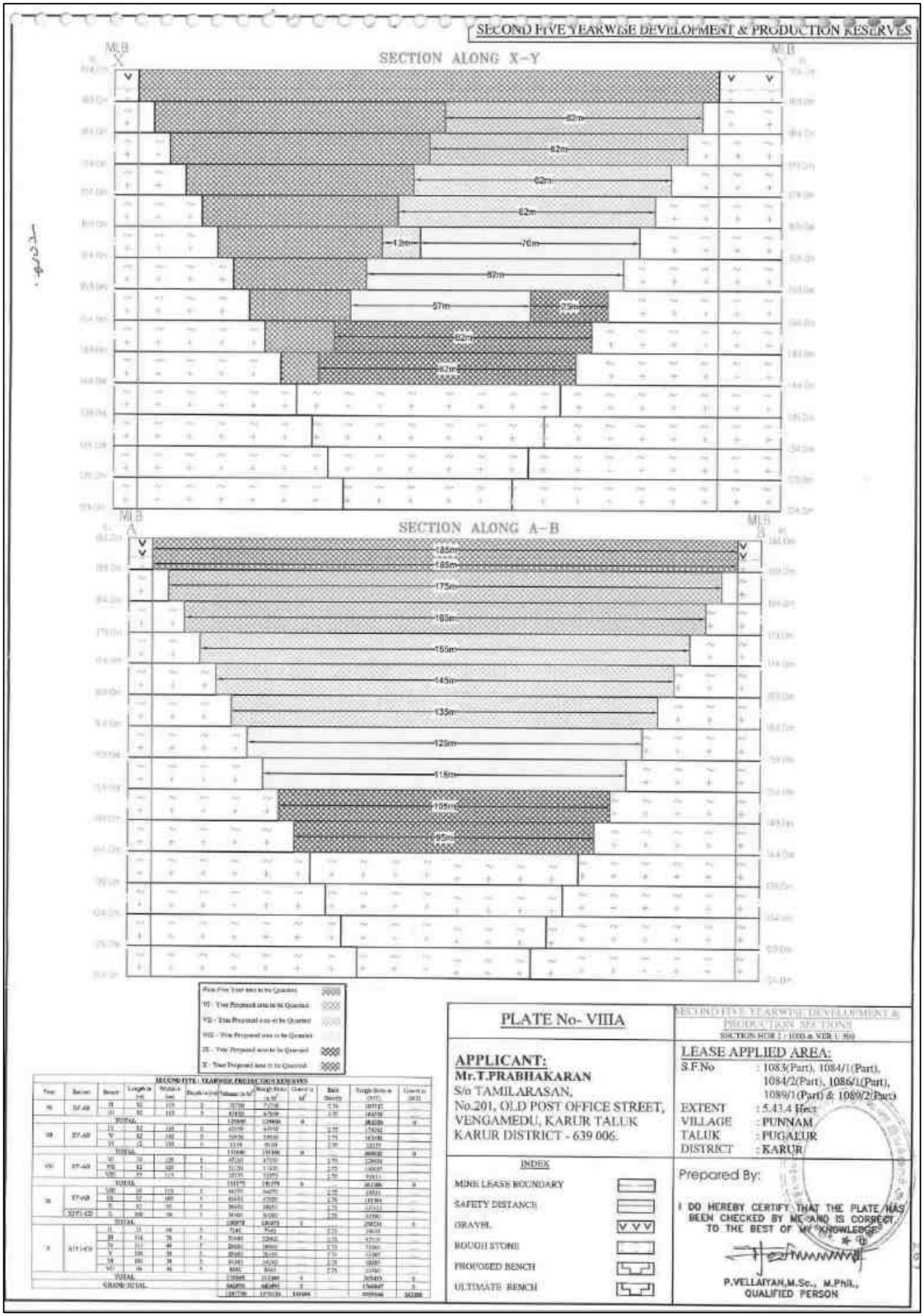


Figure 2.6a Year wise Development & Production Section (Second Five years)

2.5 MINING METHOD

The Quarrying operation is proposed to be carried out by open cast mechanized mining method with the bench height and width of 5 m each. The open cast mechanized method involving drilling and blasting is proposed to extract rough stone. The extracted rough stone will be loaded to the trucks to the nearby stone crushing units. Due permission from D.G.M.S, will be taken as per Rule 106 of MMR 1961 is proposed. Mining operation is proposed in one shift i.e. 8 AM to 4 PM. The average number of working days in a year would be 270 days/yr excluding. Sunday & holidays. The production will be slow down trend during monsoon period. In this project, NONEL blasting will be adopted to extract rough stone.

2.5.1 Conceptual Blasting Design

In this project, NONEL blasting will be employed to win rough stone. This method will involve closed spaced perimeter holes to reduce the overbreak/backbreak on a blast. The objective of the blasting design is to prevent fly rocks from damaging the nearby structures.

Rules of Thumb for Blast Design

Based on practical experience and technical information, a set of rules for blasting have been provided as below (Chapter8 (nps.gov)). These rules will be applied to blast rocks in the proposed project.

Rule 1: The detonation velocity (VOD) of the explosive should be close to the same value of the sonic velocity (VSO) of the rock to be blasted.

The sonic velocity of a rock is considered to be a reliable indicator of its structural integrity and resistance to fragmentation. As the VOD of the explosive approaches close to the VSO of the rock, the blasting would result in relatively smaller size of fragmentation with uniformity. There is no value in using an explosive that has a VOD greatly in excess of the VSO of the rock, since there is little or no improvement in fragmentation above the VSO. When selecting an explosive to match up the VSO of a rock mass, variance of < 10% in the velocities is acceptable.

Rule 2: Generally, select the densest explosive possible.

When the density of explosives is higher, the potential energy of the explosives can be greater and the more of it can be placed within a borehole of a given size.

Rule 3: Select explosives according to the characteristics of the rock formation to be blasted.

When planes of separation in the rock are smaller than the degree of fragmentation required, the rock can often be blasted by using lower density and lower detonation velocity explosives.

Rule 4: When using slurry or water gel explosives, always determine the critical temperature below which the explosive will fail to reliably detonate.

Almost all slurry explosives have a critical temperature below which they may not detonate, or may not sustain detonation in elongated columns. The explosives should not be used when the temperature of the explosive at time of loading is below that critical temperature.

Rule 5: The distance between holes (spacing) should not be greater than one-half the depth of the borehole.

When the distance between holes in a row is greater than one-half the depth of the hole, the angles of breakage intersect above the bottom of the holes. This causes both a great deal of vertical throw and a very uneven bottom.

Rule 6: Stemming should be equal to the burden.

Stemming is useful to confine and maximize efficient use of the explosive's energy. It also reduces noise as much as possible. If the stemming is greater than the burden, the rock at the top of the borehole will have less cracking from reflection and refraction of compressive and tensile waves. Therefore, stemming should be equal to burden. Drill fines can be used for loading the borehole.

Rule 7: Subdrill (if necessary) should be between 0.3 and 0.5 of spacing/burden.

Subdrill should be equal to 0.3 of burden. It will work when there is row-for-row delay. In blasts where the delay system is both row-for-row and hole-for-hole, the subdrill should be determined by the largest dimension, which can be the spacing or the burden. An average subdrill of 0.4 of spacing is best to use for planning purposes. Based on the above-mentioned rules, blasting design has been conceptualized is given in Table 2.6.

Table 2.6 Conceptual Blasting Design

Blasthole Diameter (D) in mm	32
Burden (B) in m	1.5
Spacing (S) in m	1.30
Subdrill in m	0.45
Charge length (C) in m	0.64
Stemming	1.5
Hole Length (L) in m	2.6
Bench Height (BH) in m	2.1
Stemming material size in mm	3.2
Burden stiffness ratio	1.43

Blast volume/hole in m^3	4.16
Number of blastholes/day	96
Blasthole pattern	Staggered
Mass of explosive /day in kg	38.35
Powder factor in kg/m^3	0.10
Type of explosives	Slurry
Initiation system	NONEL

Statutory Provision & Precaution during Blasting: -

- Blasting permission from DGMS will be taken by the proponent within 6 months from the date of execution of mine.
- Control blasting will be carried out by using delay detonators during multi rows blasting
- No secondary blasting will be carried out.
- Stemming column will be half of the depth of hole with coarse sand.
- Only Statutory designated Blaster will supervise the blasting operation.
- All persons in the radius of minimum 300m from the blasting site will be removed by siren.
- Blasting operation will be carried out during day time only particularly at noon time.

2.5.2 Magnitude of Operation

Based on the results of estimated production the details about the size of operation had provided in Table 2.7.

Table 2.7 Operational Details for Proposed Project

	Rough Stone (m^3) & Ts / 10 years	**Gravel (m^3) & Ts / 3 years**
Proposed production	1076126 & 2959346	131604 & 263208
Number of Working Days	270	270
Production /Day (m^3) & Ts	399 & 1095	162 & 325
No. of Lorry Loads	66	27

2.5.3 Extent of Mechanization

List of machineries proposed for the quarrying operation is given in Table 2.8.

Table 2.8 Machinery Details

S. No.	**Type**	**No. of Unit**	**Size/Capacity**	**Dia of Hole (mm)**	**Motive Power**
1	Jack Hammers	2	Hand Held	32mm	Diesel
2	Compressor	2	AIR	---	Diesel
3	Excavator	2	2.9 - 4.5 m^3	---	Diesel
Haulage & Transport Equipment					
4	Tipper	5	--	---	Diesel

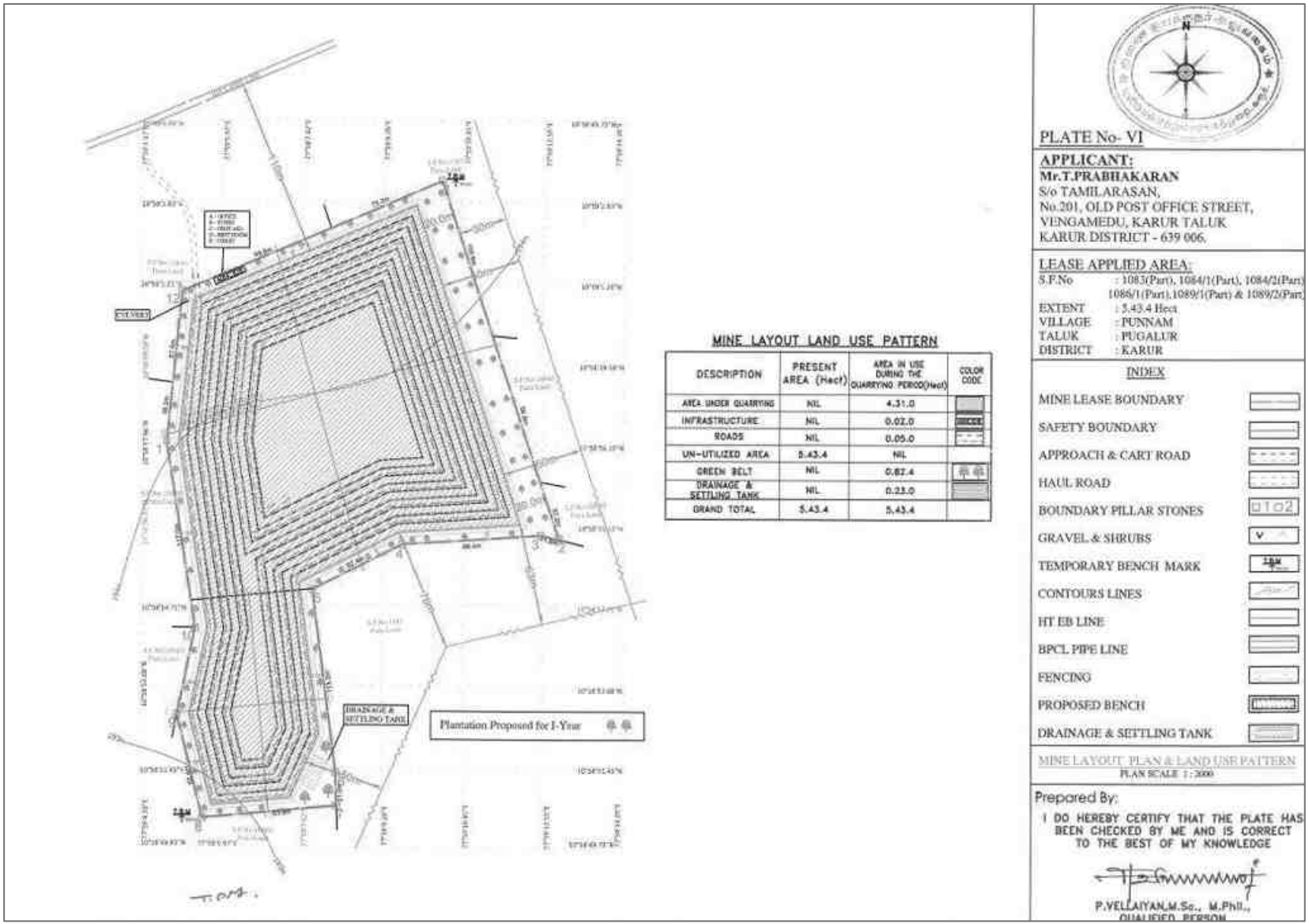


Figure 2.7 Mine Layout Plan and Land Use Pattern

2.5.4 Post mining land use

The land use at present, at the end of plan period & at the end of conceptual period is given in figure 2.7 and Table 2.9 below

Table 2.9 Land Use at the end of mine Life

Description	Present area (Hect.)	Area at the end of life of quarry (ha)
Area under quarry	Nil	4.31.0
Infrastructure	Nil	0.02.0
Roads	Nil	0.05.0
Green Belt	Nil	0.82.4
Unutilized	5.43.4	Nil
Drainage & Settling Tank	Nil	0.23.0
Total	**5.43.4**	**5.43.4**

2.5.5 Conceptual Mining Plan

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc. The ultimate pit dimension is provided in Table 2.10.

Table 2.10 Ultimate Pit Dimension

Pit	Length (m)	Width (m)	Depth (m)
I	184	185	50

Source: Approved Mining Plan & ToR

2.5.6 Infrastructures

Infrastructures like mines office, temporary rest shelters for workers, latrine and urinal facilities have been proposed as per the mine rule and will be established after the grant of quarry lease. There is no proposal for the mineral processing or ore beneficiation plants in this project.

Other Infrastructure Requirement

No workshops are proposed inside the project area. Hence, there will not be any process effluent generation from the proposed lease area. Domestic effluent from the mine office will be discharged to septic tank and soak pit. As there is no toxic effluent expected to generate in the form of solid, liquid or gaseous form.

2.5.7 Water Requirement

Details of water requirement in 3.5 KLD is given in Table 2.11.

Table 2.11 Water Requirement for the Project

Purpose	Quantity	Source
Dust Suppression	1.0 KLD	Existing bore wells nearby the lease area
Green Belt development	1.2 KLD	Existing bore wells nearby the lease area
Drinking & Domestic	1.3 KLD	Existing bore wells and approved water vendors
Total	**3.5 KLD**	

Source: Prefeasibility Report

2.5.8 Energy Requirement

High speed Diesel (HSD) will be used for quarrying machineries. As per the data shown in Table 2.12 Around **50,97,584 litres of HSD** will be used for rough stone extraction during 10 years plan period. The diesel will be brought to the site from nearby diesel pumps.

Table 2.12 Fuel Requirement Details

Fuel Requirement for Excavator			
Details	**Rough Stone (1076126 m^3)**	**Gravel (131604m^3)**	**Total Diesel (litre)**
Average Rate of Fuel Consumption (l/hr)	16	10	---
Working Capacity (m^3/hr)	20	60	---
Time Required (hours)	53806	2193	---
Total Diesel Consumption for 10 years (litre)	8,60,900	1,31,604	9,92,504
Fuel Requirement for Compressor			
Average Rate of Fuel Consumption/hole (litre)	0.4	---	---
Number of Drillholes/day	96	---	---
Total Diesel Consumption for 10 years (litre)	1,03,680	---	1,03,680
Fuel Requirement for Tipper			
Average Rate of Fuel Consumption/Trip (litre)	20	20	---
Carrying Capacity in m^3	6	6	---
Number of Trips / days	66	27	---
Number of Trips / 10 years	1,78,200	21,870	---
Total Diesel Consumption for 10 years (litre)	35,64,000	4,37,400	40,01,400
Total Diesel Consumption by Excavator, Compressor and Tipper			**50,97,584**

2.5.9 Capital Requirement

The project proponent will invest Rs. 1,46,14,000 to the project. The breakup summary of the investment has been given in Table 2.13.

Table 2.13 Capital Requirement Details

S. No.	Description	Cost (Rs.)
1	Fixed Asset	77,64,000
2	Machinery	30,00,000
3	EMP	38,50,000
	Total Project Cost	**1,46,14,000**

Source*: Approved Mining Plan*

2.6 MANPOWER REQUIREMENT

The skilled, competent qualified statutory persons will be engaged for quarrying operation, preference will be given to the local community. Number of employees required for this project have been provided in Table 2.14.

Table 2.14 Employment Potential for the Proposed Project

S. No.	Category	Role	Nos
1	Highly Skilled	Mines Manager	1
		Mine Engineer	1
		Mine Geologist	1
		Blaster	1
2	Unskilled	Musdoor/ Labours	18
		Total	**22**

Source: Prefeasibility Report

2.7 PROJECT IMPLEMENTATION SCHEDULE

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. Expected time schedule for the quarrying operation is given in Table 2.15.

Table 2.15 Expected Time Schedule

S. No.	Particulars	Time Schedule (in Months)					Remarks if any
		1st	2nd	3rd	4th	5th	
1	Environmental Clearance						
2	Consent to Establish						Project Establishment Period
3	Consent to operate						Production starting period.
Time line may vary; subjected to rules and regulations /& other unforeseen circumstances							

Source: Anticipated based on Timelines framed in EIA Notification & CPCB Guidelines

CHAPTER III
DESCRIPTION OF THE ENVIRONMENT

3.0 GENERAL

This chapter presents a regional background to the baseline data at the very onset which will help in better appreciation of micro-level field data generated on several environmental and ecological attributes of the study area. The baseline status of the project environment is described section wise for better understanding of the broad-spectrum conditions. The baseline environment quality represents the background environmental scenario of various environmental components such as land, water, air, noise, biological and socio-economic status of the study area. Field monitoring studies to evaluate the base line status of the project site were carried out covering **March to May 2025** with CPCB guidelines. Environmental baseline data were collected through an NABL accredited and MoEF&CC notified lab named **Interstellar Testing Centre Private Limited** for the environmental attributes including soil, water, air & noise and for flora and fauna, traffic survey and socio-economic details were collected by NABET approved Functional Area Experts (FAE) of Geo Technical Mining Solutions.

Study Area

The study area was divided into two zones:

- core zone – Project site cluster and
- buffer zone - 5 km radius from the periphery of the cluster

except for ecological and socio-economic study which considers 10 km as buffer zone. Sampling methodologies for the various environmental parameters, including frequency of sampling, method of sample analysis, etc., are briefly given in Table 3.1.

Table 3.1 Monitoring Attributes and Frequency of Monitoring

Attribute	Parameters	Frequency of Monitoring	No. of Locations	Protocol
Land Use/ Land Cover	Land-use Pattern within 5 km radius of the study area	Once during the study period	Study Area	Satellite Imagery & Primary Survey
*Soil	Physico Chemical characteristics	Once during the study period	5 (1 in core & 4 in buffer zone)	IS 2720 Agriculture Handbook - Indian Council of Agriculture

				Research, New Delhi
*Water Quality	Physical, Chemical and Bacteriological Parameters	Once during the study period	5 (1 surface water & 4 ground water)	IS 10500& CPCB Standards
Meteorology	Wind speed Wind direction Temperature Cloud cover Dry bulb temperature Rainfall	1 hourly continuous mechanical/automatic weather station	1	Site specific primary data & secondary data from IMD Station
*Ambient Air Quality	PM_{10}, $PM_{2.5}$, SO_2 NO_X	24 hours, twice a week	6 (1 core & 5 buffer)	S 5182 Part 1-23 National Ambient Air Quality Standards, CPCB
Noise Levels	Ambient noise	Hourly observation for 24 hours per location	6 (1 core & 5 buffer zone)	IS 9989 As per CPCB Guidelines
Ecology	Existing flora and fauna	Through field visit during the study period	Study area	Primary Survey by Quadrate & Transect Study Secondary Data – Forest Working Plan
Socio Economic Aspects	Socio-economic characteristics, Population statistics and existing infrastructure in the study area	Site visit & Census Handbook, 2011	Study area	Primary Survey, census handbook & need based assessments.

**All the monitoring and testing have been carried out as per the Guidelines of CPCB and MoEF & CC.*

3.1 LAND ENVIRONMENT

3.1.1 Geology and Geomorphology

Study area is mainly composed of Grey Hornblende biotite gneiss and Biotite hornblende genesis as shown in Figure 3.1. Grey hornblende biotite gneiss is a metamorphic rock characterized by its grey colour, prominent foliation and the presence of hornblende and biotite minerals. It's a type of gneiss have a distinct banded or layered appearance due to the alignment of minerals during metamorphism. This foliated metamorphic rock usually forms at

convergent plate boundaries and recrystallizes with immense heat and pressure. It is predominantly composed of

- quartz (13-20%),
- plagioclase (33-39%),
- biotite (20-27%),
- microcline (2- 7%),
- titanite (5-10%),
- hornblende (1-10%) and

as accessories may contain metamorphic clinopyroxene, zircon, apatite and opaque minerals.

Geomorphology:

The project site is a pediment-pediplain complex as shown in Figure 3.2. It is a landscape feature in arid and semi-arid regions formed by the erosional processes of pedimentation and pediplanation.

Pediments are gently sloping slightly concave erosional surfaces found at the base of hills or mountains while a pediplain is a much larger broader plain formed by the coalescence of multiple pediments and a pediplain is the end result of the long-term erosion and weathering that creates pediments gradually reducing mountain ranges into a vast flat surface.

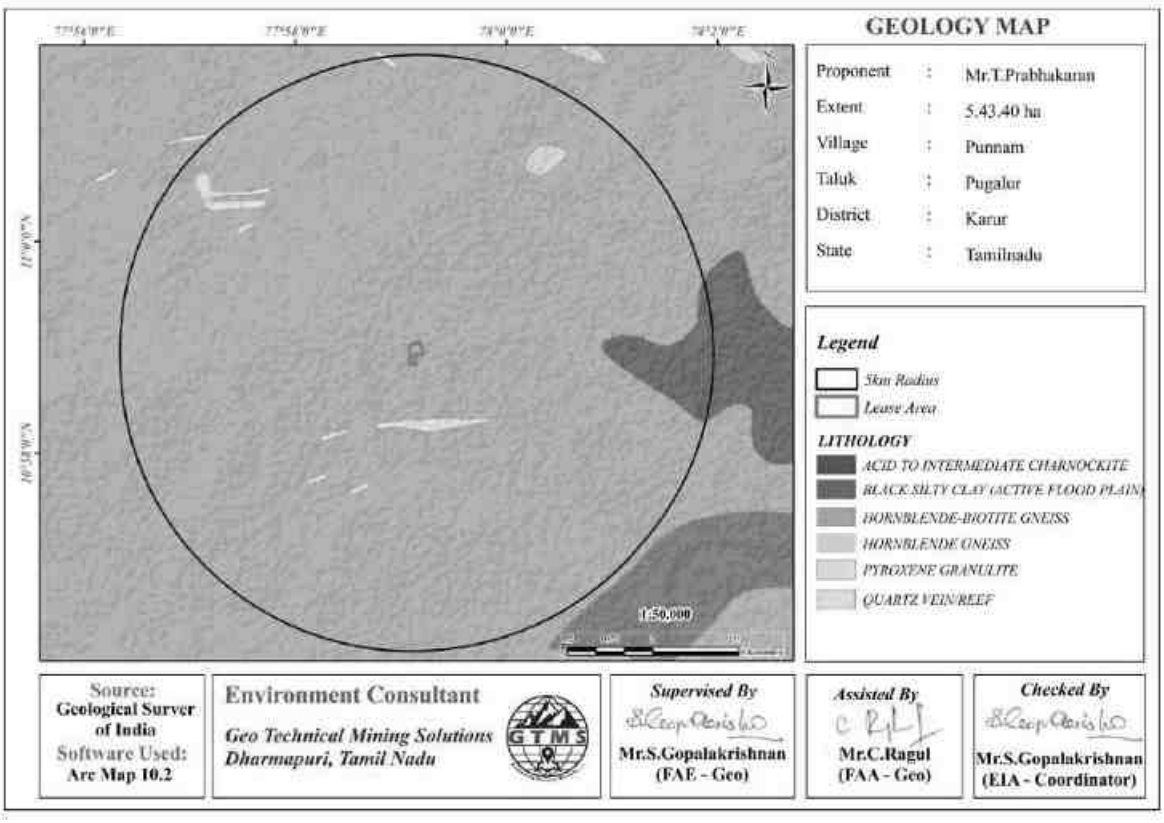


Figure 3.1 Geology Map of 5 km Radius from the Proposed Project Site

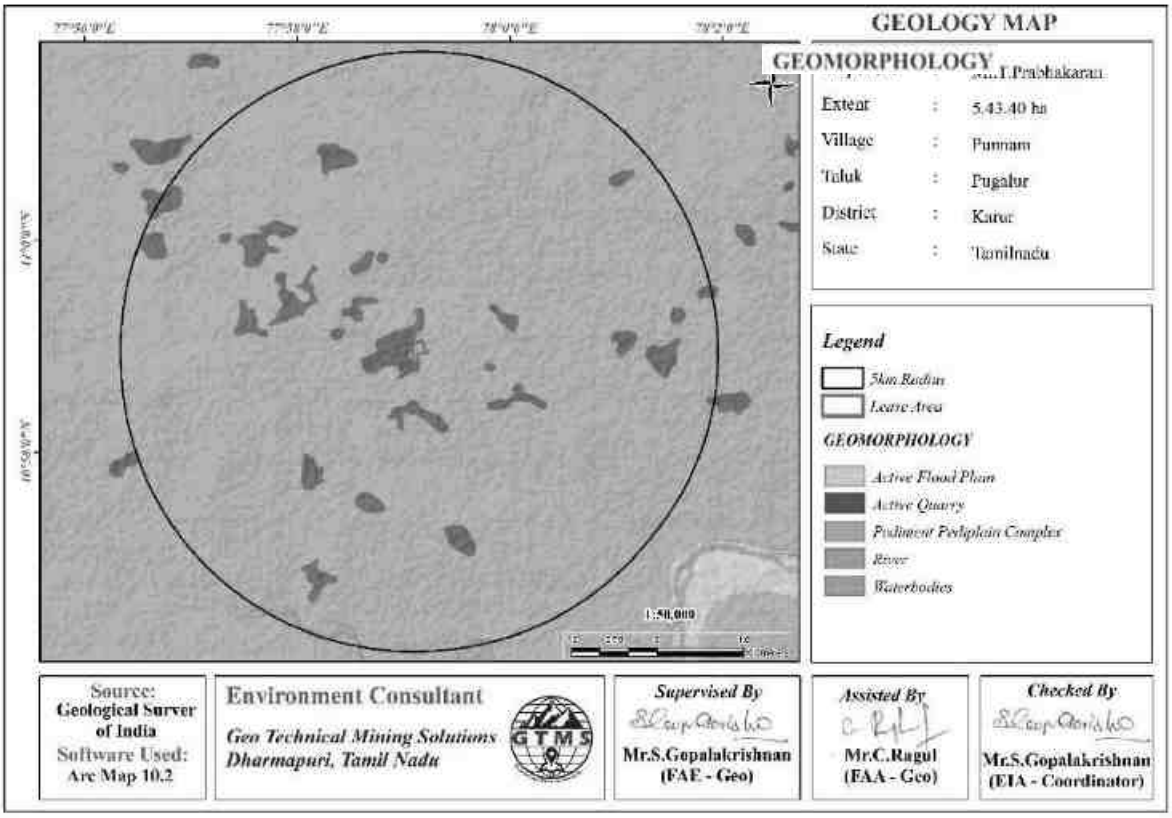


Figure 3.2 Geomorphology Map of 5 km Radius from the Proposed Project Site

3.1.2 Land Use/ Land Cover

The study utilizes the reclassified LULC dataset derived from the Advanced Wide Field Sensor (AWiFS) of the Indian Remote Sensing satellite Resourcesat-1 (P6). The data is accessed through the Bhuvan data portal (http://bhuvan.nrsc.gov.in). Sentinel 2-A images acquired in May-June are used for identifying changes. These images are pre-processed to correct atmospheric and radiometric errors ensuring data accuracy. The method calculates the number of changed pixels within the LULC dataset to assess the intensity of land use and land cover changes. This provides insights into the spatial extent of these changes. Land Use and Land Cover (LULC) map as shown in Figure 3.3 was prepared using Sentinel II image for the study area of 5 km radius. LULC maps were created at five-year intervals from a table (Table 3.2) to track the growth of the built-up area and changes in crop land. Totally 2 LULCs for 5year interval were mapped and the areal extent of each LULC was provided in Table 3.2 is used to study the growth in the built area and crop land changes. To compute the change in percentage (%) using the formula

$$\text{Change in percentage (\%)} = \frac{\textbf{\textit{Present LULC area} - \textbf{\textit{Previous LULC area}}}}{\textbf{\textit{Previous LULC area}}} \; \boldsymbol{x}\; \mathbf{100}$$

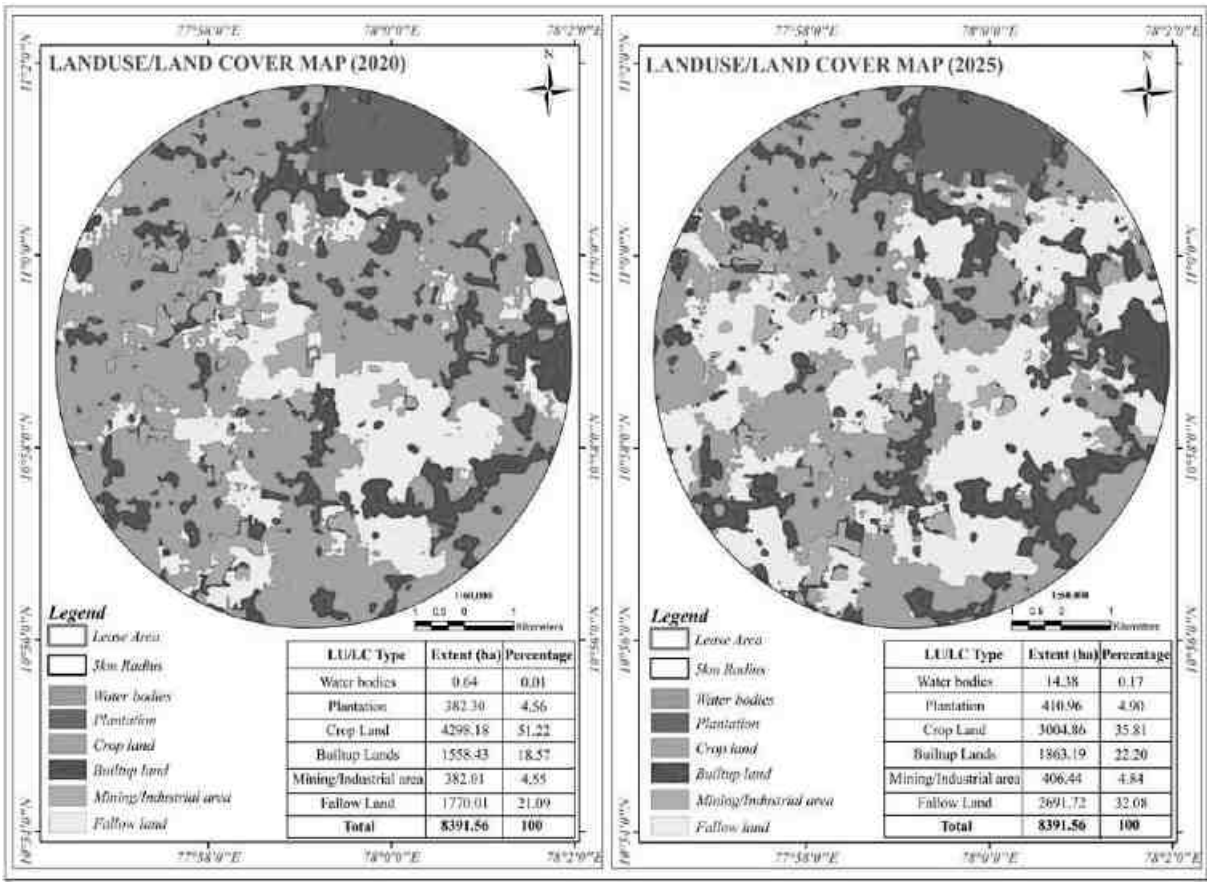


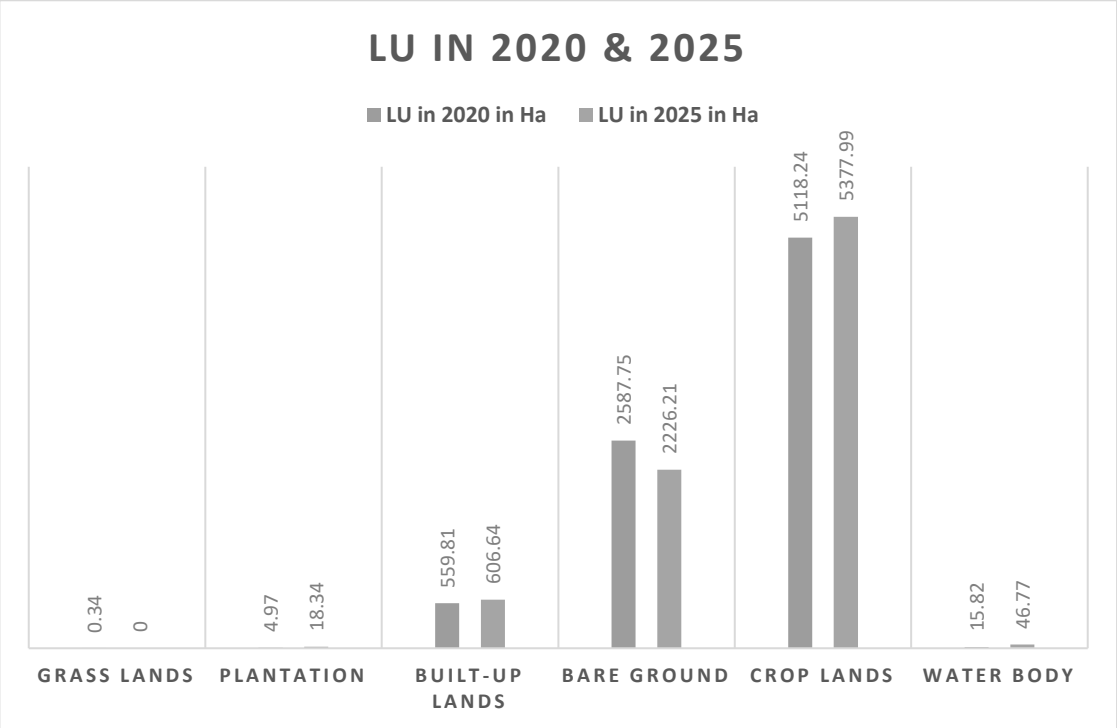
Figure 3.3 LULC Map of 5 km Radius from the Proposed Project Site

Comparative study of Land Use Land Cover (LULC) Changes within 5 km Radius (2020 vs 2025) was done and significant changes in land use and land cover were observed (Table 3.2). Crop land has decreased from 4298.18 ha (51.22%) to 3004.86ha (35.81%), indicating the decrease in agricultural activities, this change is due to the land are not suitable for agriculture and source of irrigation is uncertain along with farmers diversion towards other industrial activities. But that cultivation land is included in the bare ground and fallow land whose extent have been increased. Mining activity has been increased to a little extent from 382.01 ha (4.55%) to 406.44 ha (4.84%), suggesting increased demand of building materials for various infrastructure developments. The increase in common vegetation has noticed from 382.30 ha (4.56%) to 410.96 ha (4.90%) in last five years due to the afforestation activities carried out by the past quarry proponents. Built-up areas also rose from 1558.43 ha (18.57%) to 1863.19 ha (22.20%), pointing out the urban development due to increase in economic activity. In fact, the agricultural land has been reduced but that too resulted in increase of fallow land of 10.99% in past five years, which can be again cultivated in upcoming years if factors suit for the farmers. So, there is no negative impact on LULC due to the mining activities.

Table 3.2 LULC Statistics of the Study Area

S. No.	Classification	LU in 2020 in Ha	LU in 2025 in Ha	Change in percentage
1	Water Bodies	0.64	14.38	0.16
2	Plantation	382.30	410.96	0.34
3	Crop Land	4298.18	3004.86	15.41
4	Built-up Lands	1558.43	1863.19	3.63
5	Mining/Industrial area	382.01	406.44	0.29
6	Fallow Land	1770.01	2691.72	10.99
Total		**8391.56**	**8391.56**	**No Change**

Source: Sentinel II Satellite Imagery



3.1.3 Topography

The lease area is characterized by undulating terrain and a one-meter difference in elevation across the site. The maximum elevation is 194m above mean sea level was observed at the North of the lease area.

3.1.4 Drainage Pattern

Drainage pattern of the 5km radius study area majorly has dendritic **or** pinnate drainage pattern in nature indicating the uniform lithology beneath the surface as shown in Figure 3.4. This uniformity implies that the streams and their tributaries are primarily controlled by the slope of the land rather than by variations in rock resistance or structural features like faults or joints.

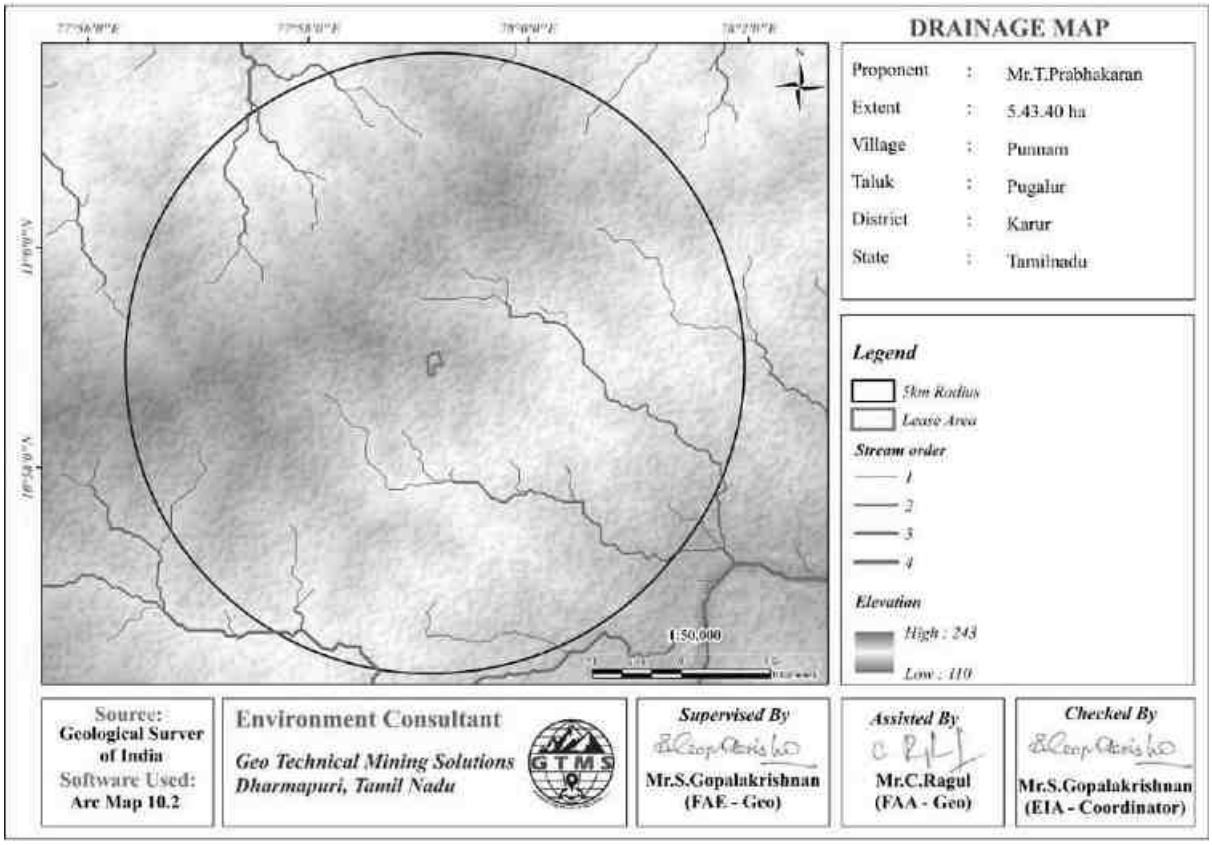


Figure 3.4 Drainage Map of 5 km Radius from Proposed Project Site

3.1.5 Seismic Sensitivity

The proposed lease area is situated in a Seismic Zone II as defined by National Centre for Seismology (Official Website of National Centre of Seismology) is shown in Figure 3.5. Zone II is characterized by low earthquake activity and minimal risk of significant damage. In this region earthquakes typically register as 4.9 or lower on the Richter scale. These are considered low-intensity earthquakes usually causing minor or no damage. Such tremors are often felt by people indoors but rarely cause significant harm A substantial portion of India particularly the peninsular region falls under Zone II.

3.2 SOIL ENVIRONMENTAL

Soil samples were collected from 7 locations of the study area using a hand auger method at depth of 90cm below ground level filled in polythene bags, coded and sent to laboratory for analysis. The sampling was conducted in accordance with standard soil sampling protocols to ensure representativeness and consistency. The analyses were carried out following standardized procedures as prescribed by relevant national and international guidelines (e.g., APHA, BIS, or ASTM standards, as applicable). The coordinates and descriptions of the soil sampling locations are provided in Table 3.6 and Figure 3.6. The locations were selected for soil sampling based on soil types, vegetative cover, and industrial & residential activities including infrastructure facilities. The samples thus collected were analysed for physical and chemical characteristics. The physical and chemical characteristic results of soil samples are provided in Table 3.7 & 7a.

Table 3.3 Soil Sampling Locations

Sample ID	Location	Distance	Direction	Coordinates
S1	Nearby Core	-	-	10°59'1.00"N 77°59'7.29"E
S2	Punnam	1.19km	NE	10°59'17.55"N 77°59'46.99"E
S3	Punnam Chantram	3.11km	N	11° 0'42.33"N 77°58'55.36"E
S4	Pavithiram	1.42km	S	10°58'4.82"N 77°59'13.73"E
S5	Kuppam	3.84km	N	10°58'55.29"N 77°57'56.40"E

The samples thus collected were analysed in Interstellar Testing Centre Private Limited and the results were provided in Table 3.4.

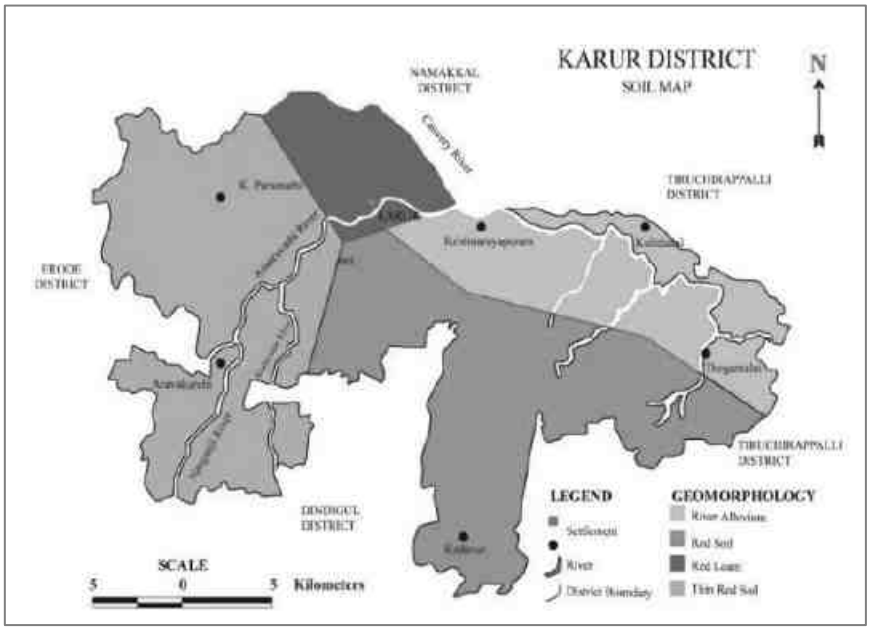


Figure 3.5 Soil Map of Karur District

Physical Characteristics & Chemical Characteristics

1. Soil pH and Electrical Conductivity (EC):

- **pH ranged from** 7.64 to 8.24 indicating that the soil is **neutral to slightly alkaline**, which is favourable for most crops.
- **EC** value ranged from 0.28 to 0.40 ms/m, suggesting low salt concentration and non-saline soil across the sampling area.

2. Physical Properties

- **Bulk Density** values ranged from 1.15 to 1.34 g/cc, which are within the typical range for loamy soils and support good root penetration and aeration.

3. Soil Fertility Status:

- **Organic matter** levels ranged from 0.12 to 0.21% by weight, classifying soils as low to moderately fertile in terms of organic matter.
- **Nitrogen (N)** content varied from 0.038 to 0.072% by mass indicating moderate nitrogen availability.
- **Potassium (K)**ranged from 0.0048 to 0.0084% by mass moderate fertility potential in terms of potassium.

4. **Base Elements and Cation Ratios:**

- **Calcium (Ca)** levels were highest with 986 mg/kg and lowest with 2122 mg/kg.
- **Magnesium (Mg)** ranged from 344 to 488 mg/kg.

Conclusion:

The soils in the study area are generally non-saline, neutral to slightly alkaline, and moderately fertile with low contamination levels. They exhibit good permeability, porosity, and suitable textural classes for agriculture and greenbelt development. The absence of heavy metals confirms that baseline soil conditions are unpolluted and safe for reclamation and vegetation growth.

Table 3.4 Assigning Scores to Soil Quality Indicators

S. No.	OM	BD	PH	EC	Total Score	Recommendation
1	28	17	18	25	88	The soil requires major and immediate treatment
2	28	15	19	23	85	
3	28	15	17	22	82	
4	28	15	18	22	83	
5	28	15	17	24	84	

OM (Organic Matter) BD (Bulk Density) PH (Potential of Hydrogen) EC (Electrical Conductivity) *Source: PSS-2262 Soil Quality Monitoring.pdf (okstate.edu).*

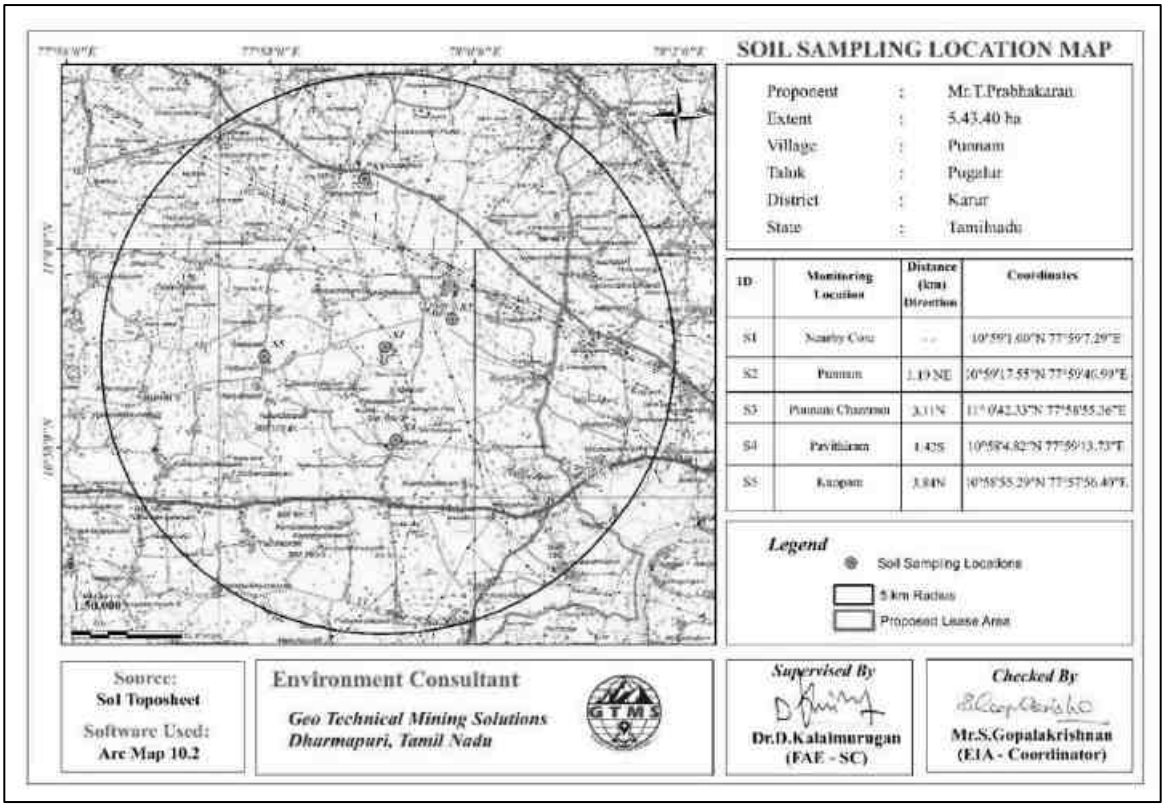


Figure 3.6 Topo Map Showing Soil Sampling Locations within 5 km Radius

Table 3.4a Soil Quality of the Study Area

S. No	Parameters	Unit	S1	S2	S3	S4	S5
1	Total Organic Matter	%	0.140	0.210	0.190	0.120	0.160
2	pH Value	-	8.04	7.64	8.14	8.24	8.08
3	Total Nitrogen (as N)	%	0.068	0.072	0.056	0.038	0.072
4	Potassium (as K)	%	0.0084	0.0058	0.0072	0.0048	0.0064
5	Total Phosphate (as P)	%	0.0012	0.0024	0.0018	0.0032	0.0018
6	Total Soluble Sulphate (as SO4)	%	0.0132	0.0184	0.0202	0.0245	0.0198
7	Chloride (as Cl)	%	0.0068	0.0088	0.0116	0.0072	0.0058
8	Total Organic Carbon	%	0.08	0.12	0.11	0.07	0.09
9	Cation Exchange Capacity	(meq/ 100g)	25.88	21.56	29.40	30.20	28.80
10	Sand	%	13.40	11.4	13.6	14.8	9.6
11	Silt	%	73.40	78.2	76.6	74.4	82.2
12	Clay	%	13.2	10.4	9.8	10.8	8.2
13	Textural Class	--	Silt Loam	Silt Loam	Silt Loam	Silt Loam	Silt Loam
14	Bulk Density	g/cc	1.224	1.158	1.24	1.12	1.346
15	Electrical Conductivity	(ms/m)	0.306	0.295	0.408	0.362	0.288
16	Moisture content	%	5.8	7.6	9.8	8.6	6.8
17	Calcium as Ca	mg/kg	2018	1786	1846	2122	986
18	Maginesum as Mg	mg/kg	488	388	468	426	344

Source: Sampling Results by Interstellar Testing Centre Private Limited, in Association with GTMS

3.3 WATER ENVIRONMENT

The study aims to establish a baseline understanding of the current water quality both surface and groundwater in the area recognizing the crucial role these resources play in its development. This involves assessing the existing water quality to understand its suitability for various uses and to identify potential issues or areas of concern. The water sample collected locations were given in Table 3.5 as well as in Figure 3.6.

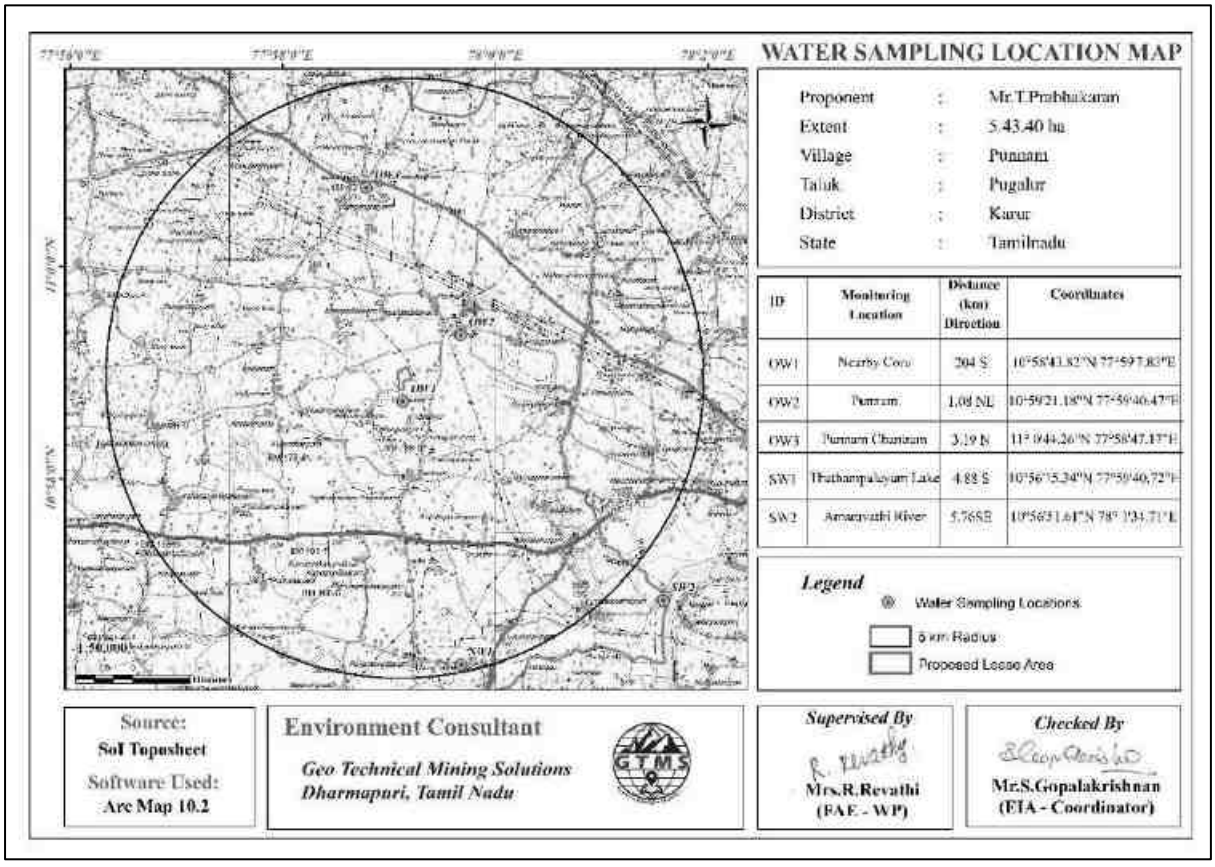


Figure 3.7 Topo map showing water sampling locations within 5 km radius

The analysis of water samples involved several steps sample storage, field measurements and laboratory titrations. Polypropylene containers were used for storage pre-washed with hydrochloric acid and distilled water. Standard methods (APHA 1999) were applied for water analysis including pH and electrical conductivity (EC) measurements in the field and titrimetric analysis for hardness, calcium, magnesium and chloride. Sodium and potassium were quantified using a flame photometer. All results except pH and EC are reported in mg/l with EC measured in µS/cm at 25°C.

Table 3.5 Water Sampling Locations

Sample ID	Location	Distance	Direction	Coordinates
OW1	Nearby Core	204m	S	10°58'43.82"N 77°59'7.83"E
OW2	Punnam	1.08km	NE	10°59'21.18"N 77°59'40.47"E

OW3	Punnam Chantram	3.19km	N	11° 0'44.26"N 77°58'47.17"E
SW1	Thathampalayam Lake	4.88km	S	10°56'15.34"N 77°59'40.72"E
SW2	Amaravathi River	5.76km	SE	10°56'51.61"N 78° 1'34.71"E

*Source: Sampling Results by **Interstellar Testing Centre Private Limited**, in Association with GTMS.*

3.3.1 Ground Water Quality Result

3.3.1.1 Physical Parameters:

The observation from the lab results given in Table 3.6. The lab results for the water samples collected from the site as per IS 10500:2012 indicate that the basic physical and chemical parameters are within acceptable and permissible limits with some minor exceptions. The water is generally considered potable but there are potential issues related to hardness and alkalinity that could affect taste and potentially cause scaling in domestic equipment.

- The **pH** value ranges from 7.12 to 8.02 mg/DL. The World Health Organization (WHO) and the Bureau of Indian Standards (BIS) recommend a pH range of 7.0 to 8.5 for drinking water and the values are within the acceptable limits.
- **Turbidity** is measured by a nephelometric turbidimeter. NTU is the current standard for measure the intensity of scattered light caused by these particles rather than the amount of light transmitted through the sample. The **turbidity** value is less than 1 NTU in open well water and 5NTU in surface water.
- The **TDS levels** ranged from 408 to 583 mg/L. In open well water the TDS is higher than the WHO recommendation of 500 mg/l for drinking water. High TDS levels can affect the taste of water potentially making it salty or bitter. In the long-term excessive TDS can irritate the stomach and according to some health sources may lead to kidney stones and cardiac issues.

3.3.1.2 Chemical Parameters:

- The **calcium** levels range from 61.2 to 87.5 mg/L which is within the permissible limit of 200 mg/L but slightly above the acceptable limit of 75 mg/L. High calcium levels can cause scaling in domestic equipment, reduced detergent efficiency and potential health issues like constipation, gas and bloating.
- The **magnesium** levels range from 4.5 to 6.4 mg/L which is within both the acceptable and permissible limits. However, elevated magnesium levels can cause diarrhoea and vomiting in children.

- The **chloride** levels range from 110.2 to 157.4 mg/L which is within the acceptable and permissible limits of 250 mg/L and 1000 mg/L respectively. Chloride levels exceeding permissible limits can cause a bitter taste in the water and contribute to corrosion.
- The **total alkalinity** levels ranging from 126 to 169 mg/L are within the acceptable limit of 200 mg/L and within the permissible limit of 600 mg/L
- The **hardness** levels ranging from 147 to 210 mg/L, are within the permissible limit but higher than the acceptable limit. Hardness can lead to corrosion and scaling problems, increased soap consumption and a salty taste.

Overall, the water quality of open well based on the analysed parameters is generally suitable for drinking purposes as per IS 10500:2012. However, the higher levels of calcium and hardness could potentially lead to some undesirable effects such as scaling in domestic appliances and a salty or soda taste. Further treatment might be needed to address these issues especially if the water is to be used for a wider range of applications.

3.3.2 Surface water

Water sample labelled SW1 was collected from the Thathampalayam lake and amaravathi river is located at 4.88km south and 5.76km Southeast to establish a baseline water quality assessment as detailed in Table 3.6 and in Figure 3.6.

Inference: A surface water TDS (Total Dissolved Solids) of 336 ppm and 638(mg/L) is considered high and generally not recommended for regular drinking as high levels indicate excessive salts, metals or other contaminants. While some sources suggest up to 500 ppm is desirable and up to 2000 ppm is permissible if no other water is available. The EC of surface water is less than 1.5dS/m is considered to be safe for crops.

The surface water quality when compared against CPCB standards does not meet the criteria for drinking water (Class A) but it is suitable for irrigation (Class E).

Table.3.6 Results of Surface water and Ground water samples

S. No	Parameters	Units	Results					Permissible Limits as Per IS 10500:2012	
			OW1	OW2	OW1	SW1	SW2	Acceptable	Permissible
1	Ammonia as NH3	mg /l	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	0.5	No Relaxation
2	Carbonate Hardness	mg /l	169	126	133	74	147	200	600

	(as CaCO3)								
3	Phenolphthalein Alkalinity (as CaCO3)	mg /l	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	--	--
4	Non-Carbonate Hardness (as CaCO3)	mg /l	41	21	45	47	83	--	--
5	EC	µS/cm	988	658	882	580	1046	--	--
6	PO_4	mg /l	BLQ(LOQ:0.05)	BLQ(LOQ:0.05)	BLQ(LOQ:0.05)	BLQ(LOQ:0.05)	BLQ(LOQ:0.05)	--	--
7	Appearance	--	Clear liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid	--	--
8	SiO2	mg/l	11.08	7.75	9.38	6.39	12.12	--	--
9	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
10	pH	NA	7.44	7.12	8.02	8.22	6.89	6.5-8.5	No Relaxation
11	Colour	NTU	5	2	5	2	5	5	15
12	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
13	TUR	Hazen	0.3	0.1	0.2	0.1	0.3	1	5
14	TDS	mg /l	583	408	494	336	638	500	2000
15	Ca	mg /l	87.5	61.2	74.1	50.4	95.7	75	200
16	Fe	mg /l mg /l	0.18	0.24	0.19	0.32	0.48	0.3	No Relaxation
17	Mg		6.4	4.5	5.4	3.7	7.0	30	100
18	Cl	mg /l	157.4	110.2	133.4	90.7	172.3	250	1000
19	SO4	mg /l	33.8	23.7	28.7	19.5	37.0		
20	RFC	--	BLQ(LOQ:0.)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	BLQ(LOQ:0.1)	0.2	1
21	F	mg /l	0.32	0.28	0.19	0.34	0.42	1	1.5
22	NO3	mg /l	11.08	7.75	9.39	6.38	12.12	45	No Relaxation
23	TA	mg /l	169	126	133	74	147	200	600
24	TH	mg /l	210	147	178	121	230	200	600
25	BOD	--	BLQ(LOQ:1)	BLQ(LOQ:1.0)	BLQ(LOQ:1.0)	2.4	4.6	--	3-5
26	COD	--	BLQ(LOQ:5.)	BLQ(LOQ:5.0)	BLQ(LOQ:5.0)	42	60	--	--

27	Dissovled Oxygen	--	6.9	6.4	6.6	5.7	5.9	--	--
28	Total Coliform	CFU/100ml	absent	absent	absent	absent	absent	--	--
29	E.coli.	CFU/100ml	absent	absent	absent	absent	absent	--	--

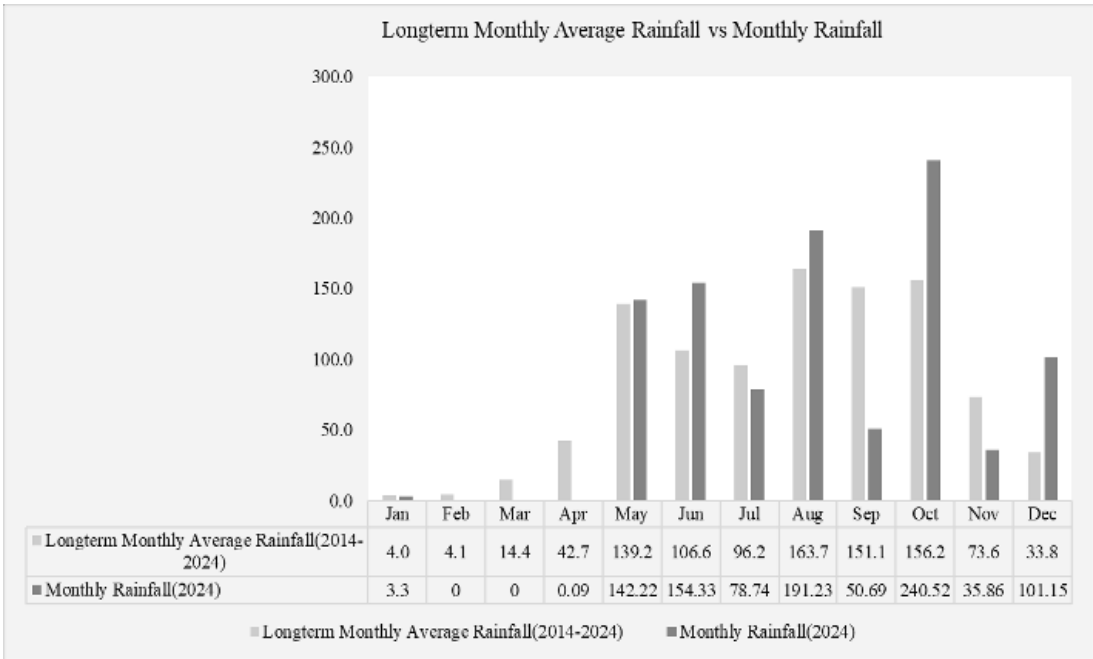
*Source: Sampling Results by **Interstellar Testing Centre Private Limited**, in association with GTMS*

3.3.3 Hydrogeological Studies

The area within 1.0 km radius has numerous open and deep wells and groundwater level data were collected from both types of wells across two monsoon seasons. This data collection approach allows for a comprehensive understanding of groundwater behaviour in the region considering the variations in well types and seasonal influences.

3.3.3.1 Rainfall

Rainfall data for the study area were collected for the period of 1981-2022 (POWER | Data Access Viewer (nasa.gov)). Long term monthly average rainfall was estimated from the data of 2014-2024 and compared with the monthly rainfall for the year 2024, shown in Figure 3.7. The Figure 3.7 shows that monthly rainfall in 2024 is generally high in the months of June, August, October when compared to the long term monthly average rainfall.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Longterm Monthly Average Rainfall(2014-2024)	4.0	4.1	14.4	42.7	139.2	106.6	96.2	163.7	151.1	156.2	73.6	33.8
Monthly Rainfall(2024)	3.3	0	0	0.09	142.22	154.33	78.74	191.23	50.69	240.52	35.86	101.15

Figure 3.8 Long-Term Monthly Average Rainfall Vs Monthly Rainfall

3.3.3.2 Groundwater Levels and Flow Direction

Groundwater depth data collected from open and bore wells across a 2 km radius during the 2024-2025 pre and post-monsoon seasons is essential for determining groundwater flow direction. This flow direction is critical for identifying areas of groundwater recharge and discharge which are necessary for site selection for proposed projects. By analysing these water

level measurements hydrogeologist can create contour maps of the water table which are used to understand the movement of groundwater within the study area. The open well water level data thus collected onsite are provided in Tables 3.7 and 3.8.

Table 3.7 Pre-Monsoon Water Level of Open Wells within 2 km Radius

Station D	Depth to Static Water Table BGL(m)					Latitude	Longitude	Water Level
	Mar -25	Apr -25	May -25	Average	Elevation			
OW01	15.2	15.8	16.2	15.73	193	10°59'4.57"N	77°59'27.96"E	177.27
OW02	14.5	15.2	15.8	15.17	187	10°58'44.83"N	77°59'31.11"E	171.83
OW03	14.8	15.4	15.7	15.30	190	10°58'43.84"N	77°59'8.91"E	174.70
OW04	14.3	14.8	15.4	14.83	187	10°58'36.16"N	77°58'49.78"E	172.17
OW05	15.1	15.6	16.2	15.63	194	10°58'49.67"N	77°58'27.62"E	178.37
OW06	15.4	16.2	16.8	16.13	196	10°59'16.38"N	77°58'53.80"E	179.87
OW07	13.8	14.5	15.4	14.57	177	10°58'28.10"N	77°59'38.20"E	162.43
OW08	14.6	15.2	16.3	15.37	186	10°59'30.81"N	77°59'23.91"E	170.63
OW09	14.2	14.8	15.4	14.80	182	10°58'16.27"N	77°58'55.88"E	167.20

Source: Onsite monitoring data

Table 3.8 Post-Monsoon Water Level of Open Wells within 2 km Radius

Station ID	Depth to Static Water Table BGL(m)					Latitude	Longitude	Water Level
	Oct-24	Nov-24	Dec-24	Average	Elevation			
OW01	13.2	12.8	12.2	12.73	193	10°59'4.57"N	77°59'27.96"E	180.27
OW02	12.4	12.2	11.8	12.13	187	10°58'44.83"N	77°59'31.11"E	174.87
OW03	12.8	12.4	11.9	12.37	190	10°58'43.84"N	77°59'8.91"E	177.63
OW04	12.5	11.8	11.1	11.80	187	10°58'36.16"N	77°58'49.78"E	175.20
OW05	13.1	12.5	12.2	12.60	194	10°58'49.67"N	77°58'27.62"E	181.40
OW06	13.4	12.3	11.5	12.40	196	10°59'16.38"N	77°58'53.80"E	183.60
OW07	11.6	10.4	9.6	10.53	177	10°58'28.10"N	77°59'38.20"E	166.47
OW08	12.3	11.5	10.2	11.33	186	10°59'30.81"N	77°59'23.91"E	174.67
OW09	11.8	10.6	9.5	10.63	182	10°58'16.27"N	77°58'55.88"E	171.37

Source: Onsite monitoring data

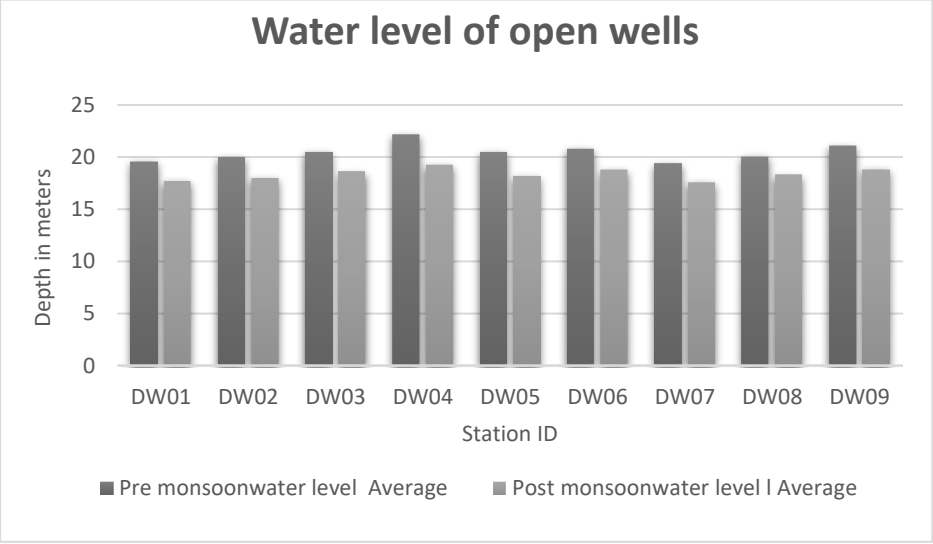


Table 3.9 Pre-Monsoon Water Level of Bore Wells within 2 km Radius

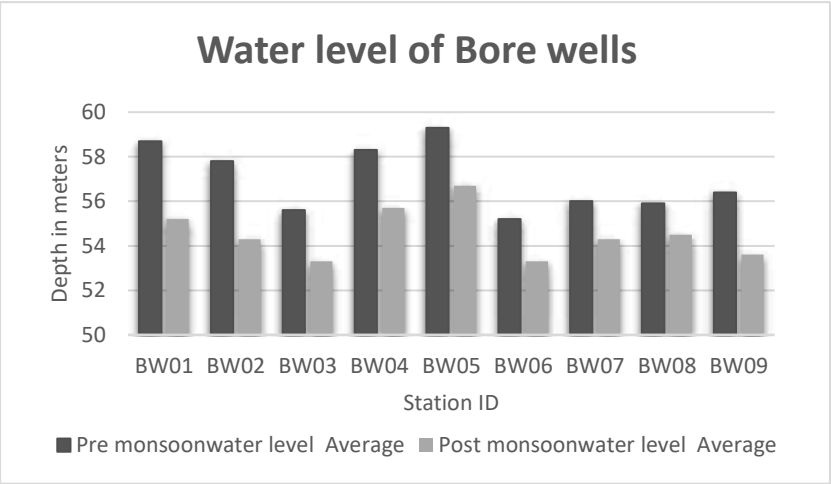
Station ID	Depth to Static Water Table BGL(m)					Latitude	Longitude	Water Level
	Mar -25	Apr -25	May -25	Average	Elevation			
BW01	72.4	72.8	73.5	72.90	185	10°58'35.59"N	77°59'12.03"E	112.10
BW02	72.3	72.6	73.4	72.77	182	10°59'23.85"N	77°59'43.90"E	109.23
BW03	72.8	73.5	74.2	73.50	189	10°59'42.44"N	77°59'20.66"E	115.50
BW04	74.2	74.8	75.1	74.70	195	10°59'42.75"N	77°58'52.75"E	120.30
BW05	71.6	72.7	73.6	72.63	183	10°58'21.73"N	77°58'33.16"E	110.37
BW06	69.8	71.2	72.4	71.13	176	10°57'58.87"N	77°59'11.06"E	104.87
BW07	70.2	70.4	71.5	70.70	178	10°59'15.07"N	78° 0'11.10"E	107.30
BW08	73.5	73.8	74.2	73.83	193	10°58'47.44"N	77°58'19.11"E	119.17
BW09	73.2	73.4	73.7	73.43	190	10°59'9.16"N	77°59'28.47"E	116.57

Source: Onsite monitoring data

Table 3.10 Post-Monsoon Water Level of Bore Wells within 2 km Radius

Station ID	Depth to Static Water Table BGL(m)					Latitude	Longitude	Water Level
	Oct -24	Nov -24	Dec -24	Average	Elevation			
BW01	71.2	70.5	69.7	70.47	185	10°58'35.59"N	77°59'12.03"E	114.53
BW02	71.4	70.8	69.5	70.57	182	10°59'23.85"N	77°59'43.90"E	111.43
BW03	70.5	70.1	69.6	70.07	189	10°59'42.44"N	77°59'20.66"E	118.93
BW04	72.4	71.5	70.1	71.33	195	10°59'42.75"N	77°58'52.75"E	123.67
BW05	70.1	69.5	68.4	69.33	183	10°58'21.73"N	77°58'33.16"E	113.67
BW06	68.5	67.4	66.5	67.47	176	10°57'58.87"N	77°59'11.06"E	108.53
BW07	69.1	68.2	67.1	68.13	178	10°59'15.07"N	78° 0'11.10"E	109.87
BW08	71.4	70.5	69.4	70.43	193	10°58'47.44"N	77°58'19.11"E	122.57
BW09	71.2	70.7	69.2	70.37	190	10°59'9.16"N	77°59'28.47"E	119.63

Source: Onsite monitoring Data



According to the data average depth to the static water table in open wells range from 14.57 to 16.13m BGL in pre-monsoon and 10.53-12.73m BGL in post monsoon. The bore well data thus collected onsite are provided in Tables 3.9 and 3.10. The average depth to static potentiometric surface in bore wells for the period of October 2024 through December 2024 (Post Monsoon Season) vary from 68.13-70.57m and from 70.70m-74.70 for the period of March through May 2025 (Pre-Monsoon Season).

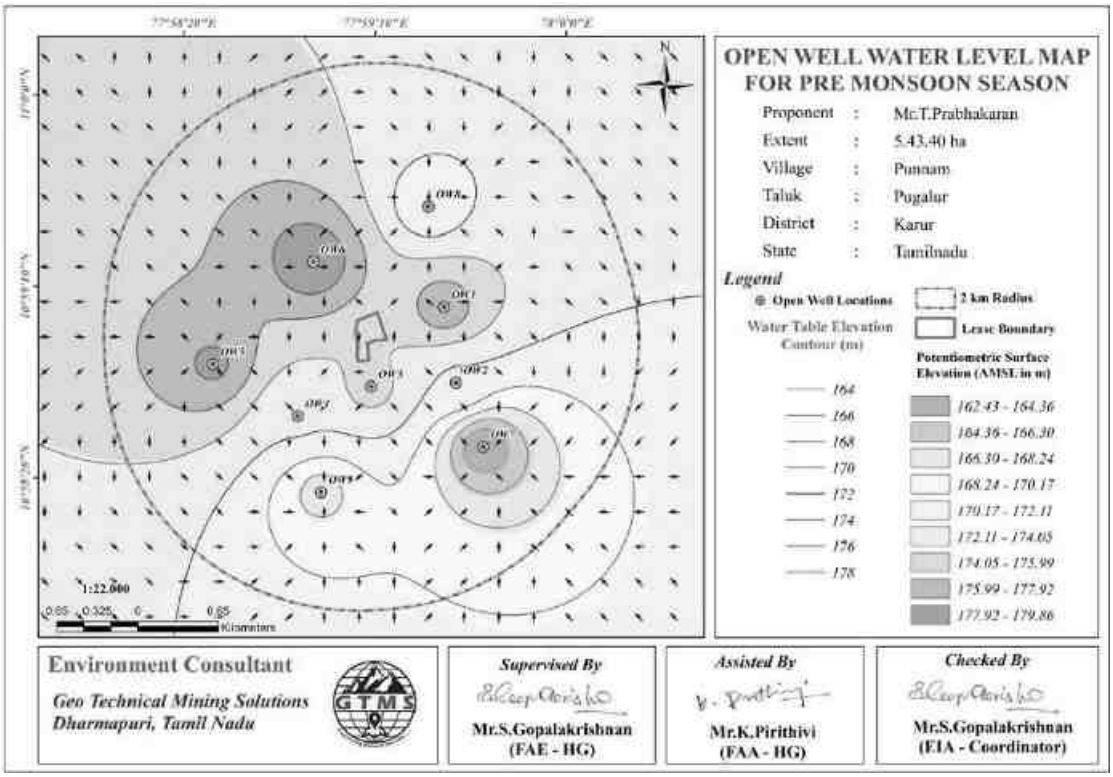


Figure 3.10 Static groundwater elevation map of open well - Pre Monsoon Season

Groundwater flows naturally from areas of high hydraulic head to low hydraulic head a process governed by the hydraulic gradient and influenced by the aquifer's hydraulic conductivity. Groundwater velocity is higher when the hydraulic gradient or hydraulic conductivity is greater. A potentiometric map uses contour lines to represent equipotential hydraulic head and groundwater flow is always perpendicular to these equipotential lines moving from higher to lower head values shown in Figures 3.8 &3.9 for open wells and 3.10 & 3.11 for bore wells.

Note: *The water table is indeed the upper boundary of the saturated zone also known as the phreatic zone where all pore spaces are filled with groundwater. At this level the hydraulic pressure of the groundwater equals the atmospheric pressure. Below the water table the weight of the overlying water column creates increasing hydraulic pressure with greater depth. Unused wells serve to indicate the water table's level as water will naturally rise in the well to this elevation.*

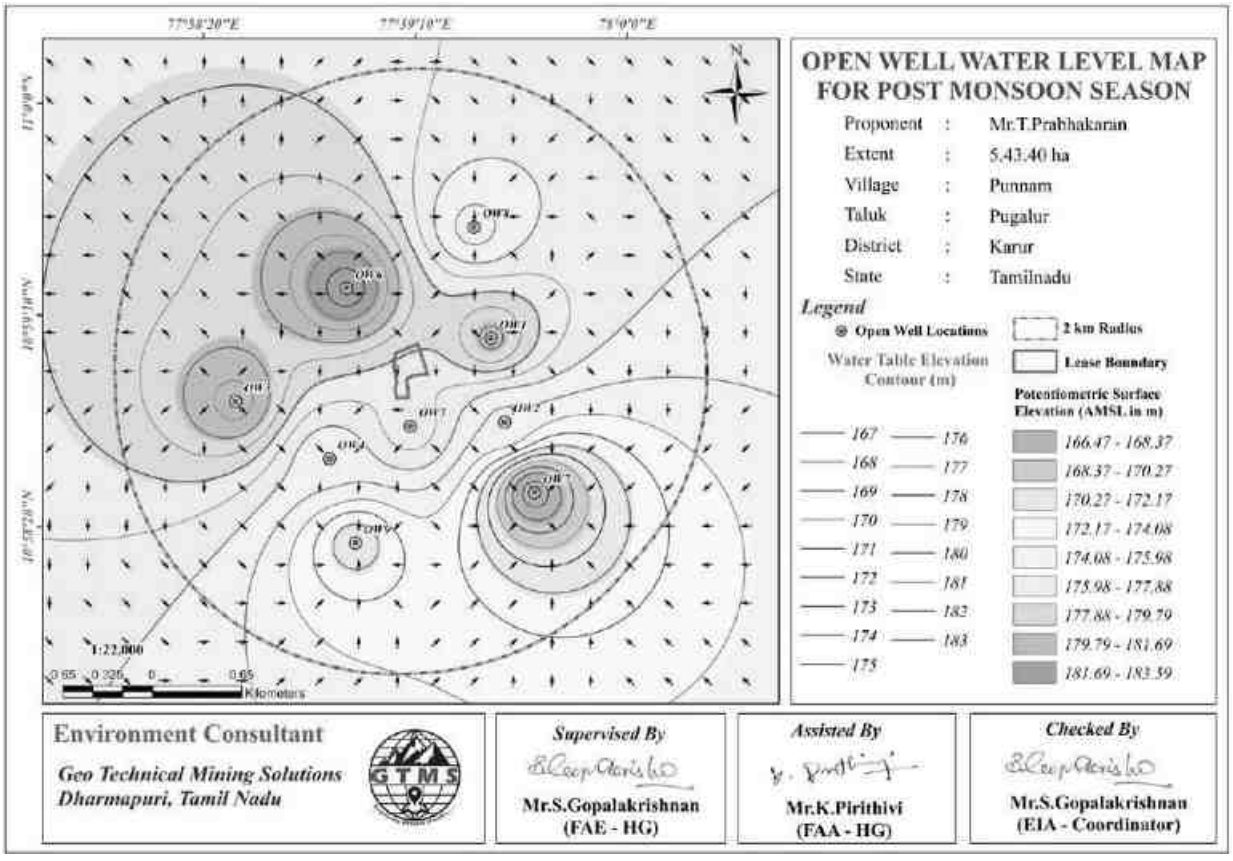


Figure 3.11 Open Well Static Groundwater Elevation Map – Post Monsoon Season

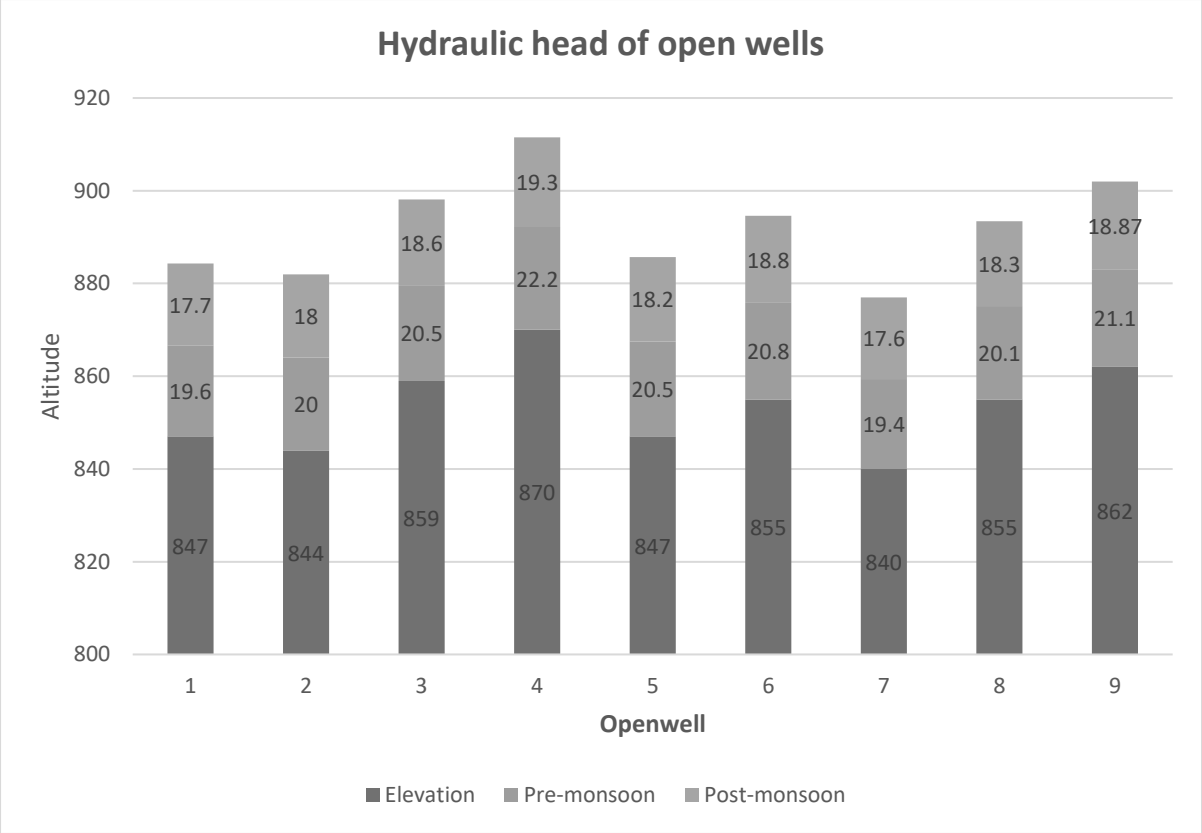


Figure 3.12 Hydraulic head chart of open wells

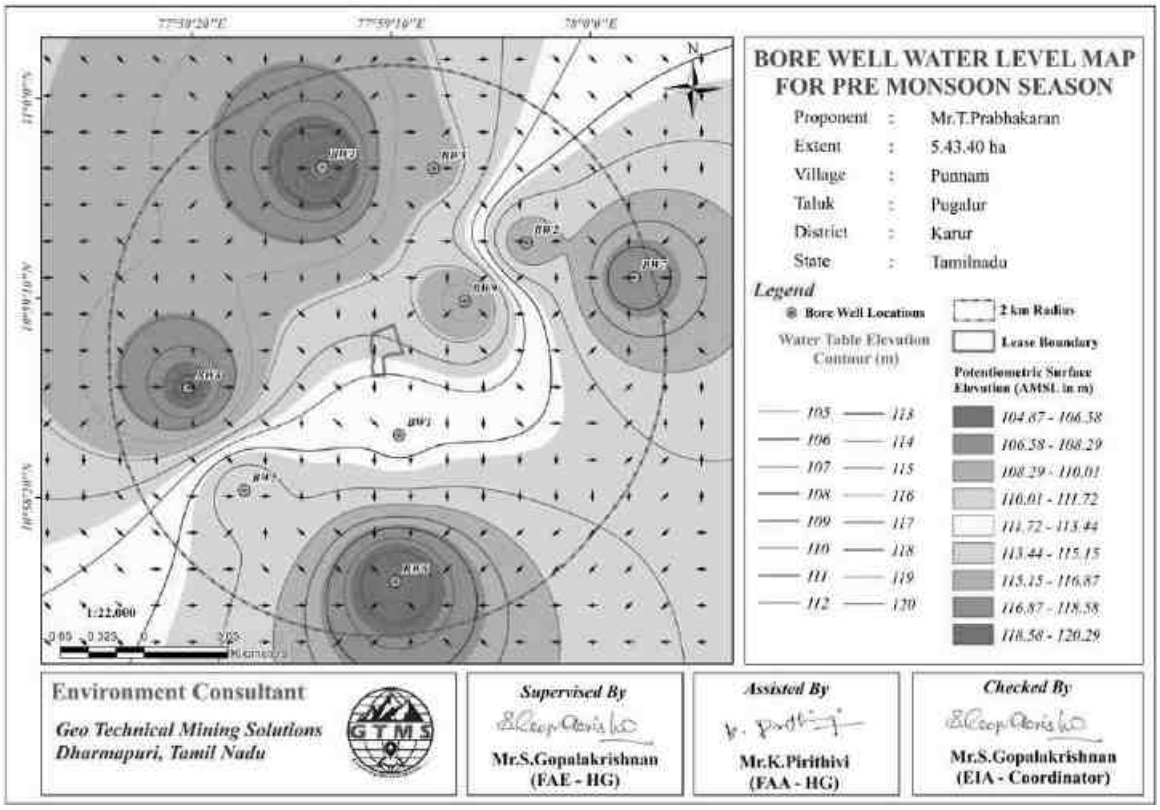


Figure 3.13 Borewell Static Groundwater Elevation Map – Pre-monsoon Season

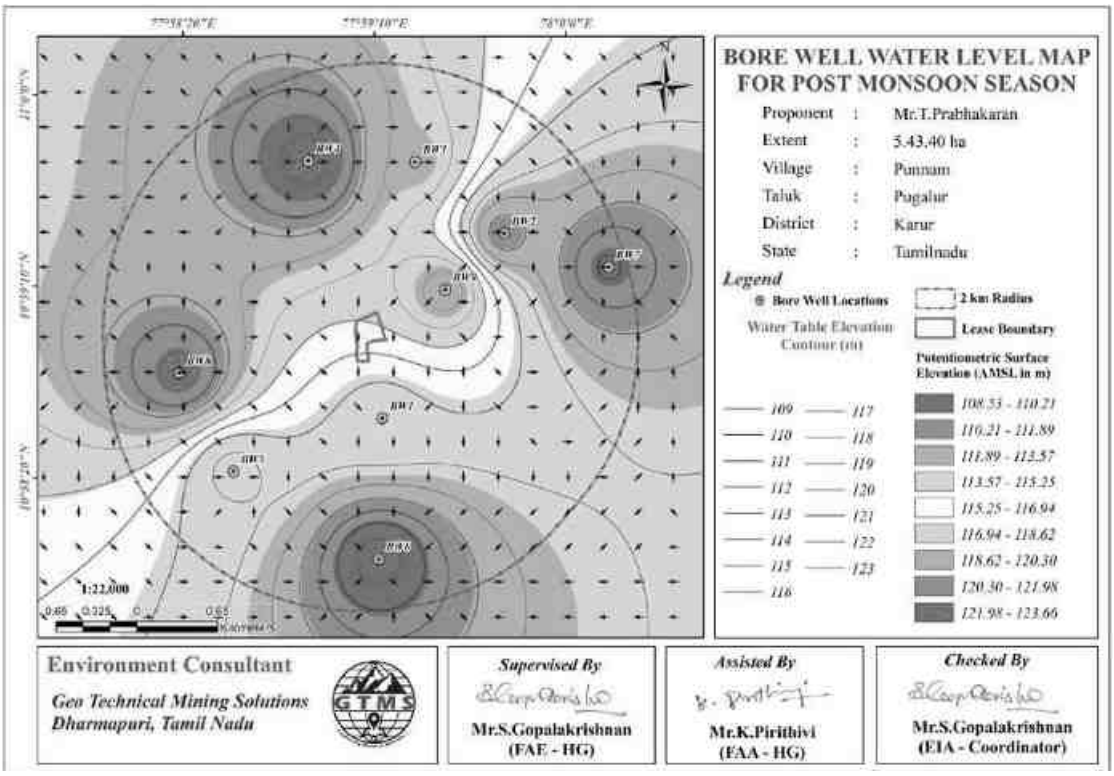


Figure 3.14 Borewell Static Groundwater Elevation Map – Post Monsoon Season

From the maps shown in Figures 3.8 & 3.9 it is understood that most of the open well groundwater for the post and pre-monsoon season flows towards the open well number 7 located in south direction of the proposed project site have a potentiometric surface elevation of 196m above mean sea level. The groundwater flow maps in Figures 3.10-3.11 show that most of the bore well water for the post and pre-monsoon season flow towards the bore well number 8 and 9 which has a maximum elevation of 190-194m due to the recharge of the aquifer during the monsoon. It is located in southern side of the proposed project site. On the basis of the groundwater flow information both open wells and bore wells mentioned above may be chosen for water level and quality monitoring purpose as the wells may get easily affected by the contaminants resulting from the mining activities of the sites in future.

3.3.3.3 Electrical Resistivity Investigation

Electrical resistivity investigation, using vertical electric sounding (VES) and a four-electrode setup, is valuable for mapping subsurface layers and aquifers in areas lacking well data by measuring differences in electrical resistance. This method sends current through outer electrodes and measures the resulting voltage with inner electrodes, revealing variations in geological materials like weathered zones or fractured rock. These resistivity differences can help locate potential groundwater zones and identify different subsurface layers without

needing exploratory wells. The geophysical VES data obtained from the project site was given in Table 3.11. The plot for the purpose of interpretation has been shown in Figure 3.12.

Table 3.11 Vertical Electrical Sounding Data

Location Coordinates - 10°58'36.07"N 77° 59.2'8.26"E					
S. No.	**AB/2 (m)**	**MN/2 (m)**	**Geometrical Factor (G)**	**Resistance in Ω**	**Apparent Resistivity in Ωm**
1	2	2	11.78	12.44	146.5
2	4	2	49.46	7.42	367.04
3	6	5	112.26	4.98	559.28
4	8	5	200.18	2.86	572.71
5	10	5	75.36	8.49	640.03
6	15	10	173.49	4.53	786.42
7	20	10	310.86	3.18	987.56
8	25	10	487.49	2.29	1118.76
9	30	10	274.75	5.28	1451.78
10	35	10	376.8	4.22	1590.54
11	40	10	494.55	3.33	1649.12
12	45	10	628	2.75	1729.18
13	50	10	777.15	2.39	1857.16
14	65	20	453.6	4.50	2041.05
15	70	20	989.1	2.17	2149.5
16	80	20	1256	1.25	1567.45
17	90	20	1554.3	1.69	2630.93
18	100	20	1653.6	1.62	2680.44

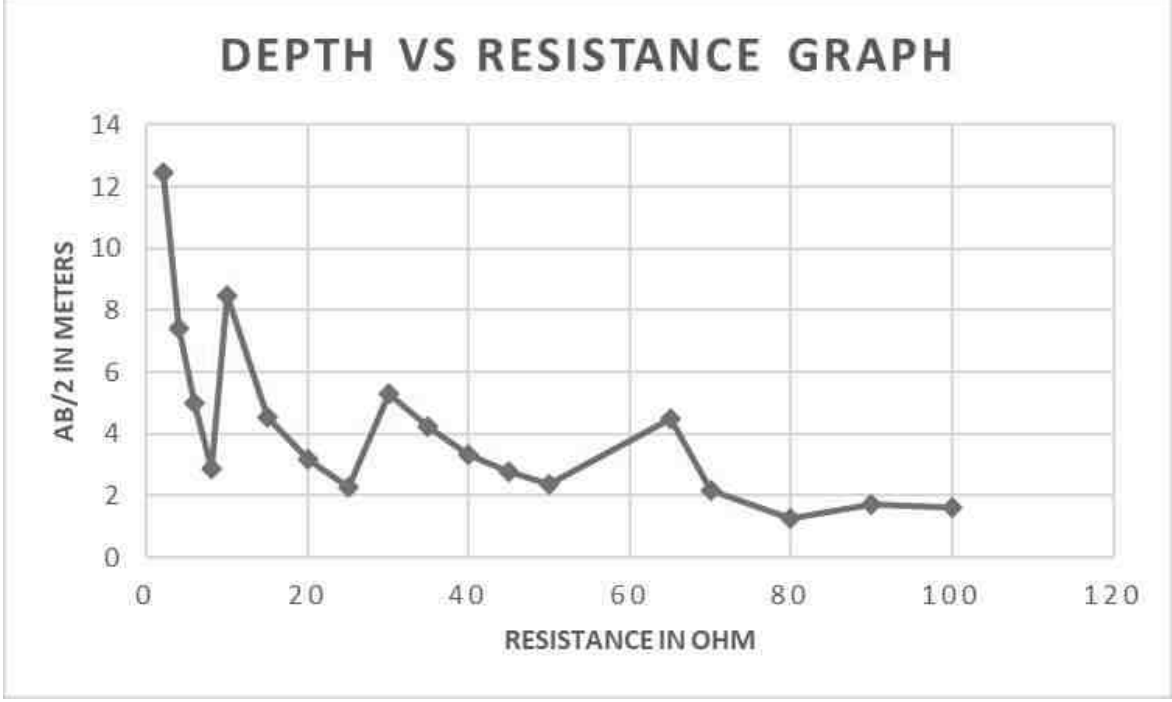


Figure 3.15 Graph showing occurrence of water bearing fracture zones at the depth in the proposed project site

The low resistance values indicate occurrence of water at the depth of about 80m below ground level. The maximum depth proposed for the proposed project is 60 BGL. Therefore, the mining operation will not affect the aquifer throughout the entire mine life period.

3.4 AIR ENVIRONMENT

Baseline studies on the air environment involve identifying specific pollutants and their concentrations in the ambient air of a region. The primary sources of air pollution are identified as vehicular traffic, dust from unpaved roads and domestic and agricultural activities. These sources contribute to the overall air quality and can be further investigated to understand the specific pollutants and their impact.

3.4.1 Meteorology

3.4.1.1 Climatic Variables

A temporary meteorological station was installed at the project sites by covering cluster quarries. The station was installed at a height of 3m above the ground level as there are no obstructions facilitating flow of wind, wind speed, wind direction, humidity and temperature. Meteorological data obtained from the onsite monitoring station are provided in Table 3.12.

Table 3.12 Onsite Meteorological Data

S. No.	Parameters		March,2025	April,2025	May,2025
1	Temperature (^{0}C)	Min	18.82	23.37	23.35
		Max	39.91	38.65	38.24
		Avg	29.04	30.04	29.47
2	Relative Humidity (%)	Min	12.79	24.50	30.05
		Max	100.00	95.31	94.95
		Avg	58.26	62.51	67.47
3	Wind Speed (m/s)	Min	0.02	0.07	0.16
		Max	6.23	4.13	7.99
		Avg	2.02	1.62	2.50
4	Wind Direction (degree)	Min	2.80	0.00	2.60
		Max	359.20	359.40	350.00
		Avg	111.67	155.50	240.60
5	Surface Pressure(kPa)	Min	97.91	97.92	97.69
		Max	99.16	98.90	98.59
		Avg	98.57	98.37	98.14

Source: Sampling Results by ***Interstellar Testing Centre Private Limited,*** *in association with GTMS.*

3.4.1.2 Wind Pattern

Wind rose diagrams are used to analyze wind patterns for their impact on air pollutant and noise dispersion from a project site. Two sets of wind roses were created one with historical data (March-May 2021-2024) and another for the current study period (March-May 2025) allowing for comparison. The analysis showed a moderate overall wind speed of 2.03 m/s and identified a prevalent wind direction from the southeastern to the northwestern sectors.

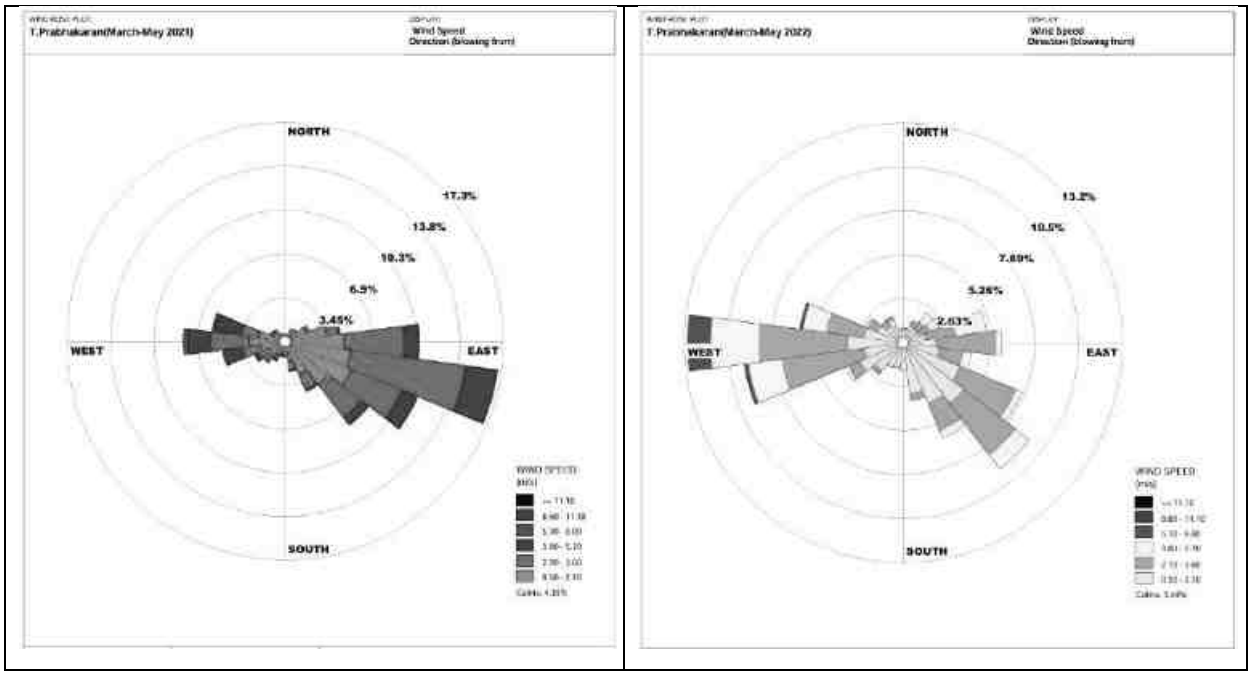


Figure 3.16 Windrose Diagram for 2021-2022 (March to May)

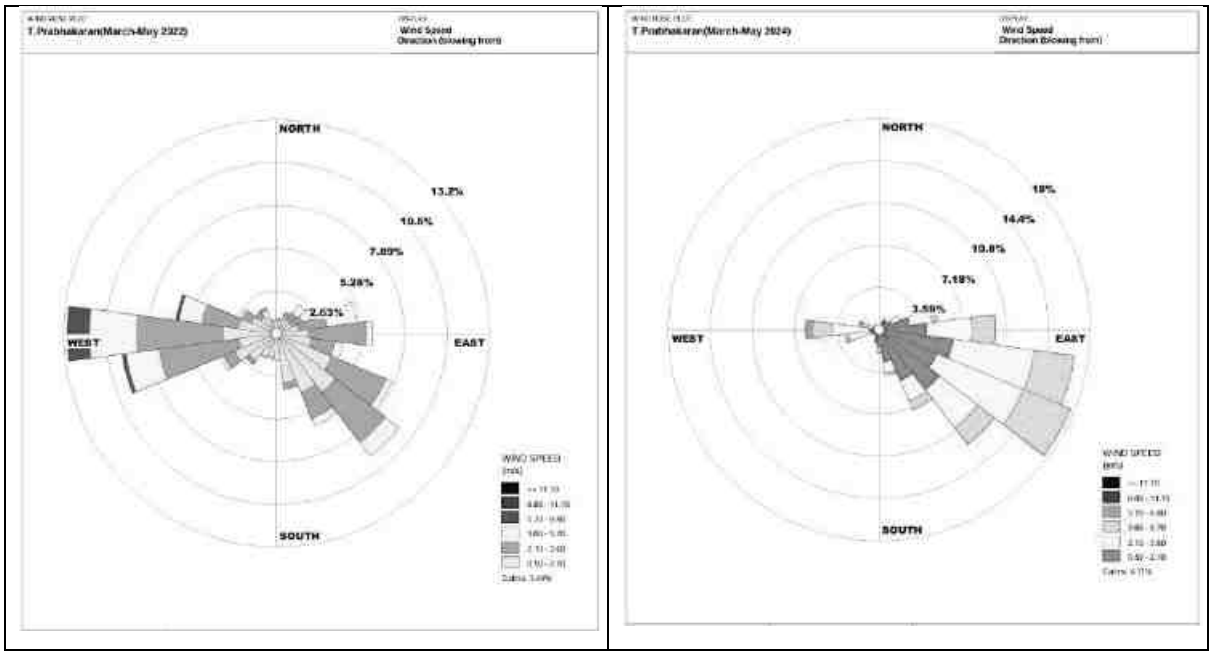


Figure 3.17 Windrose Diagram for 2023-2024 (March to May)

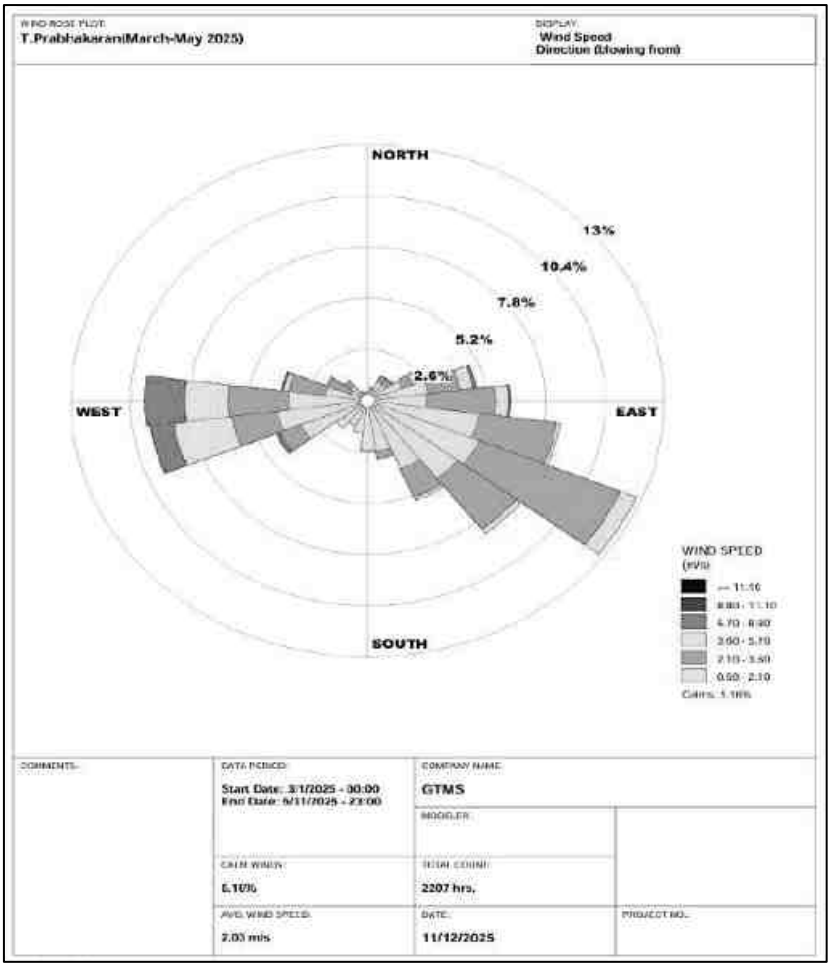


Figure 3.18 Onsite Wind Rose Diagram 2025

3.4.2 Ambient Air Quality Study

The baseline ambient air quality is studied through a scientifically designed ambient air quality monitoring network considering the followings:

- ❖ Meteorological condition on synoptic scale
- ❖ Topography of the study area
- ❖ Representatives of regional background air quality for obtaining baseline status
- ❖ Location of residential areas representing different activities
- ❖ Accessibility and power availability

Table 3.13 Methodology and Instrument Used for AAQ Analysis

Parameter	Method	Instrument
$PM_{2.5}$	Gravimetric method Beta attenuation method	Fine Particulate Sampler
PM_{10}	Gravimetric method Beta attenuation method	Respirable Dust Sampler
SO_2	IS-5182 Part II (Improved West & Gaeke method)	Respirable Dust Sampler with gaseous attachment
NO_x	IS-5182 Part II (Jacob & Hoch Heiser modified method)	Respirable Dust Sampler with gaseous attachment

Table 3.14 National Ambient Air Quality Standards

S. No.	Pollutant	Time Weighted Average	Industrial, Residential, Rural & other areas	Ecologically Sensitive area (Notified by Central Govt.)
1	SO_2 (µg/m^3)	Annual Avg.* 24 hours**	50.0 80.0	20.0 80.0
2	NO_x (µg/m^3)	Annual Avg. 24 hours	40.0 80.0	30.0 80.0
3	PM_{10} (µg/m^3)	Annual Avg. 24 hours	60.0 100.0	60.0 100.0
4	$PM_{2.5}$ (µg/m^3)	Annual Avg. 24 hours	40.0 60.0	40.0 60.0

Source: NAAQS CPCB Notification No. B-29016/20/90/PCI-I Dated: 18th Nov 2009

Methodology

Ambient air quality monitoring was carried out with a frequency of two samples per week at six (06) locations, adopting a continuous 24 hourly (3 shift of 8-hour) schedule for the period **March to May 2025,** as per the CPCB, MoEF guidelines and notifications. It was ensured that the equipment was placed preferably at a height of at least 3 ± 0.5 m above the ground level at each monitoring station for negating the effects of wind-blown ground dust. The equipment was placed at space free from trees and vegetation which otherwise act as a sink of pollutants resulting in lower levels in monitoring results. The baseline data of ambient air were generated for $PM_{2.5,}$ PM_{10}, sulphur dioxide (SO_2) and nitrogen dioxide (NO_x). The sampling locations are shown in Figure 3.16 and average concentrations of air pollutants are summarized in Table 3.16 and are shown in Figures 3.17 & 3.18.

Table 3.15 Ambient Air Quality (AAQ) Monitoring Locations

Location Code	Monitoring Locations	Distance (km)	Direction	Coordinates	
				Latitude	Longitude
AAQ1	Core	--	--	10°59'0.81"N	77°59'10.20"E
AAQ2	Punnam	1.18	NE	10°59'24.88"N	77°59'42.96"E
AAQ3	Pavithiram	1.44	SE	10°58'14.10"N	77°59'38.21"E
AAQ4	Velayuthampalayam	0.95	SW	10°58'30.67"N	77°58'41.55"E
AAQ5	Pullaiyampalayam	2.40	NW	10°59'45.74"N	77°58'0.54"E
AAQ6	Punnam Chatram	3.06	N	11° 0'42.10"N	77°58'57.83"E

Source: On-site monitoring/sampling ***by Interstellar Testing Centre Private Limited*** *in association with* ***GTMS***

Results

As per the monitoring data $PM_{2.5}$ ranges from 16.20µg/m^3 to 19.78µg/m^3, PM_{10} from 42.38µg/m^3 to 52.89µg/m^3, SO_2 from 5.09µg/m^3 to 5.68µg/m^3, NO_X from 10.23µg/m^3 to 12.11g/m^3. The concentration levels of the pollutants fall within the acceptable limits of NAAQS prescribed by CPCB.

Air quality Index (AQI)

The AQI shows that the air quality of the study area falls within good category 46 causing minimal impact to human health.

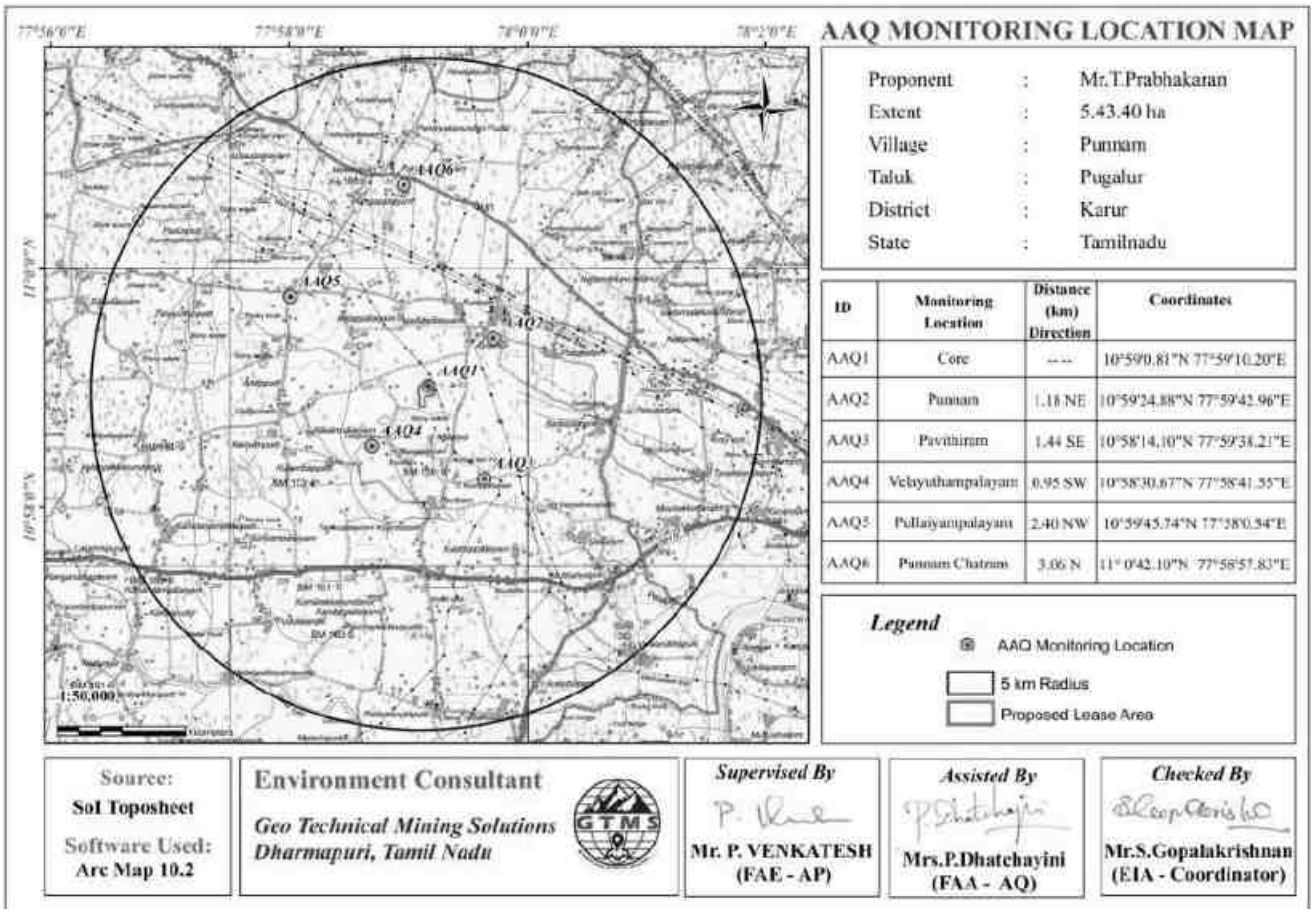


Figure 3.19 Map Showing Ambient Air Quality Monitoring Station Locations

Table 3.16 Summary of AAQ Result

	$PM_{2.5}$				PM_{10}			
Station ID	**Max**	**Min**	**Mean**	**98th Percentile**	**Max**	**Min**	**Mean**	**98th Percentile**
AAQ1	21.29	16.84	18.50	21.07	55.35	45.71	49.09	55.18
AAQ2	20.23	16.71	18.16	20.22	52.59	42.87	46.65	52.15
AAQ3	19.19	15.85	17.17	18.34	49.90	41.21	44.10	49.04
AAQ4	19.40	16.02	17.45	19.34	50.45	41.66	44.53	50.10
AAQ5	19.56	16.16	17.61	19.40	59.64	42.01	46.26	58.66
AAQ6	19.01	15.62	16.73	18.66	49.43	40.83	43.43	47.96
	SO_2				NO_x			
AAQ1	5.87	5.24	5.50	5.83	13.18	10.64	11.6	13.1

AAQ2	5.80	5.02	5.38	5.73	12.52	10.28	11.1	12.4
AAQ3	5.94	5.02	5.24	5.91	11.88	10.03	10.6	11.9
AAQ4	5.61	5.12	5.32	5.55	11.21	10.32	10.7	11.2
AAQ5	5.51	5.12	5.27	5.47	12.11	10.2	10.7	12.1
AAQ6	5.35	5.02	5.15	5.33	11.77	9.91	10.4	11.5

Free silica:

Crystalline silica is SiO_2 in a specific structural form distinct from the pure non-combined SiO_2 known as free silica. Sources like stone quarries sand mining and stone crushing can generate finely divided crystalline silica dust. Crystalline silica particles in these environments can be very small less than 4 μm (PM4). There are no generally accepted methods of monitoring in ambient PM4 air.

Health Risks of Crystalline Silica Exposure

- **Inhalation:**

Over time, inhaling very small quantities of finely divided crystalline silica dust can lead to severe respiratory and other health problems.

- **Diseases:**

Exposure can result in silicosis (a type of scarring and inflammation of the lungs), bronchitis, and even cancer.

Exposure Limits and Regulations

- **ACGIH Recommendations:**

The American Conference of Governmental Industrial Hygienists recommends 0.1mg/m^3 (10 μg/m^3) crystalline silica as respirable free silica as exposure limits.

- **Directorate General of Mines safety (India):**

Free silica content should not exceed 5% as prescribed by Directorate General of Mines Safety.

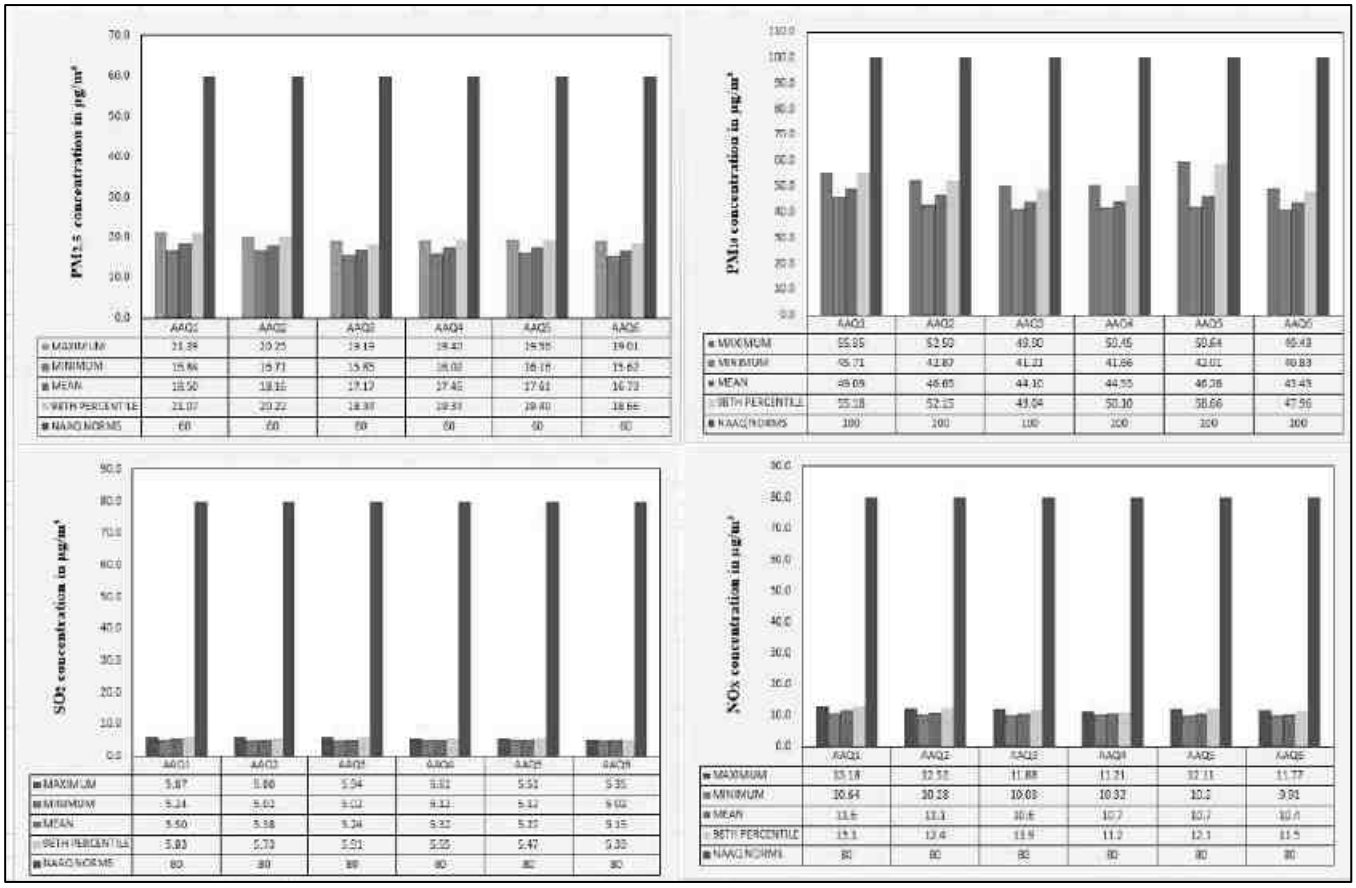
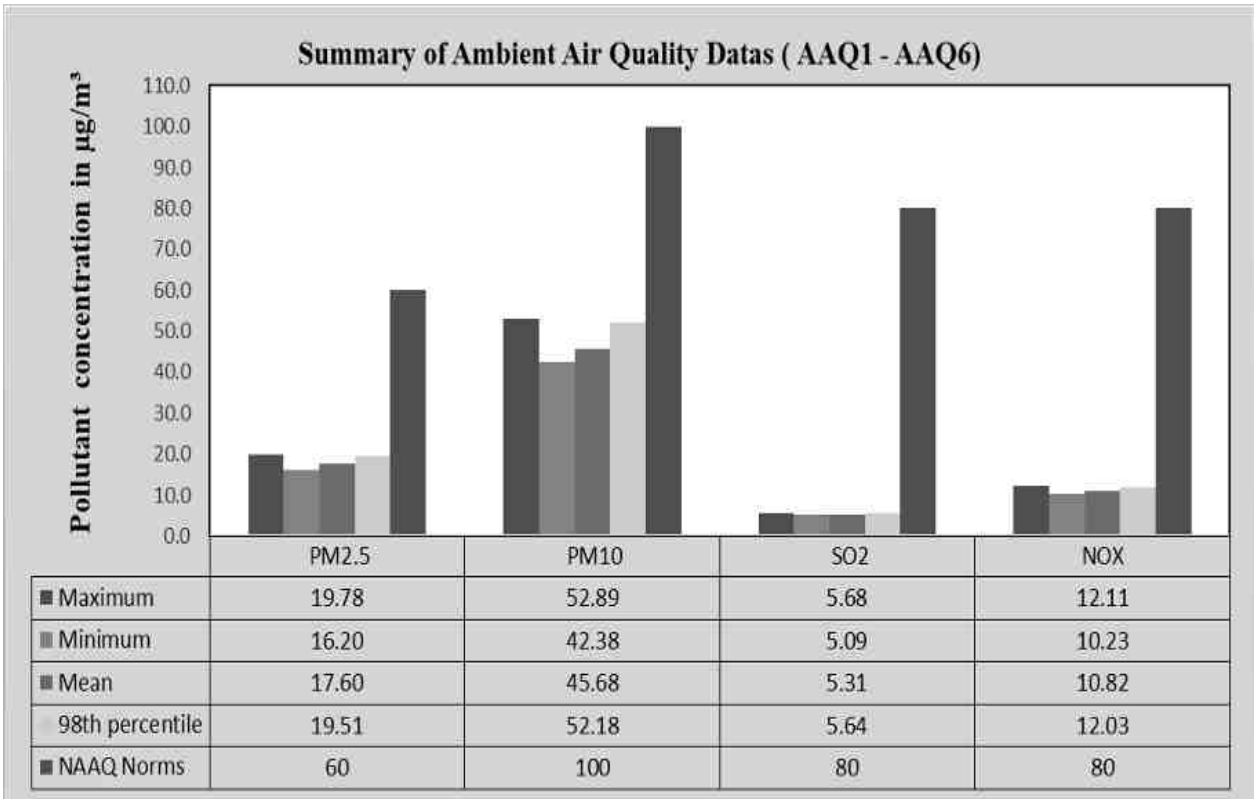


Figure 3.20 Bar Chart showing the avg conc of PM2.5, PM10, NOx and SO_2



	PM2.5	PM10	SO2	NOX
Maximum	19.78	52.89	5.68	12.11
Minimum	16.20	42.38	5.09	10.23
Mean	17.60	45.68	5.31	10.82
98th percentile	19.51	52.18	5.64	12.03
NAAQ Norms	60	100	80	80

Figure 3.21 Bar Chart showing the summary of AAQ Data's

3.5 NOISE ENVIRONMENT

The vehicular movement on road and mining activities is the major sources of noise in the study area. The main objective of noise monitoring in the study area is to establish the baseline noise level, which will in turn be used to assess the impact of the total noise expected to be generated during the project operations around the project site. In order to assess the ambient noise levels within the study area, noise monitoring was carried out at six (06) locations covering commercial, residential, rural areas within the radius of 5 km. Details of noise monitoring locations are provided in Table 3.17 and spatial occurrence of the locations are shown in Figure 3.21.

Table 3.17 Noise Monitoring Locations

S. No.	Location Code	Monitoring Location	Distance (km)	Direction	Coordinates	
					Latitude	Longitude
1	N1	Nearby Core	0.29	NW	10°59'10.55"N	77°59'4.85"E
2	N2	Velayuthampalayam	0.77	SW	10°58'31.38"N	77°58'49.18"E
3	N3	Punnam	1.28	NE	10°59'23.88"N	77°59'47.16"E
4	N4	Salipalaiyam	3.20	SE	10°57'41.14"N	78° 0'27.11"E
5	N5	Pullaiyampalayam	2.44	NW	10°59'47.70"N	77°58'0.32"E
6	N6	Punnam Chatram	3.29	N	11° 0'47.64"N	77°58'47.51"E

Table 3.18 Ambient Noise Quality Result

Station ID	Location	Environmental setting	Average day noise level (dB(A)	Average night noise level (dB(A))	Day time (6.00 AM – 10.00 PM)	Night time (10.00 PM – 6.00 AM)
					Standard (Leq in dB (A))	
N1	Nearby Core	Industrial Area	45.7	37.8	75	70
N2	Velayuthampalayam	Residential Area	48.1	41.8	55	45
N3	Punnam		42.6	39.1		
N4	Salipalaiyam		45.8	40.6		
N5	Pullaiyampalayam		46.7	41.5		
N6	Punnam Chatram		39.8	36.1		

*Source: On-site Monitoring/Sampling by **Interstellar Testing centre Private Limited** in Association with GTMS*

The table 3.18 shown that noise level in core zone was 45.7dB (A) Leq during day time and 37.8dB(A) Leq during night time. Noise levels recorded in buffer zone during day time varied from 39.8 to 48.1dB (A) Leq and during night time from 36.1 to 41.8dB (A) Leq. Thus, the noise level for industrial and residential area meets the requirements of CPCB. The results are also depicted below in Figures 3.19 and 3.20.

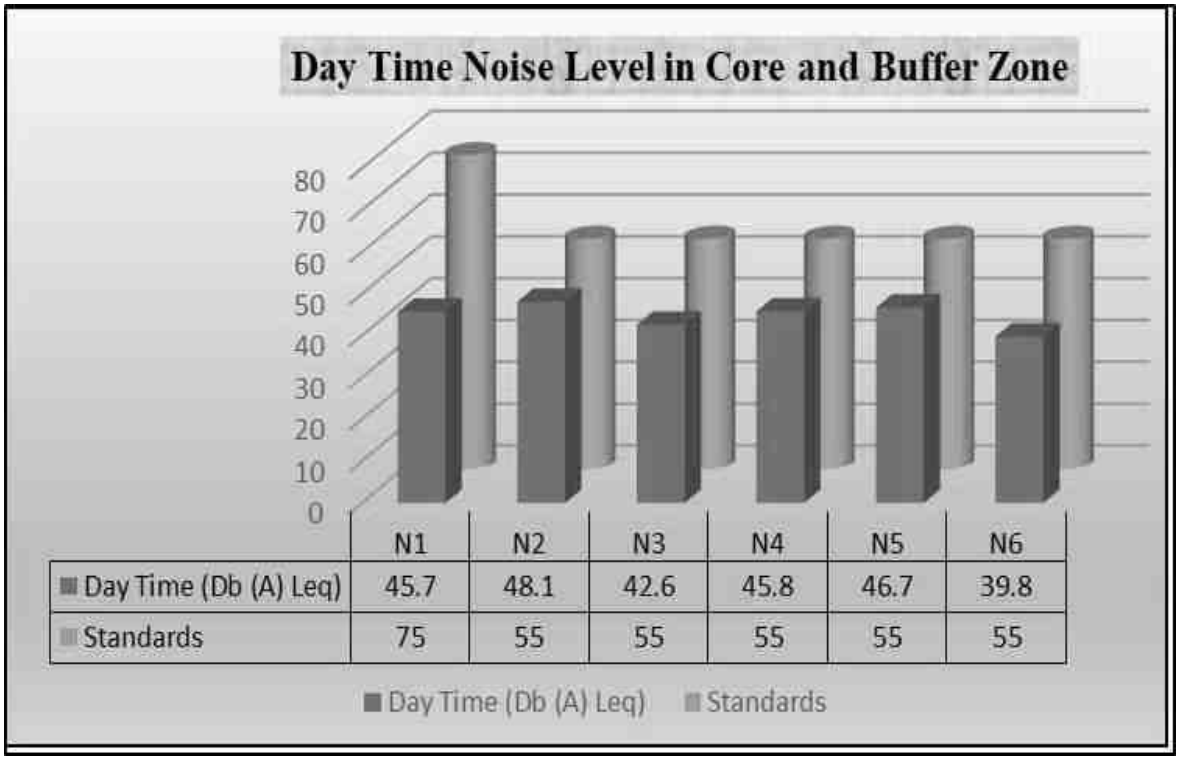


Figure 3.22 Bar Chart Showing Day Time Noise Levels Measured in Core and Buffer Zones

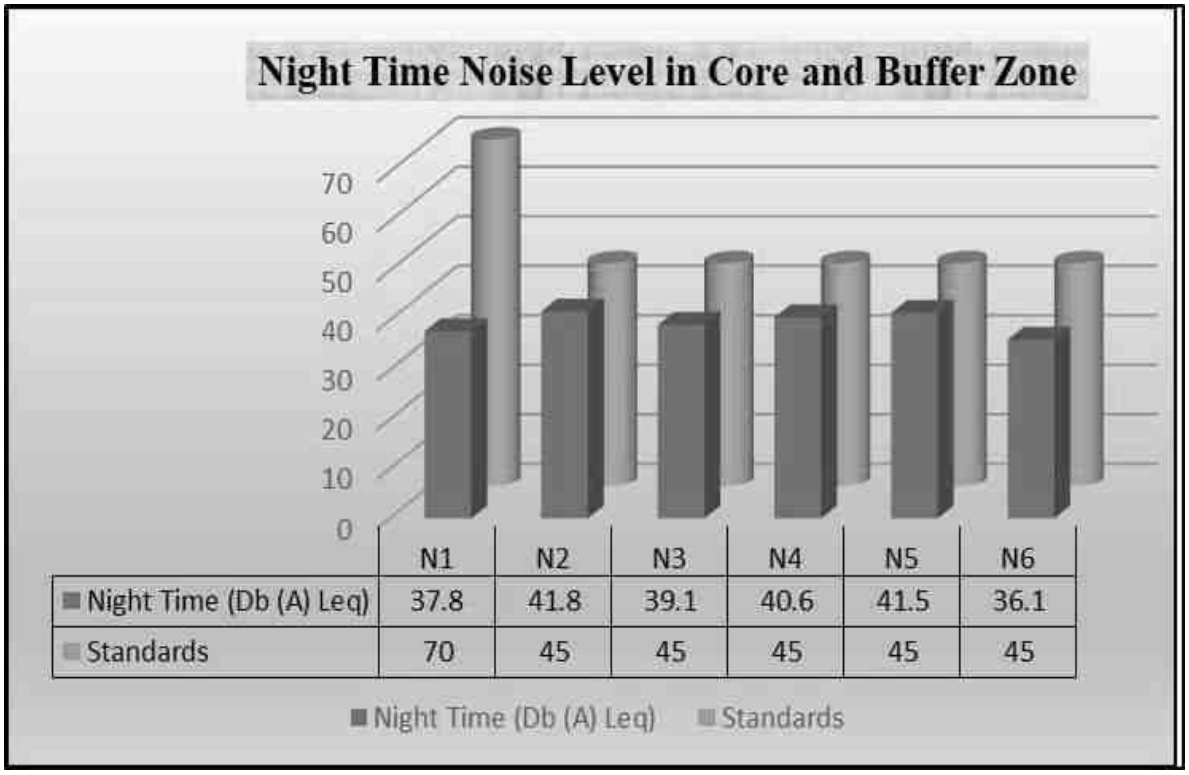


Figure 3.23 Bar Chart Showing Night Time Noise Levels Measured in Core and Buffer Zones

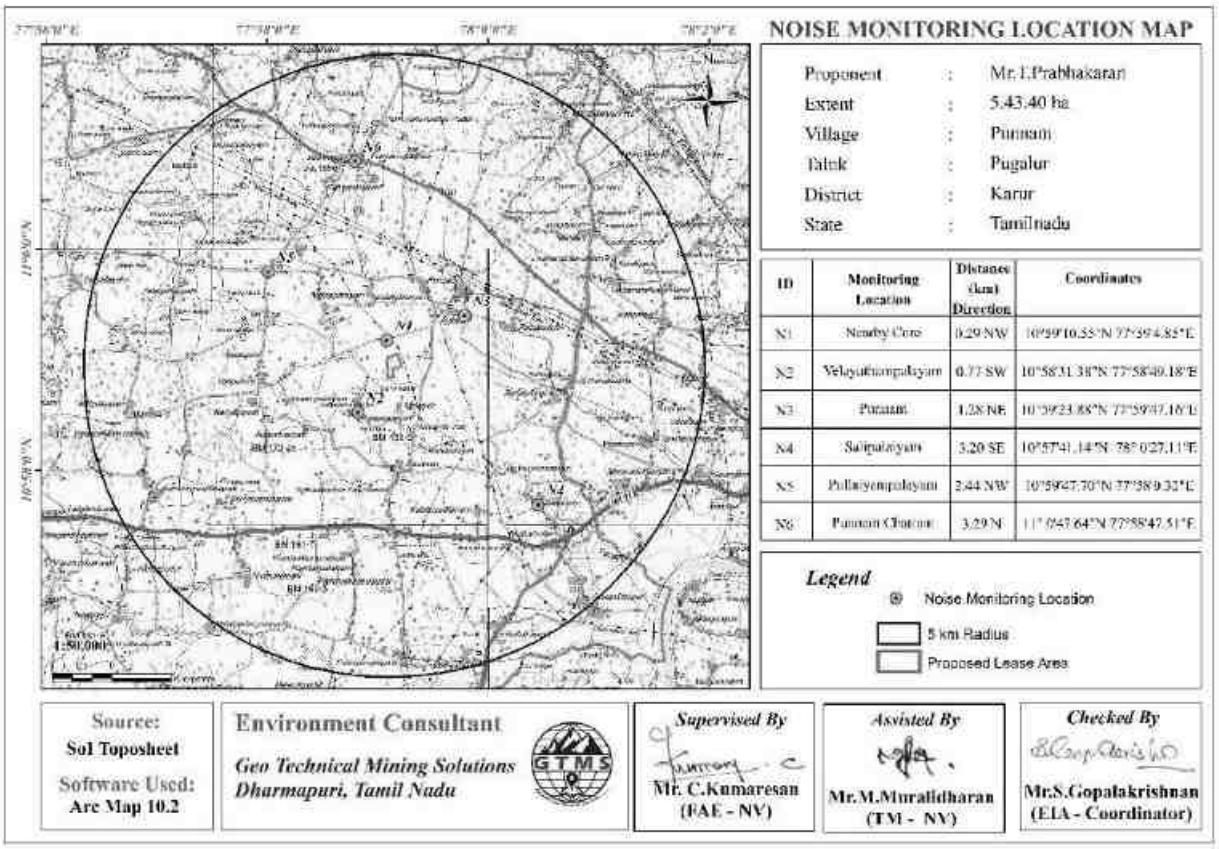


Figure 3.24 Map Showing Noise Level Monitoring Station Locations

3.6 BIOLOGICAL ENVIRONMENT

Biological study of the ecosystem is essential to understand the impact of rough stone quarry on existing flora and fauna of the study area. Studies on various aspects of ecosystem play an important role in identifying sensitive issues for undertaking appropriate action to mitigate the impact, if any. A survey was conducted to study the flora and fauna in 10km radius by direct and indirect sightings/ data. Some of the information was gathered from the local habitants. All the collected data were classified to interpret the impact of pollution on the flora and fauna of that region. Survey of the wild plants as well as cultivated crop plants was made, and all the available information was recorded.

3.6.1 Biodiversity assessment methods

The Rapid Biodiversity Assessment (RBA) provides information about individual flora and fauna species and their habitats, ecosystems and communities, and threatening processes. It reviews existing information and the results of priority taxa and communities.

A major systematic program of fauna survey has been undertaken during the preparation of this RBA. Analysis of data involves the information identifying the flora and

selected fauna groups in relation to different environmental strata across the site, and analysis of species and their responses to disturbance.

The RBA has focused primarily on the ecosystem and species levels of biodiversity because information about genetic variation within species is limited. The trees in each plot have been marked with metal plates so as to cater further field inspection easier. Physical marking of biodiversity has been dealt with for flora only, because of logical reasons. Floristic studies are dealt with in detail in the second part of the RBA.

The biodiversity information presented here is intended to reflect the best understanding of the available information, including information obtained through data audit, expert scientific opinion, and analysis of available data. It also points to deficiencies in existing information. The data presented will be used in the development of the restoration plans, including configuration of the quarry closure, and in the formulation of management recommendations by the experts.

The study has covered the following aspects to appraise the biodiversity of the site

S. No	Floral Component	Fauna elements
1	Plantations/ Agro-forestry	Total Listing of major Faunal elements
2	Natural Vegetation/Forest type	Endangered Species / Endemic Species
3	Flora Identification- Trees	Wildlife Schedules
4	Flora Identification- Shrubs	Migratory Species
5	Flora Identification- Herbs	Migratory corridors or Paths
6	Flora Identification- Climbers	Breeding & Spawning Grounds

The objective of this Section is to characterize and understand the present status of the ecosystems in the study area to assess the bio-diversity and to identify the critical areas. The present study was undertaken as a part of EIA report to understand the present status of ecosystem prevailing in the study area, to compare it with the past condition with the help of available data, to predict changes as a result of present activities and to suggest measures for maintaining the conditions.

3.6.2 Objectives of Biological Studies

The present study was undertaken with the following objectives:

- To study the likely impact of the proposed mining project on the local biodiversity and to suggest mitigation measure, if required, for vulnerable biota.

- ❖ To assess the nature and distribution of vegetation (Terrestrial and Aquatic) in and around the mining activity.
- ❖ Detail of flora and fauna, Endemic, Rare, Endangered and Threatened (RET Species) separately for core and buffer area based on such primary field survey and clearly indicating the Schedule of fauna present. In case of any schedule- 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.
- ❖ Devise management & conservation measures for biodiversity.

3.6.3 Methodology

A methodology of Sampling Flora and fauna studies were carried out to assess the list of terrestrial plant and animal species that occur in the core area and the buffer area up to 10km radius from the project site. No damage is created to flora and fauna during the sampling.

3.6.4 Flora Study

Identification of vegetation in relation to the natural flora and crops was conducted through reconnaissance field surveys and onsite observations in core and buffer zone. The plant species identification was done based on the reference materials and also by examining the morphological characteristics and reproductive materials i.e. flowers, fruits and seeds. Land use pattern in relation to agriculture crop varieties were identified through physical verification of land and interaction with local villagers. Transect method is used in the floral documentation in the buffer zone. Six transects were selected for the study. Each transects were occupied within 10km radius. For trees plots of (10x10-m), shrubs (5x5-m) and herbs (1x1-m) were used and recorded.

3.6.5 Fauna Study

The faunal elements of core and buffer zone were identified by direct sightings or indirect evidences by recording occurrences such as holes, markings, hairs, spines, scats, pellets, droppings and quills (Menon 2003). Standard binocular was used for the observations. The authenticity of faunal elements occurrence was confirmed by interaction with the local people. Avifauna identification was done with pictorial descriptions of published literature. Information pertaining to existence of any migratory corridors and paths were obtained from local inhabitants. The status of each faunal element was determined and wildlife schedule

category was ascertained as per the IUCN-Red Data Book and Wildlife protection (Amendment) Act 2022. The Birds, butterflies, reptiles and odonates were mainly focused during faunal assessment, in which transect method was employed for birds and butterflies. Transect is a path along which one counts and records the occurrence of an individual for study. A straight-line walk covering one km, within a time span of one hour to 30 minutes was carried out in each of the habitats. Each transects were occupied within the 10km radius of the site. Bird species were recorded during the hours of peak activity 07 am to 12 am and evening 3.00 pm to 5.00 pm. Direct observations and bird calls used for bird documentation. Same transects were used for counting birds and butterflies. Opportunistic observations were made for Amphibians, reptiles and odonates. Presence of mammals were recorded by indirect signs. They were classified into species level as and when possible. Recorded bird species were identified to species level using standard books (Ali & Ripley 1987, Grimmett et al., 2016).

Important Value Index (IVI)

The concept of 'Important Value Index (IVI)' has been developed for expressing the dominance and ecological success of any species, with a single value (Mishra, 1968, Sharma, 2005). This index utilizes three characteristics, they are (i) Relative frequency and (ii) Relative density. The three characteristics computed using frequency, density and abundance for all the species falling in all the quadrat by using the following formula. The relative frequency, relative density and relative abundance has been calculated to calculate the IVI value

IVI = Relative frequency + Relative abundance + Relative density [RF + RA + RD]

Relative Value Index (RVI) = Relative Density +Relative Frequency [RD + RF].

Relative Value Index used for Expressing dominance and Ecological success of Shrub and herb Species in a particular area.

Shannon – Wiener Index, Evenness and Richness

Biodiversity index is a quantitative measure that reflects how many different types of species, there are in a dataset, and simultaneously takes into account how evenly the basic entities (such as individuals) are distributed among those types of species. The value of biodiversity index increases both when the number of types increases and when evenness increases. For a given number of type of species, the value of a biodiversity index is maximized when all type of species is equally abundant.

The **Shannon Diversity Index** (sometimes called the Shannon-Wiener Index) is a way to measure the diversity of species in a community.

The species diversity index (H) for floral and faunal diversity is calculated by the use of Shannon Wiener Index (Shannon Wiener, 1963) as:

$$H = - \Sigma (ni/n) \times \ln (ni/n)$$

- Where, ni is individual density of a species and n is total density of all the species
- The Evenness Index (E) is calculated by using Shannon's Evenness formula (Magurran, 2004).
- The higher the value of H, the higher the diversity of species in a particular community

The lower the value of H, the lower the diversity. A value of H = 0 indicates a community that only has one species

$$\text{Evenness Index (E)} = H / \ln(S)$$

Where, H is Shannon Wiener Diversity index; S is number of species

The Shannon evenness Index is a way to measure the evenness of species in a community. The term "evenness" simply refers to how similar the abundances of different species are in the community.

Floral diversity Analysis

Flora study was conducted using the above said methodology to inventory the existing terrestrial plants in both core and buffer zones. Details of plants have been described in the succeeding sections.

3.6.6 Flora Composition in Core Zone

The core zone presents in tree, shrubs, herbs and grasses. Taxonomically total of 25 species belonging to 18 families have been recorded from the core mining lease area. Based on habitat classification of the enumerated plants the majority of species were Herbs 9 followed by Trees 115, Shrubs 9 and Climbers 5. The result of core zone of flora studies shows that Fabaceae and Solanaceae are the main dominating species in the study area it mentioned in Table No.3.19 & 3.20. No species found as threatened category.

Flora Composition in buffer Zone

There are 144 different species identified in the buffer zone. Among the identified, floral (144) species were 50 trees, 39 herbs, 31 shrubs, 11 climbers, 5 Creepers, and 8 grasses. According to the findings of the buffer zone flora studies, the dominant species in the study

area are Fabaceae, Asteraceae, and Euphorbiaceae, as shown in Table No.3.20. Apart from the proposed project area, there is agricultural land. Horticulture and agricultural land are untouched. There are no Rare, Endangered, and Threatened Flora species in the mining area and their surrounding study area. Details of flora with the scientific name were mentioned in Table No.3.20. A list of floral species has been prepared based on a primary survey (site observations) and discussion with local people. The total number of different plant life forms under trees, shrubs, herbs, and climbers is shown in Table 3.19.

Table 3.19 Number of flora life in study area

S. No	Plant Life form	Number of Species
1.	Trees	115
2.	Shrubs	9
3.	Herbs	9
4.	Climber	5
5.	Creepers	4
6.	Grasses	4
Total No. of Species		**146**

Table 3.20 Flora in Mine Lease Area

S. No	Local name	Scientific name	Family Name	IUCN Conservation Status
Trees				
1.	Thennai Maram	Cocos nucifera	Arecaceae	Not Listed
2.	Karuvealan	*Prosopis juliflora*	Fabaceae	Not Listed
3.	Unjai maram	*Albizia amara*	Fabaceae	Not Listed
4.	Vetpalai maram	*Wrightia tinctoria*	Apocynaceae	Not Listed
5.	Arappu Tree	*Albizia amara*	Fabaceae	LC
Shrubs				
6.	Avaram chadi	*Senna auriculata*	Fabaceae	Not Listed
7.	Earuku	*Calotropis gigantea*	Apocynaceae	Not Listed
8.	Unichadi	*Landana camera*	Verbenaceae	Not Listed
9.	Surai mullui	*Ziziphus oenopolia*	Rhamnaceae	Not Listed
10.	Thuthi	Abutilon indicum	Meliaceae	LC
Herbs/ Climber				
11.	Thathapondu	*Tridax procumbens*	Asteraceae	LC
12.	Kolunji chadi	*Tephrosia purpurea*	Fabaceae	Not Listed

13.	Onnakodi	*Ipomoea staphylina*	Convolvulaceae	Not Listed
14.	Nerunji	*Tribulus terrestris*	Zygophyllales	Not Listed
15.	Nayuruvi	*Achyranthes aspera*	Amaranthaceae	Not Listed
16.	Perandai	*Cissus quadrangularis*	Vitaceae	LC
17.	Kovai	*Coccinia grandis*	Cucurbitaceae	Not Listed
18.	Mudakkotan	*Cardiospermum helicacabum*	Sapindaceae	Not Listed
19.	Nannari	*Hemidesmus indicus*	Asclepiadaceae	Not Listed
Creepers/ Grasses				
20.	Sithrapaalavi	*Euphorbia prostrata*	Euphorbiaceae	Not Listed
21.	Vallarai	*Merremia gangetica*	Convolvulaceae	LC
22.	Thumattikai	*Cucumis callosus*	Cucurbitaceae	Not Listed
23.	Kattu kanchippul	*Apluda mutica*	Poaceae	Not Listed
24.	Korai	*Cyperus rotandus*	Poaceae	Not Listed
25.	Chevvarakupul	*Chloris barbata*	Amaranthaceae	Not Listed

NE- Not evaluated; LC- Least Concern, NT –Near Threatened, T-Threatened

Table 3.21 Species Richness (Index) in mine lease area

Details	H	H max	Evenness	Species Richness
Trees	0.97	1.10	0.89	0.96
Shrubs	1.69	1.79	0.94	1.70
Herbs	1.90	1.95	0.98	1.53

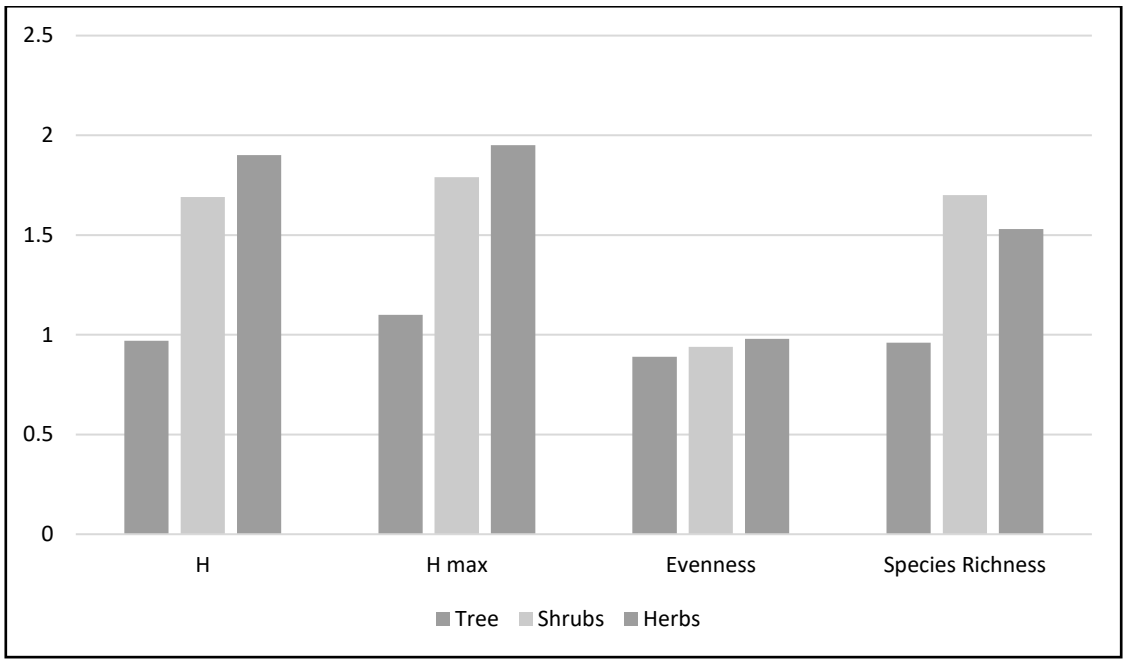


Figure 3.25 Species Richness (Index) in Mine Lease area

Table 3.22 Flora in Buffer Zone

S. No	Local name	Scientific name	Family Name	IUCN Conservation Status
Trees				
1.	Velikathan maram	*Prosopis juliflora*	Fabaceae	Not Listed
2.	Pongam oiltree	*Pongamia pin nata*	Fabaceae	Not Listed
3.	Panai maram	*Borassus flabellifer*	Arecaceae	Not Listed
4.	Nuna maram	*Morinda citrifolia*	Rubiaceae	Not Listed
5.	Vembu	*Azadirachtaindica*	Meliaceae	LC
6.	Manga maram	*Mangifera indica*	Anacardiaceae	Not Listed
7.	Thennai maram	*Cocos nucifera*	Arecaceae	Not Listed
8.	Wetpalai maram	*Wrightia tinctoria*	Apocynaceae	Not Listed
9.	Unjai maram	*Albizia amara*	Fabaceae	Not Listed
10.	Neruppu Kondrai	*Delonix regia*	Fabaceae	LC
11.	Kodukkapuli maram	*Pithecellobium dulce*	Fabaceae	Not Listed
12.	Teak	*Tectona grandis*	Lamiaceae	Not Listed
13.	Savukku	*Casuarina equisetifolia*	Casuarinaceae	Not Listed
14.	Thailamaram	*Eucalyptus*	Myrtaceae	Not Listed
15.	Puliyamaram	*Tamarindus indica*	Fabaceae	Not Listed
16.	Arasanmaram	*Ficus religiosa*	Moraceae	Not Listed
17.	Puliyamaram	*Calophyllu inophyllum*	Calophyllaceae	Not Listed
18.	Athi	*Ficus recemosa*	Moraceae	Not Listed
19.	Vazhaimaram	*Musa*	Musaceae	Not Listed
20.	Kadukkai	*Terminalia chebula*	Combretaceae	Not Listed
21.	Nettilinkam	*Polylathia longifolia*	Annonaceae	Not Listed
22.	Sapota	*Manilkara zapota*	Sapotaceae	Not Listed
23.	Navalmaram	*Sygygium cumini*	Myrtaceae	Not Listed
24.	Ezhumuchaipalam	*Citrus lemon*	Rutaceae	Not Listed
25.	Alamaram	*Ficus benghalensis*	Moraceae	Not Listed
26.	Nelli	*Emblica officinalis*	Phyllanthaceae	Not Listed
27.	Nettilinkam	*Polylathia longifolia*	Annonaceae	Not Listed
28.	Vadanarayani	*Delonix elata*	Fabaceae	Not Listed

29.	Marudaani	*Lawsonia inermis*	Lythraceae	Not Listed
30.	Manja kadambai	*Adina cordifolia*	Rubiaceae	Not Listed
31.	Pappali maram	*Carica papaya L*	Caricaceae	Not Listed
32.	Nochi	*Vitex negundo*	Verbenaceae	Not Listed
33.	Vilvam	*Aegle marmelos*	Rutaceae	Not Listed
34.	Kariveppilai	*Murraya koenigii*	Asclepiadaceae	Not Listed
Shrubs				
35.	Unichedi	*Lantana camara*	Verbenaceae	Not Listed
36.	Sundaika	*Solanum torvum*	Solanaceae	Not Listed
37.	Erukku	*Calotropis gigantea*	apocynaceae	Not Listed
38.	Avarai	*Senna auriculata*	Fabaceae	Not Listed
39.	Sappathikalli	*Cereus pterogonus*	Cactus	Not Listed
40.	Kattamanaku	*Jatropha gossypiifolia*	Euphorbiaceae	Not Listed
41.	Nochi	*Vitex negundo*	Lamiaceae	Not Listed
42.	Idlipoo	*xoracoc cinea*	Rubiaceae	Not Listed
43.	Neermulli	*Hydrophila auriculata*	Acanthaceae	Not Listed
44.	Chaturakalli	*Euphorbia antiquorum*	Euphorbiaceae	Not Listed
45.	Thuthi	*Abutilon indicum*	Meliaceae	Not Listed
46.	Chemparuthi	*Hibiscu rosa-sinensis*	Malvaceae	Not Listed
Herbs/ Climber				
47.	Ponnangani	*Alternanthera pungens*	Amaranthaceae	Not Listed
48.	Wild thulasi	*Hyptis suaveolens (L.)*	Lamiaceae	Not Listed
49.	Gopuram Tangi	*Andrographis echioides*	Acanthaceae	Not Listed
50.	Amman Paccharisi	*Euphorbia hirta*	Euphorbiaceae	Not Listed
51.	Paca poondu	*Pavonia gallaensis*	Malvaceae	Not Listed
52.	Perandai	*Cissus quadrangularis*	Vitaceae	Not Listed
53.	Vishnukrandai	*Evolvulus alsinoides*	Convolvulaceae	Not Listed
54.	Musumusukkai	*Mukia maderaspatana*	Cucurbitaceae	Not Listed
55.	Sirupunaikkali	*Passiflora foetida*	Passifloraceae	Not Listed
56.	Nagathali	*Opuntia dillenii*	Cactaceae	Not Listed
57.	Thumbai	*Leucas aspera*	Lamiaceae	Not Listed
58.	Kantang kathrikai	*Solanum virginianum*	Solanaceae	LC

Creepers/ Grasses				
59.	Sithrapaalavi	*Euphorbia prostrata*	Euphorbiaceae	Not Listed
60.	Vallarai	*Merremia gangetica*	Convolvulaceae	Not Listed
61.	Thumattikai	*Cucumis callosus*	Cucurbitaceae	Not Listed
62.	Siru puladi	*Desmodium triflorum*	Fabaceae	Not Listed
63.	Vallikeerai	*Ipomoea aquatica*	Convolvulaceae	Not Listed
64.	Malli	*Jasminum augustifolium*	Oleaceae	Not Listed
65.	Sangupoo	*Clitoriaternatia*	Fabaceae	Not Listed
66.	Mudakkotan	*Cardiospermum helicacabum*	Sapindaceae	Not Listed
67.	Kattu kanchippul	*Apluda mutica*	Poaceae	Not Listed
68.	Korai	*Cyperus rotandus*	Poaceae	Not Listed
69.	Chevvarakupul	*Chloris barbata*	Amaranthaceae	Not Listed
70.	Arugampul	*Cynodon dactylon*	Poaceae	Not Listed
71.	Chevvarakupul	*Chloris barbata*	Amaranthaceae	Not Listed
72.	Nagathali	*Opuntia dillenii*	Nagathali	Not Listed
73.	Kala Pullu	*Eragrostis ferruginea*	Poaceae	Not Listed

NE- Not evaluated; LC- Least Concern, NT –Near Threatened, T-Threatened

3.6.7 Fauna

The faunal survey was carried out for Mammals, Birds, Reptiles, Amphibians and Butterflies. All the listed species were compared with Red Data Book and Indian Wildlife Protection Act, 1972. There are no rare, endangered, threatened (RET), and endemic species present in the core area.

Table 3.23 Methodology applied during survey of fauna

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

Fauna Composition in Core Zone

A total of 26 varieties of species were observed in the Core zone (Table.3.24). Among them are 8 Insects, 5 Reptiles, 4 Mammals and 9 Avian. A total of 26 species belonging to 20 families were recorded from the core area. The study shows that number of species decreases towards the mining area. This might be due the lack of vegetation. None of these species in the core zone are threatened or endemic. The survey was conducted to identify species listed in IUCN Red List. According to the field data, any species are not of Schedule I and nine species are of schedule IV. There are no critically endangered, endangered, vulnerable and endemic species were observed. Details of fauna in core zone with the scientific name were mentioned in Table 3.24.

Fauna Composition in Buffer Zone

A total of 50 species belonging to 36 families have been recorded from the buffer zone area (Table.3.25). Based on habitat classification the majority of species were Birds 15 (30%), followed by Insects 14 (28%), Reptiles 13 (26%), Mammals 5 (10%) and Amphibians 3 (6%). There are 7 Schedule II species and 27 species are under schedule IV according to Indian wild life Act 1972. A total fifteen species of bird were sighted in the study area. There are no critically endangered, endangered, vulnerable and endemic species were observed.

Table 3.24 Fauna in Core Zone

S. No	Common name/English Name	Family Name	Scientific Name	Schedule list wildlife protection act 1972	IUCN Red List data
Reptiles					
1	Garden lizard	Agamidae	*Calotes versicolor*	NE	NE
2	Common house gecko	Gekkonidae	*Hemidactylus frenatus*	NE	NE
3	Rat snake	Colubridae	*Ptyas mucosa*	Sch II (Part II)	LC
4	Common krait	Elapid snakes	*Bungarus caeruleus*	Schedule IV	LC
5	Fan-Throated Lizard	Agamidae	*Sitanaponticeriana*	NL	LC
Insects					
1	Plain Tiger	Nymphalidae	*Dananuschrysippus*	NL	LC
2	Tawny coster	Nymphalidae	*Danaus chrysippus*	Schedule IV	LC
3	Red-veined darter	Libellulidae	*Sympetrum fonscolombii*	NE	LC
4	Grasshopper	Acrididae	*Hieroglyphus sp*	NL	LC
5	Termite	Blattodea	*Hamitermes silvestri*	NE	LC
6	Blue tiger	Nymphalidae	*Tirumala limniace*	Schedule IV	LC
7	Striped tiger	Nymphalidae	*Danaus plexippus*	Schedule IV	LC
8	Ant	Formicidae	*Camponotus vicinus*	NL	NL
Mammals					

1	Indian Field Mouse	Muridae	*Mus booduga*	Schedule IV	LC
2	Asian Small Mongoose	Herpestidae	*Herpestes javanicus*	Schedule II	LC
3	Rat	Murids	*Rattusrattus*	Schedule IV	LC
4	Rat snake	Colubridae	*Ptyas mucosa*	Sch II (Part II)	LC
Avian					
1	Common myna	Sturnidae	*Acridotheres tristis*	NE	LC
2	Black drongo	Dicruridae	*Dicrurus macrocercus*	NE	LC
3	Koel	Cucalidae	*Dynamism scolopaceus*	Schedule IV	LC
4	Common cuckoo	Cucalidae	*Cuculus canorus*	NE	LC
5	House crow	Corvidae	*Corvus splendens*	NE	LC
6	Crow Pheasant	Cucalidae	*Centropus sinensis*	Schedule IV	LC
7	Rose-ringed parakeet	Psittaculidae	*Psittacula krameri*	Schedule IV	LC
8	Asian green bee-eater	Meropidae	*Meropsorientalis*	NL	LC
9	Cattle egret	Ardeidae	*Bubulcus ibis*	NE	LC

*NE- Not evaluated; LC- Least Concern, NT –Near Threatened, T-Threatened

Table 3.25 Fauna in Buffer Zone

S. No	Common name/ English Name	Family Name	Scientific Name	Schedule list wildlife Protection act 1972	UCN Red List data
Insects					
1	Honey bee	Apidae	*Apis cerana*	Schedule IV	LC
2	Blue tiger	Nymphalidae	*Tirumala limniace*	Schedule IV	LC
3	Common Indian crow	Nymphalidae	*Euploea core*	Schedule IV	LC
4	Tawny coster	Nymphalidae	*Danaus chrysippus*	Schedule IV	LC
5	Grasshopper	Acrididae	*Hieroglyphus sp*	NL	LC
6	Jewel beetle	Buprestidae	*Eurythyrea austriaca*	Schedule IV	LC
7	Red-veined darter	Libellulidae	*Sympetrum fonscolombii*	NL	LC
8	Ant	Formicidae	*Camponotus vicinus*	NL	LC
9	Praying mantis	Mantidae	*mantis religiosa*	NL	LC
10	Dragonfly	Gomphidae	*Ceratogomphus pictus*	Schedule IV	LC
11	Milkweed butterfly	Nymphalidae	*Danainae*	NL	LC
12	Striped tiger	Nymphalidae	*Danaus plexippus*	Schedule IV	LC
13	Lesser grass blue	Lycaenidae	*Zizina otis indica*	Schedule IV	LC
14	Common Tiger	Nymphalidae	*Danaus genutia*	Schedule IV	LC
Reptiles					
1	Garden lizard	Agamidae	*Calotes versicolor*	NL	LC
2	Chameleon	Chamaeleonidae	*Chameleon zeylanicus*	Schedule II	LC
3	Fan-Throated Lizard	Agamidae	*Sitanaponticeriana*	NL	LC
4	Common house gecko	Gekkonidae	*Hemidactylus frenatus*	NL	LC
5	Rat snake	Colubridae	*Ptyas mucosa*	Sch II (Part II)	LC
6	Olive keel back water snake	Natricidae	*Atretium schistosum*	Sch II (Part II)	LC
7	Whip Snake	Elapidae	*Dryphis nasutus*	Sch II (Part II)	LC

8	Common krait	Elapid snakes	*Bungarus caeruleus*	Schedule IV	LC
9	Indian wall lizard	Gekkonidae	*Hemidactylus flaviviridis*	Schedule IV	NL
10	Saw scaled viper	Elapidae	*Echis carinatus*	Sch II (Part II)	LC
11	Brahminy skink	Scincidae	*Eutropis carinata*	NL	LC
12	Scincidae	Viperidae	*Vipera russseli*	Sch II (Part II)	LC
13	Common skink		*Mabuya carinatus*	NL	LC
Mammals					
1	Indian palm squirrel	Sciuridae	*Funambulus palmarum*	Schedule IV	LC
2	Indian Field Mouse	Muridae	*Mus booduga*	Schedule IV	LC
3	Indian hare	Leporidae	*Lepus nigricollis*	Schedule IV	LC
4	Asian Small Mongoose	Herpestidae	*Herpestes javanicus*	Schedule (Part II)	LC
5	Brown rat	Muridae	*Rattus norwegicus*	Schedule IV	LC
Aves					
1	Koel	Cucalidae	*Eudynamys*	Schedule IV	LC
2	Cattle egret	Ardeidae	*Bubulcus ibis*	NL	LC
3	Common myna	Sturnidae	*Acridotheres tristis*	NL	LC
4	House crow	Corvidae	*Corvussplendens*	NL	LC
5	Asian green bee-eater	Meropidae	*Meropsorientalis*	NL	LC
6	Red-vented Bulbul	Pycnonotidae	*Pycnonotuscafer*	Schedule IV	LC
7	Rose-ringed parkeet	Psittaculidae	*Psittacula krameri*	Schedule IV	LC
8	Shikra	Accipitridae	*Accipiter badius*	NL	LC
9	Common quail	Phasianidae	*Coturnix coturnix*	Schedule IV	LC
10	Black drongo	Dicruridae	*Dicrurus macrocercus*	Schedule IV	LC
11	Two-tailed Sparrow	Dicruridae	*Passer domesticus*	Schedule IV	LC
12	Grey Francolin	Phasianidae	*Francolinus pondicerianus*	Schedule IV	LC
13	Common Quail	Phasianidae	*Coturnix coturnix*	Schedule IV	LC
14	White-breasted waterhen	Rallidae	*Amaurornis phoenicurus*	NL	LC
15	Common Coot	Rallidae	*Fulica atra*	Schedule IV	LC
Amphibians					
1	Indian Burrowing frog	Dicroglossidae	*Sphaerotheca breviceps*	Schedule IV	LC
2	Pond Frog	Ranidae	*Rana hexadactyla*	Schedule IV	LC
3	Tiger Frog	Chordata	*Hoplobatrachus tigerinus (Rana tigerina)*	Schedule IV	LC

**NL-Not listed, LC-Least concern, NT-Near threatened*

3.6.8 Aquatic Vegetation

The field survey for assessing the aquatic vegetation was also undertaken during the study period. Fish is commonly found in all types of natural water bodies and very common source of food in Easterner South India. The local fishermen were enquired and also the secondary resources were reviewed to collect information on the fishes found in the study area. Few common species are; *Catla (Catla catla), Channa striata, Oreochromis niloticus.*

Table 3.26 Aquatic Fauna and Flora

Sl. No	Common Name	Scientific name	Family Name	IUCN Red List of Threatened Species
Flora				
1	Water hyacinth	*Eichornia crassipes*	Pontederiaceae	NA
2	Blue waterlily	*Nymphaea nouchali*	Nymphaeaceae	LC
3	Cross Grass	*Carex cruciata*	Cyperaceae	NA
4	Scutch grass	*Cynodon dactylon*	Poaceae	LC
Fauna				
5	Thilopia	*Oreochromis niloticus*	Cichlidae	LC
6	Catla	*Catla*	Cyprinidae	LC
7	Koravi meen	*Channa striata*	Channidae	LC
8	Roghu	*Labeo rohita*	Cyprinidae	LC

*LC- Least Concern, NA-Not yet assessed

Phytoplankton's:

Microcystis, Nitzschia, Oscillatoria, Navicula and Pediastrum sps.

Zooplanktons:

These consist of microscopic organisms from groups Protozoa, Rotifers, Cladocera and Copepoda etc. Some common species of zooplanktons are; *Deflandre, Arcella vulgaris, Centropyxis spinosa Arcella discoides, Arcella hemispherica, Centropyxis aculeate, Trigonopyxis arcula, Brachionus calyciflorus, Lecane curvicornis, Brachionus angularis, Polyarthra vulgaris, Filinia longiseta.*

Food chain

The food chain in aquatic ecosystems often begins with the algae or phytoplankton producers, and then the zooplankton that feed on them. This type of food chain is found in nearby lakes and rivers with phytoplankton, zooplankton, fish Artiola gray and humans.

Ex: Phytoplankton→ Zooplankton→ small fish→ large fish → Human

Agriculture & Horticulture in Karur district:

The principal crops of the district are paddy, millets, pulses, oilseeds, sugarcane and banana. The major paddy area is in Kulithalai and Krishnarayapuram taluks. Pulses are grown in rice fallow areas. In uplands millets like sorghum, pearl millet pulses such as red gram, horse gram oilseeds such as groundnut, gingelly and sunflower are grown both under irrigated and rain fed conditions.

Major Agricultural Crops

Major horticulture crops cultivated in this district are vegetables crops like tomato, brinjal, chillies, onion and turmeric. Details of major field crops and Agricultural in 1km radius is given in Table. 3.27.

Table 3.27 Major Crops in 1km radius

S. No	Major crops	Scientific name	Families
1	Sorghum	*Sorghum bicolor*	Poaceae
2	Gingelly	*Sesamum indicum*	Pedaliaceae
3	Groundnut	*Arachis hypogaea*	Legumes
4	Millets	*Panicum miliaceum L*	Poaceae
5	Sesame	*Sesamum indicum*	Pedaliaceae
6	Cotton	*Gossypium herbaceum*	Malvaceae

Major Horticulture Crops

Horticulture includes cultivation of fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, seaweeds and non-food crops such as grass and ornamental trees and plants. It also includes plant conservation, landscape restoration, landscape and garden design.

Horticulture

Major horticulture crops cultivated in Karur district are fruit crops like Banana & Gloriosa lily. Moringa and Banana cultivation and other prominent crops under cultivation are Tapioca, Gloriosa, Betelvine, Jasmine, Ixora, Coconut and other vegetable crops. Thanthoni, Aravakurichi, Kadavur and K. Paramathy were major vegetable growing region and Thogamalai, Krishnarayapuram, Kulithalai were major Banana growing region and Karur block was major Coconut growing region. Details of major field crops and horticulture cultivation in 1km radius is given in Table 3.28.

Table 3.28 Major Field Crops & Horticulture cultivation in 1km radius.

S. No	Common Name	Scientific Name	Family
Major Horticultural Crops			
1.	Tapioca	*Manihot esculenta*	Euphorbiaceae
2.	Gloriosa	*Gloriosa superba*	Sapotaceae
3.	Lemon	*Citrus limon*	Rutaceae
4.	Papaya	*Carica papaya*	Caricaceae
5.	banana	*Musa × paradisiaca*	Musaceae
Vegetables			
6.	Onion	*Allium cepa*	Amaryllidaceae
7.	Tapioca	*Manihot esculenta*	Spurges
8.	Brinjal	*Solanum melongena*	Nightshade
9.	Tomato	*Solanum lycopersicum*	Nightshade
10.	Moringa	*Moringa oleifera*	Moringaceae
11.	Tomato	*Solanum lycopersicum*	Nightshade

3.7 SOCIO ECONOMIC ENVIRONMENT

The major developmental activities in the mining and industrial sector are crucial for economic development and the creation of direct and indirect employment opportunities. These activities also fulfil society's basic and modern needs of the society, ultimately improving the quality of life through advancements in social, economic, health, education, and nutritional status within the project region, state, and country. In this manner all developmental projects have direct as well as indirect relationships with socioeconomic aspects, which also include public acceptability for developmental projects. Thus, the study of socio-economic environment component incorporating various facets related to prevailing social and cultural conditions and economic status of the mining (rough stone quarry) project region is an important part of the EIA study. The study of these parameters helps in identification, prediction and evaluation of the likely impacts on the socio-economics and parameters of human interest due to the project.

3.7.1 Objectives of the Study

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

a) To study the socio-economic status of the people living in the study area of the project.
b) To identify the basic needs of the nearby villages within the study area.
c) To assess the impact on socio-economic environment due to the project.
d) To provide the employment and improved living standards.
e) To analysis of impact of socio economic and Environmental Infrastructure facilities and road accessibility.

3.7.2 Methodology

The study employed cluster sampling to outline two zones around the proposed project site: Zone 1 (Core Zone, 0-1 km radius) and Zone 2 (Low Impact Zone, 1–5 km radius). The primary data collection was conducted through structured interviews, field observation, and focus group discussions with the local people of in Punnam Village, Pugalur Taluk of Karur District, Tamil Nadu. The secondary data were collected from the Census report 2011 and official records, covering demographics and basic services including information on population, number of households, literacy rates, sex ratios, worker details and the availability of basic services. This study covers the positive and negative impacts of the project's establishment, and provides recommendations for analysing and mitigating adverse effects. The study areas are illustrated in Figure 3.23.

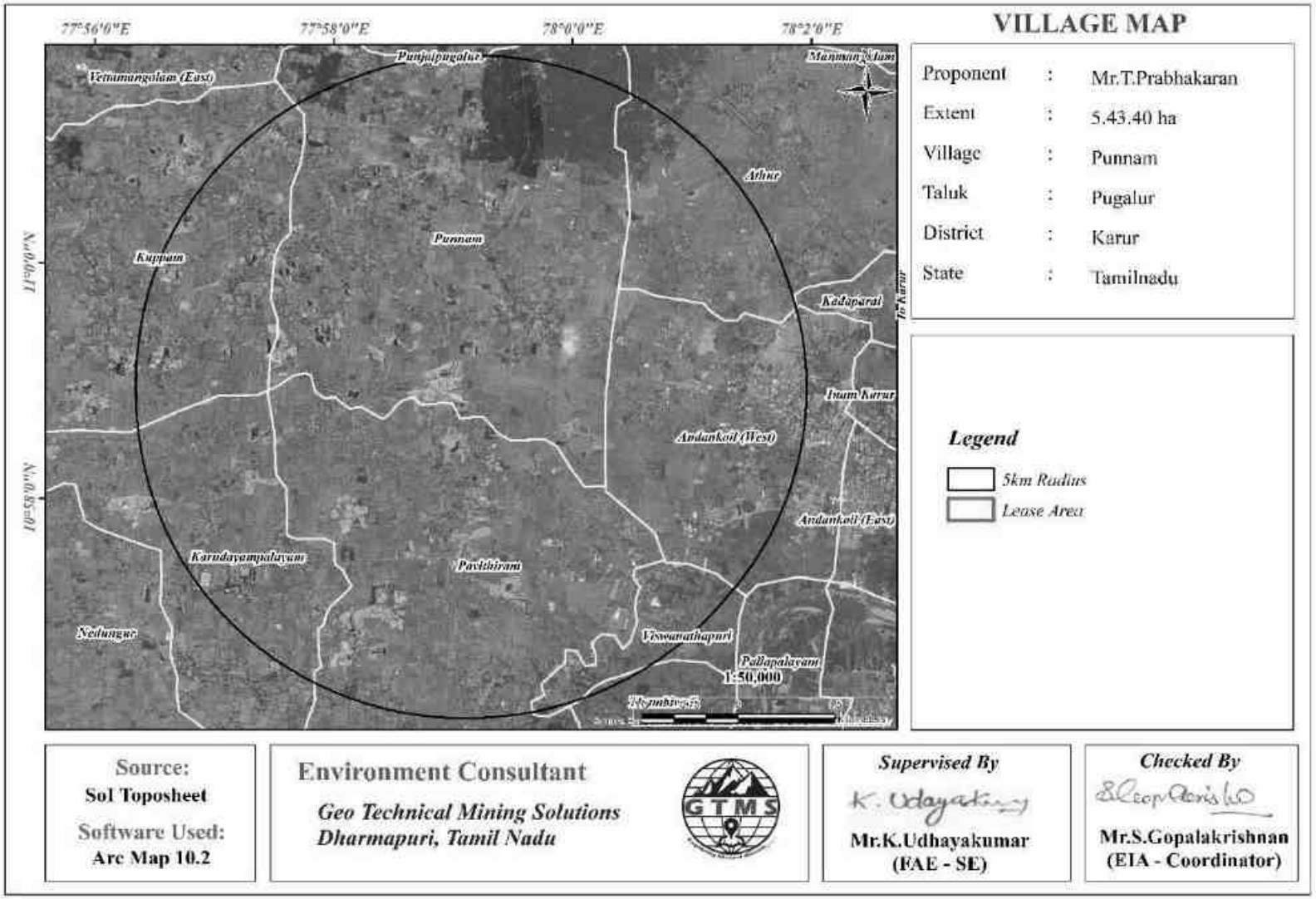


Figure 3.26 Village Boundaries within 1 km and 5 km Radius of the Project Lease are

3.7.3 Demographic Profile of Karur District

Karur District is centrally located in the state of Tamil Nadu. It lies between 10.45° and 11.45° North latitude and 77.45° and 78.07° East longitude, covering a total geographical area of 2,895.57 sq. km. The district is bounded by North: Namakkal, South: Dindigul District West: Erode District and East: Tiruchirappalli District. Karur is situated along National Highway 7 (NH7), which connects the northern and southern terminals of India. The district is geographically positioned at the centre of Tamil Nadu between Coimbatore (Manchester City) in the west, Thanjavur (Paddy Land) in the east, Salem (Steel City) in the north, and Madurai (Temple City) in the south. Its neighbouring districts are Namakkal, Dindigul, Erode, and Tiruchirappalli.

Population Characteristics

According to the Census of India 2011, the total population of Karur District was 1,064,493, comprising 528,184 males and 536,309 females. In the 2001 Census, the population was 935,686 (465,538 males and 470,148 females). This represents a population growth rate of 13.77% between 2001 and 2011, compared to a 9.54% increase recorded between 1991 and 2001. Karur District accounts for approximately 1.48% of Tamil Nadu's total population.

Literacy

The average literacy rate of Karur District in 2011 was 75.60%, which is higher than the national average of 59.5%. The Male literacy is 84.54% and Female literacy is 66.86% respectively. In 2001, the literacy rates were 79.63% for males and 56.76% for females. The total number of literates in 2011 was 727,044 comprising 401,726 males and 325,318 females as compared to 566,728 literates in 2001.

Sex Ratio and Child Population

The sex ratio of Karur District in 2011 was 1,015 females per 1,000 males, slightly higher than 1,010 in 2001 and above the national average of 940. The child sex ratio (for children below 6 years) was 939 girls per 1,000 boys, compared to 930 in 2001. Children under six years of age constitute about 10% of the total population.

Workforce Composition

Karur District's economy is predominantly agrarian, with a large share of its population engaged in rural and agricultural activities. Male workers: 59% of total workforce, Rural workers: 72% of total workforce and Cultivators and agricultural labourers: 51% of total workforce. This composition highlights the district's dependence on agriculture and allied rural occupations for livelihood.

Karur District demonstrates robust demographic and socio-economic characteristics. The district records a high literacy rate, a favourable sex ratio, and balanced population growth between genders. Its economy is predominantly rural and agriculture-based, reflecting the importance of primary sector activities in local livelihoods. The district's strategic central location, coupled with its fertile river systems and rising educational standards, provides a strong foundation for sustained socio-economic growth and development in the years to come.
Source: census2011.co.in/census/district/35-karur.html

3.7.4 Profile of Study Area - Punnam Village

Punnam is a large village situated in the Pugalur Taluk of Karur District, Tamil Nadu. According to the Census of India, 2011, the village comprises 1,452 households with a total population of 5,446, of which 2,839 are males and 2,607 are females. Children aged 0–6 years constitute 427 individuals, accounting for 7.84% of the total population. The average sex ratio in Punnam is 918 females per 1,000 males, which is lower than the Tamil Nadu state average of 996. Similarly, the child sex ratio stands at 802 girls per 1,000 boys, also below the state average of 943.

Literacy Rate

The literacy rate in Punnam Village is 73.30%, which is lower than the Tamil Nadu state average of 80.09%. The male literacy rate is 84.86%, while the female literacy rate is 60.86%, indicating a noticeable gender gap in educational attainment. The demographic profile of Punnam Village including household data, population statistics, literacy levels, child population, caste composition, and workforce distribution is presented in Table 3.30.

Caste Composition

In terms of social composition, Scheduled Castes (SC) constitute 16.64% of the total population in Punnam Village. There is no Scheduled Tribe (ST) population recorded in the village as per the 2011 Census.

Workforce Profile

Out of the total population, 2,718 individuals are engaged in various work activities. Among them, 98.05% are classified as Main Workers (those employed for more than six months in a year), while 1.95% are Marginal Workers (engaged in work for less than six months). Within the main workforce, 731 persons are cultivators (owners or co-owners of agricultural land), and 632 persons are agricultural labourers. This highlights the predominance of agriculture as the key source of livelihood in the village.

Table. 3.29 Demographic Status of Punnam Village

Particulars	Total	Male	Female
Total No. of Houses	1,452	-	-
Population	5,446	2,839	2,607
Child (0-6)	427	237	190
Schedule Caste	906	468	438
Schedule Tribe	0	0	0
Literacy	73.30 %	84.86 %	60.86 %
Total Workers	2,718	1,531	1,187
Main Worker	2,665	-	-
Marginal Worker	53	27	26

Source: https://www.census2011.co.in/data/village/635496-punnam-tamil-nadu.html

The village presents a predominantly agrarian economy, with most residents engaged in cultivation and agricultural labour. Despite its lower literacy rate compared to the state average, the village shows a relatively strong level of male literacy. However, gender disparity es in education and a low sex ratio remain key demographic challenges. The village's workforce structure underscores its dependence on agriculture and highlights the need for enhanced educational and employment opportunities to promote balanced rural development.

Demographic Structure of the Study Villages

The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as medical facilities, conveyance, free education, drinking water supply etc. The number of villages and human settlements within a radius of 5 km from the project site along with population, their education level etc. The demographic data presented in Table 3.33 provides a detailed overview of the population characteristics of nine villages in the study area. The parameters include the number of houses, gender-wise population, child population (0–6 years), Scheduled Caste (SC) and Scheduled Tribe (ST) composition, literacy rate, and total workers (by gender). This data helps to understand the population structure, social composition, literacy patterns, and workforce participation across the selected villages.

Distribution of Households and Population

The gender-wise population distribution across the nine study villages shows variation in both population size and gender balance. Punjaipugalur is the largest village, with 10,143 males and 10,166 females, indicating a nearly equal gender ratio and reflecting its status as a

major demographic centre. Pavithiram, Athur, and Punnam are medium-sized villages, each having slightly more females than males, which suggests a balanced or slightly female-skewed population in these areas. The villages like Kuppam, Andankoil (West), Karudayampalayam, Viswanathapuri, and Thumbivadi have populations under 2,000, with some, such as Viswanathapuri, showing a noticeable female majority (668 females vs. 584 males). Overall, the data indicates a relatively balanced gender distribution across the study area, with larger villages concentrating most of the population and smaller villages showing a dispersed rural settlement pattern.

Child Population (0–6 years)

The proportion of children under six years provides insight into the dependency ratio and growth trends. Among the villages, Punjaipugalur again records the highest child population with 2,225 children (1,118 males and 1,107 females), whereas Viswanathapuri has the lowest, with only 157 children (78 males and 79 females). This variation suggests differences in fertility rates and family size across villages, with larger villages generally showing higher proportions of young children.

Social Composition (SC/ST People)

The Scheduled Caste (SC) population is present in all villages, while Scheduled Tribe (ST) representation is negligible. The largest SC population is observed in Punjaipugalur (2,745 persons: 1,329 males and 1,416 females), followed by Pavithiram (1,413 persons: 708 males and 705 females). In contrast, Viswanathapuri records the highest percentage of SC population relative to its total population (approximately 41%), reflecting a significant social concentration. Scheduled Tribe (ST) populations are nearly absent in the study area, except for Punjaipugalur and Andankoil (West), where they are represented by a very small number (less than 0.1% of the total population).

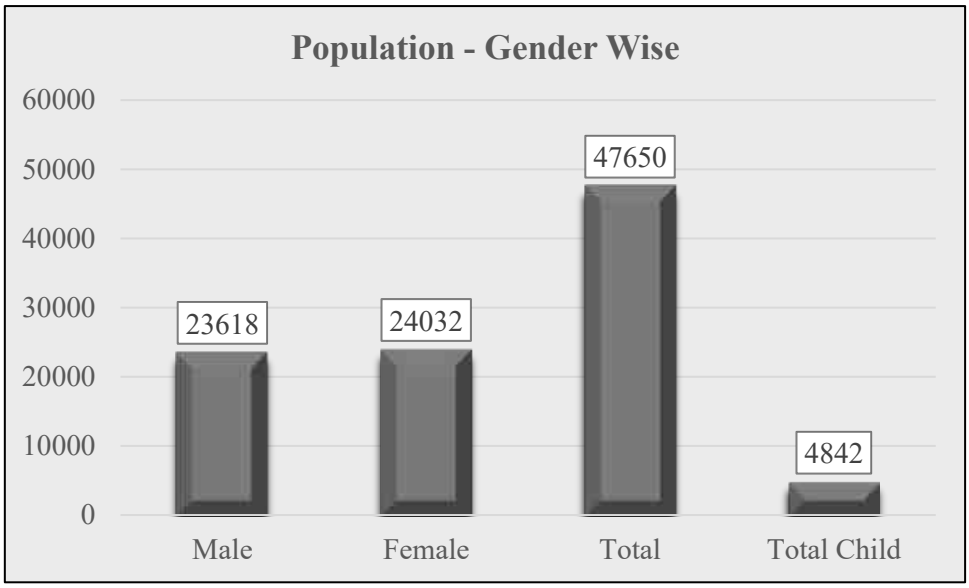
Literacy Rate

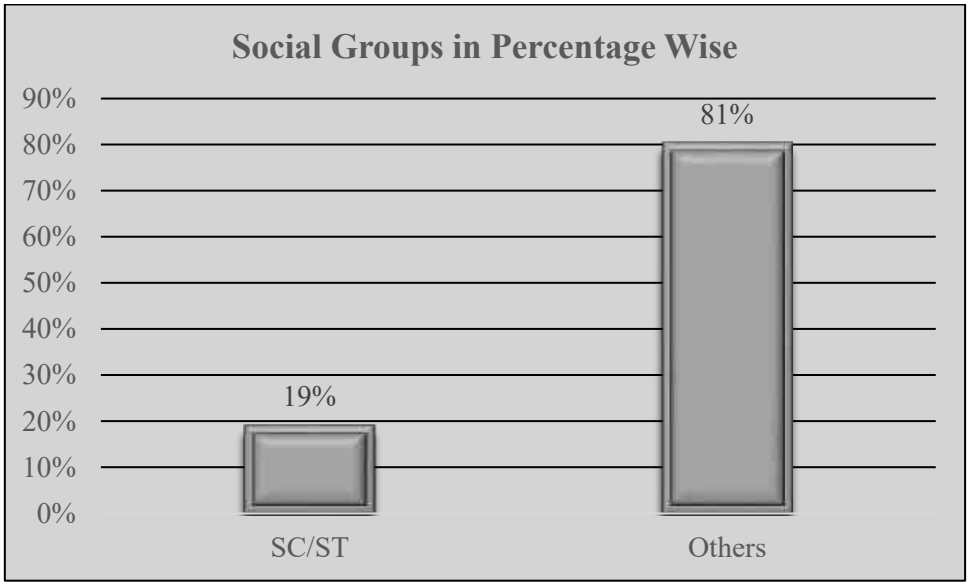
Literacy is an important indicator of socio-economic development. The literacy rates vary considerably among the villages. Punjaipugalur shows the highest number of literates, with 14,004 individuals (7,869 males and 6,135 females), owing to its urban proximity and educational facilities. Pavithiram also records a relatively high literacy count of 3,054 literates (1,849 males and 1,205 females). In contrast, Viswanathapuri has the lowest number of literates (686 total), which may be due to its smaller population size and limited access to educational infrastructure. The literacy rates are higher among males than females across all villages, indicating a persistent gender gap in education.

Table 3.30 Demographic Profile of the Study Area

Village Name	No. of Houses	Population in Gender wise		Child (0-6)		Schedule Caste		Schedule Tribe		Literacy Rate		Total Workers	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Punjaipugalur	5477	10143	10166	1118	1107	1329	1416	3	1	7869	6135	6346	3127
Athur	1302	2303	2398	230	249	478	486	0	0	1556	972	1595	1315
Punnam	1175	2044	2058	244	191	359	371	0	0	1299	794	1380	932
Kuppam	1026	1756	1747	146	128	335	348	0	0	1270	732	1257	1169
Andankoil (West)	944	1735	1803	168	177	161	172	2	2	1302	973	1151	703
Pavithiram	1642	2908	2986	314	260	708	705	0	0	1849	1205	2049	1666
Karudayampalayam	586	997	1022	88	75	192	202	0	0	620	346	715	741
Viswanathapuri	370	584	668	78	79	536	616	0	0	406	280	388	311
Thumbivadi	710	1148	1184	105	85	395	397	0	0	784	473	797	684

Source: *Census Reports, Tamil Nadu – 2011.*





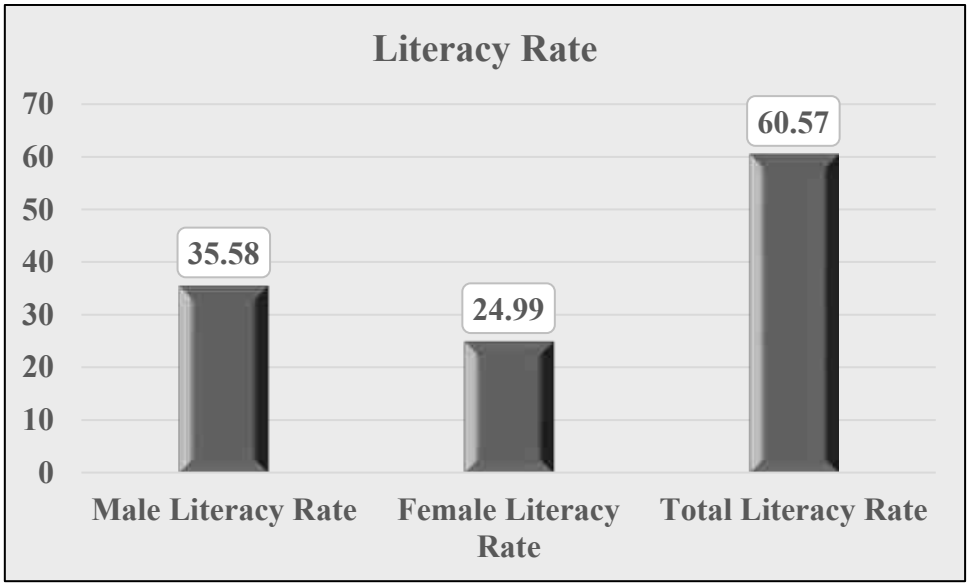


Figure 3.27: Details of the gender, social groups, and literacy rate in the study villages

3.7.5 Workforce Participation

The table 3.31 provides Workforce Participation pattern across the nine study villages of the study area reveals significant insights into the economic activities, gender distribution, and occupational structure of the local population. The workforce participation across the nine study villages highlights significant variations in economic activity, gender distribution, and occupational structure. Punjaipugalur has the largest workforce (9,473), with a high proportion of non-agricultural workers, reflecting urbanization and diverse livelihood opportunities. In contrast, smaller villages like Viswanathapuri and Karudayampalayam have smaller, agriculture-dependent workforces. Medium-sized villages such as Pavithiram, Athur, and Punnam show a mixed economic base, with substantial numbers of cultivators and agricultural laborers alongside other workers. Most villages have a majority of main workers, indicating stable employment, while marginal workers are comparatively few. The non-working population is significant, especially in larger villages, reflecting a high dependency ratio. The overall workforce profile indicates a semi-diversified economic structure, with larger villages moving toward non-agricultural employment and smaller villages remaining largely agrarian.

An analysis of main and marginal workers indicates that the majority of the workforce across all villages is engaged in main work, reflecting employment for six months or more. In Punjaipugalur, 8,799 out of 9,473 workers are main workers, while smaller villages like Thumbivadi and Karudayampalayam also maintain a majority of main workers. Marginal work, providing livelihood for less than six months, is relatively minor, highlighting the overall stability of economic engagement in the study area.

The non-working population is substantial in most villages, particularly in Punjaipugalur (10,836), indicating a high dependency ratio. This group likely includes children, elderly, and homemakers, emphasizing the social and economic responsibility borne by the active workforce. Smaller villages like Viswanathapuri also have considerable non-working populations, reflecting limited employment opportunities outside agriculture.

The demographic profile reveals heterogeneity in population size, literacy, and work participation, influencing economic activity and social conditions. Larger settlements demonstrate more developed socio-economic characteristics, whereas smaller villages are primarily agrarian. Figure 3.24 further visualizes population by gender, social composition, and literacy rate across the study villages, providing insights into their livelihood patterns and quality of life.

Table 3.31 Details of Workforce Participation of the Study Area

Village Name	Total Worker	Total Male Workers	Total Female Workers	Total Main Workers	Total Main Cultivators	Total Main Agricultural Labourers	Total Other Workers	Total Non-Workers
Punjaipugalur	9473	6346	3127	8799	326	3048	5101	10836
Athur	2910	1595	1315	2449	406	235	1683	1791
Punnam	2312	1380	932	2230	575	655	951	1790
Kuppam	2426	1257	1169	2412	1083	694	606	1077
Andankoil (West)	1854	1151	703	1471	303	150	959	1684
Pavithiram	3715	2049	1666	3323	1004	1059	1119	2179
Karudayampalayam	1456	715	741	1321	412	455	357	563
Viswanathapuri	699	388	311	693	155	435	102	553
Thumbivadi	1481	797	684	1115	343	345	286	851

Source: *Census Reports, Tamil Nadu – 2011.*

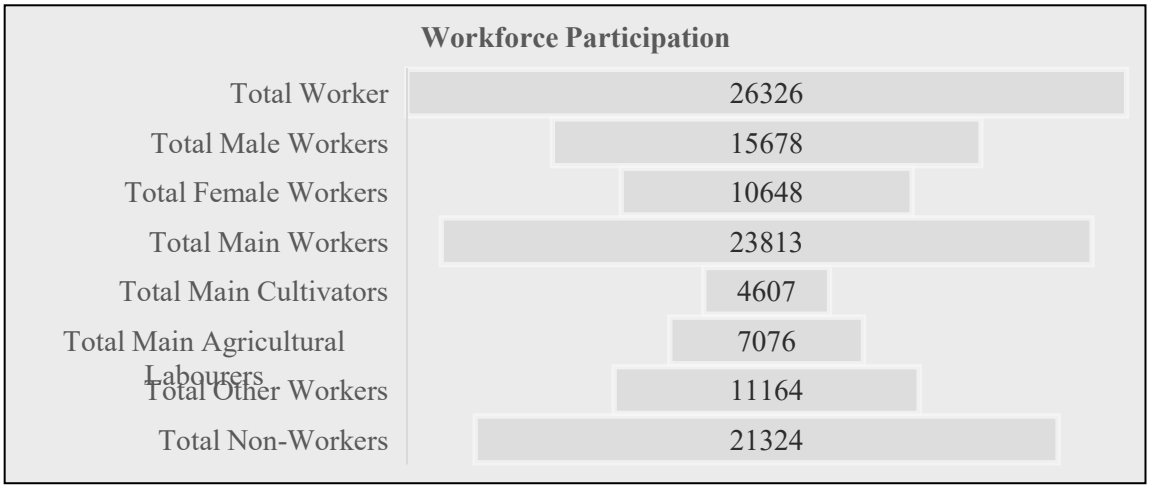


Figure 3.28 Details of Workforce in the Study Villages

Benifites of the Project

As per SEAC recommendation the project proponent should spend minimum of 5 lakhs to the nearby school from the proposed project site as part of CER cost. Also, the village panchayat will get direct benefit from the government through District mineral Resource fund (DMF) for infrastructure development activities. Also, the project will provide employment opportunities directly and indirectly to the villagers as well as to people in the surrounding areas.

- Awareness and Opinion of the People About the Project, to assess public awareness and opinions regarding the proposed project, the following key observations were recorded:
- During the survey, it was observed that only residents of nearby villages were aware of the proposed project, while those in more distant villages were largely unaware.
- People in the region expressed expectations that the project would generate employment opportunities and lead to improvements in education, transportation, and sanitation facilities provided by the project authorities.

Recommendation and Suggestion

The village development plans are made in consultation with the community through Gram Sabha; these appear to address the needs of the community. However, it may be noted that at the implementation stage these plans often are fraught with problem of inadequate funds, lack of proper planning, corruption, vested interests and political agendas. Hence while ascertaining the scope for convergence with the government activities, care must be taken to ascertain realistic possibilities for implementation.

- Women empowerment: Home based income generation activities, vocational training programs and common education centre for increasing the literacy rate.
- Education: Free uniform, construction of common rooms and library, computer education and physical education, furniture and equipment in schools, up-gradation of existing school infrastructure through the CSR funds.
- Agriculture/livestock: Infrastructure such as agricultural practices, electricity connections, assistance with buying improved tools and equipment, capacity building, supply and/or knowledge of better variety of seeds, pasture land development and trainings on animal husbandry & facility of veterinary doctor.
- Health: Improvements in sanitary conditions of villages, assistance with construction of latrines, improvement in drainage system, health camps and awareness campaigns for diseases like common cold, malaria, typhoid, tuberculosis, yellow fever and pneumonia. Repairing of PHCs and Anganwadi centres.
- People with disability: Establishment of centre for special education, sensitization of the community towards disabled and awareness on Government schemes.
- Marginalized Communities and Vulnerable Groups: While Developing an Action Plan, it is very important to identify the population who falls under the marginalized and vulnerable groups. So that special attention can be given to these groups with special provisions while making action plans.
- Connectivity: Transport connectivity to easiness accessibility to the region.
- Greenbelt: Establish a greenbelt and plant saplings around quarry boundaries, village schools, and village roads.

While developing an Action Plan, it is very important to identify the population who falls under the marginalized and vulnerable groups. So that special attention can be given to these groups with special provisions while making action plans.

Conclusion

This study was carried out the baseline socio-economic conditions of the study area. It examined parameters including the population, number of households, literacy rate, sex ratio, workforce details, and the availability of essential amenities like transportation, drinking water, road connectivity, and educational facilities. The study revealed both positive and negative socio-economic implications associated with the proposed project and cluster quarries. While potential environmental and social impacts must be addressed, the project is expected to provide significant economic benefits in terms of local employment and improved livelihood opportunities in directly and indirectly. Therefore, with the implementation of effective mitigation and management measures, the project can contribute positively to the socio-economic development of the area while minimizing adverse impacts.

3.8 TRAFFIC DENSITY

The traffic survey conducted based on the transportation route of material, the Rough Stone and gravel is proposed to be transported mainly through Village Road and Paramathi – Karur (NH-67) as shown in Table 3.32 and in Figure 3.26. Traffic density measurements were made continuously for 24 hours by visual observation and counting of vehicles under three categories, viz., Heavy motor vehicles, light motor vehicles and two/three wheelers. As traffic densities on the roads are high, two skilled persons were deployed simultaneously at each station. During each shift one person on either direction for counting the traffic. At the end of each hour, fresh counting and recording was undertaken. Direction for counting the traffic. At the end of each hour, fresh counting and recording was undertaken.

Table 3.32 Traffic Survey Locations

Station Code	Road Name	Distance and Direction	Type of Road
TS1	Village Road	0.42 Km-E	Village Road
TS2	Paramathi – Karur(NH-67)	2.49 Km- S	Paramathi – Karur(NH-67)

Source: On-site monitoring by GTMS FAE & TM

Table 3.33 Existing Traffic Volume

Station code	HMV		LMV		2/3 Wheelers		Total PCU
	No	PCU	No	PCU	No	PCU	
TS1	35	105	43	43	65	33	181
TS2	105	315	125	125	151	76	516

Source: On-site monitoring by GTMS FAE & TM

* PCU conversion factor: HMV (Trucks and Bus) = 3, LMV (Car, Jeep and Auto) = 1 and 2/3 Wheelers = 0.5

Table 3.34 Rough Stone Transportation Requirement

Transportation of Rough and Gravel per day		
Capacity of trucks	**No. of Trips per day**	**Volume in PCU**
15 tonnes	93	279

Source: Approved Mining Plan

Table 3.35 Summary of Traffic Volume

Route	Existing traffic volume in PCU	Incremental traffic due to the project	Total traffic volume	Hourly Capacity in PCU as per IRC –1960 guidelines
TS1	181	279	460	1200
TS2	516	279	795	1500

Source: On-site monitoring analysis summary by GTMS FAE & TM

- Due to these projects the existing traffic volume will not exceed the traffic limit. As per the IRC 1960 this existing village road can handle 1,200 PCU in hour and Major district road can handle 1500 PCU in hour. Hence there will not be any conjunction due to this proposed transportation.

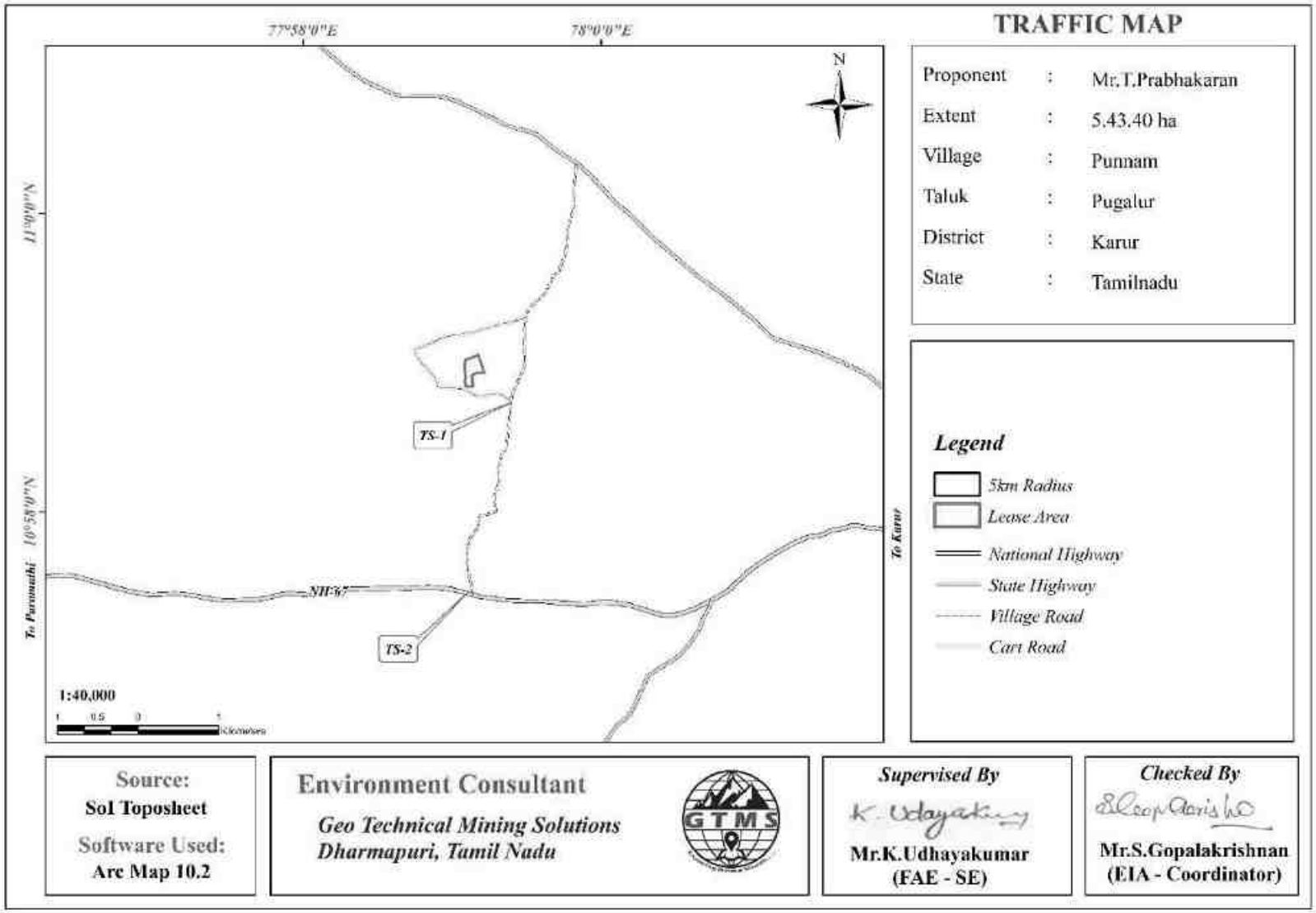


Figure 3.29 Traffic Density Map

3.9 SITE SPECIFIC FEATURES

There are no Wildlife Sanctuaries and National Park within 25 km radius. Therefore, there will be no need of acquisition/diversion of forest land. The details related to the environmentally sensitive areas around the proposed mine lease area i.e., 25 km radius and the nearby water bodies are given in the Table 3.36.

Table 3.36 Details of Environmentally Sensitive Ecological Features in the Study Area

S. No.	Sensitive Ecological Features	Name	Areal Distance in km
1	National Park / Wild life Sanctuaries	Vellode Bird Sanctuary	46.47Km - NW
		None	Nil within 10 km radius
2	Reserve Forest	Thathampalayam R.F	5.12Km - SE
		Vangal R.F	15.89Km - NE
3	Lakes/Reservoirs/ Dams/Streams/Rivers	Amaravathi River Bank	5.73Km - SE
		Kaveri River	9.66Km - NW
		Noyyal River	10.73Km - NW
		Karvazhi Noyyal Dam	18.32 - W
4	Tiger Reserve/Elephant Reserve/ Biosphere Reserve	None	Nil within 10 km radius
5	Critically Polluted Areas	None	Nil within 10 km radius
6	Mangroves	None	Nil within 10 km radius
7	Mountains/Hills	None	Nil within 10 km radius
8	Centrally Protected Archaeological Sites	None	Nil within 10 km radius
9	Industries/ Thermal Power Plants	None	Nil within 10 km radius
10	Defence Installation	None	Nil within 10 km radius

Source: Survey of India Toposheet

CHAPTER IV

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.0 GENERAL

The identification of potential environmental impacts is indeed the crucial first step in the Environmental Impact Assessment (EIA) process utilizing various techniques such as checklists, matrices and network diagrams to understand a project's effects. The matrix method used in this study provides a structured way to identify and assess the impacts ensuring the project can be implemented in an eco-friendly manner. This chapter discusses the anticipated impacts on land, soil, water, air, noise, biological and socioeconomic environments.

The proposed stone mining project involves blasting, drilling and screening operations which contribute to environmental impacts is given in Table 4.1. The project is designed to minimize these impacts by implementing mitigation measures and ensuring a marginal environmental footprint with a detailed analysis to follow in subsequent tables.

Table 4.1 Impact identification matrix.

Activities	**Environmental Attributes**								
	Land	**Soil**	**Water**	**Air**	**Noise**	**Ecology**	**Socio Economics**	**Aesthetics**	**OHS**
Site clearing & Site services	√	√		√		√			
Development of Greenbelt						√		√	
Operation Phase (Drilling, Blasting Loading and unloading, Transportation)	√	√		√	√	√			√
	√	√		√	√	√			√
	√	√		√	√	√			√
Employment and the material usage							√		
Mine closure (Removal of machineries, structures and Danger due to inadvertent entry)				√	√		√		√

√ Indicates Impact

4.1 LAND ENVIRONMENT

Anticipated Impacts

- Converting barren land of 5.43.40hectares to rough stone and gravel mining creates a significant and usually irreversible change in land use and land cover involving the physical alteration of the land's surface, potential deforestation, loss of biodiversity, altered topography from pits and spoil dumps.
- Heavy vehicle movement causes significant problems to nearby agriculture and human habitation. These pollutants can degrade soil quality and introduce heavy metals into the environment.
- During transportation the tippers damage the bituminous roads. The primary damage is caused by the fourth power law (*The law posits that if you double an axle's load, the damage caused to the pavement increases by a factor of 2x4 or 16 times*) where pavement damage increases with the fourth power of the axle load. The immense weight of heavy payloads on an axle exerts a concentrated and repetitive stress on the road surface leading to permanent strain, premature failure and a cumulative damage.
- Rain drops hitting stone crushing waste can break apart the particles and flowing water detaches them from the surface transports and redeposits these particles especially from sloped surfaces. This a form of splash erosion followed by sheet erosion which can lead to environmental issues.

Mitigation measures

- After mining there is a huge void of 4.31.0hectares upto a depth of 50m is useful for rain water storage structure has an advantage for local farmers. The artificial pond boundary shall be fences to avoid any mishaps.
- Union ministry of road transport and highways on July 16th 2018 increased the maximum cap of axle load limit by 20 to 25 percent cross various categories to keep the limit “at par with international standards”.

Maximum Safe Axle Weight		
Sl. No.	**Axle Type**	**Maximum Safe Axle Weight**
1.	**Single Axle**	
1.1	Single Axle with single Tyre	3.0 tonnes
1.2	Single Axle with two Tyres	7.5 tonnes
1.3	Single Axle with four Tyres	11.5 tonnes*
2.	**Tandem Axles (Two axles) (where the distance between two axles is less than 1.8 Mtr.)**	
2.1	Tandem axle for rigid vehicles, trailers and semi-trailers	21 tonnes*
2.2	Tandem axle for Puller tractors for hydraulic and pneumatic trailers	28.5 tonnes
3.	**Tri-axles (Three axles) (where the distance between outer axles is less than 3 Mtr.)**	
3.1	Tri-axle for rigid vehicles, trailers and semi-trailers	27 tonnes*
4.	Axle Row (two axles with four tyres each) in Modular Hydraulic trailers (9 tonnes load shall be permissible for single axle)	18 tonnes
* **Note:** If the vehicle is fitted with pneumatic suspension, 1 tonne extra load is permitted for each axle.		

MoRTH knows that previously built Indian roads are made keeping standard axle loads. The new national and state highways along with expressways can be built by using new norms but for the existing roads the life will be reduced on average by one year.

- 6-wheel tipper generally has a maximum legal speed limit which can be up to 60 km/h and speeds should be reduced for loaded conditions. The mine management should take care of the speed of vehicles i.e up to 40km/h in village roads constructed under Pradhan Mantri Gram Sadak Yojana and other district roads developed by Highways and Minor Ports Department, Government of Tamil Nadu as each time a truck passes the concentrated stress causes a small amount of permanent strain on the pavement. Over time these small strains accumulate and lead to significant fatigue and eventual failure.
- 6-wheel tippers of not more than 9tons payload capacity covered with tarpaulin to stop the spillage and dust should use.
- Protective measures such as establish plants like grasses, cover crops and trees to form a dense layer over the dump absorbing raindrop energy and holding particles in place.

4.2 SOIL ENVIRONMENT

Anticipated Impacts

- The fertility status of the soil near by the lease area may affect due to extra dust deposition on the soil. Dust deposition from a lease area can harm soil fertility by physically blocking soil pores, reducing aeration and water infiltration, and potentially altering the soil's chemical properties. This damage to the topsoil negatively impacts plant growth by interfering with photosynthesis and nutrient uptake ultimately decreasing crop production.
- Topsoil will be scraped from the area of 5.43.40hectares in the project site will store in safety area left for 7.5meters in the western side as shown in mining plan.

Mitigation measures

- When stock piling of top soil is done the mound should not be higher than 1.2m and 3.0m.
- To minimize surface runoff and erosion the topography of a graded surface should be designed to create terraces or benches that follow land contours which intercept sheet flow. Additionally, a bulldozer's tracks can be used to create a fine-scale roughened surface perpendicular to the slope and stockpiles should be constructed with a rough surface to improve drainage, reduce erosion and encourage revegetation.
- Efforts will be made to minimize the storage time to prevent nutrient loss.

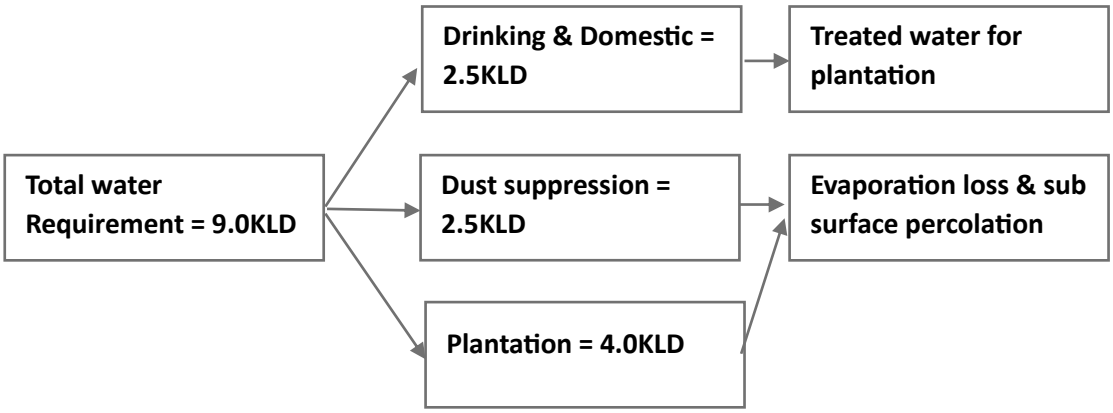
- To protect the quality of stockpiled topsoil immediate re-vegetation is crucial. Temporary seeding should be done within 30 days of stockpile formation to control erosion, prevent weed growth and maintain healthy soil microbes.
- If the stockpile will not be reused within 12 months it must be stabilized with permanent vegetation to ensure long-term erosion and weed control.
- The stored topsoil will be utilized for plantations in later phases during the progressive and final closure of the mine.

4.3 WATER ENVIRONMENT

Anticipated Impacts

- 9KLD (9,000 liters per day) water requirement for drinking, domestic, dust suppression and plantation.

Water Balance Chart of the Mine



- The domestic effluents being generated during mine operation.
- Major impact of opencast mining on groundwater regime is quality deterioration. The proposed mining activities shall be carried out upto a depth of 80m from average ground level. The specific water table depth in the core and buffer zone is between 60m and 65 meters below ground level.
- The volume of rain water entering to the mine and accumulating in the quarry has been estimated on the basis of direct catchment area, maximum daily precipitation and the run-off coefficient. $(\boldsymbol{Q = A\ x\ Hx}$ đ $)\boldsymbol{cubic\ meters/day}$.

  Where A- catchment area in m^2

  H- Max daily precipitation in mm

  đ- Run-off Co-efficient.

  The run off co-efficient for mined out area is 0.80. The all-time record for maximum daily precipitation in karur district was 359.1mm on September 30, 2024 as reported

by Indian Meteorological Department (IMD). More recent rainfall records are 158.000mm on May 18, 2025 and 26.80 mm on May 19, 2025. The maximum broken area is 4.31.0hectares in the sixth year and estimation for make of water done on the quarry parameters for sixth year onwards.

$Q = 4.31.0\text{hecatres} \times 10000 \times 0.158 \times 0.80\ m^3.$

$Q = 5447m^3.$

Total accumulated water in the pit is $5447m^3$.

Additionally, 20% of water from seepage is $1090m^3$.

Total water estimated for pumping requirement = **$6537m^3$.**

If we take the all-time record then the total water estimated for pumping = **$10128m^3$.**

To manage rain water runoff into quarry a 5 HP diesel operated pump will be placed at the site during the monsoon.

Mitigation Measures

- The hard rock itself has very few interconnected pore spaces, limiting the amount of water it can store or transmit. Groundwater flow and storage occur primarily in secondary openings such as joints, cracks and fissures. The thickness of the weathered layer, where more significant porosity can develop, is typically limited to 1-3 meters, particularly in low-lying topographic areas. The groundwater in these shallow zones is under unconfined (or water table) conditions, meaning it is directly connected to the surface and not confined by impermeable layers.
- The storm water discharge coming out of quarries and dump through a network of garland drains is expected to contain solid particles. These solid particles shall be removed by settling in the settling pond before being used for dust suppression and plantation. Hence, there shall be no change in drainage system due to this mining project in buffer zone.
- Domestic sewage from site office will be discharged in MAK Anaerobic bacteria digestion bio-septic tank. The treated water will be utilized for watering and maintaining the green belt.
- Groundwater development efforts would need to focus on the weathered and fractured zones near the surface in the buffer zone.
- Periodic (every 6 months) analysis of ground water level and quality from the open well DW9 and bore well BW9 is shown in Figure 3.8 - 3.11 to find the change due to quarrying.

- The average annual rainfall of the project area is 850mm and the runoff coefficient factors have been taken as per guidelines of Manual on Norms and Standards for Environmental Clearances by MoEF& CC, Govt. of India.

The total annual runoff can be calculated as:

Runoff = Rainfall × Catchment Area × Runoff Coefficient

Annual Rainfall = 992mm

Total Project Area = 54340sq.m

Coefficient of Run off for Rooftop (Inclined) = 0.90

Coefficient of Run off for Rooftop (Flat) = 0.80

Coefficient of Run off for Road/Paved Area = 0.70

Coefficient of Run off for Open Area = 0.25

Coefficient of Run off for Greenbelt Area = 0.15 Rain water can effectively be collected from Maximum size of void in 6th year of mining = 43100sq. m.

Top soil dump area = 8240sq.m

Road & Infrastructure = 700sq.m

Runoff from Void pit area = 43100sq.m x 0.805 m x 0.25 = 8673m^3

Runoff from Top soil dump area = 0.805m x 8240sq. m x 0.25 = 1658.3m^3

Runoff from Road & Infrastructure = 0.805m x 700sq. m x 0.70 = 394.45m^3

Total Runoff from Project Area = 10725.75m^3

The annual runoff generated in the project site is 8673m^3. By considering the loss of 20% due to evaporation, spillage and wastage the effective runoff that can be harvested inside the project area is **6938.4m^3.**

Daily water requirement (except drinking purpose) is 8m^3. So, with 300 working days the water requirement will be = 8m^3 X 300 = **2400m^3**

The surface runoff being generated from the project area will be channelized to rain water harvesting pond of 2m x 2m x 2m through network of drainage system 1m x 1m. The bottom of the ponds is naked and natural seepage from the bottom will recharge the ground water regime. Hence the storage pond will act as recharging structure. Even though rain water will be sufficient to fulfil the daily requirement of water but in the initial years of mining when the mining pit is smaller in size or in the year with deficit rainfall surface water will be collected with due permission.

4.4 AIR ENVIRONMENT

Anticipated Impact

The main cause of air pollution in open-cast mining is the generation of airborne particulate matter (dust) from various mining activities including drilling, blasting, excavation, loading/unloading, vehicle movement on haul roads and the dumps. These activities release large quantities of fugitive dust which are then carried by the wind and can contribute to respiratory health problems for nearby communities and miners. The source of pollution is given in table below.

Activities	Air pollutants
Drilling	PM10, PM 2.5
Blasting	PM10, PM2.5, SOx, NOx
Loading & unloading	PM10, PM 2.5
Haul road	PM10, PM 2.5
Transportation	PM10, PM2.5, SOx, NOx, CO
Waste/Top soil handling	PM10, PM 2.5

The air dispersion modelling study was conducted using the AERMOD Cloud remote version for assessment of incremental Ground level concentration (GLC) for the proposed production. Area source model taken into consideration taking into consideration of the conceptual quarry area and dump area. Further line source model was taken into consideration for transportation of material through haul road.

Model Setup is given in Table below;

Parameter	Details
Model Name	Aermod
Model Type	Steady state Gaussian plume air dispersion model
Topography	Plain terrain
Average Time	24 hours
Source Type	Area source
Boundary limit	5km X 5km
Surface Meteorological Data	Site specific data processed by AERMET
Receptor Height	0
Anemometer height	10m

The air pollution modelling correctly focuses on particulate matter as the key pollutant for a mining project given that dust from mining operations and transportation is the primary source of air pollution in such industries rather than SOx or NOx which are typically associated with vehicular emissions. The incremental Ground Level Concentrations (GLCs) predicted are specifically for particulate matter reflecting the anticipated contribution of the proposed mining project to local air quality.

Emission Estimation

Emission resulting from different mining activities is estimated using relevant empirical formula developed by Chaulya et al.,2001 and Jyothi Prabha, Gurdeep Singh and I.N.Sinha, 2003 "Emission Factor Equations for Haul roads: The Indian Perspective", Indian Journal of Air Pollution Control Vol. VI No. I March pp 37- 43. The equations used for fugitive emission estimation have been given in Table 4.2.

Table 4.2 Empirical Formula for Emission Rate from Overall Mine

	Pollutant	Source Type	Empirical Equation	Parameters
Overall Mine	SPM	Area	$E = [u0.4a0.2\{9.7+ 0.01p+ b/(4+0.3b)\}]$	u = Wind speed(m/s). p = Mineral production (Mt/yr). b = Overburden handling (Mm^3/yr). a = Lease area(km^2). E = Emission rate(g/s).
Transportation through roads	Fugitive dust	line	$E = [\{(100-m)/m\}^{0.8} \{s/(100-s)\}^{0.1} u^{0.3} \{2663 + 0.1(v+fc)\} 10^{-6}]$	E = Emission Rate (g/sec/m) m = Moisture Content of the road = 10% s = Silt Content of the Road = 10% u = Wind Speed v = Average Vehicle Speed f = frequency of Vehicle movement in number per hour c = Capacity of the dumper in tons = 12 ton

The emission rate thus calculated using the empirical formula is used as one of the inputs in the AERMOD modelling. It is important to note that PM_{10} emission rate is derived from the SPM estimation in the background that PM_{10} constitutes 52% of SPM emission. The $PM_{2.5}$, PM_{10} emission results have been given in Table 4.3.

Table 4.3 Estimated Emission Rate

Activity	Pollutant	Calculated Value (g/s)	Lease Area in m^2	Calculated Value ($g/s/m^2$)
Overall Mine	$PM_{2.5}$	0.350952635	54340	$6.49254E^{-06}$
Overall Mine	PM_{10}	0.701865654	54340	$1.32154E^{-05}$

4.4.1 Modelling of Incremental Concentration

The post project resultant concentrations of PM_{10}, $PM_{2.5}$ is given in Tables 4.4 & 4.5.

Table 4.4 Incremental & Resultant GLC of $PM_{2.5}$

Station ID	Distance to core area (km)	PM 2.5 concentrations(µg/m³)				Comparison against air quality standard (60 µg/m3)	Magnitude of change (%)	Limit
		Direction	Baseline	Predicted	Total			
AAQ1	--	--	18.50	9.45	27.95	Below standard	51.1	Not significant
AAQ2	1.18	NE	18.16	1	19.16		5.5	
AAQ3	1.44	SE	17.17	0.7	17.87		4.1	
AAQ4	0.95	SW	17.45	1	18.45		5.7	
AAQ5	2.40	NW	17.61	1	18.61		5.7	
AAQ6	3.06	N	16.73	1	17.73		6.0	

Table 4.5 Incremental & Resultant GLC of PM_{10}

Station ID	Distance to core area	PM_{10} concentrations(µg/m³)				Comparison against air quality standard (100 µg/m³)	Magnitude of change (%)	Limit
		Direction	Baseline	Predicted	Total			
AAQ1	--	--	49.09	19.3	68.39	Below standard	39.3	Not significant
AAQ2	1.18	NE	46.65	2	48.65		4.3	
AAQ3	1.44	SE	44.10	1	45.1		2.3	
AAQ4	0.95	SW	44.53	2	46.53		4.5	
AAQ5	2.40	NW	46.26	5	51.26		10.8	
AAQ6	3.06	N	43.43	2	45.43		4.6	

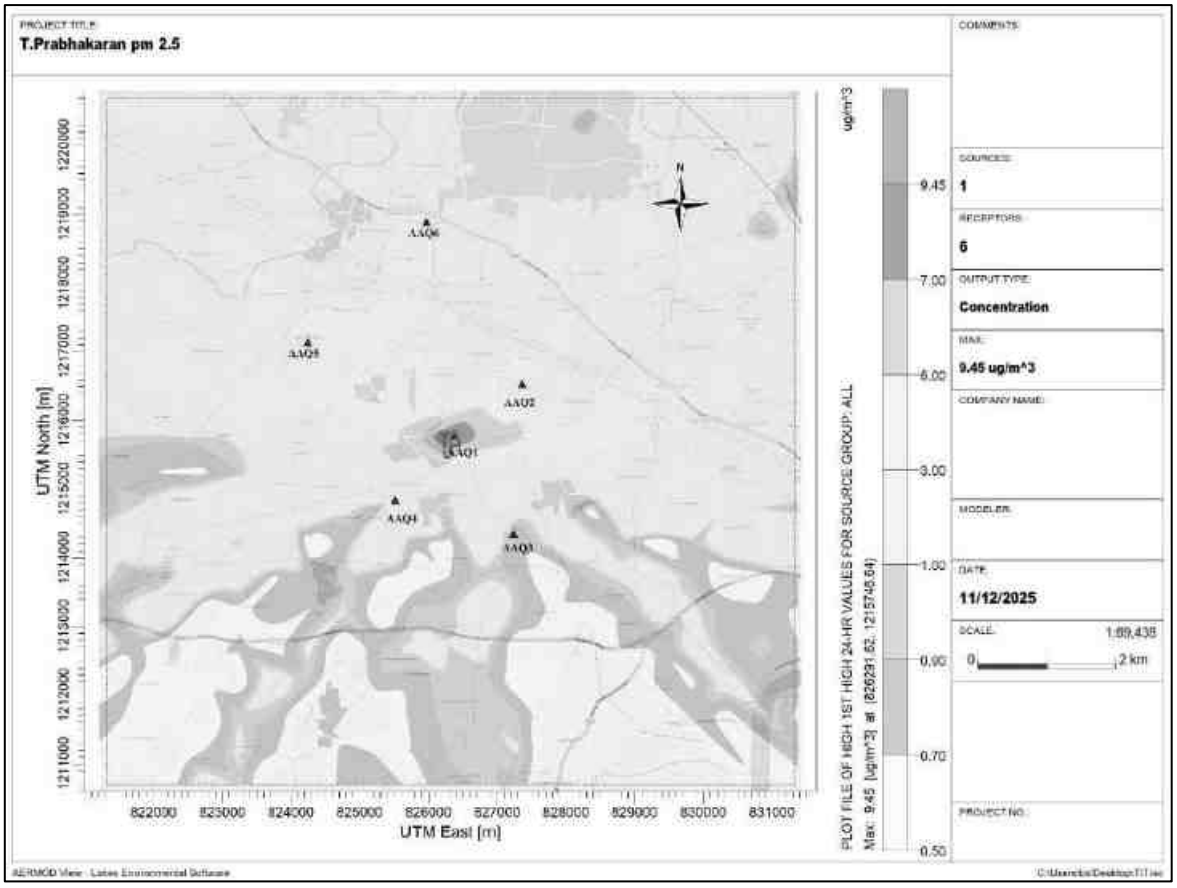


Figure 4.1 Predicted Incremental Concentration of $PM_{2.5}$

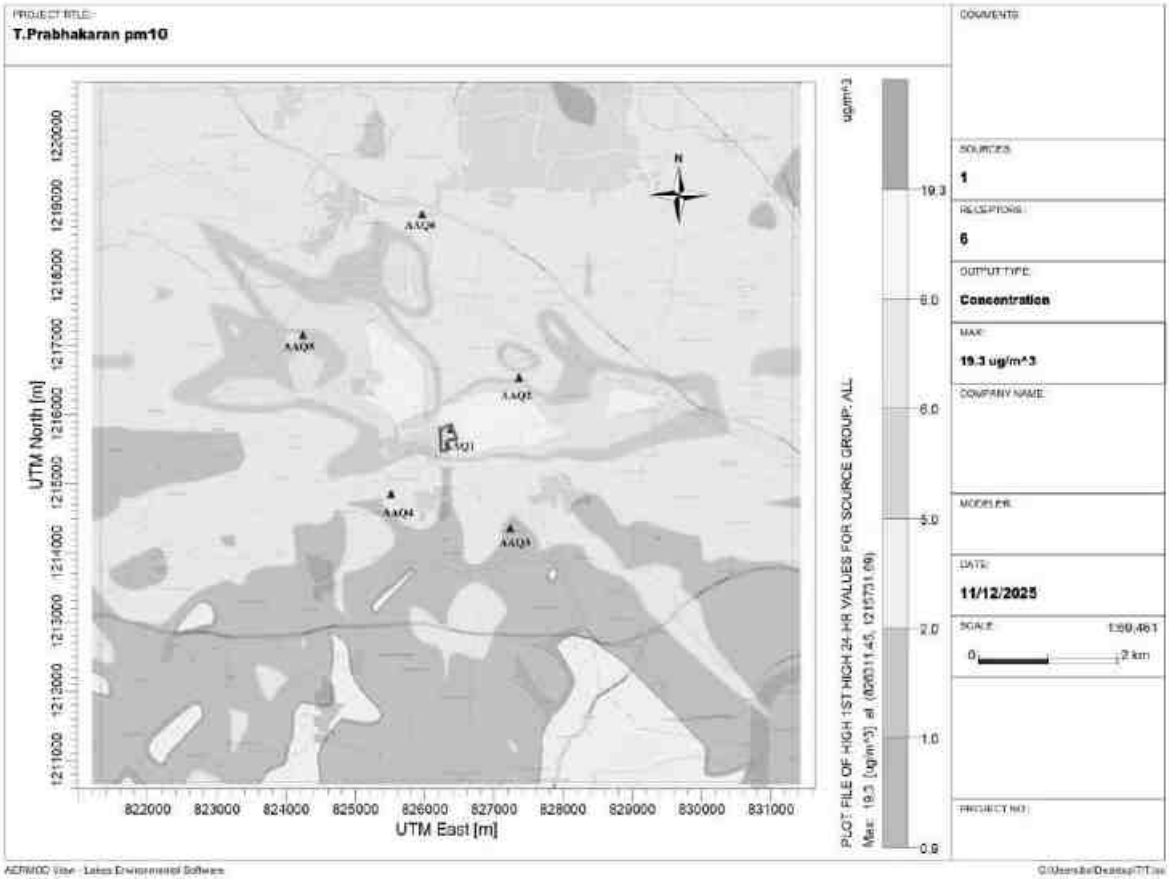
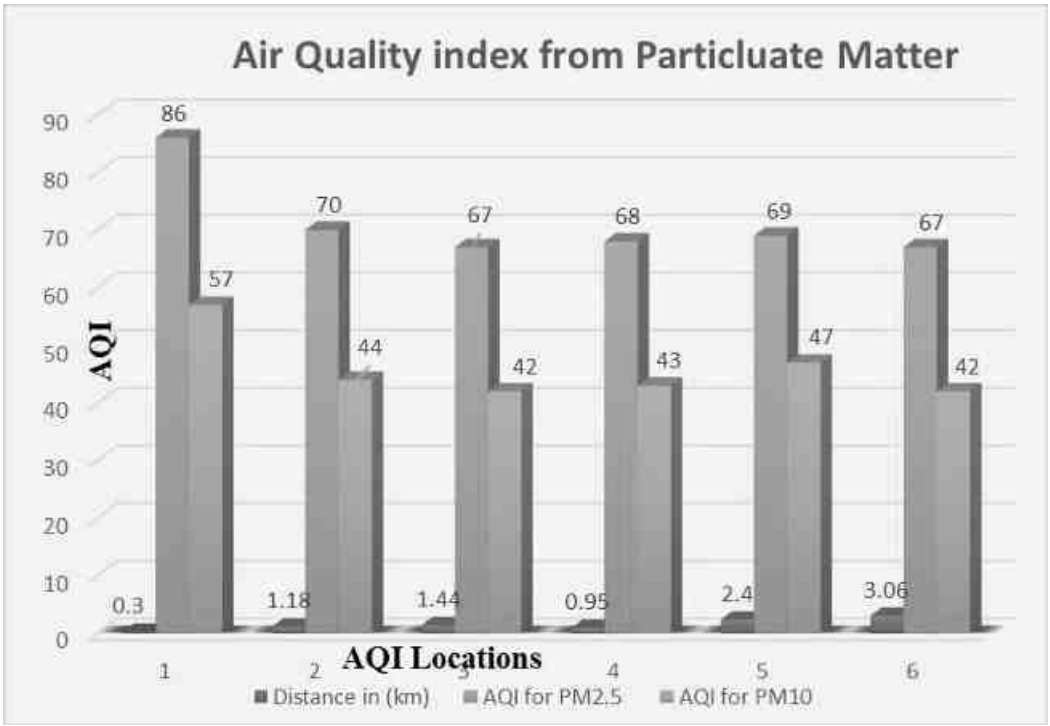


Figure 4.2 Predicted Incremental Concentration of PM_{10}

The Air Quality index for the baseline and predicted values of PM2.5 and PM10 are given in table below.

Station ID	Distance to core area (km)	Direction	$PM_{2.5}$ (µg/m³)		AQI for PM2.5	PM_{10} (µg/m³)		AQI for PM10
			Baseline Conc.	Total (Baseline + Predicted GLC)		Baseline Conc.	Total (Baseline + Predicted GLC)	
AAQ1	--	--	18.50	27.95	86	49.09	68.39	57
AAQ2	1.18	NE	18.16	19.16	70	46.65	48.65	44
AAQ3	1.44	SE	17.17	17.87	67	44.10	45.1	42
AAQ4	0.95	SW	17.45	18.45	68	44.53	46.53	43
AAQ5	2.40	NW	17.61	18.61	69	46.26	51.26	47
AAQ6	3.06	N	16.73	17.73	67	43.43	45.43	42

https://www.airnow.gov/aqi/aqi-calculator-concentration/



In the present study American Meteorological Society and the United States Environmental Protection Agency Dispersion Model (AERMOD) air quality model was run for premonsoon season under maximum atmospheric temperature conditions. The AERMOD has been run for PM_{10} and $PM_{2.5}$ distribution with 24-Hr maximum concentration and concentration contours were obtained as given in Figure 4.1 and 4.2. From these Isopleths plots it is observed that the highest pollutants concentrations predicted by AERMOD was near the

major source in the core area and a maximum of 86µg/m^3 of $PM_{2.5}$ and 57µg/m^3 of PM_{10} were found to be below the prescribed NAAQS near the source. The AQI vales of PM_{10} shows moderate and $PM_{2.5}$ shows good in all the locations. By adopting suitable mitigation measures the pollutant levels in the atmosphere can be controlled further.

Mitigation Measures

There will be transportation of rough stone from the area to the crusher which is located at a distance of about 360m within the cluster boundary. Considering average annual production of 383350tons per annum i.e. 1183tons per day of stone there will be movement of around 71 trucks per day for transportation of the stone. This will create additional traffic load to the road and also additional emission due to vehicular movement. The mitigation measures to minimize the air pollution are given in Table 4.6 below.

Table 4.6 Proposed Mitigation Measures for Air pollution

Potential Sources of air pollution	Magnitude of air pollution	Proposed Pollution Control Measure
Excavation	Emission of Particulate Matter	• Provide Personal Protective Equipment's for workers
Drilling and Blasting	Emission of Particulate Matter and emission gaseous	• Wet drilling and controlled blasting will adopt. • Optimized blast parameters and design were given in chapter 2 should follow for blasting. • Safety shelter will construct within the lease area. • Provide PPEs for workers.
Loading of material on dumper	Air emission	• Water sprinkler with wide angle nozzle of angle 150˚ will be selected for water sprinkling in the dust prone area.
Transportation	High Dust generation	• Regular grading of haul roads will be practiced. • Planting of trees all along mine haul roads outside the lease. • Water sprinklers will install along the haul road. • Vehicle without PUC certificate will not be allowed. • Cover tarpaulin to the tipper during transportation.
Storage of Topsoil	High Dust generation	High dust generation due to wind from the topsoil storage area. This are will be installed with permanent water sprinkler. Plantation will be provided in the dump slope.

4.5 NOISE ENVIRONMENT

According to DGMS Technical Circular No. 18 of 1975 and No.5 of 1990 on "Protection of Workers against noise" it is brought to the knowledge of all concerned that Noise is emerging as an important and challenging health hazard for mine workers. Source data has been computed by taking into account of all the machinery and activities used in the open cast mining process had listed in Table 4.7.

Table 4.7 Activity and Noise Produced by Machinery in open cast mines

S. No.	Machinery / activity	Distance of measurement	Noise level dB(A)	
			Idling	Fully accelerated
1.	Jack hammer	1	80	97
2.	Compressor	1	-	96
3.	Bulldozer	2	84	100
4.	Tipper	2	75	92
5.	Drill	1	85	90

The permissible noise exposure levels in Indian mines are based on OSHA standards adapted and enforced by the Indian government through the Factories Act and CPCB norms are given in Table 4.8 below.

Table 4.8 Permissible noise levels adopted by CPCB, 2000 and OSHA

Maximum Exposure Noise level Time per Working Day in hours	Noise level	
	CPCB, 2000 in dB (International Standard Organization)	OSHA code in dB (Occupational Safety and Health Act)
8	90	90
4	93	95
2	96	100
1	99	105
0.5	102	110
0.25	105	115

A noise level of 90 dB causes disruption, leading to annoyance, cognitive errors, and temporary hearing loss, while 85 dB is considered an upper comfort level with potential for cognitive decrements in tasks requiring decision-making with hearing loss possible at 300-1200 Hz frequencies in that range. Prolonged exposure to sounds at or above 85 dB can damage hearing over time. The mitigation measures to minimize the noise pollution are given in Table below.

Impact	Mitigation Measures
Noise impact due to mining activities. Noise impact due to vehicular movement. Auditory impact (hearing impairment resulting from excessive noise exposure)	❖ Diesel powered machineries which are major source of noise in open cast environment will be properly maintained as per maintenance schedule to prevent undesirable noise. ❖ Attention shall be paid towards rigorous maintenance of silencers of diesel engines. ❖ Static diesel engines shall be housed as far as possible (not made of sheet metals or surrounded by baffles). If possible, they will be placed on vibration isolators. ❖ Drill machine operators, blasters and dumper drivers will be issued earplugs and earmuffs. Duty hours of operators of noisy machinery will be regulated to keep their noise exposure levels within limits. ❖ Provision of sound proof cabins for the workers deployed on machines producing higher level of sound like dumpers, shovels etc. ❖ Proper maintenance, oiling and greasing of machines will be done every week to reduce generation of noise ❖ Provision of sound insulated chambers for the workers working on machines (HEMM) producing higher levels of noise ❖ Silencers / mufflers will be installed in all machineries ❖ Greenbelt/Plantation will be developed around the project area and along the haul roads. The plantation minimizes propagation of noise ❖ Personal Protective Equipment (PPE) like ear muffs/ear plugs will be provided to the operators of HEMM and persons working near HEMM and their use will be ensured though training and awareness ❖ Regular medical check–up and proper training to personnel to create awareness about adverse noise level effects.

4.5.1 Ground Vibrations due to blasting

The major source of ground vibration from the quarry is blasting. The ground vibrations due to the blasting in the quarry are calculated using the empirical equation for assessment of peak particle velocity (PPV) is given below

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

where,

V = peak particle velocity (mm/s), K = site and rock factor constant (500)

Q = maximum instantaneous charge (kg)

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

R = distance from charge (m)

Table 4.9 Predicted PPV values due to Blasting

Location ID	Maximum Charge in kgs	Nearest Habitation in m	PPV in mm/s	Fly rock distance in m	Air Blast	
					Pressure (kPa)	Sound Level (dB)
P1	38.35	320	0.911	19	0.09	133

Table 4.10 Predicted PPV values due to Blasting at 100-500m radius

Location ID	Maximum Charge in kgs	Radial Distance in m	PPV in mm/s	Fly rock distance in m	Air Blast	
					Pressure (kPa)	Sound Level (dB)
P1	38.35	100	5.83	19	1.04	154
		200	1.92		0.45	147
		300	1.006		0.28	143
		400	0.635		0.20	140
		500	0.444		0.15	138

The PPV results shows that the ground vibration is well below the permissible limits set by DGMS in the circular 7, 1997.

Mitigation Measures

- The blasting operations in the cluster quarries are carried out without deep hole drilling and blasting using delay detonators which reduce the ground vibrations

- Proper quantity of explosives, suitable stemming materials and appropriate delay system will be adopted to avoid overcharging and for safe blasting
- Adequate safe distance from blasting will be maintained as per DGMS guidelines
- The charge per delay will be minimized and preferably a greater number of delays will be used per blasts.
- During blasting other activities in the immediate vicinity will be temporarily stopped. Drilling parameters like depth, diameter and spacing will be properly designed to give proper blast.
- A fully trained explosives blast man (Mining Mate, Mines Foreman, 2nd Class Mines Manager/ 1st Class Mines Manager) will be appointed.
- Sufficient angular stemming material will be used to confine the explosive force and minimise environmental disturbance caused by venting / misfire.
- The detonators will be connected in a predetermined sequence to ensure that only one charge is detonated at any one time and a NONEL or similar type initiation system will be used
- The detonation delay sequence shall be designed so as to ensure that firing of the holes is in the direction of free faces so as to minimise vibration effects
- Vibration monitoring will be carried out every 6 months to check the efficacy of blasting practices.
- Secondary blasting will be totally avoided and hydraulic rock breaker will be used for breaking boulders
- Controlled blasting with proper spacing, burden, stemming and optimum charge/delay will be maintained
- The blasting will be carried out during favourable atmospheric condition and less human activity timings by using nonelectrical initiation system.

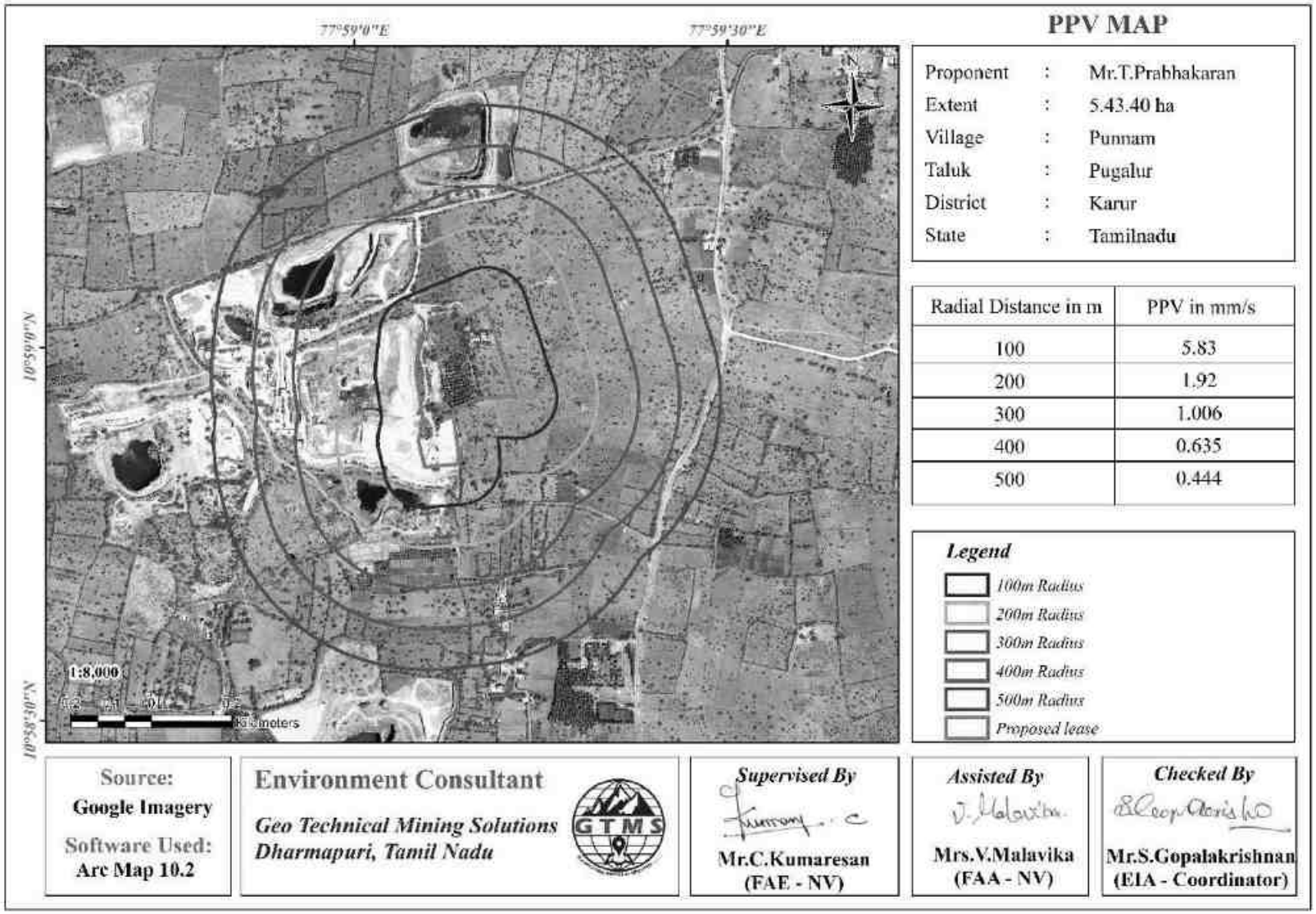


Figure 4.3 100-500m PPV Map

4.6 ECOLOGY AND BIODIVERSITY

4.6.1 *Impact on Ecology and Biodiversity*

- During loading the truck, dust generation will be likely. This shall be a temporary effect and not anticipated to affect the surrounding vegetation significantly
- The Number of plants in the mining lease area is given in Chapter III, Table 3.19 which vegetation in the lease area may be affected during mining.
- Carbon released from quarrying machineries and tippers during quarrying would be 498kg per day, 134448kg per year and 793714kg over ten years, as provided in Table 4.11.

Table 4.11 Carbon Released During Ten Years of Rough Stone and Gravel Production

	Per day	Per year	Per ten years
Fuel consumption of excavator	9	2459	45326
Fuel consumption of tipper	760	205213	250836
Total fuel consumption in Liters	186	50167	296162
CO_2 emission in kg	498	134448	793714
Fuel consumption of compressor	241	65143	325714

4.6.2 *Mitigation Measures on Flora*

- During conceptual stage, the top bench will be re-vegetated by planting local /native species and lower benches will be converted into rainwater harvesting structure following completion of mining activities, which will replace habitat resources for fauna species in this locality over a longer time.
- None of the plants in the lease area will be cut during operational phase of the mine. we recommend uprooting and planting of the 10 trees along the 7.5 m safety zone to prevent environmental pollution during quarrying. As the survival rate due to uprooting was only 30%, 100 seedlings will be procured at the rate of 10 seedlings per tree and planted in 7.5 m safety zone.
- Existing roads will be used and new roads will not be constructed to reduce impact on flora.
- Green belt of adequate width will develop around the project site. Dust catching species like Alstonia scholaris, Bombax ceiba, Terminalia arjuna, Cassia fistula, Bombax ceiba, Azadirchta indica, Nyctanthes arbor-tristis, Psidium guajava, Tectona grandis etc will be planted in green belt.
- To mitigate carbon emission due to mining activities, we recommend planting trees around the quarry to offset the carbon emission during quarrying. A tree can sequester

65143kg of carbon per year. Therefore, we recommend 500 planting large number of trees around the quarry and near school campuses, government wasteland, roadsides etc.

- As per the greenbelt development plan as recommended by SEAC (Table 4.13) about 2894 trees (Table 4.14) will be planted within three months from the beginning of mining. These trees, when grown up would sequester carbon of about 325714kg of the total carbon as provided in Table 4.12.

Table 4.12 CO_2 Sequestration

CO_2 sequestration in kg	241	65143	325714
Remaining CO_2 not sequestered in kg	257	69305	468000
Trees required for environmental compensation	2894		
Area required for environmental compensation in hectares	6		

Table 4.13 Recommended Species for Greenbelt Development Plan

S. No	Botanical Name of the Plant	Family Name	Common Name	Category	Dust Capturing Efficiency Features
1	*Azadirachta indica*	Meliaceae	Neem,Vembu	Tree	Well distinct thick at both the layer Well distinct in Palisade & Spongy parenchyma. Spongy parenchyma is present at lower epidermis Many vascular bundles arranged almost parallel series.
2	*Techtona grandis*	Lamiaceae	Teak	Tree	
3	*Polyalthia longifolia*	Annonaceae	Nettilingam	Tree	
4	*Albizia lebbeck*	Fabaceae	Vagai	Tree	
5	*Delonix regia*	Fabaceae	Cemmayir-konrai	Tree	
6	*Bauhinia racemose*	Fabaceae	Aathi	Tree	
7	*Cassia fistula*	Fabaceae	Sarakondrai	Tree	
8	*Aegle marmelos*	Fabaceae	Vilvam	Tree	
9	*Pongamia pinnata*	Fabaceae	Pungam	Tree	
10	*Thespesia populnea*	Malvaceae	Puvarasu	Tree	

Table 4.14 Greenbelt Development Plan

	No. of trees proposed for plantation	No. of trees expected to survive @ 80%	Area to be covered (m^2)
Plantation in the construction phase (3 months)	Number of plants inside the mine lease area		
	1086	869	9781
	Number of plants outside the mine lease area		
	1631	1305	14672
Total	**2717**	**2174**	**24453**

4.6.3. ***Anticipated Impact on Fauna***

- Direct impact is anticipated on fauna of core zone
- Insignificant impact is anticipated on fauna in the buffer area due to air emissions, noise, vibration, transportation, waste water discharges, and changes in land use
- Thathampalayam R.F located on 5.12km south west of the mine lease area. There is a possibility that birds will be affected by mining activities and migrate.

Mitigation Measures on Fauna

- Fencing will be constructed around the proposed mine lease area to restrict the entry of stray animals
- The workers shall be trained not to harm any wildlife near the project site
- The quarry operation using in NONAL blasting Method Technic so controlled in sound and vibration.

4.6.4 ***Impact on agriculture and horticulture crops in 1km Radius***

- Problems to agricultural and horticulture land due to dust caused by movement of heavy vehicles.
- Soil erosion and sediment deposition in the nearby water bodies due to earthworks during the rainy season.
- The fugitive dust released from the mining operations may cause effect on the agricultural and horticulture land who are directly exposed to the fugitive dust.
- Dust from the quarries is likely to affect reproductive systems in nearby agricultural and horticulture lands.
- Dust from quarries can affect plant growth and reduce vegetable yields.

4.6.5 *Mitigation Measures on agriculture and horticulture crops.*

- The main objective of the green belt is to provide a barrier between the source of pollution and the surrounding areas. In order to compensate the loss of vegetation cover, it is suggested to carry out afforestation program mainly inside and outside of the lease area in different phases.
- A green belt will be created in 7.5m & 10m safety zone around the quarry to contain the dust from the quarry and prevent the dust from spreading to the adjacent agricultural land.
- Transportation of material will be carried out during day time and material will be covered with tarpaulin

4.7 SOCIO ECONOMIC ENVIRONMENT

Anticipated Impact from Proposed and Existing Projects

- Dust generation from mining activity can have negative impact on the health of the workers and people in the nearby area.
- Approach roads can be damaged by the movement of tippers
- Increase in Employment opportunities both direct and indirect thereby increasing economic status of people of the region.

Common Mitigation Measures for Proposed Project

- Good maintenance practices will be adopted for all machinery and equipment, which will help to avert potential noise problems.
- Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines.
- Air pollution control measure will be taken to minimize the environmental impact within the core zone.
- For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices will be provided as per mines act and rules.
- Benefit to the State and the Central governments through financial revenues by way of royalty, tax, duties, etc.., from this project directly and indirectly.
- From above details, the quarry operations will have highly beneficial positive impact in the area

4.8 OCCUPATIONAL HEALTH AND SAFETY

Occupational health and safety hazards occur during the operational phase of mining and primarily include the following

- Respiratory hazards
- Noise
- Physical hazards
- Explosive storage and handling

4.8.1 *Respiratory Hazards*

Long-term exposure to silica dust may cause silicosis the following measures are proposed:

- Cabins of excavators and tippers will be enclosed with AC and sound proof
- Use of personal dust masks will be made compulsory

4.8.2 *Noise*

Workers are likely to get exposed to excessive noise levels during mining activities. The following measures are proposed for implementation

- No employee will be exposed to a noise level greater than 85dB(A) for a duration of more than 8 hours per day without hearing protection
- The use of hearing protection will be enforced actively when the equivalent sound level over 8 hours reaches 85dB(A) the peak sound levels reach 140dB(C) or the average maximum sound level reaches 110dB(A)
- Ear muffs provided will be capable of reducing sound levels at the ear to at least 85dB(A)
- Periodic medical hearing checks will be performed on workers exposed to high noise levels.

4.8.3 *Physical Hazards*

The following measures are proposed for control of physical hazards

- Specific personnel training on work-site safety management will be taken up;
- Natural barriers, temporary railing, or specific danger signals will be provided along rock benches or other pit areas where work is performed at heights more than 2m from ground level;
- Maintenance of yards, roads and footpaths, providing sufficient water drainage and preventing slippery surfaces with an all-weather surface, such as coarse gravel will be taken up.

4.8.4 *Occupational Health Survey*

All the persons will undergo pre-employment and periodic medical examination. Employees will be monitored for occupational diseases by conducting the following tests: general physical tests, audiometric tests, full chest, X-ray, Lung function tests, spirometry tests, periodic medical examination – yearly, lung function test – yearly, those who are exposed to dust, and eye test Essential medicines will be provided at the site. The medicines and other test facilities will be provided at free of cost. The first aid box will be made available at the mine for immediate treatment. First aid training will be imparted to the selected employees regularly. The lists of first aid trained members shall be displayed at strategic places.

4.9 *Mine Waste Management*

No waste is anticipated from any of the proposed quarries.

4.10 *Mine Closure*

Mine closure plan is the most important environmental requirement in mining project. The mine closure plan should cover technical, environmental, social, legal and financial aspects dealing with progressive and post closure activities. The closure operation is a continuous series of activities starting from the decommissioning of the project. Therefore, progressive mine closure plan should be specifically dealt with in the mining plan and is to be reviewed along with mining plan. As progressive mine closure is a continuous series of activities, it is obvious that the proposals of scientific mining have included most of the activities to be included in the closure plan. While formulating the closure objectives for the site, it is important to consider the existing or the pre-mining land use of the site and how the operation will affect this activity.

The primary aim is to ensure that the following broad objectives along with the abandonment of the mine can be successfully achieved:

- To create a productive and sustainable after-use for the site, acceptable to mine owners, regulatory agencies, and the public
- To protect public health and safety of the surrounding habitation
- To minimize environmental damage to conserve valuable attributes and aesthetics
- To overcome adverse socio-economic impacts.

4.10.1 *Mine Closure Criteria*

The criteria involved in mine closure are discussed below:

Physical Stability

All anthropogenic structures, which include mine workings, buildings, rest shelters etc., remaining after mine decommissioning should be physically stable. They should present no hazard to public health and safety as a result of failure or physical deterioration and they should

continue to perform the functions for which they were designed. The design periods and factors of safety proposed should take full account of extreme events such as floods, hurricane, winds or earthquakes, etc. and other natural perpetual forces like erosion, etc.,

Chemical Stability

The solid wastes on the mine site should be chemically stable. This means that the consequences of chemical changes or conditions leading to leaching of metals, salts or organic compounds should not endanger public health and safety nor result in the deterioration of environmental attributes. If the pollutant discharges likely to cause adverse impacts is predicted in advance, appropriate mitigation measures like settling of suspended solids or passive treatment to improve water quality as well as quantity, etc., could be planned. Monitoring should demonstrate that there is no adverse effect of pollutant concentrations exceeding the statutory limits for the water, soil and air qualities in the area around the closed mine.

Biological Stability

The stability of the surrounding environment is primarily dependent upon the physical and chemical characteristics of the site, whereas the biological stability of the mine site itself is closely related to rehabilitation and final land use. Nevertheless, biological stability can significantly influence physical or chemical stability by stabilizing soil cover, prevention of erosion/wash off, leaching, etc., A vegetation cover over the disturbed site is usually one of the main objectives of the rehabilitation programme, as vegetation cover is the best long-term method of stabilizing the site. When the major earthwork components of the rehabilitation programme have been completed, the process of establishing a stable vegetation community begins. For re-vegetation, management of soil nutrient levels is an important consideration. Additions of nutrients are useful under three situations.

- Where the nutrient level of spread topsoil is lower than material in-situ e.g., for development of social forestry
- Where it is intended to grow plants with a higher nutrient requirement than those occurring naturally.
- Where it is desirable to get a quick growth response from the native flora during those times.

when moisture is not a limiting factor. For example, development of green barriers

the Mine closure plan should be as per the approved mining plan. The mine closure is a part of approved mine plan and activities of closure shall be carried out as per the process described in mine closure plan.

CHAPTER V

ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE

5.0 INTRODUCTION

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

5.1 FACTORS BEHIND THE SELECTION OF PROJECT SITE

- The proposed project is site specific and has the following advantages:
- The mineral deposit occurs in a non-forest area.
- There is no habitation within the project area; hence no R & R issues exist.
- There is no river, stream, nallah and water bodies in the applied mine lease area. Availability of skilled, semi-skilled and unskilled workers in this region.
- All the basic amenities such as medical, firefighting, education, transportation, communication and infrastructural facilities are well connected and accessible.
- The mining operations will not intersect the ground water level. Hence, no impact on ground water environment.
- As the proposed project area falls in seismic zone II, there is no major history of landslides, earthquake, subsidence etc., recorded in the past history.

5.2 ANALYSIS OF ALTERNATIVE SITE

No alternatives are suggested as the mine site is mineral specific.

5.3 FACTORS BEHIND SELECTION OF PROPOSED TECHNOLOGY

Manual open cast mining method with secondary blasting will be applied to extract rough stone and gravel in the area. The proposed mining lease areas have following advantages:

- As the mineral deposition is homogeneous and batholith formation, opencast method of working is preferred over underground method.
- The material will be loaded with the help of excavators into tractors/tippers and transported to the need by customers.
- Semi-skilled labours fit for quarrying operations are easily available around the nearby villages

5.4 ANALYSIS OF ALTERNATIVE TECHNOLOGY

Open cast mechanized method has been selected for this project. This technology is having least gestation period, economically viable, safest and less labour intensive. The method has inbuilt flexibility for increasing or decreasing the production as per market condition.

CHAPTER VI

ENVIRONMENTAL MONITORING PROGRAMME

6.0 GENERAL

The monitoring and evaluation of environmental parameters indicates potential changes occurring in the environment, which paves way for implementation of rectifying measures wherever required to maintain the status of the natural environment. Evaluation is also a very effective tool to judge the effectiveness or deficiency of the measures adopted and provides insight for future corrections. The main objective of environmental monitoring is to ensure that the obtained results in respect of environmental attributes and prevailing conditions during operation stage are in conformity with the prediction during the planning stage. In case of substantial deviation from the earlier prediction of results, this forms as base data to identify the cause and suggest remedial measures. Environmental monitoring is mandatory to meet compliance of statutory provisions under the Environment (Protection) Act, 1986, relevant conditions regarding monitoring covered under EC orders issued by the SEIAA-TN as well as the conditions set forth under the order issued by Tamil Nadu Pollution Control Board while granting CTE/CTO.

6.1 METHODOLOGY OF MONITORING MECHANISM

Implementation of EMP and periodic monitoring will be carried out by respective project proponents. A comprehensive monitoring mechanism has been devised for monitoring of impacts due to proposed project; Environmental protection measures like dust suppression, control of noise and blast vibrations, maintenance of machinery and vehicles, housekeeping in the mine premises, plantation, implementation of Environmental Management Plan and environmental clearance conditions will be monitored by the respective mine management. On the other hand, implementation of area level protection measures like green belt development, environmental quality monitoring etc., are taken up by a senior executive who reports to their Mine Management. An Environment monitoring cell (EMC) will be constituted to monitor the implementation of EMP and other environmental protection measures in the proposed quarry. The responsibilities of this cell will be:

- Implementation of pollution control measures
- Monitoring programme implementation
- Post-plantation care
- To check the efficiency of pollution control measures taken
- Any other activity as may be related to environment

❖ Seeking expert's advice when needed.

The environmental monitoring cell will co-ordinate all monitoring programs at site and data thus generated will be regularly furnished to the State regulatory agencies as compliance status reports.

The sampling and analysis report of the monitored environmental attributes will be submitted to the Tamil Nadu Pollution Control Board (TNPCB) at a frequency of half-yearly and yearly by the proposed project proponent. The half-yearly reports are submitted to Ministry of Environment and Forest, Regional Office and SEIAA-TN as well.

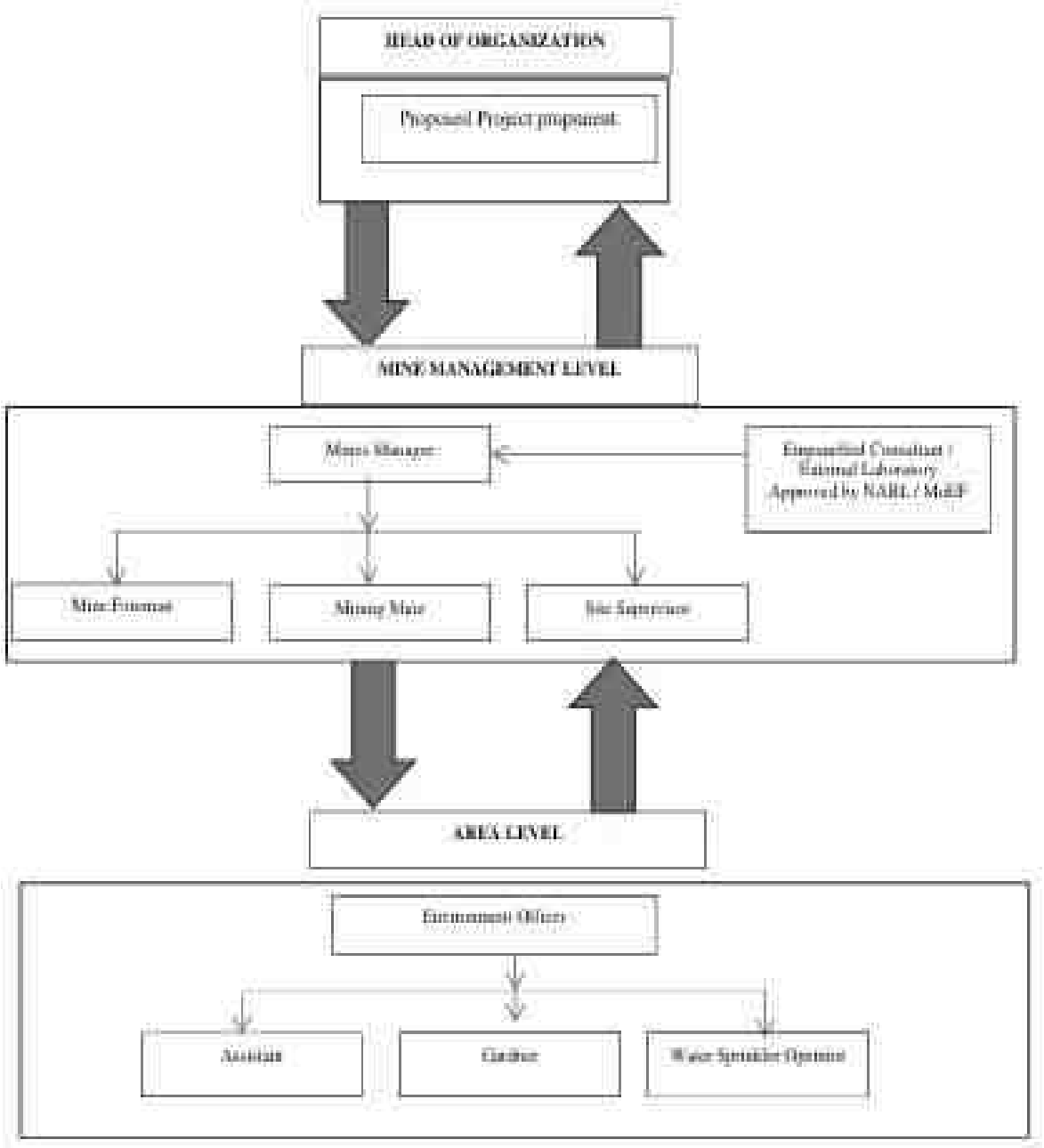


Figure 6.1 Proposed environmental monitoring chart

The sampling and analysis of the environmental attributes will be as per the guidelines of Central Pollution Control Board (CPCB)/Ministry of Environment, Forest and Climate Change (MoEF & CC). The Environmental Monitoring Cell will be formed for the proposed project. The structure of the cell will be as shown in Figure 6.1.

6.2 IMPLEMENTATION SCHEDULE OF MITIGATION MEASURES

The mitigation measures proposed in chapter IV will be implemented so as to reduce the impact on the environment due to the operations of the proposed project. Implementation schedule of mitigation measures is given in Table 6.1.

Table 6.1 Implementation Schedule for Proposed Project

S. No.	Recommendations	Time Period	Schedule
1	Land Environment Control Measures	Before commissioning of the project	Immediately after the commencement of project
2	Soil Quality Control Measures	Before commissioning of the project	Immediately after the commencement of project
3	Water Pollution Control Measures	Before commissioning of the project and along with mining operation	Immediately and as project progress
4	Air Pollution Control Measures	Before commissioning of the project and along with mining operation	Immediately and as project progress
5	Noise Pollution Control measures	Before commissioning of the project and along with mining operation	Immediately and as project progress
6	Ecological Environment	Phase wise implementation every year along with mine operations	Immediately and as project progress

6.3 MONITORING SCHEDULE AND FREQUENCY

Monitoring shall confirm that commitments are being met. This may take the form of direct measurement and recording of quantitative information, such as amounts and concentrations of discharges, emissions and wastes, for measurement against statutory standards. Monitoring may include socio-economic interaction, through local liaison activities or even assessment of complaints.

The environmental monitoring will be conducted in the mine operations as follows:

- Air quality
- Water and wastewater quality

- ❖ Noise levels
- ❖ Soil quality and
- ❖ Greenbelt development

The details of proposed monitoring schedule have been provided in Table 6.2.

Table 6.2 Proposed Monitoring Schedule Post EC for the Proposed Quarry

S. No	Environment Attributes	Location	Monitoring		Parameters
			Duration	Frequency	
1	Air Quality	2 Locations (1 Core & 1 Buffer)	24 hours	Once in 6 months	Fugitive Dust, $PM_{2.5}$, PM_{10}, SO_2 and NO_x.
2	Meteorology	At mine site before start of Air Quality Monitoring & IMD Secondary Data	Hourly / Daily	Continuous online monitoring	Wind speed, Wind direction, Temperature, Relative humidity and Rainfall
3	Water Quality Monitoring	2 Locations (1SW & 1 GW)	-	Once in 6 months	Parameters specified under IS:10500, 1993 & CPCB Norms
4	Hydrology	Water level in open wells in buffer zone around 1 km at specific wells	-	Once in 6 months	Depth in m BGL
5	Noise	2 Locations (1 Core & 1 Buffer)	Hourly – 1 Day	Once in 6 months	Leq, Lmax, Lmin, Leq Day & Leq Night
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting operation	Peak particle velocity
7	Soil	2 Locations (1 Core & 1 Buffer)	–	Once in six months	Physical and chemical characteristics
8	Greenbelt	Within the project area	Daily	Monthly	Maintenance

Source: Guidance of manual for mining of minerals, February 2010

6.4 BUDGETARY PROVISION FOR ENVIRONMENT MONITORING PROGRAM

The cost in respect of monitoring of environmental attributes, parameter to be monitored, sampling/monitoring locations with frequency and cost provision against each proposal is shown in Table 6.3. Monitoring work will be outsourced to external laboratory

approved by NABL / MoEF. The proposed recurring cost for Environmental Monitoring Programme is **Rs 2,95,000** /- per annum for the proposed project site.

Table 6.3 Environment Monitoring Budget

S. No.	Parameter	Capital Cost	Recurring Cost per annum
1	Air Quality	-	Rs 60,000/-
2	Meteorology	-	Rs 15,000/-
3	Water Quality	-	Rs 20,000/-
4	Water Level Monitoring	-	Rs 10,000/-
5	Soil Quality	-	Rs 20,000/-
6	Noise Quality	-	Rs 10,000/-
7	Vibration Study	-	Rs 1,50,000/-
8	Greenbelt	-	Rs 10,000/-
Total		**-**	**Rs 2,95,000 /-**

Source: Field Data

6.5 REPORTING SCHEDULES OF MONITORED DATA

The monitored data on air quality, water quality, noise levels and other environmental attributes will be periodically examined by the Cluster Mine Management Coordinator and Respective Head of Organization for taking necessary corrective measures. The monitoring data will be submitted to Tamil Nadu State Pollution Control Board in the Compliance to CTO Conditions & environmental audit statements every year to MoEF & CC and Half-Yearly Compliance Monitoring Reports to MoEF & CC Regional Office and SEIAA.

Periodical reports to be submitted to:

- MoEF & CC – Half yearly status report
- TNPCB - Half yearly status report
- Department of Geology and Mining: quarterly, half yearly annual reports

Besides the Mines Manager/Agent of respective project will submit the periodical reports to**:**

- Director of mines safety
- Labour enforcement officer
- Controller of explosives as per the norms stipulated by the department.

CHAPTER VII
ADDITIONAL STUDIES

7.0 GENERAL

Additional studies deal with:

- Public Consultation for Proposed Project
- Risk Assessment
- Disaster Management Plan
- Cumulative Impact Study
- Plastic Waste Management

7.1 PUBLIC CONSULTATION FOR PROPOSED PROJECT

Application to the Member Secretary of the Tamil Nadu Pollution Control Board (TNPCB) to conduct Public Hearing in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site or in its close proximity in the district was made and the public opinions on the proposed project will be updated in the final EIA/EMP report.

7.2 RISK ASSESSMENT FOR PROPOSED PROJECT

Risk Assessment is all about prevention of accidents and to take necessary steps to prevent it from happening. The methodology for the risk assessment is based on the specific risk assessment guidance issued by the Directorate General of Mine Safety (DGMS), Dhanbad, vide circular No.13 of 2002, dated 31st December, 2002. 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 Mine Manager holding certificate of competency to manage a metalliferous mine granted by the DGMS, Dhanbad for proposed project.

Factors of risks involved due to human induced activities in connection with these proposed mining & allied activities with detailed analysis of causes and control measures for the mine is given in Table 7.1.

Table 7.1 Risk Assessment & Control Measures for Proposed Project

S. No.	Risk factors	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. ✓ Workers will be sent to the Training in the nearby Group Vocational Training Centre 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. ✓ Working of quarry, as per approved plans and regularly updating the mine plans. ✓ Cleaning of mine faces on daily basis shall be daily done in order to avoid any overhang or undercut. ✓ Handling of explosives, charging and firing shall be carried out by competent persons only under the supervision of a Mine Manager. ✓ Maintenance and testing of all mining equipment as per manufacturer's guidelines.
2	Drilling	Improper and unsafe practices; Due to high pressure of compressed air, hoses may burst;	✓ 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,

		Drill Rod may break;	✓ 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. ✓ All drills unit shall be provided with wet drilling shall be maintained in efficient working in condition. ✓ Operator shall regularly use all the personal protective equipment.
3	Blasting	Fly rock, ground vibration, Noise and dust. Improper charging, stemming & Blasting/ fining of blast holes Vibration due to movement of vehicles	✓ The maximum charge per delay and by optimum blast hole pattern, vibrations will be controlled within the permissible limit and blast can be conducted safely. ✓ SOP for Charging, Stemming & Blasting/Firing of Blast Holes will be followed by blasting crew during initial stage of operation ✓ Shots are fired during daytime only. ✓ All holes charged on any one day shall be fired on the same day. ✓ The danger zone is and will be distinctly demarcated (by means of red flags)
4	Transportation	Potential hazards and unsafe workings contributing to accident and injuries Overloading of material	✓ Before commencing work, drivers personally check the 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.

		While reversal & overtaking of vehicle Operator of truck leaving his cabin when it is loaded.	✓ Not allow any unauthorized person to ride on the vehicle nor allow any unauthorized person to operate the vehicle. ✓ Concave mirrors should be kept at all corners ✓ All vehicles should be fitted with reverse horn with one spotter at every tipping point ✓ Loading according to the vehicle capacity ✓ Periodical maintenance of vehicles as per operator manual
5	Natural calamities	Unexpected happenings	✓ Escape Routes will be provided to prevent inundation of storm water ✓ Fire Extinguishers & Sand buckets
6	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.

Source: Analysed and proposed by FAE & EC

7.3 DISASTER MANAGEMENT PLAN FOR PROPOSED PROJECT

Natural disasters like Earthquake, Landslides have not been recorded in the past history as the terrain is categorized under seismic zone II. The area is far away from the sea. Hence, the disaster due to heavy floods and tsunamis are not anticipated. The Disaster Management Plan is aimed to ensure safety of life, protection of environment, protection of installation, restoration of production and salvage operations in this same order of priorities. The objective of the Disaster Management Plan is to make use of the combined resources of the mine and the outside services to achieve the following:

- Rescue and medical treatment of casualties;
- Safeguard other people;
- Minimize damage to property and the environment;
- Initially contain and ultimately bring the incident under control;
- Secure the safe rehabilitation of affected area; and
- Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency.
- In case a disaster takes place, despite preventive actions, disaster management will have to be done in line with the descriptions below. There is an organization proposed for dealing with the emergency situations. Structure of the team has been shown in Figure 7.1.

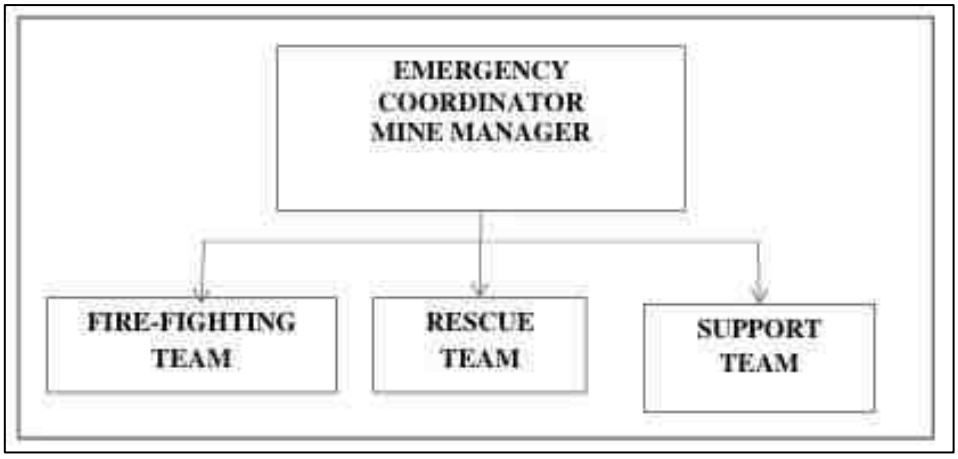


Figure 7.1 Disaster management team layout for proposed project

7.3.1 Emergency Control Procedure

The onset of emergency, will in all probability, commence with a major fire or explosion or collapse of wall along excavation and shall be detected by various safety devices and also by members of operational staff on duty. If located by a staff member on duty, he (as per site emergency procedure of which he is adequately briefed) will go to nearest alarm call point, break glass and trigger off the alarms. He will also try his best to inform about location and nature of accident to the emergency control room. In accordance with work emergency procedure the following key activities will immediately take place to interpret and take control of emergency.

- On site fire crew led by a fireman will arrive at the site of incident with fire foam tenders and necessary equipment.
- Emergency security controller will commence his role from main gate office
- Incident controller shall rush to the site of emergency and with the help of rescue team and will start handling the emergency.
- Site main controller will arrive at MECR with members of his advisory and communication team and will assume absolute control of the site.
- He will receive information continuously from incident controller and give decisions and directions to: Incident controller, Mine control rooms, Emergency security controller

7.4 CUMULATIVE IMPACT STUDY

The Cumulative Impact is mainly anticipated due to drilling & blasting and excavation and transportation activities in all the projects within the cluster and major impact anticipated is on Air & Noise Environment and Ground Vibrations due to blasting. For this cumulative study, the proposed project, known as P1, Existing Project, Known as E1 & E2 are taken into consideration. The details of P1, E1 & E2 have been given in Table 7.2, 7.3 & 7.4.

Table 7.2 Salient Features of P1

Name of the Quarry	T.Prabhakaran	
Type of Land	Patta Land	
Extent	5.43.40ha	
S.F. No	1083(P),1084/1(P),1084/2(P),1086/1(P),1089/1(P),1089/2(P)	
Toposheet No	58 F/13	
Highest Elevation	194m AMSL	
Latitude	10°58'50.43"N to 10°59'3.18"N	
Longitude	77°59'4.95"E to 77°59'12.95"E	
Proposed depth as per ToR	50m BGL	
Ultimate depth for ten years	50m BGL	
Geological Resources	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	3656123 & 10054338	163707 & 327414
Mineable Reserves	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	1175226 & 3231871	131604 & 263208
Proposed production for 10 years	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	1076126 & 2959346	131604 & 263208
Method of Mining	Open cast mechanized mining method	
Topography	Flat Terrain	
Machinery requirements	Jack hammer	2
	Excavator	2
	Compressor	2
	Tipper	5
Proposed Manpower Deployment	22	
Project Cost	Rs.1,46,14,000/-	
Proposed Water Requirement	3.5 KLD	

Table 7.3 Salient Features of the Cluster E1

Name of the Quarry	**M/s. VST Blue Metals**
Type of Land	Patta Land
Extent	3.82.50 ha
S.F. No	1199/2,1199/3,1199/4,1199/5,1199/6,1199/7 1199/8,1199/9,1200/4,1200/5,1200/6,1200/7, 1200/8,1200/9,1200/10,1200/11,1200/12,1201(P)

Toposheet No	58-F/13	
Highest Elevation	172m AMSL	
Latitude	10°58'49.85"N to 10°58'59.89"N	
Longitude	77°58'55.12"E to 77°59'0.61"E	
Proposed depth as per ToR	25m BGL	
Ultimate depth for ten years	25m BGL	
Geological Resources	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	726213 & 1997086	48498 & 96996
Mineable Reserves	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	437013 & 1201786	38880 & 77760
Proposed production for 5 years	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	340313 & 935861	38880 & 77760
Method of Mining	Open cast mechanized mining method	
Topography	Flat Terrain	
Machinery requirements	Jack hammer	4
	Excavator	1
	Compressor	1
	Tipper	6
Proposed Manpower Deployment	35	
Project Cost	Rs.90,79,000/-	
Proposed Water Requirement	5.5 KLD	

Table 7.4 Salient Features of the Cluster E2

Name of the Quarry	**M/s. VST Blue Metals**	
Type of Land	Patta Land	
Extent	2.58.0 ha	
S.F. No	1197/1,1197/5,1197/6,1197/7	
Toposheet No	58-F/13	
Highest Elevation	175m AMSL	
Latitude	10°59'00.58"N to 10°59'06.76"N	
Longitude	77°58'44.89"E to 77°58'52.58"E	
Ultimate depth for five years	43m BGL	
Geological Resources	Rough stone in m^3 & Tons	Gravel in m^3 & Tons

	939610 & 2583928	47763 & 95526
Mineable Reserves	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	193225 & 531369	22365 & 44730
Proposed production for 5 years	Rough stone in m^3 & Tons	Gravel in m^3 & Tons
	193225 & 531369	22365 & 44730
Method of Mining	Open cast mechanized mining method	
Topography	Flat Terrain	
Machinery requirements	Jack hammer	5
	Excavator	1
	Compressor	1
	Tipper	3
Proposed Manpower Deployment	24	
Project Cost	Rs.47,62,000/-	
Proposed Water Requirement	3.5 KLD	

7.4.1 Air Environment

As the production of rough stone and gravel plays a vital role in affecting the air environment. The data on the cumulative production resulting from the proposed project have been given in Tables 7.5 and 7.6.

Table 7.5 Cumulative Production Load of Rough Stone

Quarry	10 Years in (m^3 & Ts)	Per Year in (m^3 & Ts)	Per Day in (m^3 & Ts)	Number of Lorry Load Per Day
P1	1076126 & 2959346	107612 & 295935	398 & 1094	66
E1	340313 & 935861	68062 & 187170	252 & 693	42
E2	193225 & 531369	38645 & 106273	143 & 393	24
Grand Total	**1609664 & 4426576**	**214319 & 589378**	**793 & 2180**	**132**

Table 7.6 Cumulative Production Load of Gravel

Quarry	3 Years in (m^3 & Ts)	Per Year in (m^3 & Ts)	Per Day in (m^3 & Ts)	Number of Lorry Load Per Day
P1	131604 & 263208	43868 & 87736	162 & 324	27
E1	38880 & 77760	12960 & 25920	48 & 96	8
E2	22365 & 44730	7455 & 14910	28 & 55	5
Grand Total	**192849 & 385698**	**64283 & 128566**	**238 & 475**	**40**

The cumulative study shows that the overall production of rough stone from the quarry is 793 & 2180 Ts per day with a capacity of 132 trips of rough stone per day and gravel from the quarry is 238 & 475 Ts per day with a capacity of 40 trips of gravel per day.

7.4.1.1 Cumulative Impact of Air Pollutants

The results on the cumulative impact of the proposed project on air environment of the cluster have been provided in Table 7.7. The cumulative values resulting from the project for each pollutant do not exceed the permissible limits set by CPCB.

Table 7.7 Cumulative Impact Results from the proposed project

Pollutants	Baseline Data (µg/m^3)	Incremental Values (µg/m^3)	Cumulative Value (µg/m^3)
		P1	
$PM_{2.5}$	17.60	9.45	27.05
PM_{10}	45.68	19.3	64.98

7.4.2 Noise Environment

Noise pollution is mainly due to operation like drilling & blasting and plying of trucks & HEMM. Cumulative Noise modelling has been carried out considering blasting and compressor operation (drilling) and transportation activities. Predictions have been carried out to compute the noise level at various distances around the different quarries within the 500 m radius.

Table.7.8 Cumulative Impact of Noise for one Cluster Projects

Location ID	Distance (m)	Direction	Background Value (Day) dB(A)	Incremental Value dB(A)	Total Predicted dB(A)	Residential Area Standards dB(A)
Habitation Near P1	770	SW	48.1	26.23	48.13	**55**
Habitation Near E1	640	SW	48.1	27.84	48.14	
Habitation Near E2	880	S	48.1	25.07	48.12	
Cumulative Noise (dB (A))					52.90	

Source: Lab Monitoring Data

The cumulative analysis of noise due to cluster project shows that habitation will receive about 52.90dB(A) respectively. The cumulative results for all the villages in consideration do not exceed the limit set by CPCB for residential areas for day time.

Ground Vibrations

Cumulative results of ground vibrations due to mining activities from the cluster project have been shown in Table 7.9.

Table 7.9 Cumulative Effect of Ground Vibrations Resulting from cluster Project

Location ID	Maximum Charge in kgs	Nearest Habitation in m	PPV in mm/s
P1	38.55	320	0.911
E1	24.26	486	0.322
E2	13.77	890	0.078
Total			**1.311**

Results from the above indicate that the cumulative PPV value of each habitation is well below the peak particle velocity of 8 mm/s as per Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997.

7.4.3 Socio Economic Environment

Socio Economic benefits of the proposed project were calculated and the results have been shown in Table 7.10. The project together will contribute Rs. 15,00,000/-towards CER fund.

Table 7.10 Socio Economic Benefits from the Cluster Project

Location ID	Project Cost	CER Cost
P1	Rs.1,46,14,000/-	Rs. 5,00,000
E1	Rs.90,79,000/-	Rs. 5,00,000
E2	Rs.47,62,000/-	Rs. 5,00,000
Grand Total	**Rs. 2,84,55,000/-**	**Rs. 15,00,000**

Table 7.11 Employment Benefits for Cluster Project

Location ID	Employment
P1	22
E1	35
E2	24
Grand Total	**81**

A total of 81 people will get employment from the cluster project.

7.4.4 Ecological Environment

"Gap Plantation" procedure:

Developing a three-tier green belt of native plant species around industrial peripheries is a vital environmental guideline for mitigating pollution and enhancing ecosystem services. Dig pits of substantial dimensions (1m x 1m x 1m for large trees, half for smaller ones) fill them with a mixture of earth, sand, silt and manure and then water the saplings generously. Care for the first three years involves nutrient supplementation, plant protection, managing water stress and ensuring exposure to normal atmospheric conditions.

The chosen species should be fast-growing, deep-rooted, wind-firm possess a dense and potentially permeable canopy, tolerate air pollution (SO2, NO2) and ideally be indigenous.

Additional preferred characteristics include long-lasting foliage, large, sturdy leaves, abundant stomata, rough bark and a general ability to withstand local environmental stresses such as drought or inundation while also contributing positively to the environment through soil improvement, aesthetic appeal and attracting wildlife.

Activities for Maintenance:

- Regular pruning
- Watering
- Weed removal
- Manuring
- The growing plants are cared at least for the first 3 years under favourable condition of climate and irrigation.
- For healthy and vigorous growth adequate nutrient will be supplied
- To avoid water stress condition regular watering will be done.

Table 7.12 Greenbelt Development

Code	Number of Trees proposed	Area to be covered (m^2)	No. of Trees expected to be grown @ 80% survival rate	Species recommended
P1	2717	24453	2174	*Azadirachta indica, Albizia lebbeck, Delonix regia, Techtona grandis, etc.,*
E1	1913	17213	1530	
E2	1290	11610	1032	
Total	**5920**	**53276**	**4736**	

Cumulative studies show that the project proponents will plant about 5920 native tree species like Azadirachta indica, Albizia lebbeck, Delonix regia, Techtona grandis, etc inside and outside the lease area. It is expected that 80 % of trees, i.e., 4736 trees will survive in this green belt development program.

7.5 PLASTIC WASTE MANAGEMENT PLAN FOR PROPOSED PROJECT

All the Project Proponent shall comply with Tamil Nadu Government Order (Ms) No. 84 Environment and Forest (EC.2) Department Dated: 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.

7.5.1 Objective

- ❖ To investigate the actual supply chain network of plastic waste.
- ❖ To identify and propose a sustainable plastic waste management by installing bins for collection of recyclables with all the plastic waste
- ❖ Preparation of a system design layout, and necessary modalities for implementation and monitoring.

A detailed action plan to manage plastic waste has been provided in Table 7.13.

Table 7.13 Action Plan to Manage Plastic Waste

S. No.	Activity	Responsibility
1	Framing of Layout Design by incorporating provision of the Rules, user fee to be charged from waste generators for plastic waste management, penalties/fines for littering, burning plastic waste or committing any other acts of public nuisance.	Mines Manager
2	Enforcing waste generators to practice segregation of bio degradable, recyclable and domestic hazardous waste.	Mines Manager
3	Collection of plastic waste.	Mines Foreman
4	Setting up of Material Recovery Facilities.	Mines Manager
5	Segregation of Recyclable and Non-Recyclable plastic waste at Material Recovery Facilities.	Mines Foreman
6	Channelization of Recyclable Plastic Waste to registered recyclers.	Mines Foreman
7	Channelization of Non-Recyclable Plastic Waste for use either in Cement kilns, in Road Construction.	Mines Foreman
8	Creating awareness among all the stakeholders about their responsibility.	Mines Manager
9	Surprise checking's of littering, open burning of plastic waste or committing any other acts of public nuisance.	Mine Owner

Source: Proposed by FAEs and EC

CHAPTER VIII
PROJECT BENEFITS

8.0 GENERAL

The proposed project at Punnam Village, aims to produce 1076126m^3 or 2959346 Ts of rough stone and 131604m^3 or 263208 Ts of gravel over a period of 10 years. This will enhance the socio-economic activities in the adjoining areas and will result in the following benefits:

- Increase in Employment Potential
- Improvement in Socio-Economic Welfare
- Improvement in Physical Infrastructure
- Improvement in Social infrastructure

8.1 EMPLOYMENT POTENTIAL

It is proposed to provide employment to about 22 persons for carrying out mining operations and give preference to the local people in providing employment in this cluster. In addition, there will be an opportunity for indirect employment to the form of contractual jobs, business opportunities, and service facilities etc. Because of this, the economic status of the local people will improve.

8.2 SOCIO-ECONOMIC WELFARE MEASURES PROPOSED

The impact of mining activity in the area will be more positive on the socio-economic environment in the immediate project impact area. The employment opportunities both direct and indirect will contribute to enhanced money incomes to job seekers with minimal skill sets especially among the local communities.

8.3 IMPROVEMENT IN PHYSICAL INFRASTRUCTURE

The proposed quarry project is located in Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu. The area has already well-established communications roads and other facilities. The following physical infrastructure facilities will further improve due to proposed project.

- Road transport facilities
- Communications
- Medical, Educational and social benefits will be made available to the nearby civilian population in addition to the workmen employed in the mine.

8.4 IMPROVEMENT IN SOCIAL INFRASTRUCTURE

Employment is expected during civil construction period, in trade, garbage lifting, sanitation and other ancillary services, Employment in these sectors will be primarily

temporary or contractual and involvement of unskilled labour will be more. A major part of the labour force will be mainly from local villagers who are expected to engage themselves both in agriculture and mining activities. This will enhance their income and lead to overall economic growth of the area.

8.5 OTHER TANGIBLE BENEFITS

The proposed mine is likely to have other tangible benefits as given below

- Indirect employment opportunities to local people in contractual works like construction of infrastructural facilities, transportation, sanitation for supply of goods and services to the mine and other community services
- Additional housing demand for rental accommodation will increase
- Cultural, recreation and aesthetic facilities will also improve
- Improvement in communication, transport, education, community development and medical facilities and overall change in employment and income opportunity
- The State Government will also benefit directly from the proposed mine, through increased revenue from royalties, cess, DMF, GST etc.,

8.6 CORPORATE SOCIAL RESPONSIBILITY

Individual project proponents will take responsibility to develop awareness among all levels of their staff about CSR activities and the integration of social processes with business processes. Those involved with the undertaking of CSR activities will be provided with adequate training and re-orientation.

Under this programme, the project proponents will take-up following programmes for social and economic development of villages within 5 km of the project site. For this purpose, separate budget will be provided every year. For finalization of these schemes, proponent will interact with LSG. The schemes will be selected from the following broad areas –

- Health Services Social Development
- Infrastructure Development
- Education & Sports
- Self-Employment
- CSR Cost Estimation
- CSR activities mainly contributing to education, health, training of women self-help groups and infrastructure etc., will be taken up in the Punnam Village. CSR budget is allocated.

8.7 CORPORATE ENVIRONMENT RESPONSIBILITY

Allocation for Corporate Environment Responsibility (CER) shall be made as per Government of India, MoEF & CC Office Memorandum F.No.22-65/2017-IA.III dated 01.05.2018. As per para 6 (II) of the office memorandum, being a green field project & capital investment is ≤ 100 crores, the proposed project shall contribute 2% of capital investment towards CER as per directions of EAC/SEAC. However, the SEAC has suggested to allocate CER fund on the basis of the extent of the project. Therefore, Rs. 5,00,000 is allocated for CER. The proposed utilization of the budget of CER activities is given in Table 8.1.

Table 8.1 CER Action Plan

S. No.	Activity	Budget (Rs.in Lakh)
1	The applicant Indents to involve in corporate environment responsibilities (CER) activities such as renovation of existing toilet, plantation within the school premises, donating environment related books to the nearby school library, etc.	Rs.5,00,000
	Total	**Rs.5,00,000**

Source: Field survey conducted by FAE in consultation with project proponent

8.8 SUMMARY OF PROJECT BENEFITS

The project would contribute about **Rs. 12,55,65,396** to the state government through various ways, as provided in Table 8.2.

Table 8.2 Project Benefits to the State Government

Particulars	Budget for Rough Stone (Rs.)	Budget for Gravel (Rs.)
CER	5,00,000	
Seigniorage @ Rs.90/m^3 of rough stone / Rs.56/m^3 of gravel	9,68,51,340	73,69,824
District Mineral Foundation Tax @ 10% of Seigniorage	96,85,134	7,36,982
Green Tax @ 10% of Seigniorage	96,85,134	7,36,982
Total	**11,67,21,608**	**88,43,788**

CHAPTER IX

ENVIRONMENTAL COST BENEFIT ANALYSIS

Not Applicable, Since Environmental Cost Benefit Analysis not recommended at the Scoping stage.

CHAPTER X

ENVIRONMENTAL MANAGEMENT PLAN

10.0 GENERAL

Environment Management Plan (EMP) aims at the preservation of ecological system by considering in-built pollution abatement facilities at the proposed site. Good practices of environmental management plan will ensure to keep all the environmental parameters of the project in respect of ambient air quality, water quality, socio economic improvement standards. Mitigation measures at the source level and an overall environment management plan at the study area are elicited so as to improve the supportive capacity of the receiving bodies. The EMP presented in this chapter discusses the administrative aspects ensuring that mitigative measures are implemented and their effectiveness monitored after approval of the EIA.

10.1 ENVIRONMENTAL POLICY

The project proponent is committed to conduct all its operations and activities in an environmentally responsible manner and to continually improve environmental performance. The Proponent T.Prabhakaran will:

- Meet the requirements of all laws, acts, regulations, and standards relevant to its operations and activities.
- Implement a program to train employees in general environmental issues and individual workplace environmental responsibilities.
- Allocate necessary resources to ensure the implementation of the environmental policy.
- Ensure that an effective closure strategy is in place at all stages of project development and that progressive reclamation is undertaken as early as possible to reduce potential long-term environmental and community impacts.
- Implement monitoring programs to provide early warning of any deficiency or unanticipated performance in environmental safeguards.
- Conduct periodic reviews to verify environmental performance and to continuously strive towards improvement.

10.1.1 Description of the Administration and Technical Setup

The environment monitoring cell discussed under chapter VI will ensure effective implementation of environment management plan and to ensure compliance of environmental statutory guidelines through mine management level of each proposed quarry. The said team will be responsible for:

- 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 program.
- ❖ 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.

10.2 Budgetary Provision for Environmental Management

Adequate budgetary provision has been made by the company for execution of Environmental Management Plan. The Table 10.1 gives overall investment on the environmental safeguards and recurring expenditure for successful monitoring and implementation of control measures.

Table 10.1 EMP Budget for Proposed Project

Attribute	Mitigation measures	Provision for Implementation	Capital Cost (Rs.)	Recurring Cost/annum (Rs.)
Air Environment	Compaction, gradation and drainage on both sides	Rental Dozer & drainage construction on haul road @ Rs. 10,000/- per hectare and yearly maintenance @ Rs. 10,000/- per hectare	54340	54340
	Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers	Fixed sprinkler installation and new water tanker cost for capital; and water sprinkling (thrice a day) cost for recurring	800000	50000
	Air quality will be regularly monitored as	Yearly compliance as per CPCB norms	0	50000

	per norms within ML area & ambient area			
	Muffle blasting – To control fly rocks during blasting	Blasting face will be covered with sand bags / steel mesh / old tyres / used conveyor belts	0	5000
	Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit	Dust extractor @ Rs. 25,000/- per unit deployed as capital & @ Rs. 2,500 per unit recurring cost for maintenance	50000	5000
	No overloading of trucks/tippers/tractors	Manual Monitoring through Security guard	0	5000
	Stone carrying trucks will be covered by tarpaulin to avoid escape of fines to the atmosphere	Monitoring if trucks will be covered by tarpaulin	0	10000
	Enforcing speed limits of 20 km/hr within ML area	Installation of Speed Governors @ Rs. 5,000/- per tipper/dumper deployed	25000	0
	Regular monitoring of exhaust fumes as per RTO norms	Monitoring of Exhaust Fumes	0	6250
	Regular sweeping and maintenance of roads for at least about 200 m from quarry entrance	Provision for 2 labours @ Rs.10,000/labour (Contractual) / hectare	0	108680
	Installing wheel wash system near exit gate of quarry	Installation + Maintenance + Supervision	50000	20000
Total Air Environment			**979340**	**314270**

Noise Environment	Source of noise will be transportation vehicles, and HEMM. For this, proper maintenance will be done at regular intervals.	Provision made in Operating Cost	0	0
	Oiling & greasing of Transport vehicles and HEMM at regular interval will be done.	Provision made in Operating Cost	0	0
	Adequate silencers will be provided in all the diesel engines of vehicles.	Provision made in Operating Cost	0	0
	It will be ensured that all transportation vehicles carry a fitness certificate.	Provision made in Operating Cost	0	0
	Safety tools and implementations that are required will be kept adequately near blasting site at the time of charging.	Provision made in OHS part	0	0
	Line Drilling all along the boundary to reduce the PPV from blasting activity and implementing controlled blasting.	Provision made in Operating Cost	0	0
	Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.	Blowing Whistle by Mining Mate / Blaster / Competent Person	0	0

	Provision for Portable blaster shed	Installation of portable blasting shelter	50000	2000
	NONEL Blasting will be practiced to control Ground vibration and fly rocks	Rs. 30/- per 6 tons of blasted material	0	3013153
Total Noise Environment			**50000**	**3015153**
Water Environment	Water Management	Provision for garland drain @ Rs. 10,000/- per hectare with maintenance of Rs. 5,000/- per annum	54340	27170
Total Water Environment			**54340**	**27170**
Waste Management	Waste management (Spent Oil, Grease etc.,)	Provision for domestic waste collection and disposal through authorized agency (capital cost, recurring cost for collection /disposal).	25000	20000
		Installation of dust bins	5000	2000
	Bio toilets will be made available outside mine lease on the land of owner itself	Provision made in Operating Cost	0	0
Total Waste Management			**30000**	**22000**
Implementation of EC, Mining Plan & DGMS	Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN	Fixed display board at the quarry entrance as permanent structure	10000	1000
Total Implementation of EC, Mining Plan			**10000**	**1000**

Occupational Health and Safety	Workers will be provided with Personal Protective Equipment	Provision of PPE @ Rs. 4,000/- per employee with recurring based on wear and tear (say, @ Rs. 1,000/- per employee)	88000	22000
	Health checkup for workers will be provisioned	IME & PME Health checkup @ Rs. 1,000/- per employee	0	22000
	First aid facility will be provided	Provision of 2 Kits per Hectare @ Rs. 2,000/-	0	21736
	Mine will have safety precaution signages, boards.	Provision for signages and boards made	10000	2000
	Barbed Wire Fencing to quarry area will be provisioned.	Per Hectare fencing Cost @ Rs. 2,00,000/- with Maintenance of Rs 10,000/- per annum	1086800	54340
	No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles /HEMMs. Flaggers will be deployed for traffic management	Parking area with shelter and flags @ Rs. 50,000/- per hectare project and Rs. 10,000/- as maintenance cost	271700	54340
	Installation of CCTV cameras in the mines and mine entrance	Camera 4 Nos, DVR, Monitor with internet facility	30000	5000
	Implementation as per Mining Plan and ensure safe quarry working	Mines Manager (1st Class / 2nd Class / Mine Foreman) under regulation 34 / 34 (6) of MMR, 1961 and	0	780000

		Mining Mate under regulation 116 of MMR,1961 @ 40,000/- for Manager & @ 25,000/- for Foreman / Mate		
Total Occupational Health and Safety			**1486500**	**961416**
Development of Green Belt	Green belt development - 500 trees per hectare (200 Inside Lease Area & 300 Outside Lease Area)	Site clearance, preparation of land, digging of pits /trenches, soil amendments, transplantation of saplings @ 200 per plant (capital) for plantation inside the lease area and @ 30 per plant maintenance (recurring))"	217360	32604
		Avenue Plantation @ 300 per plant (capital) for plantation outside the lease area and @ 30 per plant maintenance (recurring)	489060	48906
Total Development of Green Belt			**706420**	**81510**
Mine Closure	Closure includes 10% of the amount allotted for Greenbelt development, wire fencing, and garland drainage (Rule 27 in MCDR 2017 for Cat B mines will pay 2 lakhs per hectare or minimum amount of financial assurance of 5 lakhs)		184756	0
	G.O.(Ms)No.23, Dated: 28.09.2021	Section IVA of TNMMCR 1959 (@10% of Seigniorage	10422116	0

		Fee) (Seigniorage Fee for Rough stone = Rs.90)		
TOTAL			**13738716**	**4422519**

Table 10.2 Estimation of Overall EMP Budget after Adjusting 5% Annual Inflation

Ist Year	**IInd Year**	**IIIrd Year**	**IVth Year**	**Vth Year**	**VIth Year**	**VII th Year**
4422519	4643645	4875827	5119618	5560355	5838373	6130291

VIII th Year	**IX th Year**	**Xth Year**	**Total Recurring Cost**	**Total EMP Cost**
6436806	6758646	7096578	**56882658**	**70621374**

In order to implement the environmental protection measures, an amount of **Rs. 1,37,38,716** as capital cost and recurring cost as **Rs. 44,22,519** as recurring cost/annum is proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 10 years will be **Rs. 7,06,21,374** as shown in Table 10.2.

10.3 CONCLUSION

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 fund has been allocated for the same. 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. Senior Management responsible for the project will conduct a review of EMP and its implementation to ensure that the EMP remains effective and appropriate. 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 XI
SUMMARY AND CONCLUSION

11.1 INTRODUCTION

The proposed rough stone mining project (P1) falls within the cluster of 500 m radius with the total extent of 11.83.9ha and it requires submission of EIA report for grant of Environmental Clearance (EC) after conducting public hearing. The proposed project falling in S.F.No. 1083(P),1084/1(P),1084/2(P),1086/1(P),1089/1(P),1089/2(P) over the extent of 5.43.40 ha is situated in the cluster falling in Punnam Village, Pugalur Taluk, Karur District and Tamil Nadu. The quarries involved in the calculation of cluster extent are one proposed and one existing quarry.

11.2 PROJECT DESCRIPTION

- The proposed project area is located between Latitudes from 10°58'50.43"N to 10°59'3.18"N and Longitudes from 77°59'4.95"E to 77°59'12.95"E in Punnam Village, Pugalur Taluk, Karur District and Tamil Nadu.
- The mining plan approved for quarrying 1076126m^3 & 2959346 Ts of rough stone and 131604 m^3 & 263208Ts of gravel to the ultimate depth of 50m BGL for ten years.
- The quarrying operation is opencast semi mechanized involving drilling, blasting and formation of benches of the prescribed dimensions.

11.3 DESCRIPTION OF THE ENVIRONMENT

Baseline data were collected for 5km radius from the proposed area during March 2025 to May 2025 as per CPCB guidelines. The data were collected by both the FAE's and NABL accredited and MoEF notified **Interstellar Testing Centre Private Limited** for the environmental attributes including soil, water, noise, air and by FAEs for Ecology and Bio-diversity, traffic and socio-economy.

11.3.1 Land Environment

Land use pattern of the area of 5 km radius was studied using Sentinel II imagery. LULC types and their extent are given in Table 1.

Table.1 LULC Statistics of the Study Area

S. No.	Classification	LU in 2020 in Ha	LU in 2025 in Ha	Change in percentage
1	Water Bodies	0.64	14.38	0.16
2	Plantation	382.30	410.96	0.34
3	Crop Land	4298.18	3004.86	15.41
4	Built-up Lands	1558.43	1863.19	3.63
5	Mining/Industrial area	382.01	406.44	0.29
6	Fallow Land	1770.01	2691.72	10.99
Total		**8391.56**	**8391.56**	**No Change**

Source: Sentinel II Satellite Imagery

11.3.2 Soil Environment

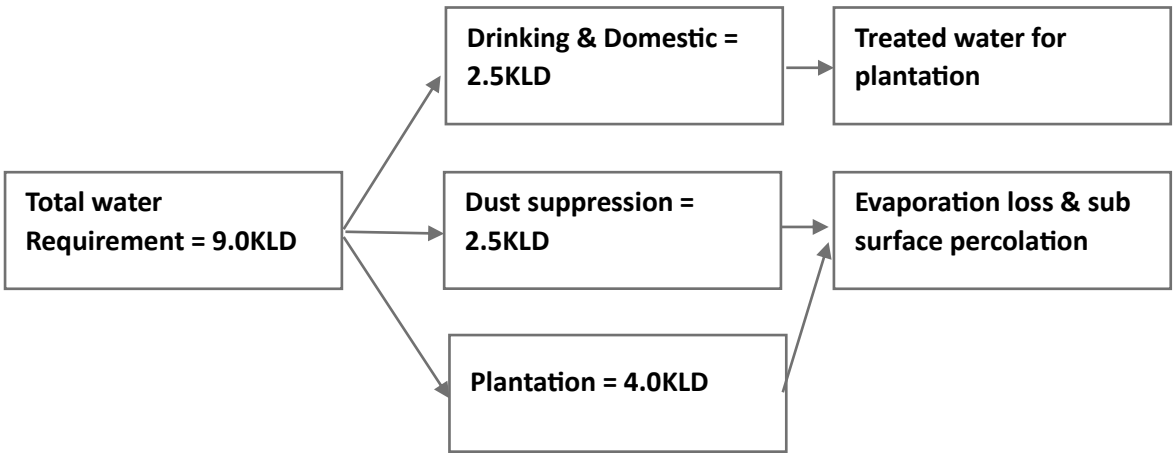
The soil physical characteristics examined were bulk density, porosity, water holding capacity, pH, electrical conductivity (EC) and texture. In the study area soil pH ranged from 7.64 to 8.24 indicating a slightly alkaline environment. Soil EC measured from 0.28 to 0.40 mS/m reflecting the soluble salt content. Low bulk density is associated with good soil physical conditions while high bulk density signals poor conditions for crops.

11.3.3 Water Environment

Water sample labelled SW1 was collected from the Thathampalayam lake and Amaravati river is located at 4.88km south and 5.76km Southeast to establish a baseline water quality assessment as detailed in Table 3.6.

Inference: A surface water TDS (Total Dissolved Solids) of 408 and 583(mg/L) is considered high and generally not recommended for regular drinking as high levels indicate excessive salts, metals or other contaminants. While some sources suggest up to 500 ppm is desirable and up to 2000 ppm is permissible if no other water is available. The EC of surface water is less than 1.5dS/m is considered to be safe for crops.

The surface water quality when compared against CPCB standards does not meet the criteria for drinking water (Class A) but it is suitable for irrigation (Class E).



11.3.4 Air Environment

As per the monitoring data $PM_{2.5}$ ranges from 16.20µg/m^3 to 19.78µg/m^3, PM_{10} from 42.38µg/m^3 to 52.89µg/m^3, SO_2 from 5.09µg/m^3 to 5.68µg/m^3, NO_X from 10.23µg/m^3 to 12.11g/m^3. The concentration levels of the pollutants fall within the acceptable limits of NAAQS prescribed by CPCB.

Air quality Index (AQI)

The AQI shows that the air quality of the study area falls within good category 46 causing minimal impact to human health.

11.3.5 Noise Environment

Noise level in core zone was 45.7dB (A) Leq during day time and 37.8dB(A) Leq during night time. Noise levels recorded in buffer zone during day time varied from 39.8 to 48.1dB (A) Leq and during night time from 36.1 to 41.8dB (A) Leq. Thus, the noise level for industrial and residential area meets the requirements of CPCB.

11.3.6 Biological Environment

The lease area as well as buffer zone area reveals no endangered and endemic species of flora and fauna in the area.

11.3.7 Socio Economic Environment

The proposed project will provide direct and indirect employment and improve the infrastructural facilities in that area, thus leading to the improvement of people's standard of living.

11.4 ENVIRONMENT MANAGEMENT PLAN

In order to implement the environmental protection measures, an amount of **Rs. 1,37,38,716** as capital cost and recurring cost as **Rs. 44,22,519** as recurring cost/annum is proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 10 years will be **Rs. 7,06,21,374.**

11.9 CONCLUSION:

The environmental impact assessment (EIA) study for a proposed mining operation exposed the potential negative impacts such as

- **Dust emission impact:**

  The project is expected to have a negligible impact on overall dust emissions, with levels remaining less than 0.5% of the existing levels.

- **Blasting restriction:**

  Blasting with slurry mixtures should be minimized to avoid causing shockwaves and damage to nearby properties and populations.

- **Erosion control measures:**

  Terracing, planting vegetation and soil stabilization techniques should be implemented to manage erosion.

- **Dust suppression equipment:**

  Dust suppression machines should be readily available on site to minimize dust generation during material handling.

- **Green belt development**

  Creating a vegetative barrier that absorbs gaseous and particulate pollutants reduces noise levels and mitigates soil erosion. By planting native tree species with their vast leaf surfaces, green belts effectively reduce pollutant concentrations in the ambient air and improve the aesthetic environment making them crucial for controlling the impacts of activities like proposed mining operations.

- **Comprehensive environmental management:**

  All recommended environmental management practices should be implemented throughout the project lifecycle.

CHAPTER XII

DISCLOSURES OF CONSULTANT

The Project Proponent, **T.Prabhakaran** has engaged **Geo Technical Mining Solutions**, a NABET accredited consultancy for carrying out the EIA study as per the ToR issued.

Address of the consultancy:

No: 1/213B Natesan Complex,
Oddapatti, Dharmapuri- 636705,
Tamil Nadu, India.
Email:info.gtmsdpi@gmail.com
Web: www.gtmsind.com
Phone: 04342 232777.

The accredited experts and associated members who were engaged in this EIA study are given below:

S. No	Name of the expert	In house/ Empanelled	Sector	Functional Area	Category
Approved Functional Area Experts & EC					
1.	S. Gopalakrishnan	EIA Coordinator (EC) In-house	1(a)(i)	HG, GEO	B
2.	G. Umamaheswaran	In-house, FAE	1(a)(i)	LU, LC	B
3.	Dr. R. Arun Balaji	In-house, FAE	1(a)(i)	AQ	B
4.	Dr. D. Kalaimurugan	In-house, FAE	1(a)(i)	SC, EB	B
5.	Dr. K. Udayakumar	Empanelled FAE	1(a)(i)	SE	B
6.	J.N. Manikandan	Empanelled FAE	1(a)(i)	RH, SHW,	B
7.	R. Revathy	In-house, FAE	1(a)(i)	WP	B
8.	P. Venkatesh	In-house, FAE	1(a)(i)	AP	B
9.	C. Kumaresan	In-house, FAE	1(a)(i)	NV	B
Approved Functional Area Associates					
13	C. Ragul	FAA	1(a)(i)	Geo	B
14	K. Ravichandiran	FAA	1(a)(i)	LU, LC	B
15	K. Pirithivi	FAA	1(a)(i)	HG	B
16	A. Jothibasu	TM	1(a)(i)	AQ	B
17	M. Muralidharan	TM	1(a)(i)	NV	B

Abbreviations			
EC	EIA Coordinator	NV	Noise and Vibration
FAE	Functional Area Expert	SE	Socio Economics
FAA	Functional Area Associates	HG	Hydrology, ground water and water conservation
TM	Team Member	SC	Soil conservation
GEO	Geology	RH	Risk assessment and hazard management
WP	Water pollution monitoring, prevention and control	SHW	Solid and hazardous wastes
AP	Air pollution monitoring, prevention and control	MSW	Municipal Solid Wastes
LU	Land Use	ISW	Industrial Solid Wastes
AQ	Meteorology, air quality modelling, and prediction	HW	Hazardous Wastes
EB	Ecology and bio-diversity	GIS	Geographical Information System

DECLARATION BY EXPERTS CONTRIBUTING TO THE EIA & EMP

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

Signature : 

Date :

Name : S. Gopalakrishnan

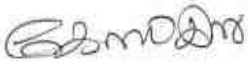
Designation : EIA Coordinator

Name of the EIA Consultant Organization : Geo Technical Mining Solutions

Period of Involvement : Till date

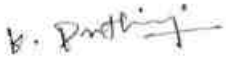
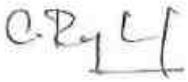
We, the FAEs and FAAs hereby declare that information furnished in this EIA/EMP report for **T.Prabhakaran** rough stone and gravel quarry project with the extent of 5.43.40ha situated in the cluster with the extent of 11.83.9ha in Punnam Village, Pugalur Taluk, Karur District of Tamil Nadu is true and correct to the best of our knowledge.

List of Functional Area Experts Engaged in this Project

S. No.	Functional Area	Involvement	Name of the Experts	Signature
1	AP	o Identification of different sources of air pollution due to the proposed mine activity o Prediction of air pollution and propose mitigation measures / control measures	P. Venkatesh	
2	WP	o Suggesting water treatment systems, drainage facilities o Evaluating probable impacts of effluent/waste water discharges into the receiving environment/water bodies and suggesting control measures.	R. Revathy	
3	HG	o Interpretation of ground water table and predict impact and propose mitigation measures. o Analysis and description of aquifer Characteristics	S. Gopalakrishnan	
4	GEO	o Field Survey for assessing the regional and local geology of the area. o Preparation of mineral and geological maps. o Geology and Geo morphological analysis/description and Stratigraphy/Lithology.	S. Gopalakrishnan	
5	SE	o Revision in secondary data as per Census of India, 2011. o Impact Assessment & Preventive Management Plan o Corporate Environment Responsibility.	Dr. K. Udayakumar	
6	EB	o Collection of Baseline data of Flora and Fauna. o Identification of species labelled as Rare, Endangered and threatened as	Dr. D. Kalaimurugan	

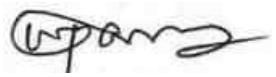
		per IUCN list. o Impact of the project on flora and fauna. o Suggesting species for greenbelt development.		
7	RH	o Identification of hazards and hazardous substances o Risks and consequences analysis o Vulnerability assessment o Preparation of Emergency Preparedness Plan o Management plan for safety.	J.N. Manikandan	
8	LU	o Construction of Land use Map o Impact of project on surrounding land use o Suggesting post closure sustainable land use and mitigative measures.	G. Umamaheswaran	
9	NV	o Identify impacts due to noise and vibrations o Suggesting appropriate mitigation measures for EMP.	C. Kumaresan	
10	AQ	o Identifying different source of emissions and propose predictions of incremental GLC using AERMOD. o Recommending mitigations measures for EMP	Dr.R. Arun Balaji	
11	SC	o Assessing the impact on soil environment and proposed mitigation measures for soil conservation	Dr. D.Kalaimurugan	
12	SHW	o Identify source of generation of non-hazardous solid waste and hazardous waste. o Suggesting measures for minimization of generation of waste and how it can be reused or recycled.	J.N. Manikandan	

List of Functional Area Associate Engaged in this Project

S.No.	Name	Functional Area	Involvement	Signature
1.	K. Pirithivi	HG	○ Site visit with FAE ○ Provide inputs & Assisting FAE for HG	
2.	C. Raghul	GEO	○ Field visits along with FAE ○ Assistance to FAE in both primary and secondary data collection	
3.	K. Ravichandiran	LU & LC	○ Field visits along with FAE Assistance to FAE in both primary and secondary data collection	
4.	M. Muralidharan	NV	○ Site visit along with FAE Assistance in report preparation. ○ Assistance to FAE in both primary and secondary data collection ○ Assistance in noise prediction modelling	
5.	A. Jothibasu	AQ	○ Site visit with FAE ○ Assistance to FAE in collection of both primary and secondary data	

DECLARATION BY THE HEAD OF THE ACCREDITED CONSULTANT ORGANIZATION

I, **Dr. S. KARUPPANNAN,** Managing Partner, **Geo Technical Mining Solutions**, hereby, confirm that the above-mentioned functional area experts and team members prepared the EIA/EMP report for **T.Prabhakaran** rough stone and gravel quarry project with the extent of 5.43.40ha situated in the cluster with the extent of 11.83.9ha in Punnam Village, Pugalur Taluk, Karur District of Tamil Nadu is true and correct to the best of my knowledge.

Signature	:	
Date	:	
Name	:	**Dr. S. Karuppannan**
Designation	:	Managing Partner
Name of the EIA Consultant Organization	:	Geo Technical Mining Solutions
NABET Certificate No & Issue Date	:	NABET/EIA/23-26/RA 0319
Validity	:	Till 31.12.2026

File No: 12764
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), TAMIL NADU)
****

Dated: **07/11/2025**

To,

Thiru. T. PRABHAKARAN
S/o.Tamilarasan,No.201, Old Post office Street,Vengamedu,Karur District - 639006. TAMIL NADU.
prabhakm0986@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 – **Terms of Reference along with Public Hearing** (ToR) for the Proposed Rough Stone and Gravel Quarry over an extent of 5.43.40 Ha at S.F.No. 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part) of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu by Mr.T. Prabhakaran – "B1" and Schedule S.No.1(a) – ToR issued along with Public Hearing- preparation of EIA report – Regarding.
Ref: 1. Online proposal No. SIA/TN/MIN/552153/2025, Dated: 19/09/2025.
2. Minutes of the 629th Meeting of SEAC held on 10.10.2025.
3. Minutes of the 910th Meeting of Authority held on 03.11.2025.

2. The particulars of the proposal are as below:

(i) TOR Identification No.	TO25B0108TN5570948N
(ii) File No.	12764
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals,1(a) Mining of minerals
(vii) Name of Project	Punnam Village Rough Stone and Gravel Quarry Lease
(viii) Name of Company/Organization	T PRABHAKARAN
(ix) Location of Project (District, State)	KARUR, 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 03.11.2025. The minutes of the meeting and all the Application and documents submitted [viz. Form-1 Part A, Part B] are available on PARIVESH portal which can be accessed by scanning the QR Code above.

3.The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with public hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).

4.The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with public hearing for instant proposal of **Thiru. T. Prabhakaran** under the provisions of EIA Notification, 2006 and as amended thereof.

5.The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.

6.The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

7.This issues with the approval of the Competent Authority.

8.The TORs with public hearing prescribed shall be valid for a period of three years from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

Copy To

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

Annexure 1

Specific Terms of Reference s for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	1. The PP Shall furnish NOC from BPCL since gas pipeline is at 110m from the proposed site in northern direction. 2. The PP Shall obtain NOC from Electrical Inspector of mines as per the central Electricity Authority Notification dated: 08.07.2023, Since HT power line is passing in the southern direction of proposed site.

S. No	Terms of Reference
	3. 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** 4. The Boundary pillars to be erected as per the mine rules and the evidence should be submitted along with the EIA report. 5. The details of enumeration of structures including schools, colleges, primary health centers should be submitted along with the EIA report. 6. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m & up to 1km 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. and spell out the mitigation measures to be proposed for the protection of the above structures, if any during the quarrying operations. 7. The proponent shall furnish photographs of adequate fencing; garland drainage built with siltation tank & green belt along the periphery including replantation of existing trees; maintaining the safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan. 8. The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report. 9. 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. 10. The PP shall carry out the comprehensive studies on the cumulative environmental impacts of the existing & proposed quarries which included drilling & blasting, loading & hauling on the surrounding village and structures. 11. The PP shall prepare a conceptual action plan accommodating the inclusion of haul road accessibility keeping the benches intact, by ensuring the slope stability of the working benches to be constructed and existing quarry wall. 12. 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.

S. No	Terms of Reference
	2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site. 3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc. 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry. 5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report. 6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site. 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC. 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level. 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is 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.,

S. No	Terms of Reference
	17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan. 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same. 19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment. 20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. 21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study. 22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind. 23. Rain water harvesting management with recharging details along with water balance (both 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.

S. No	Terms of Reference
	32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner. 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed. 37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations. 38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation. 39. Details of litigation pending against the project, if any, with direction /order passed by any 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 accepts the recommendation of SEAC-II and decided to **grant Terms of Reference (ToR) along with Public Hearing for the quantity of 10,76,126m^3 of Rough Stone & 1,31,604m^3 of Gravel up to the depth of 50m BGL and the annual peak production is 1,39,400m^3 of Rough Stone & 51,060m^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 following condition & conditions as recommended by SEAC-II & normal conditions & the SEIAA Standard conditions in addition to the

S. No	Terms of Reference
	following SEIAA Specific conditions: 1. The PP should furnish the details of the water table in the proposed quarry site, duly certified by the competent/qualified authority along with the EIA Report.

4. Seiaa Standard Conditions:

S. No	Terms of Reference
4.1	**<u>Cluster Management Committee</u>** 1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry. 2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc., 3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines. 4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network. 5. The committee shall deliberate on risk & emergency management plan, fire safety & evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan. 6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the Environmental policy devised shall be given in detail in the EIA Report. 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner. 8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity. **<u>Agriculture & Agro-Biodiversity</u>** 9. Impact on surrounding agricultural fields around the proposed mining Area. 10. Impact on soil flora & vegetation around the project site. 11. Details of type of vegetation including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP. 12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, 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. **<u>Forests</u>** 15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife. 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna. 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests,

S. No	Terms of Reference
	National Parks, Corridors and Wildlife pathways, near project site. **Water Environment** 19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period. 20. Erosion Control measures. 21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas. 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir. 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities. 24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts. 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components. 26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites. 27. The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams. **Energy** 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. **Climate Change** 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

S. No	Terms of Reference
	avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued. **Others** 37. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc. 38. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan. 39. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the Environment. The ecological risks and impacts of plastic & microplastics on aquatic Environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.

Standard Terms of Reference for (Mining of minerals)

1.

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

S. No	Terms of Reference
	system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large,may also be detailed in the EIA Report
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided
1.9	The study rea will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period
1.10	Land use of the study rea delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees
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

S. No	Terms of Reference
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report
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

S. No	Terms of Reference
1.26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out
1.30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same
1.31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given.The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local 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

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

STANDARD TERMS OF REFERENCE

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

9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

13) Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects

due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented

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

23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

30) Information on site elevation, working depth, groundwater table etc. Should be provided

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

31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

37) Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural

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

39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

44) Besides the above, the below mentioned general points are also to be followed: -

a) Executive Summary of the EIA/EMP Report

b) All documents to be properly referenced with index and continuous page numbering.

c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

e) Where the documents provided are in a language other than English, an English translation should be provided.

f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

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

h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and

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

i) As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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

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

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

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

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

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

a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
b. All documents may be properly referenced with index, page numbers and continuous page numbering.
c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -l1013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website http://www.moef.nic.in/ may be referred.

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

Signature Not Verified

Digitally Signed by : A R Rahul Nadh IAS
Member Secretary, SEIAA

Date: 07/11/2025

271

From
Dr.P.Jayapal M.Sc., Ph.D.,,
Deputy Director,
Geology and Mining,
Karur.

To
Thiru.T.Prabhakaran,
S/o.Tamilarasan,
No.201, Old Post Office Street,
Vengamedu,
Karur District.

Rc.No.869/Mines/2025, Dated:11.09.2025

Sir,

Sub: Mines and Minerals – Minor Mineral – Karur District – Pugalur Taluk – Punnam Village - Patta land in S.F.Nos. 1083 (Part), (0.61.50 hectares), 1084/1 (Part) (0.77.0 hectares), 1084/2 (Part) (0.34.90 hecares), 1086/1 (Part) (1.08.50), 1089/1 (Part) (0.87.50 hectares) and 1089/2 (Part) (1.74.00 hectares) Over an extent of 5.43.40 hectares - Quarry lease application preferred by Thiru.T.Prabhakaran for quarrying Rough Stone and Gravel – Mining Plan approved - requested for the details of Existing/ Proposed/Expired and Abandoned quarries situated within 500 mts radial distance - furnished – Regarding.

Ref:
1. Quarry lease Online application for quarrying Rough stone and Gravel preferred by Thiru.T.Prabhakaran, S/o.Tamilarasan, D.No.201 Old Post Office Street, Vengamedu, Karur District dated: 18.08.2025.
2. Deputy Director, Geology and Mining, Karur Notice Rc.No.869/Mines/2025, Dated:06.09.2025
3. Mining Plan submitted by Thiru.T.Prabhakaran, letter Dated:08.09.2025.
4. The Deputy Director, Geology and Mining, Karur Mining Plan approved letter Rc.No.869/Mines/2025, Dated:11.09.2025
5. Thiru.T.Prabhakaran, letter Dated:11.09.2025.

In the reference 1st cited Thiru.T.Prabhakaran, S/o.Tamilarasan, D.No.201 Old Post Office Street, Vengamedu, Karur District has preferred an application for the grant of Ten years lease to quarry Rough Stone and

Gravel over an extent of 5.43.40 hectares of patta land in S.F.Nos. 1083 (Part), (0.61.50 hectares), 1084/1 (Part) (0.77.0 hectares), 1084/2 (Part) (0.34.90 hecares), 1086/1 (Part) (1.08.50), 1089/1 (Part) (0.87.50 hectares) and 1089/2 (Part) (1.74.00 hectares) of Punnam Village, Pugalur Taluk, Karur District. The Deputy Director of Geology and Mining, Karur had issued precise area memorandum to the proposed lease area vide reference 2nd cited.

Accordingly, the applicant has submitted the 3 copies of draft Mining Plan and the same was approved by the Deputy Director, Geology and Mining, Karur vide reference 4th cited.

In the reference 5th cited, the applicant has requested to the Deputy Director of Geology and Mining, Karur to provide the details of existing, proposed, expired and abandoned quarries situated within 500 meter radial distance from the subject area and the same has been furnished as follows:-

I. Existing Quarries: -

Sl No.	Name of the lessee/firm it holder	Name of the Mineral	Taluk & Village	S.F.No.	Extent (hect)	Lease Period
1.	Tvl.V.S.T. Blue Metals S.F.No.645/B1 PunnamChathiram, Erode Main Road Pugalur Taluk, Karur District	Rough Stone & Gravel	Pugalur Taluk Punnam Village	1199/2 1199/3 1199/4 1199/5 1199/6 1199/7 1199/8 1199/9 1200/4 1200/5 1200/6 1200/7 1200/8 1200/9 1200/10 1200/11 1200/12 1201(Part)	3.82.50	15.11.2022 to 14.11.2028
2.	Tvl.V.S.T. Blue Metals S.F.No.645/B1 PunnamChathiram, Erode Main Road Pugalur Taluk, Karur District	Rough Stone & Gravel	Pugalur Taluk Punnam Village	1197/1(p) 1197/5 1197/6 1197/7	2.58.0	08.05.2023 to 07.05.2028

II. Proposed Quarries: -

Sl No.	Name of the lessee/firm it holder	Name of the Mineral	Taluk & Village	S.F.No.	Extent (hect)	Lease Period
1	Thiru.T.Prabhakaran, S/o.Tamilarasan, No.201, Old Post Office Street, Vengamedu, Karur District.	Rough Stone & Gravel	Pugalur Taluk Punnam Village	1083(P) 1084/1 (P) 1084/2 (P) 1086/1 (P) 1089/1(P) 1089/2 (P)	5.43.40	Proposed Area

III. Lease Expired Quarries : -

Sl No.	Name of the lessee/firm it holder	Name of the	Taluk & Village	S.F.No.	Extent (hect)	Lease Period
1	K. Subramani, S/o. Karumana Gr., Malayur, Pavithiram Post, Karur.	Rough Stone	Pugalur (ErstWhile Aravakurichi) Taluk Punnam Village	1086/2 1088/2	0.57.0	10.03.2007 – 09.03.2012
2.	K.Samyappan, S/o. Karuppana Gr., Pungodai, Kulathupalayam, Vettamangalam, Karur	Rough Stone	Pugalur (ErstWhile Aravakurichi) Taluk Punnam Village	1076/2 part	0.60.0	03.04.2007 – 02.04.2012
3.	Thiru.K.M.Gurusamy, No.2/90 Ayyanur, Punnam Post, Aravakurichi Taluk, Karur District	Rough Stone	Pugalur (ErstWhile Aravakurichi) Taluk Punnam Village	1092/2A2 1092/2B 1093/2A2 1093/2B 1094/2A2 1094/2B	1.78.5	30.12.2013 to 29.12.2018
4.	Thiru.R.Subramani S/o.Ramasamy Nadupalayam Punnam Post Aravakurichi Taluk Karur District.	Rough Stone	Pugalur (ErstWhile Aravakurichi) Taluk Punnam Village	1093/1A (P) 1093/B (P) 1093/2A1 (P) 1094/1A 1094/1B 1094/2A1	3.20.5	26.02.2016 to 25.02.2021
5.	Tvl.V.S.T. Blue Metals S.F.No.645/B1 PunnamChathiram, Erode Main Road Aravakurichi Taluk, Karur District	Rough Stone	Pugalur (ErstWhile Aravakurichi) Taluk Punnam Village	1196/1A 1196/1B (P) 1197/12A (p)	3.61.0	23.10.2017 to 22.10.2022 Covid Extension 23.10.2022 to 22.04.2024

IV. Abandoned Quarries : -

Sl No.	Name of the lessee/firm it holder	Name of the Mineral	Taluk & Village	S.F.No.	Extent (hect)	Lease Period
1.	Nil					

11/09/25

Deputy Director,
Geology and Mining,
Karur.

11/09/25

From
Dr.P.Jayapal M.Sc., Ph.D.,
Deputy Director,
Geology and Mining,
Karur.

To
Thiru.T.Prabhakaran,
S/o.Tamilarasan,
No.201, Old Post Office Street,
Vengamedu,
Karur District.

Rc.No.869/Mines/2025, Dated:11.09.2025

Sir,

Sub: Mines and Minerals – Minor Mineral – Karur District – Pugalur Taluk – Punnam Village - Patta land in S.F.Nos. 1083 (Part), (0.61.50 hectares), 1084/1 (Part) (0.77.0 hectares), 1084/2 (Part) (0.34.90 hecares), 1086/1 (Part) (1.08.50), 1089/1 (Part) (0.87.50 hectares) and 1089/2 (Part) (1.74.00 hectares) Over an extent of 5.43.40 hectares - Quarry lease application preferred by Thiru.T.Prabhakaran for quarrying Rough Stone and Gravel – Precise area communicated - mining plan submitted for approval – Mining Plan Approved – Regarding.

Ref:
1. Quarry lease Online application for quarrying Rough stone and Gravel preferred by Thiru.T.Prabhakaran, S/o.Tamilarasan, D.No.201 Old Post Office Street, Vengamedu, Karur District dated: 18.08.2025.
2. Order of the Hon'ble Supreme Court of India in I.A.Nos.12-13/2011 in SLP (C) No.19628-19629/2009, dt: 27.02.2012.
3. Government of India, Ministry of Environment and Forest Office Memorandum, Dated:18.05.2012.
4. The Chairman, State Level Environment Impact Assessment Authority, Tamil Nadu D.O.Lr.No.SEIAA-TN/Minor Minerals/2012, Dated: 17.09.2012.
5. The Commissioner of Geology and Mining, Chennai letter Rc.No.3868/LC/2012, dt: 19.11.2012.
6. The Revenue Divisional Officer, Karur, Land availability Report vide Rc.No.A1/6529/2025, dt: 02.09.2025.
7. Deputy Director, Geology and Mining, Karur Notice Rc.No.869/Mines/2025, Dated:06.09.2025

8. Mining Plan submitted by Thiru.T.Prabhakaran, letter Dated:08.09.2025.

****

In the reference 1st cited Thiru.T.Prabhakaran, S/o.Tamilarasan, D.No.201 Old Post Office Street, Vengamedu, Karur District has preferred an application for the grant of Ten years lease to quarry Rough Stone and Gravel over an extent of 5.43.40 hectares of patta land in S.F.Nos. 1083 (Part), (0.61.50 hectares), 1084/1 (Part) (0.77.0 hectares), 1084/2 (Part) (0.34.90 hecares), 1086/1 (Part) (1.08.50), 1089/1 (Part) (0.87.50 hectares) and 1089/2 (Part) (1.74.00 hectares) of Punnam Village, Pugalur Taluk, Karur District under Rule 19(1) of Tamil Nadu Minor Mineral Concession Rule 1959.

The Precise area has been communicated by the Deputy Director, Geology and Mining, Karur to the applicant for the period of Ten years based on the recommendation of the Revenue Divisional Officer, Karur and Assistant Geologist, Geology and Mining, Karur in the reference 7th cited. In perusal to that the draft mining plan submitted by the applicant as per the Rule 41 in the reference 8th cited.

The above submitted mining plan for the grant of Rough stone and Gravel quarry lease patta land in S.F.Nos. 1083 (Part), (0.61.50 hectares), 1084/1 (Part) (0.77.0 hectares), 1084/2 (Part) (0.34.90 hecares), 1086/1 (Part) (1.08.50), 1089/1 (Part) (0.87.50 hectares) and 1089/2 (Part) (1.74.00 hectares) Over an extent of 5.43.40 hectares of Punnam Village, Pugalur Taluk, Karur District has been examined in detail.

Scrutiny remarks on the draft Mining Plan are furnished below.

a. The Rough Stone & Gravel quarry has been planned to be operated for a period of 10 years.
b. The Geological reserve in the subject area is assessed as 11,75,226m³/32,31,871MT of Rough Stone and 1,31,604 m³/2,63,208 MT of Gravel upto a depth of 70m below ground level only.
c. The Mineable reserve is estimated as 11,75,226 m³/32,31,871 MT of Rough Stone and 1,31,604 m³/2,63,208 MT of Gravel upto a depth of 70m below ground level only.

d. The total quantity proposed to quarry 4,33,636 m^3/11,92,499 MT of Rough Stone for 5 years and 1,31,604 m^3/2,63,208 MT of Gravel for first three years only a depth of 50 m below ground level.

e. Machineries like tractor mounted compressor attached with jack hammers, excavators with rock breaker attachment are proposed for quarrying operation.

f. Water table level in the area applied is between 80m to 85m during the year.

g. As per the Rule 111 of Metalliferrous Mining Regulations 1961, the boundary barrier zone of 7.5 meters is ear-marked as neutral zone.

h. The draft Mining plan is submitted within the prescribed time limit of 90 days from the date of receipt of the precise area communication and stipulations made in the rule 36 of the TNMMCR, 1959 are adhered.

i. The plates including Topo sketch of quarry lease applied area for 10Km Radius (1:1,00,000), Quarry lease and Surface plan (1:1,000), Topography and Geological plan & sections (1:1,000), Conceptual plan and sections (1:1000), Geological, Mineable & Year wise development & Production plan & Sections (1: 1000) and Environmental plan (1:5,000) were verified with reference to the field evidences.

As per the guidelines/ instructions issued by the Commissioner of Geology and Mining, Chennai vide letter Rc.No.3868/LC/2012, date: 19.11.2012. the mining plan submitted by the applicant 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 imply 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 approval is valid up to five years from the date of execution of lease deed and the applicant should submit scheme of mining at lease 180 days before the expiry of the mining plan period.

(V) As per the Deputy Director, Geology and Mining, Karur notice in Rc.No.869/Mines/2025, Dated.06.09.2025 the following conditions are incorporated in the Mining Plan plates.

சிறப்பு நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு கிழக்கு திசையில் புல எண்கள்.1083,1086 மற்றும் புல எண் 1084 கிழக்கு மற்றும் தெற்கு திசையில் செல்லும் உயரழுத்த மின்பாதைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்ய வேண்டும்.
2. விண்ணப்ப புலத்தின் வடக்கு திசையில் 110 மீட்டர் தொலைவில் BPCL பெட்ரோலியம் கொண்டு செல்லும் பைப்லைனிற்கு யாதொரு சேதமின்றி குவாரிப்பணி செய்ய வேண்டும்.

நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் மற்றும் புறம்போக்கு நிலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு யாதொரு சேதமுமின்றி முறையாக குவாரிப்பணி செய்ய வேண்டும்.

2. குத்தகைக்காலத்தில் கைத்துளைப்பான் கருவி கொண்டு பாறைகளை துளையிட்டும், மிதமான வெடிபொருள் பயன்படுத்தியும், பொதுமக்களுக்கோ, பொது சொத்துக்களுக்கோ சேதம் ஏற்படாத வண்ணம் குவாரிப்பணி செய்ய வேண்டும்.

3. குவாரித் தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்ய Mettaliferrous Mines, விதிகளின்படி அகலமானதும், பாதுகாப்பானதுமான Benches அமைத்து பாதுகாப்பான முறையில் குவாரிக்குள் வாகனங்கள் சென்றுவரவும் மற்றும் குவாரி தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்தும் குவாரிப்பணி செய்ய வேண்டும்.

4. குவாரி குத்தகை வழங்க ஏதுவாக துணை இயக்குநர் (சுரங்கம்) அவர்களால் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினையும், மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (SEIAA) அனுமதி பெற்று மாவட்ட நிர்வாகத்திற்கு விண்ணப்பதாரரால் சமர்ப்பிக்கப்பட வேண்டும்.

(VI) Quarrying shall be done as per the approved Mining Plan and that the mining plan is approved without prejudice to any other law applicable to the quarry lease from time to time whether such laws are made by the Central Government, State Government or any other authority.

(VII) If anything is found to be concealed as required by the Mines Act in the contents of the Mining Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

Encl: Two copies of Approved Mining Plan.

11/09/25

Deputy Director,
Geology and Mining,
Karur.

11/09/25

GTMS/QMP/8.3/MP-184/RST/08/2025

MINING PLAN

FOR

PUNNAM VILLAGE ROUGH STONE AND GRAVEL MINING LEASE WITH PROGRESSIVE QUARRY CLOSURE PLAN

Patta land /Open Cast-Semi-Mechanized mining/Non- Forest/Non-Captive Use

Lease period 10 Years from the date of lease execution

(Prepared under rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959)

LOCATION OF THE LEASE AREA

STATE	:	TAMILNADU
DISTRICT	:	KARUR
TALUK	:	PUGALUR
VILLAGE	:	PUNNAM
S.F. No's	:	1083 (Part), 1084/1 (Part), 1084/2(Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part)
EXTENT	:	5.43.40Hectares

ADDRESS OF THE APPLICANT

Mr.T.Prabhakaran,
S/o.Tamilarasan,
No.201, Old Post office Street,
Vengamedu,
Karur District - 639 006.

This Mining Plan is approved subject to the conditions/stipulations indicated in the Mining Plan approval Letter No: 869/min2/2025 Dated: 11/09/2025

PREPARED BY

P.VELLAIYAN, M.Sc., M.Phil.,
Qualified Person
D.No.6-106-B, Athirampatti Village,
Amaragundhi Panchayat & Post,
Omalur Taluk,
Salem District-636 503.
Mob: +91 7010076626, 9751256465

CONTENTS

Sl. No.	Description	Page No.
-	Certificates	5-8
-	Introductory notes	9
1.0	General	11
2.0	Location and Accessibility	12
	PART-A	
3.0	Geology and Mineral reserves	15
4.0	Mining	19
5.0	Blasting	26
6.0	Mine Drainage	28
7.0	Stacking of Mineral rejects and disposal of waste	28
8.0	Uses of Mineral	29
9.0	Others	29
10.0	Mineral processing/Beneficiations	30
	PART-B	
11.0	Environmental management plan	32
12.0	Progressive quarry closure plan	37
13.0	Financial assurance	39
14.0	Certificates	39
15.0	Plan and sections, etc	39
16.0	Any other details intend to furnish by the applicant	39
17.0	CSR Expenditure	40

ANNEXURES

Sl. No.	Description	Annexure No.
1.	Copy of Precise Area Communication letter	I
2.	Copy of **FMB** (Field Measurement book)	II
3.	Copy of Combined map	III
4.	Copy of "A" register	IV
5.	Copy of Patta & Adangal	V
6.	Photo copy of the lease area	VI
7.	Copy of ID Proof of the authorized signatory	VII
8.	Copy of Qualified Person Certificate	VIII

LIST OF PLATES

Sl. No.	Description	Plate No.	Scale
1	Key Map	I	Not to scale
2	Location Plan	I-A	Not to scale
3	Toposheet Map	I-B	1:1,00,000
4	Satellite Imagery Map	I-C	1: 5,000
5	Environmental Plan	I-D	1: 5,000
6	Mine Lease Plan	II	1:2000
7	Surface, Geological Plan & Sections	III	Plan 1:2000
8	Geological Sections	IIIA	**Sections** Hor 1:1000 Ver 1:500
9	Conceptual Plan & Sections	IV	Plan 1:2000
10	Conceptual Sections	IVA	**Sections** Hor 1:1000 Ver 1:500
11	Production Plan	V	Plan 1:2000
12	Production Sections	VA	**Sections** Hor 1:1000 Ver 1:500
13	Mine Layout Plan and Land Use Pattern	VI	Plan 1:2000
14	Year wise Development & Production Plan	VII	Plan 1:2000
15	First Five Year wise Development & Production Sections	VIIA	**Sections** Hor 1:1000 Ver 1:500
16	Year wise Development & Production Plan	VIII	Plan 1:2000
17	Second Five Year wise Development & Production Sections	VIIIA	**Sections** Hor 1:1000 Ver 1:500

Mr.T.Prabhakaran,
S/o.Tamilarasan,
No.201, Old Post office Street,
Vengamedu,
Karur District - 639 006.

CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of rough stone and gravel quarry lease in patta land at S.F.No's: 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part) over an extent of 5.43.40hectares of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu State has been prepared by

P.VELLAIYAN, M.Sc., M.Phil., (Qualified Person)

I request **"The Deputy Director"**, Department of Geology and Mining, Karur District to make further correspondence regarding modifications of the Mining Plan with the said Qualified Person on this following address,

P.VELLAIYAN, M.Sc., M.Phil.,
Qualified Person
D.No.6-106-B, Athirampatti Village,
Amaragundhi Panchayat & Post,
Omalur Taluk,
Salem District-636 503.
Mob: +91 7010076626, 9751256465

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 binding on me in all respects.

Place: Karur, TN.
Date:

Signature of the applicant
(T.Prabhakaran)

Mr.T.Prabhakaran,
S/o.Tamilarasan,
No.201, Old Post office Street,
Vengamedu,
Karur District - 639 006.

DECLARATION

The Mining Plan in respect of rough stone and gravel quarry lease in Patta land at S.F.No's: 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part), over an extent of 5.43.40hectares of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu State have been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

Place: Karur, TN.
Date:

Signature of the applicant
(T.Prabhakaran)

P.VELLAIYAN, M.Sc., M.Phil.,
Qualified Person
D.No.6-106-B, Athirampatti Village,
Amaragundhi Panchayat & Post,
Omalur Taluk,
Salem District-636 503.
Mob: +91 7010076626, 9751256465

CERTIFICATE

This is to certify that, the provisions of 19(1), 20 & 22 Tamil Nadu Minor Minerals Concession Rules, 1959 have been observed in the Mining Plan for the grant of rough stone and gravel quarry lease in S.F.No's: 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part), over an extent of 5.43.40hectares of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu State granted to **Mr.T.Prabhakaran,** Karur District.

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.

Place: Salem, TN
Date: 8/9/25

Signature of the Qualified Person

P. VELLAIYAN, M.Sc, M.Phil.,
Qualified Person
D.No. 6-106-B, Athirampatti (Vill),
Amaragundhi Panchayat & Post,
Omalur Taluk, Salem District - 636503.

P.VELLAIYAN, M.Sc., M.Phil.,
Qualified Person
D.No.6-106-B, Athirampatti Village,
Amaragundhi Panchayat & Post,
Omalur Taluk,
Salem District-636 503.
Mob: +91 7010076626, 9751256465

CERTIFICATE

I certify that, in preparation of Mining Plan for rough stone and gravel quarry lease in S.F.No's: 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part) over an extent of 5.43.40hectares of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu State prepared to **Mr.T.Prabhakaran,** Karur District, 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.

Place: Salem, TN
Date: 8/9/25

Signature of the Qualified Person

P. VELLAIYAN, M.Sc, M.Phil.,
Qualified Person
D.No. 6-106-B, Athirampatti (Vill),
Amaragundhi Panchayat & Post,
Omalur Taluk, Salem District - 636503.

MINING PLAN

FOR PUNNAM VILLAGE ROUGH STONE AND GRAVEL MINING LEASE WITH PROGRESSIVE QUARRY CLOSURE PLAN

Patta land / Open cast-Semi-Mechanized Mining / Non-forest / Non-Captive Use

Lease period 10 Years from the date of lease execution

(Prepared under rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959)

INTRODUCTORY NOTES:

a) **Introduction:** The Mining plan with progressive quarry closure plan is prepared for **T.Prabhakaran,** S/o.Tamilarasan residing at No.201, Old Post office Street, Vengamedu, Karur District-639 006, Tamilnadu State and filed with online application for new proposals has submitted to the Deputy Director, Department of Geology and Mining (DDG & M), Karur dated 18.08.2025 had requested to grant the quarry lease for rough stone and gravel in S.F.No's. 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part), over an extent of 5.43.40hectares of Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu State.

b) **The Precise area communication letter:** The Deputy Director, Department of Geology and mining, Karur has directed to the applicant **T.Prabhakaran,** through his precise area communication letter vide **Roc.No.869/Mines/2025 Dated 06.09.2025,** for quarrying lease rough stone and gravel at Tamil Nadu State, Karur District, Pugalur Taluk, Punnam Village in S.F.No's: 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part) over an extent of 5.43.40hectares has recommended as following conditions for a period of Ten (10) years under Rule 19(1), 20 & 22 Tamil Nadu Minor Mineral concession rules, 1959.

i. Quarrying work should be carried out in the eastern direction of the application field, S.F.No's.1083, 1086 and 1084, leaving a safety distance of 50 meters from the high-voltage power line running east and south.

ii. Quarrying should be carried out without causing any damage to the BPCL petroleum pipeline 110 meters north of the application area.

iii. Excavation should be carried out properly without any damage leaving a safety distance of 7.5 meters and 10 meter to the nearby patta land and government lands.

iv. During the lease period, quarrying work must be carried out in a manner that does not cause damage to the public or public property, using a hand-held drill and moderate explosives.

This Mining Plan is approved subject to the conditions/stipulations indicated in the Mining Plan approval Letter No: 869/mines/2025 Dated: 11.09.2025

v. To ensure the safety of quarry workers, Mettaliferous Mines must set up wide and safe benches in accordance with the rules to allow vehicles to enter and exit the quarry safely and to carry out quarry work while ensuring the safety of quarry workers.

vi. The applicant must submit the mining plan approved by the Deputy Director (Mining) to the District Administration for granting quarry lease, after obtaining the approval of the State Environmental Impact Assessment Authority (SEIAA).

c) **Preparation and Submission of Mining Plan:** The Mining Plan with progressive quarry closure plan has been prepared under rule 41 and submitted under rule 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 for mining lease as per conditions mentioned in the precise area communication letter **Roc.No.353/Mines/2024 Dated 07.07.2025.**

d) **Geological resources and Mineable reserves:** Geological resource of estimated as **3819830m³ / 10381752.25MT** including the resources of safety zone, gravel etc. Of which, rough stone resources of about **3656123m³ / 10054338.25MT** and gravel is **163707m³ / 327414MT**. The total mineable reserve is estimated to be **1306830m³ / 3495079MT** by deducting the reserve safety zone, block in benches from the total Geological resources. of which, rough stone is about **1175226m³ / 3231871MT** and gravel is **131604m³ / 263208MT** up to a depth of 70m below ground level (Refer Plate No. IIIA & IVA).

e) **Proposed Production Schedule:** Total proposed production of rough stone is **433636m³ / 1192499MT** and gravel is **131604m³ / 263208MT** up to a depth of 50m below ground level for first five years plan period (Refer Plate No.VII & VIIA) and remaining quantity of **642490m³/ 1766847MT** will be proposed for the period of second five years up to a depth of 50m below ground level. (Refer Plate No. VIII & VIIIB).

f) **Environmental Sensitivity of the proposed lease area: -**

i). Interstate boundary: There is no interstate boundary around 10Km radius periphery of proposed lease area.

ii). Wildlife Sanctuaries any: There are no notified wildlife sanctuaries within the radius of 10km from the project site under the wildlife (Protection) Act, 1972.

iii). Forest (conservation) Act, 1980: No forest land granted for quarrying and there is no reserve forest around 60m radius.

iv). CRZ Notification, 2019: There is no Sea coastal zone found within radius of 10km and this project site doesn't attract CRZ Notification, 2019.

h) **Environmental measures to be adopted during the ongoing activity period,**

a. Usage of sharp drill bits while drilling which will help in reducing noise.

b. Secondary blasting will be totally avoided and hydraulic rock breaker will be used for breaking boulders.

c. Controlled blasting with proper spacing, burden, stemming and optimum charge/delay will be maintained.

d. Green Belt/Plantation will be developed around the project area and along the haul roads. The plantation minimizes propagation of noise.

e. Water will be sprinkled on haul roads twice a day to avoid dust generation during transportation.

f. Transportation of material will be carried out during day time and material will be covered with tarpaulin.

g. The speed of tippers plying on the haul road will be limited below 20 km/hr to avoid generation of dust.

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

1.0 GENERAL:

a.	Name of the Applicant	:	**T.Prabhakaran**
	Applicant address	:	S/o.Tamilarasan, No.201, Old Post office Street, Vengamedu,
	District	:	Karur
	State	:	Tamilnadu
	Pin code	:	639 006
	Phone	:	
	Fax	:	Nil
	Gram	:	Nil
	Telex	:	Nil
	E-mail	:	.....
b.	Status of the Applicant		
	Private individual	:	Private individual
	Cooperative Association	:	---
	Private company	:	---
	Public Company	:	---
	Public Sector Undertaking	:	---
	Joint Sector Undertaking	:	---
	Other (pl. specify)	:	---
c.	Mineral(s) Which are occurring in the area and which the applicant intends to mine	:	Rough Stone and Gravel Quarry Lease
d.	Period for which the mining lease granted	:	The precise area has been communicated to

	/renewed/ proposed to be applied	:	the applicant for quarrying period of Ten (10) years.
e.	Name of the QP preparing the Mining Plan	:	**P.VELLAIYAN, M.Sc., M.Phil.,** Qualified Person
	Address	:	D.No.6-106-B, Athirampatti Village, Amaragundhi Panchayat & Post, Omalur Taluk, Salem District-636 503.
	Phone	:	+91 7010076626, 9751256465
	Fax	:	Nil
	e-mail	:	pvellaiyangp@gmail.com
	Telex	:	Nil
f.	Reference No. and date of consent letter from the state government	:	The precise area communication letter issued by the Deputy Director, Department Geology and Mining, Karur vide **Roc.No.869/Mines/2025 Dated 06.09.2025.**

2.0 LOCATION AND ACCESSIBILITY:

a.	Details of the Area:	:	Refer plate no: IA & IB
	District & State	:	Karur, Tamil Nadu
	Taluk	:	Pugalur
	Village	:	Punnam

Khasra No./ Plot No./ Block Range/ Felling Series etc.:

Survey No	Sub Division	Total Extent in Hect	Patta No.	Village and Name of the Land Owner	Mine lease Applied S.F.No.	Mine lease Applied area out of total area in hect.
1083	-	3.53.5	10486	T.Prabhakaran S/o.Tamilarasan	1083 (Part)	0.61.5
1084	1	1.69.0			1084/1 (Part)	0.77.0
1084	2	0.45.0			1084/2 (Part)	0.34.9
1086	1	1.25.0			1086/1 (Part)	1.08.5
1089	1	2.32.0			1089/1 (Part)	0.87.5
1089	2	2.32.0			1089/2 (Part)	1.74.0
Total Extent		**11.56.5**	**Applied lease area extent**			**5.43.4**

Lease area (hectares)		:	5.43.4 Hectares

Whether the area is recorded to be in forest (please specify whether protected, reserved, etc)	:	The proposed lease area is recorded as patta land. (Ref.Anne.No's:V)
Ownership / Occupancy	:	This is a patta land S.F.No. 1083 (Part), 1084/1 (Part), 1084/2 (Part), 1086/1 (Part), 1089/1 (Part) & 1089/2 (Part) is registered on the name of T.Prabhakaran, S/o.Tamilarasan as patta no.10486.
Existence of Public Road / Railway line if any nearby and approximate distance	:	✓ Exploited quarry materials will be transported through the cart road is situated on the northwest side. ✓ There is NH-81 road is situated about 2.5km radius away on the south side of the lease area. ✓ There is SH-84 road is situated about 2.5km radius away on the north side of the lease area. ✓ There is no railway line is situated around 5km radius from the lease area.
Toposheet No. with latitude and longitude	:	Toposheet No. **58 F/13** Latitude: From 10°58'50.43"N to 10°59'3.18"N Longitude: From 77°59'4.95"E to 77°59'12.95"E

Geo-Coordinates of the lease boundary:

ID	LATITUDE	LONGITUDE
1	10°59'3.18"N	77°59'10.60"E
2	10°58'55.94"N	77°59'12.95"E
3	10°58'56.04"N	77°59'12.58"E
4	10°58'55.88"N	77°59'9.74"E
5	10°58'54.98"N	77°59'7.90"E
6	10°58'51.33"N	77°59'8.35"E
7	10°58'50.64"N	77°59'8.36"E
8	10°58'50.43"N	77°59'5.61"E
9	10°58'52.51"N	77°59'5.11"E
10	10°58'54.23"N	77°59'5.49"E
11	10°58'57.95"N	77°59'4.95"E
12	10°59'1.02"N	77°59'5.28"E

	Land use pattern (Forest, Agricultural, Grazing, Barren etc.)	:	It is an barren and Ryotwari land.
b.	***Attach a general location and vicinity map showing area boundaries and existing and proposed access routs. It is preferred that the area to be marked on a survey of India topographical map or a cadastral map or forest map as the case may be. However if none of these are available, the area should be shown on an accurate sketch map on scale of 1 : 5000.***	:	Refer plate no-IA & IB

i) INFRASTRUCTURE AND COMMUNICATION:

S.No	Description	Place	Distance	Direction
a.	Nearest post office	K.Paramathi	8.7Km	Southwest
b.	Nearest police station	K.Paramathi	8.5km	Southwest
c.	Nearest fire station	K.Paramathi	9.8km	East
d.	Nearest medical facility	Punnam	0.8km	Northwest
e.	Nearest school	Punnam	1.5km	Northwest
f.	Nearest railway station	Murthipalayam	5.9km	Northwest
g.	Nearest port facility	Thoothukudi	247km	South
h.	Nearest airport	Trichy	81km	East
i.	Nearest DSP office	Karur	7.7km	East
j.	Nearest villages	Punnam	1.0km	North
		Sadaiyampuram	2.8km	East
		Malaiyur	1.4km	South
		Andippatti	4.0Km	West

PART – A

3.0 GEOLOGY AND MINERAL RESERVES:

(a) Briefly describe the topography and general geology and local/mine geology of the mineral deposit including drainage pattern:

(i)	Topography	:	The proposed lease area is flat topography. The maximum elevation (194m) was observed north of the site. The slope is towards southern side and falls in Toposheet no. **58 F/13**

(ii) **General Geology of the District:**

The Karur district forms part of the Archean complex of peninsular gneiss. The general rock types of this area are Biotite gneiss. Karur District is blessed with good reserves of crystalline limestone known as "Palayam belt" in Varavanai, Thennilai, Gudalur etc., villages in Kulithalai Taluk and the occurrences of good quality of pegmatite veins constituting with glassy quartz and potash feldspar in lensoid patches in Nagampalli and Pungambadi areas in Aravakurichi Taluk. The major mineral such as limestone, quartz and feldspar are exploited in Karur district and utilized in the mineral-based industries.

The Granite gneiss rocks are found to occur in K.Paramathi, Athur, Thennilai, Punnam, Godanthur South, Munnur, Punnam, Anjur villages in Karur and Aravakurichi Taluk are exploited to produce building materials and road metal (Jelly) and over burden soil appear as gray to reddish in colour called as gravel. The commercially known "Coloumbo Zubrana" the unique type in the Multi coloured granite / Granite gneiss category is occurring in Thogamalai, Naganur and Kazhugur Villages in Kulithalai Taluk. These rock type belong to minor mineral category. The arrangement of alternate layers of felsic and mafic minerals in linear pattern and exhibits wavy pattern in the rock and giving very good structure for the rock type. The well-developed gneissic pattern with linear arrangement, the rock type have attracted the granite market and found to be suitable for the exploitation of granite blocks. But in this area the banded gneissic rock has many fractures and foliation in it. So, this is not viable for dimensional stone. **Order of superposition of the proposed lease area,**

Age	Group	Rock Formation
Recent to Sub recent	----	Top Soil (1-2m Thick)
Proterozoic	Acid Intrusive	Pink medium grained granite/ Granite gneiss.
Archean	Charnockite Group	Pyroxene Granulite, Charnockite (acid to intermediate)/ Crystalline limestone / Quartzite

(iii) Local / Mine Geology of The Mineral Deposit:

Topography of the proposed lease area:

The applied lease area exhibits an flat topography and the maximum elevation 194m was observed north side of the site. The rocks exhibits layered, medium to coarse grained hornblende biotite, orthopyroxene charnockite gneiss.

The Gravel is obtained the average of 0-3.0m and a rough stone starts from 3.0m to 70m (R.L.194-124m) from the surface level. The Surface plan showing elevation, contour, accessibility road and Geological map was prepared the proposed lease area.

Mode of origin:

The Charnockite series originally was assumed to have developed by the fractional crystallization of silicate magma. Subsequent studies have shown, however, that many, if not all, of the rocks are metamorphic, formed by recrystallization at high pressures and moderately high temperatures.

Physiography of the rocks:

General characteristics of the rocks of this series has recorded that the rocks are in general bluish gray or darkish in colour and extremely fresh in appearance with an even grained granular structure.

Chemical composition of rocks:

The compositional characteristics of coexisting orthopyroxene, garnet and biotite have established several petrographic varieties within the Charnockites–Enderbites such as the granulite's and gneisses. Plagioclase feldspars, alkali feldspars and quartz are the salic minerals present in this series of rocks.

Order of superposition of the proposed lease area,

Age	Group	Rock Formation
Recent to Sub recent	----	Gravel
Archaean	Charnockite Group	Charnockites.

(iv)	Drainage Pattern	:	There is no major river found within 50m radius. The drainage in the area is sub-dendritic in nature.

(b)	***The topographic plan of the lease area prepared on a scale of 1 :1000 or 1 : 2000 with contour interval of 3 to 10m depending upon the topography of the area should be taken as the base plan for preparation of geological plan. The details of exploration already carried out including evidences of mineral existence should be shown on the geological plan:***		
	a. Present status:	:	The QP examined the surface features during survey. It is a fresh quarry lease.
	b. Surface Plan	:	Surface plan showing elevation contour and accessibility road was prepared at the scale of 1: 2000, as shown in Plate No. III.
(c)	Geological sections should be prepared at suitable intervals on a scale of 1: 1000 / 1: 2000:	:	Longitudinal and transverse geological cross sections were prepared at the horizontal scale of 1: 1000 and at the vertical scale of 1:500, as shown in Plate No. IIIA
(d)	***Broadly indicate the Yearwise future programme of exploration, taking into consideration the future production programme planned in next five years as in table below:-*** No future programmed proposed in this area. Its massive homogeneous parent rock. Hence exploration proposal is not required to this mining project.		

(e) Indicate geological and recoverable reserves and grade, duly supported by standard method of estimation and calculations along with required sections (giving split up of various categories i.e. proved, probable, possible). Indicate cut-off grade. Availability of resources should also be indicated for the entire leasehold.

The geological resources were computed by cross section method with respect to the boundaries of the lease area. In this method, the lease area was divided into two longitudinal and two transverse section to calculate the volume of material up to the depth of 70m below ground level for ten years plan period. (Refer Plate No. III & IIIA). The one longitudinal and two transverse cross section were assigned XY-AB & X1Y1-CD as respectively. Using the cross-sectional method, total reserve is estimated to be **3819830m^3 / 10381752.25MT** including the resources of safety zone, and gravel, etc. Of which, rough stone resources of about **3656123m^3 / 10054338.25MT** and gravel is **163707m^3 / 327414MT.**

GEOLOGICAL RESERVES										
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
XY-AB	I	211	200	3	126600	.....	126600	2	.....	253200
	I	211	200	2	84400	84400	.....	2.75	232100	.....
	II	211	200	5	211000	211000	.....	2.75	580250	.....
	III	211	200	5	211000	211000	.....	2.75	580250	.....
	IV	211	200	5	211000	211000	.....	2.75	580250	.....
	V	211	200	5	211000	211000	.....	2.75	580250	.....
	VI	211	200	5	211000	211000	.....	2.75	580250	.....
	VII	211	200	5	211000	211000	.....	2.75	580250	.....
	VIII	211	200	5	211000	211000	.....	2.75	580250	.....
	IX	211	200	5	211000	211000	.....	2.75	580250	.....
	X	211	200	5	211000	211000	.....	2.75	580250	.....
	XI	211	200	5	211000	211000	.....	2.75	580250	.....
	XII	211	200	5	211000	211000	.....	2.75	580250	.....
	XIII	211	200	5	211000	211000	.....	2.75	580250	.....
	XIV	211	200	5	211000	211000	.....	2.75	580250	.....
TOTAL					2954000	2827400	126600		7775350	253200
X1Y1-CD	I	133	93	3	37107	.....	37107	2	.....	74214
	I	133	93	2	24738	24738	.....	2.75	68029.50	.....
	II	133	93	5	61845	61845	.....	2.75	170073.75	.....
	III	133	93	5	61845	61845	.....	2.75	170073.75	.....
	IV	133	93	5	61845	61845	.....	2.75	170073.75	.....
	V	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VI	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VIII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	IX	133	93	5	61845	61845	.....	2.75	170073.75	.....
	X	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XI	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XIII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XIV	133	93	5	61845	61845	.....	2.75	170073.75	.....
TOTAL					865830	828723	37107		2278988.25	74214
GRAND TOTAL					3819830	3656123	163707	.....	10054338.25	327414

(f) Indicate mineable reserves by slice plan / level plan method, as applicable, as per the proposed mining parameters: -

The total mineable reserve is estimated to be **1306830m³ / 3495079MT** by deducting the reserve safety zone, block in benches from the total Geological resources up to a depth of 70m below ground level. Of which, rough stone is about **1175226m³ / 3231871MT** and

gravel is **131604m³ / 263208MT**. The commercially viable rough stone has been prepared on 1: 2000 scale and sections are prepared in a scale of 1:1000 in horizontal axis and 1:500 as vertical axis (Refer plate no's. IV & IVA).

MINEABLE RESERVES											
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M³	Rough Stone in M³	Gravel in M³	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
XY-AB	I	184	185	3	102120	.....	102120	2	.....	204240
	I	184	185	2	68080	68080	.....	2.75	187220	.....
	II	174	175	5	152250	152250	.....	2.75	418687	.....
	III	164	165	5	135300	135300	.....	2.75	372075	.....
	IV	154	155	5	119350	119350	.....	2.75	328212	.....
	V	144	145	5	104400	104400	.....	2.75	287100	.....
	VI	134	135	5	90450	90450	.....	2.75	248737	.....
	VII	124	125	5	77500	77500	.....	2.75	213125	.....
	VIII	114	115	5	65550	65550	.....	2.75	180263	.....
	IX	104	105	5	54600	54600	.....	2.75	150150	.....
	X	94	95	5	44650	44650	.....	2.75	122788	.....
	XI	84	85	5	35700	35700	.....	2.75	98175	.....
	XII	74	75	5	27750	27750	.....	2.75	76312	.....
	XIII	64	65	5	20800	20800	.....	2.75	57200	.....
	XIV	54	55	5	14850	14850	.....	2.75	40838	.....
TOTAL					1113350	1011230	102120		2780882	204240
X1Y1-CD	I	126	78	3	29484	.....	29484	2	.....	58968
	I	126	78	2	19656	19656	.....	2.75	54054	.....
	II	121	68	5	41140	41140	.....	2.75	113135	.....
	III	116	58	5	33640	33640	.....	2.75	92510	.....
	IV	111	48	5	26640	26640	.....	2.75	73260	.....
	V	106	38	5	20140	20140	.....	2.75	55385	.....
	VI	101	28	5	14140	14140	.....	2.75	38885	.....
	VII	96	18	5	8640	8640	.....	2.75	23760	.....
TOTAL					193480	163996	29484	.....	450989	58968
GRAND TOTAL					1306830	1175226	131604	.....	3231871	263208

4.0 MINING:

a)	Briefly describe the existing / proposed method for developing / working the deposit with all design parameters. (Note: In case of pocket	:	The mining operation is open-cast, semi-mechanized method are adopted and on single shift basis only. Under the regulation 106 of the Metalliferous Mines Regulations, 1961 in all open cast workings in hard rock, the benches and sides should be properly

	deposits, sequence of development/working may be indicated on the same plan)		benched and sloped. The bench height should not exceed 6m and the bench width should not less than the bench height. The slope of the benches should not exceed 45° from horizontal.

b) ***Indicate quantum of development and tonnage and grade of production expected pit wise as in table below.***

Total proposed production for first five yeras period of rough stone is about **433636m³ / 1192499MT** and gravel is **131604m³ / 263208MT** up to a depth of 50m below ground level for first five years plan period (Refer Plate No.VII & VIIA) and remaining quantity of **642490m³/ 1766847MT** will be proposed for the period of second five years up to a depth of 50m below ground level.(Refer Plate No's. VIII & VIIIB).

Year	Pit No.(s)	Topsoil/ Overburden (m^3)	ROM (m^3)	Saleable rough stone (m^3) @ 100%	Saleable rough stone (MT) @ 100%	Saleable Gravel (m^3)	Saleable Gravel (MT)
I	I	...	69560	18500	50875	51060	102120
II	I	...	69560	18500	50875	51060	102120
III	I	...	160720	131236	360899	29484	58968
IV	I	...	133600	133600	367400	...	...
V	I	...	131800	131800	362450	...	...
Total		...	**565240**	**433636**	**1192499**	**131604**	**263208**
VI	I	...	139400	139400	383350	...	...
VII	I	...	131100	131100	360525	...	...
VIII	I	...	131275	131275	361006	...	...
IX	I	...	130375	130375	358531	...	...
X	I	...	110340	110340	303435	...	...
Total	—	...	**642490**	**642490**	**1766847**	**...**	**...**

c)	***Composite plans and Year wise sections (In case of 'A' class mines):***	:	Not applicable. It is a "B" class quarry lease

FIRST FIVE - YEARWISE PRODUCTION RESERVES											
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
I	XY-AB	I	92	185	3	51060	.....	51060	2	.....	102120
		I	50	185	2	18500	18500	.....	2.75	50875	.....
TOTAL						**69560**	**18500**	**51060**	.....	**50875**	**102120**
II	XY-AB	I	92	185	3	51060	.....	51060	2	.....	102120
		I	50	185	2	18500	18500	.....	2.75	50875	.....
TOTAL						**69560**	**18500**	**51060**	.....	**50875**	**102120**
III	X1Y1-CD	I	126	78	3	29484	.....	29484	2	.....	58968
		I	126	78	2	19656	19656	.....	2.75	54054	.....
	XY-AB	I	84	185	2	31080	31080	.....	2.75	85470	.....
		II	92	175	5	80500	80500	.....	2.75	221375	.....
TOTAL						**160720**	**131236**	**29484**	.....	**360899**	**58968**
IV	XY-AB	III	82	165	5	67650	67650	.....	2.75	186037	.....
		IV	72	155	5	55800	55800	.....	2.75	153450	.....
		V	14	145	5	10150	10150	.....	2.75	27913	.....
TOTAL						**133600**	**133600**	**0**	.....	**367400**	**0**
V	XY-AB	V	48	145	5	34800	34800	.....	2.75	95700	.....
		VI	52	135	5	35100	35100	.....	2.75	96525	.....
		VII	42	125	5	26250	26250	.....	2.75	72187	.....
		VIII	32	115	5	18400	18400	.....	2.75	50600	.....
		IX	22	105	5	11550	11550	.....	2.75	31763	.....
		X	12	95	5	5700	5700	.....	2.75	15675	.....
TOTAL						**131800**	**131800**	**0**	.....	**362450**	**0**
GRAND TOTAL						**565240**	**433636**	**131604**	.....	**1192499**	**263208**

SECOND FIVE - YEARWISE PRODUCTION RESERVES											
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
VI	XY-AB	II	82	175	5	71750	71750	.....	2.75	197312	.....
		III	82	165	5	67650	67650	.....	2.75	186038	.....
TOTAL						**139400**	**139400**	**0**	.....	**383350**	**0**
VII	XY-AB	IV	82	155	5	63550	63550	.....	2.75	174762	.....
		V	82	145	5	59450	59450	.....	2.75	163488	.....
		VI	12	135	5	8100	8100	.....	2.75	22275	.....
TOTAL						**131100**	**131100**	**0**	.....	**360525**	**0**
VIII	XY-AB	VI	70	135	5	47250	47250	.....	2.75	129938	.....
		VII	82	125	5	51250	51250	.....	2.75	140937	.....
		VIII	57	115	5	32775	32775	.....	2.75	90131	.....
TOTAL						**131275**	**131275**	**0**	.....	**361006**	**0**
IX	XY-AB	VIII	25	115	5	14375	14375	.....	2.75	39531	.....
		IX	82	105	5	43050	43050	.....	2.75	118388	.....
		X	82	95	5	38950	38950	.....	2.75	107112	.....
	X1Y1-CD	II	100	68	5	34000	34000	.....	2.75	93500	.....
TOTAL						**130375**	**130375**	**0**	.....	**358531**	**0**
X	X1Y1-CD	II	21	68	5	7140	7140	.....	2.75	19635	.....
		III	116	58	5	33640	33640	.....	2.75	92510	.....
		IV	111	48	5	26640	26640	.....	2.75	73260	.....
		V	106	38	5	20140	20140	.....	2.75	55385	.....
		VI	101	28	5	14140	14140	.....	2.75	38885	.....
		VII	96	18	5	8640	8640	.....	2.75	23760	.....
TOTAL						**110340**	**110340**	**0**	.....	**303435**	**0**
GRAND TOTAL						**642490**	**642490**	**0**	.....	**1766847**	**0**

d)	Attach supporting composite plan and section showing pit layouts, dumps, stacks of sub-grade mineral, if any, etc.	:	Composite plan not prepared in this proposed lease area

e) ***Indicate proposed rate of production when the mine is fully developed and the expected life of the mine and the year from which effected:***

At this rate of production, the expected life of quarry is calculated as given below:

Rough stone:

Production reserves of rough stone (First Five Years) = **433636m³ or 1192499MT**

Production reserves of rough stone (Second Five Years) = **642490m³ or 1766847MT**

Gravel:

Mineable reserves of gravel = **131604m³ or 263208MT**

f) ***Attach a note furnishing a conceptual mining plan for the entire lease period (for "B" category mines) and upto the life of the mine (for "A" category mines) based on the geological, mining and environments considerations:***

i)	Time frame of completion of mineral exploration program in leasehold area: Give broad description identified potential areas to be covered in the given time frame:	:	Considering the indefinite depth persistence of the rough stone deposit is proved beyond the workable limits about up to a depth of 70m below ground level (R.L.194m to 124m) from the petrogenetic character of the charnockite rock as well as from the actual mining practice in the area and with the current trend of rough stone production the quarry may sustain for 10 years.

ii) Whether ultimate pit limit has been determined and demarcated on surface and geological plan :-

The ultimate pit limit has been determined and demarcated in the conceptual plan

SECTION XY-AB

Bench	Period	Overburden/ Mineral	L (m)	W (m)	D (m)
I	Ten years Period	Gravel	184	185	3
I		Rough stone	184	185	2
II			174	175	5
III			164	165	5

		IV			154	155	5
		V			144	145	5
		VI			134	135	5
		VII			124	125	5
		VIII			114	115	5
		IX			104	105	5
		X			94	95	5
		XI			84	85	5
		XII			74	75	5
		XIII			64	65	5
		XIV			54	55	5
		Total Depth					**70**
		SECTION X1Y1-CD					
		Bench	**Period**	**Overburden/ Mineral**	**L (m)**	**W (m)**	**D (m)**
		I	Ten years Period	Gravel	126	78	3
		I		Rough stone	126	78	2
		II			121	68	5
		III			116	58	5
		IV			111	48	5
		V			106	38	5
		VI			101	28	5
		VII			96	18	5
		Total Depth					**35**
iii)	Whether the site for disposal of waste rock or an un-saleable material have/ has been examined for adequacy of land and suitability of long term use in the event of continuation of mining activity: -	:	The recovery of rough stone in this quarry is 100%. There is no waste rock will be proposed in this lease area.				
iv)	Whether back filling of pits after recovery of mineral up to techno -economically feasible depth envisaged. If so, describe the broad features of the proposal: -	:	As the depth of persistence of the deposit may likely to continue for further depth, it is proposed not to backfilled the quarry pit.				
v)	Whether post mining land use envisaged: -	:	At the end of mining activities over the quarry pit may be utilized for storage of rain water and may be converted in to dumping yards for solid waste by adopting suitable technologies.				

g)	Open cast mining		
i)	Describe briefly giving salient features of the mode of working (Mechanized, Semi-Mechanized, manual)	:	It is a fresh quarry lease. The mining operation is opencast, semi-mechanized methods are adopted and on single shift basis only. Under the regulation 106 of the Metalliferous Mines Regulations, 1961 in all opencast workings in hard rock, the benches and sides should be properly benched and sloped. The bench height should not exceed 6m and the bench width should not less than the bench height. The slope of the benches should not exceed 45° from horizontal.
ii)	Describe briefly the layout of mine workings, the layout of faces and sites for disposal of overburden/waste. A reference to the plans enclosed under 4(b) and 4(d) will suffice		The rough stone is proposed to quarry at 5m bench height & width conventional opencast semi mechanized quarrying operation using shot hole drilling with the help of tractor mounted compressor attached with jack hammers, smooth blasting and waste and are removal using Hydraulic excavator and loaded directly to the tippers and transported to the needy customer. Bench height = 5mts. Bench width = 5mts.
	a. Details of Topsoil/ Overburden		There is no topsoil will be removed.
	b. Rough Stone waste and side burden waste:-		The recovery of rough stone in this quarry is 100%. There is no rough stone waste or side burden will be removed.
H	Underground Mining		Not applicable
i)	***Extent of mechanization:*** Describe briefly including the calculation for adequacy and type of machinery and equipment proposed to be used in different mining operations.		
	(I) Drilling Machines: Drilling of shot holes will be carried out using tractor mounted compressor and		

jack hammer. Details of drilling equipment's are given below.

Type	Nos	Dia of hole (mm)	Size / Capacity	Make	Motive power	H.P.
Jack Hammer	2	32 mm	Hand held	--	Diesel	--
Compressor	2	---	Air	--	Diesel	--

(2) Loading Equipment:

Type	Nos	Size / Capacity	Make	Motive power	H.P.
Hydraulic Excavator	2	2.9-4.5m^3	--	Diesel	--

(3) Haulage and Transport Equipment

(a) Haulage within the mining leasehold:

Type	Nos	Size / Capacity	Make	Motive power	H.P.
Tipper	5	--	--	Diesel	--

Whether the dumpers are fitted with exhaust conditioner should be indicated:
The dumpers not used in this quarry area, hence it's a small B category mine.

b)	Transport from mine head to the destination	Tipper will be used for transport rough stone from the mine head to needy customer.
c)	Describe briefly the transport system (please specify)	Hydraulic excavator and tippers utilized for internal transport sizeable rough stone lumps and deliver to the customer's area.
	i) Ore transported by: own trucks / hired trucks	Hired trucks for initially production purposes
	ii) Main destination to which ore is transported (giving to and from distance)	The excavated stone materials road metal will be supplied to the consumers like road laying, earth filling, building construction, etc

a) Details of hauling / transport equipment:

Type	Nos	Size / Capacity	Make	Motive power	H.P.
--	--	--	--	--	--

4) **(4). Miscellaneous:**

Describe briefly any allied operations and machineries related to the mining of the deposit not covered earlier.

	(A) Operations	The mining operation is open-cast, semi-mechanized methods are adopted and on single shift basis only.

	(B) Machineries deployed	Machineries like Tractor mounted compressor attached with Jack hammers is proposed to drilling and blasting. Hydraulic Excavators and tipper combination are adapted.

5. **BLASTING:**

a) Broad blasting parameters like charge per hole, blasting pattern, charge per delay, maximum number of holes blasted in a round, manner and sequence of firing, etc.

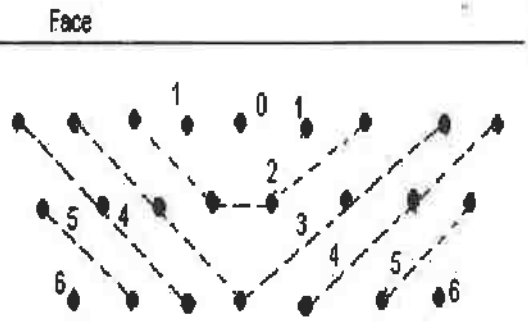
Blasting pattern:

The quarrying operation is proposed to carried by open cast mining in conjunction with conventional method using jack hammer drilling and blasting for shattering effect and loosen the rough stone.

Rough stone production for 10 years = **1076126m^3** or **2959346MT**

BLAST DESIGN	
Blasthole Diameter (D) in mm	32
Burden (B) in m	1.2
Spacing (S) in m	1.38
Subdrill in m	0.5
Charge length (C) in m	0.70
Stemming	0.5
Hole Length (L) in m	1.2
Bench Height (BH) in m	2.5
Mass of explosive/hole in g	437.5
Stemming material size in mm	3.2
Burden stiffness ratio	2.08
Blast volume/hole in m^3	4.14
Production of rough stone/day in m^3	384
Number of blast holes/day	90
Number of blast round/day	3
Blasthole pattern	Staggered
Mass of explosive /day in kg	**39.0**
Powder factor in kg/m^3	0.11
Loading density	0.63
Type of explosives	Slurry
Diameter of packaging in mm	25
Initiation system	NONEL

Note: If>2kg of explosives per day use for blasting if proponent get the permission from the DGMS



Stagged method of mining

b) Type of explosives used / to be used:

Following explosives are recommended for efficient blasting with safe practice.

Small dia. 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of rough stone. No deep hole drilling or primary blasting is proposed.

c) Measures proposed to minimize ground vibration due to blasting:

The control blasting measures is being adopted for minimizing ground vibration and fly rock.

Shallow depths jack hammer drilling and blasting is proposed to be carried out with minimum use of explosive mainly to give hearing effect in rough stone for easy excavation and to control fly rock.

Delay detonators:

Delay blasting permits to divide the shot to smaller charges, which are detonated in a predetermined millisecond sequence at specific time intervals. The major advantages of delay blasting are:

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

Blasting program for the production per day

No of holes	:	93holes
Yield	:	384m^3
Total explosive required	:	39.0kg-Slurry explosives
Charge per hole	:	0.5kg
Blasting at day time only	:	12.0p.m-1.0p.m

c)	Powder factor in ore and overburden / waste / development heading / stope	:	Powder factor is proposed as 0.11kg per hole of explosives
d)	Whether secondary blasting is needed, if so describe it briefly		There is no secondary blasting involved.
e)	Storage of explosives (like capacity and type of explosive magazine)		1. The applicant is advised to engage an authorized explosive agency to carry out blasting. 2. First Aid Box will be keeping ready at all the time. 3. Necessary precautionary announcement will be carried out before the blasting operation.
6.	***MINE DRAINAGE:***		
a)	Likely depth of water table based on observations from nearby wells and water bodies	:	The ground water table is reported as of 85m in summer and 80m in rainy season from the general ground level observed in the adjacent bore well.
b)	Workings expected to be _____ m. above / reach below water table by the year _____.	:	Ultimate mining depth is 70m below ground level. Now, the present Mining lease shall be proposed above the water table and hence, quarrying may not affect the ground water.
c)	Quantity and quality of water likely to be encountered, the pumping arrangements 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 300 L pm 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 potable and it is not contaminated with any hazardous things.
7.	***STACKING OF MINERAL REJECTS AND DISPOSAL OF WASTE:***		
a).	Indicate briefly the nature and quantity of top soil, overburden / waste and mineral rejects likely to be generated during the years:		

	No other wastes are removed during years.		
b).	Land chosen for disposal of waste with proposed justification	:	There is no topsoil will be removed.
c).	Attach a note indicating the manner of disposal and configuration, sequence of buildup of dumps along with the proposals for the stacking of sub-grade ore, to be indicated Year wise.	:	The recovery of rough stone in this quarry is 100%. If rough stone may be unsold will be keep within the lease boundary.
8.	***USE OF MINERAL:***		
a).	Describe briefly the end-use of the mineral (sale to intermediary parties, captive consumption, export, industrial use)	:	The excavated stone materials will be supplied to the consumers like stone pillar, sized stone, etc. For instance, aggregates are mostly used for building, roads and footpaths., etc
b).	Indicate physical and chemical specifications stipulated by buyers	:	Basically, the materials produced at this quarry are rough stone (charnockite) and gravel the same are used for building materials and road metal. So, there is no chemical specifications are specified. Only physical specifications are involved.
c).	Give details in case blending of different grades of ores is being practiced or is to be practiced at the mine to meet specifications stipulated by buyers.	:	Not blending process is involved, after blasting the rough stone and gravel will be directly loaded to the needy customer.
9.	***OTHERS***		
	Describe briefly the following a) Site services	:	Infrastructure required for such mines like office, stores, canteen, first aid station, shelter latrine and bath rooms have been provided as per the Metalliferous Mines Regulations, 1961 as a welfare amenity for our quarry laborers.

b) Employment potential:

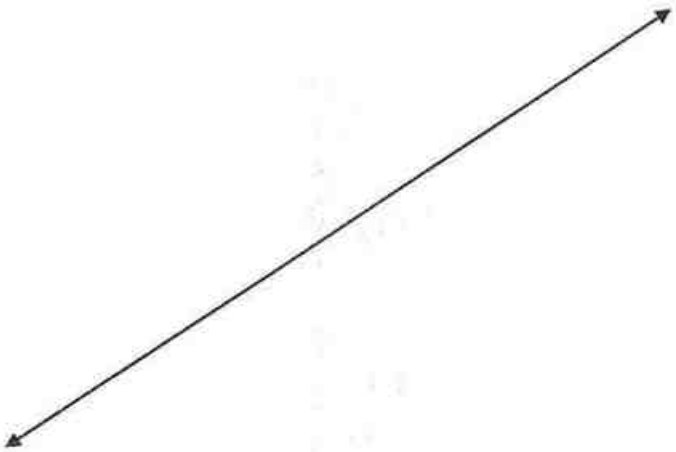
As per Mines safety under the provisions of Metalliferous Mines Rules, 1961 under the Mines Act, 1952, whenever the workers are employed more than 10, it is preferred to have a qualified Mining Mate to keep all the production workers directly under his control and supervision.

The following man power is proposed for quarrying stone material during the ten years period the same manpower will be utilize for this mining plan period to achieve the proposed production and to comply the provisions of as per the MMR, 1961 norms.

1.	Highly Skilled	Mines Manager	1No.
		Mine Engineer	1No.
		Mine Geologist	1No
		Blaster	1No
2.	Unskilled	Musdoor / Labours	18 No's
		Total =	**22 No's**

10	**MINERAL PROCESSING/BENEFICIATIONS:**		
(a)	If processing / beneficiations of the ore or minerals mined is planned to be conducted on site or adjacent to the extraction area, briefly describe the nature of the processing /beneficiation. This should indicate size and grade of feed material and concentrate (finished marketable product), recovery rate.	:	Excavated rough stone minerals directly will be used by the applicant for required size ½, ¾ and 1½ inches Jelly which are mainly used in road and building construction purpose. The recovery of rough stone in this quarry is 100%.
(b)	Explain the disposal method for tailings or waste from the processing plant (quantity and quality of tailings proposed to be discharged, size and capacity of tailing pond, toxic effect of such tailings, if any, with process adopted to neutralize	:	No water shall be used for quarrying or any other processing except drinking water to be drawn from public sources. Some stagnation of rain water in the pit shall be used for drilling and spraying haul roads. Therefore, need for tailing dam doesn't arise. But tailing control of rain water flow during rainy season has to be done by decanting the SPM in a pit

	any such effect before their disposal and dealing of excess water from the tailing dam).		before passing the water in to natural system.
(c)	A flow sheet or schematic diagram of the processing procedure should be attached.	:	Not applicable.
(d)	Specify quantity and type of chemicals to be used in the processing plant.	:	Not applicable
(e)	Specify quantity and type of chemicals to be stored on site / plant.	:	Not applicable
(f)	Indicate quantity (cu.m. per day) of water required for mining and processing and sources of supply of water. Disposal of water and of recycling.	:	Drinking is 0.3KLD, utilized water is 1.0KLD, Dust suppression is 1.0KLD and Green Belt is 1.2KLD. Minimum quantity of water 3.5KLD per day. It is proposed to make an authorized water vendors for drinking water, dust suppression. The workers utilized water will be used for green belt development. The sewage water to a tune of 1.0KLD generated from the mine office toilet and mine labour toilet will be diverted to the septic tank followed by soak pit.



PART – B

11.0 ENVIRONMENTAL MANAGEMENT PLAN:

a) Attach a note on the status of Baseline information with regard to the Following :

11.1 Fresh lease land use pattern indicating the area already degraded due to quarrying /pitting, dumping, roads, processing plant, workshop, township etc in a tabular form. The present land use pattern is given as below.

Sl. No.	Land Use	Present area (Hect.)
1.	Area under Mining	Nil
2	Infrastructure	Nil
3	Roads	Nil
4	Unutilized	5.43.4
5	Green belt	Nil
6	Settling Tank & Drainage	Nil
	Grand Total	**5.43.4**

11.2	Water Regime	:	Water table in this area is noticed at a depth of 85m in summer and 80m in rainy season from the general ground level and presently the quarrying of rough stone is ultimate up to a depth of 70m below ground level. Hence, it will not affect the ground water depletion of this area. It is proposed to make an authorized water vendors for drinking water, dust suppression. The workers utilized water will be used for green belt development.
11.3	Flora and Fauna	:	There is no major flora observed in this area and except bushes, shrubs, no other valuable trees are noticed in the lease area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.
11.4	Quality of air, ambient noise level and water	:	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. 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 every six months around the quarry site.

11.5 Climatic conditions:

The district receives the rain under the influence of both southwest and northeast monsoons. The Northeast monsoon chiefly contributes to the rainfall in the district. Most of the precipitation occurs in the form of cyclonic storms caused due to the depressions in Bay of Bengal. The Southwest monsoon rainfall is highly erratic and summer rains are negligible. The average annual rainfall over the district varies from about 620mm to 745mm.

Rainfall:

The annual rainfall normal (1970-2000) of Karur district is 742mm. 4 Projections of rainfall over Karur for the periods 2010-2040 (2020s), 2040-2070 (2050s) and 2070-2100 (2080s) with reference to the baseline (1970-2000) indicate a general decrease of 4.0%, 3.0% and 11.0% respectively.

11.6 Human Settlement:

The nearest villages are found in the buffer zone with population as per 2011 census.

S.No	Village	Distance in Kms	Direction	Population
1	Punnam	1.0km	North	5446
2	Sadaiyampuram	2.8km	East	1516
3	Malaiyur	1.4km	South	1542
4	Andippatti	4.0Km	West	1422

11.7	Public buildings, places of worship and monuments	:	No infrastructure like residential building, are found within radius of 300m. The places of special interest like archeological monuments, Sanctuaries, etc., are found around 10km radius.
11.8	Attach plans showing the locations of sampling stations	:	The proposed Ambient air quality, Water quality Ambient noise level and vibration are periodically tested for every season (6 months once) around 5km radius as per the guidance of MoEF and EIA Notification 2006 and also covering DGMS norms.

11.9	Does area (partly or fully) fall under notified area under Water (Prevention & Control of Pollution), Act, 1974	:	The proposed area not fall under notified area under Water (Prevention & Control of Pollution), Act, 1974

b) Attach an Environmental Impact Assessment Statement describing the impact of Mining and beneficiation on environment on the following over the next five years (and upto conceptual plan period for 'A' category mines)

i) ***Land area indicating the area likely to be degraded due to quarrying / pitting, dumping, roads, workshop, processing plant, township etc:***

Due to quarrying and exploitation of the rough stone, there will impact in the form i.e. change in the ground profile, pits, and dumps. The details of the land use pattern, during the ensuing plan period and till lease period is shown in the tabular form:

Sl. No.	Land Use	Area in use during the quarrying period (Hect.)
1	Area under Mining	4.31.0
2	Infrastructure	0.02.0
3	Roads	0.05.0
4	Green Belt	0.82.4
5	Un-Utilized Area	Nil
6	Drainage & Settling Tank	0.23.0
	Grand Total	**5.43.4**

ii).	Air Quality		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.
iii).	Water quality		A water sample from the open/bore wells was tested to NABL approved lab to assess hardness, Salinity, colour, Specific gravity, etc.
iv).	Noise levels		Quarrying of rough stone and gravel 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 every six months around the quarry site.
v).	Vibration levels (due to blasting)		No deep hole blasting envisaged. Small dia shot holes are used for breaking boulders. The maximum peak particles velocity shall be

			recoded using mini seismograph devises as per the guidance of MoEF and EIA Notification 2006 and also covering DGMS norms.
vi).	Water regime		No major river or any odai track are found around 500m radius.
vii).	Socio-economics		1. To provide Employment opportunities of the nearby villagers. 2. For the cultural development of the nearby villagers.
viii).	Historical monuments etc.		There are no historical monuments, etc found around 300m radius.

c) Attach an Environmental Management Plan (supported by appropriate plans and sections) defining the time bound action proposed to be taken with sequence & timing in the following areas (or diagrams should be used):

i).	Temporary storage and utilization of topsoil	:	No separate of topsoil will be removed.
ii).	Yearwise proposal for reclamation of land affected by abandoned quarries and other mining activities during ten years (and upto conceptual plan period for 'A' category mines) clarifying the extent of back filling and re-contouring and / or alternative use of unfilled / partially filled excavations / road sides / slopes and mine. In case abandoned quarries/ pits are proposed to be used as reservoir, their size, water holding capacity and proposal for utilization of such water be given.	:	The ultimate mining is proposed to an average depth of 50m below ground level from the below ground level has been envisaged as workable depth for safe & economic mining during the lease period. The mined-out area will be fenced on top of working bench with S1 fencing. No immediate proposals for closure of pit as the rough stone persist still at deeper level.
iii).	***Programme of afforestation, Yearwise for the initial ten years (and upto conceptual plan period for 'A' category mines) indicating the number of plants with name of species to be afforested under different areas in hectares.*** **Green Belt Development:** Safety barrier, nearby school area and Nearest Panchayat approach Roads has been identified to be utilized for Greenbelt appropriate native species of		

Neem, Pungan and other regional trees will be planted in a phased manner as described below

Year	Place	Area in Sq.m	No.of Plants	Rate of survival	Rate	Amount in Rs
First	Lease Boundary	8240	900	80%	@100 Rs Per sapling	90,000/-
Second	Approach road and Nearby Village Road	--	400	80%		40,000/-
Third	Schools	--	400	80%		40,000/-
					Total	**1,70,000/-**

iv).	Stabilization and vegetation of dumps along with waste dump management Year wise for the ten years (and upto conceptual plan period for 'A' category mines).	:	No waste or rejects shall be proposed.
v).	Measures to control erosion / sedimentation of water courses.	:	Not applicable. There is no major dumps are stabilize in this quarry area.
vi).	Treatment and disposal of water from mine.	:	It will not be harmful and it does not require any treatment before discharging into the natural courses.
vii).	Measures for minimizing adverse effects on water regime.	:	There is no water to be pumped out will be very pure and portable and therefore, it will not affect any water regime surrounding the quarry.
viii).	Protective measures for ground vibrations / air blast caused by blasting,	:	It is a small "B" category open cast, semi mechanized mining and no heavy machinery shall be used. The only smooth blasting is proposed, therefore no change for ground vibration or noise from the quarry.
ix).	Measures for protecting historical monuments and for rehabilitation of human settlements likely to be disturbed due to mining activity.	:	No historical monuments and for rehabilitation of human settlements doesn't to be disturbed during mining activity.
x).	Socioeconomic benefits arising out of mining.	:	The nearest villages are will get employment benefits.

d). Monitoring schedules for different environmental components after the commencement of mining and other related activities. (for 'A' category mines only)

Not applicable. It is B category quarry

12.0 PROGRESSIVE QUARRY CLOSURE PLAN:

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	:	Proposed mining is proposed to depth of 50m below ground level. The mined-out area will be fenced on top of working bench with S1 fencing to arrest the entry of cattle's and public in to the quarry site.
12.2	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 Barbed wire fencing. Green belt development at the rate of 900 trees will be proposed in the quarry area. No immediate proposals for closure of pit as the rough stone persist still at deeper level.
12.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	:	The quarry lease is a fresh mining lease, no mitigation measures observed.
12.4	Mine closure activity	:	The mining plan is proposed to depth of 50m below ground level has been envisaged as workable depth for safe & economic mining during the lease period. The mined-out area will be fenced on top of open cast working with S1 fencing. No immediate proposals for closure of pit as the rough stone persist still at deeper level.
12.5	Safety and security	:	Safety measures implement to the prevent access to surface opening excavations will be taken as Metalliferous mine regulations, 1961, it is a small open cast mining method

			adopted. 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.
12.6	Disaster management and Risk Assessment	:	Open cast mining method is adopted in this quarry. If the benches are made with proposed height and with no risk will be there. Even then if any minor or major accident happens the quarry staffs having First aid facilities with first aid box with all necessary medicine and stretches etc., to give first aid treatment at the site and will arrange immediately the vehicle to reach nearest hospital, if any disaster happens the lessee is capable to meet such eventualities. At the time of any accident during mining activity, proposal of first aid facility at quarry and one vehicle always ready at quarry site.
12.7	Care and maintenance during temporary discontinuance	:	A board of discontinuance will be changed on the main entrance of the working place. One watch man will be kept on the quarry area for security purposes also look after the survival of the plants.
12.8	Economic repercussions of closure of quarry and man power entrenchments	:	During the ten years mining period the employment potential will be generated, general financial status and socio-economic conditions of approx. 30 labors will be improved.

12.9 Proposed Financial Estimate / Budget for (EMP) Environment Management:

A	**Fixed Asset Cost:**		
	1. Land Cost(G-Value)	:	Rs. 67,14,000/-
	2. Labour Shed		Rs. 1,00,000/-
	3. Sanitary Facility	:	Rs. 1,00,000/-
	4. Fencing	:	Rs. 4,50,000/-
	5. Other expenses (Security guard, dust bin, etc)	:	Rs. 4,00,000/-
	Total	:	**Rs. 77,64,000/-**
B	**B. Machinery cost**	:	**Rs. 30,00,000/-** (Hire Basis)
C	**Total Expenditure of EMP cost** (for ten years)		
	1. Drinking Water Facility	:	Rs. 1,50,000/-
	2. Sanitary facility & Maintenance	:	Rs. 2,00,000/-
	3. Permanent water sprinkler	:	Rs. 2,00,000/-
	4. Afforestation and its maintenance	:	Rs. 1,30,000/-
	5. Safety Kits	:	Rs. 1,00,000/-
	6. Provision of tyre washing facility	:	Rs. 1,50,000/-
	7. Blasting materials with blast mat cost	:	Rs. 15,00,000/-
	8. Drainage & Settling Tank (0.23.0Hect or 2300Sq.m x 400)		Rs. 9,20,000/-
	9. Environment monitoring	:	Rs. 5,00,000/-
	Total	:	**Rs. 38,50,000/-**
D	**Total Project Cost (A+B+C)**	:	**Rs. 1,46,14,000/-**

13.0 FINANCIAL ASSURANCE:

Not applicable, it is a small "B" rough stone and gravel quarry.

14.0 CERTIFICATES:

All required certificates are enclosed.

15.0 PLAN AND SECTIONS, ETC:

Plan and Sections are submitted along with mining plan.

16.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

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

(ii) The applicant will endeavor every attempt to quarry the rough stone economically without any wastage and to improve the environment and ecology.

(iii) The Mining Plan is prepared by incorporating the conditions stipulated in the precise area communication issued by the Deputy Director, Department of Geology and Mining, Karur vide letter **Roc.No.869/Mines/2025 Dated 06.09.2025.**

(iv)Total proposed production for first five yeras period of rough stone is about **433636m^3 / 1192499MT** and gravel is **131604m^3 / 263208MT** up to a depth of 50m below ground level for first five years plan period (Refer Plate No.VII & VIIA) and remaining quantity of **642490m^3/ 1766847MT** will be proposed for the period of second five years up to a depth of 50m below ground level.(Refer Plate No's. VIII & VIIIA).

17.0 CSR Expenditure:

CSR (Corporate Social responsibility) shall provide by the applicant @ 2.0% of average net profit of the company for the last three financial years to the nearby village on the Ministry has notified the amendments in section 135 of the Act as well in the CSR Rules on 22nd January 2021 as circular no. CSR-05/01/2021-CSR-MCA dated 25th August 2021.

Place: Salem, TN
Date: 8/9/25

Signature of the Qualified Person

P. VELLAIYAN, M.Sc, M.Phil.,
Qualified Person
D.No. 6-106-B, Athirampatti (Vill),
Amaragundhi Panchayat & Post,
Omalur Taluk, Salem District - 636503.

This Mining Plan is approved basedon Incorporation of the particulars specified in clause 7 (iv) of the Commissioner of Geology and Mining Chennai Lr No. 3868 / I C / 2012 dt 19-11-2012 and Draft Minor Mineral Conservation & Development Rules 2010

11/9/25

Deputy Director of Geology and Mining
Karur District

This Mining Plan is approved subject to the conditions / stipulations indicated in the Mining Plan approval Letter No: 869/mines/2025 Dated: 11/09/2025

5/11/09/25

ANNEXURE-I

ந.க.எண். 869/கனிமம்/2025

மாவட்ட ஆட்சியர் அலுவலகம்,
புவியியல் மற்றும் சுரங்கத்துறை,
கரூர்

நாள்: 06.09.2025.

குறிப்பாணை

பொருள்: **கனிமங்களும் குவாரிகளும்** - கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் - சாதாரணகற்கள் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வேண்டி திரு.T. பிரபாகரன் என்பவர் விண்ணப்பம் செய்தது - வருவாய் கோட்டாட்சியர் நிலயிருப்பு அறிக்கை வரப்பெற்றது - உதவி புவியியலாளர் புலத்தணிக்கை மேற்கொண்டு அறிக்கை சமர்ப்பித்தது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்க திட்டம் மற்றும் மாநில சுற்றுச்சூழல் தாக்கல் மதிப்பீட்டு ஆணைய இசைவினை பெற்று சமர்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:

1. திரு.T.பிரபாகரன், த/பெ.தமிழரசன், கதவு எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு, வெங்கமேடு, கரூர் மாவட்டம் குவாரி குத்தகை உரிமம் வழங்கக் கோரும் இணையவழி விண்ணப்பம் நாள்: 18.08.2025.

2. வருவாய் கோட்டாட்சியர், கரூர் அவர்களின் நில இருப்பு அறிக்கை ந.க.எண். அ1/6529/2025, நாள்:02.09.2025

3. உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை கரூர் என்பவரது புலத்தணிக்கை அறிக்கை நாள:06.09.2025.

4. அரசாணை (பல்வகை) எண். 169, தொழில் (எம்எம்.சி-1) துறை நாள்: 04.08.2020 இணைத்து வரப்பெற்றுள்ளது. (தமிழ்நாடு அரசிதழ் சிறப்பு வெளியீடு எண். 315 நாள்: 04.08.2020).

*****

கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பு நிலத்திலிருந்து பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க கதவு எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு, வெங்கமேடு, கரூர் மாவட்டம் என்ற முகவரியில் வசித்து வரும் திரு.T.பிரபாகரன், என்வர் பார்வை 1-இல் கண்டுள்ளவாறு விண்ணப்பம் செய்துள்ளனர்.

மேற்படி விண்ணப்பம் தொடர்பாக, வருவாய் கோட்டாட்சியர், கரூர் அவர்கள் புலத்தணிக்கை மேற்கொண்டு புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2

(பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் மட்டும் தமிழ்நாடு சிறு கனிமச்சலுகை விதிகளில் விதி எண்கள்.19-(1), 20 மற்றும் 22 -இன் கீழ் திரு.T. பிரபாகரன், என்பவருக்கு 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்க நிபந்தனைகளுக்குட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளார்.

மேற்படி விண்ணப்பம் தொடர்பாக, உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கரூர் அவர்கள் புலத்தணிக்கை மேற்கொண்டு கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் மட்டும் தமிழ்நாடு சிறு கனிமச்சலுகை விதிகளில் விதி எண்கள்.19-(1), 20 மற்றும் 22-இன் கீழ் திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவருக்கு 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் கீழ்கண்ட நிபந்தனைகளுக்குட்பட்டு வழங்கலாம் என பரிந்துரை செய்துள்ளார்.

சிறப்பு நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு கிழக்கு திசையில் புல எண்கள்.1083,1086 மற்றும் புல எண் 1084 கிழக்கு மற்றும் தெற்கு திசையில் செல்லும் உயரழுத்த மின்பாதைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்ய வேண்டும்.
2. விண்ணப்ப புலத்தின் வடக்கு திசையில் 110 மீட்டர் தொலைவில் BPCL பெட்ரோலியம் கொண்டு செல்லும் பைப்லைனிற்கு யாதொரு சேதமின்றி குவாரிப்பணி செய்ய வேண்டும்.

வருவாய் கோட்டாட்சியர், கரூர் மற்றும் உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கரூர் ஆகியோரின் பரிந்துரைகள் மற்றும் நிபந்தனைகளின் அடிப்படையில் கரூர் மாவட்டம், புகளூர் வட்டம், கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண். 19(1), 20 மற்றும் 22-இன்படியும் மேலும் கீழ்கண்ட நிபந்தனைகளுக்கு உட்பட்டு பத்து வருட காலத்திற்கு திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

சிறப்பு நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு கிழக்கு திசையில் புல எண்கள்.1083,1086 மற்றும் புல எண் 1084 கிழக்கு மற்றும் தெற்கு திசையில் செல்லும் உயரழுத்த மின்பாதைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்ய வேண்டும்.

2. விண்ணப்ப புலத்தின் வடக்கு திசையில் 110 மீட்டர் தொலைவில் BPCL பெட்ரோலியம் கொண்டு செல்லும் பைப்லைனிற்கு யாதொரு சேதமின்றி குவாரிப்பணி செய்ய வேண்டும்.

நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் மற்றும் புறம்போக்கு நிலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு யாதொரு சேதமுமின்றி முறையாக குவாரிப்பணி செய்ய வேண்டும்.

2. குத்தகைக்காலத்தில் கைத்துளைப்பான் கருவி கொண்டு பாறைகளை துளையிட்டும், மிதமான வெடிபொருள் பயன்படுத்தியும், பொதுமக்களுக்கோ, பொது சொத்துக்களுக்கோ சேதம் ஏற்படாத வண்ணம் குவாரிப்பணி செய்ய வேண்டும்.

3. குவாரித் தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்ய Mettaliferrous Mines, விதிகளின்படி அகலமானதும், பாதுகாப்பானதுமான Benches அமைத்து பாதுகாப்பான முறையில் குவாரிக்குள் வாகனங்கள் சென்றுவரவும் மற்றும் குவாரி தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்தும் குவாரிப்பணி செய்ய வேண்டும்.

4. குவாரி குத்தகை வழங்க ஏதுவாக துணை இயக்குநர் (சுரங்கம்) அவர்களால் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினையும், மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (SEIAA) அனுமதி பெற்று மாவட்ட நிர்வாகத்திற்கு விண்ணப்பதாரரால் சமர்ப்பிக்கப்பட வேண்டும்.

எனவே, தமிழ்நாடு சிறு கனிம சலுகை விதிகள்-1959 விதி எண்.41-இன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவர் கேட்டுக்கொள்ளப்படுகிறார். மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-இன்படி சுற்றுச்சூழல் தாக்கல் மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

06/9/25

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
கரூர்.

பெறுநர்

திரு.T. பிரபாகரன்,
த/பெ.தமிழரசன்,
எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு,
வெங்கமேடு,
கரூர் மாவட்டம்.

06/09/25

நகல்:-

1. மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை.
2. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, கிண்டி, சென்னை.

ANNEXURE - II

மாவட்டம் திருநெல்வேலி

வட்டம் தென் அரவக்குறிச்சி

புல எண். 1083

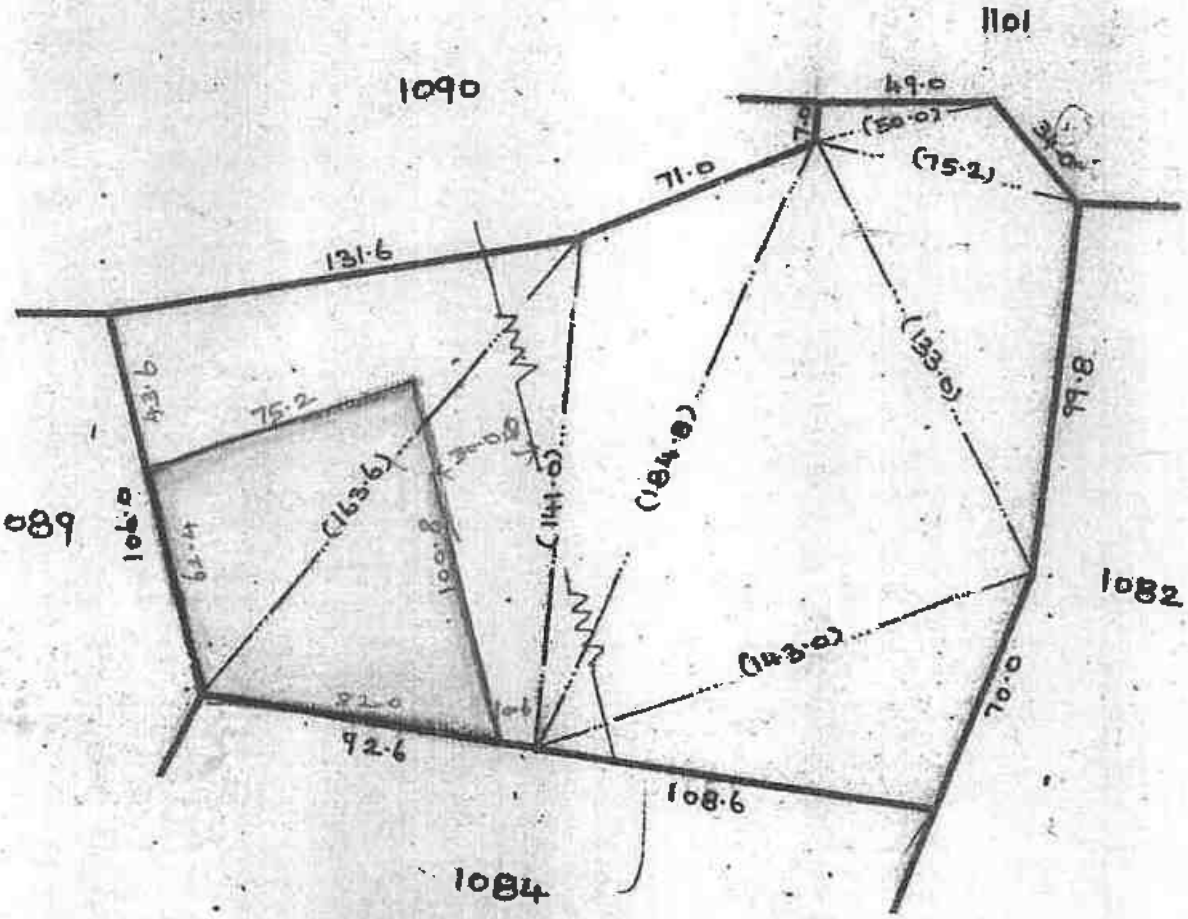
அளவைப்புலக் எண் 22

தாலுகா எண் 358

கிராமம்

பெயர் புன்னம்

ஏற்பு : தொகுப்பு ... 3 ஏர் 53.5



தென்னந்தோப்பு அறிந்தாக சுமார் உள்ளது அதன் அளவு விவரம் பின்:
புல எண் 1033 : அளவு 0.61.50 ஏர்ஸ்

LEASE APPLIED AREA

ஒப்பியவர்.

அளவு.

தாசில்தார்
திருநெல்வேலி
(மாவட்ட வருவாய் அலுவலர்)

193

அளவைபடிவம் எண் 23

மாவட்டம். திருச்சிராப்பள்ளி

எண். 35 (8) / 1

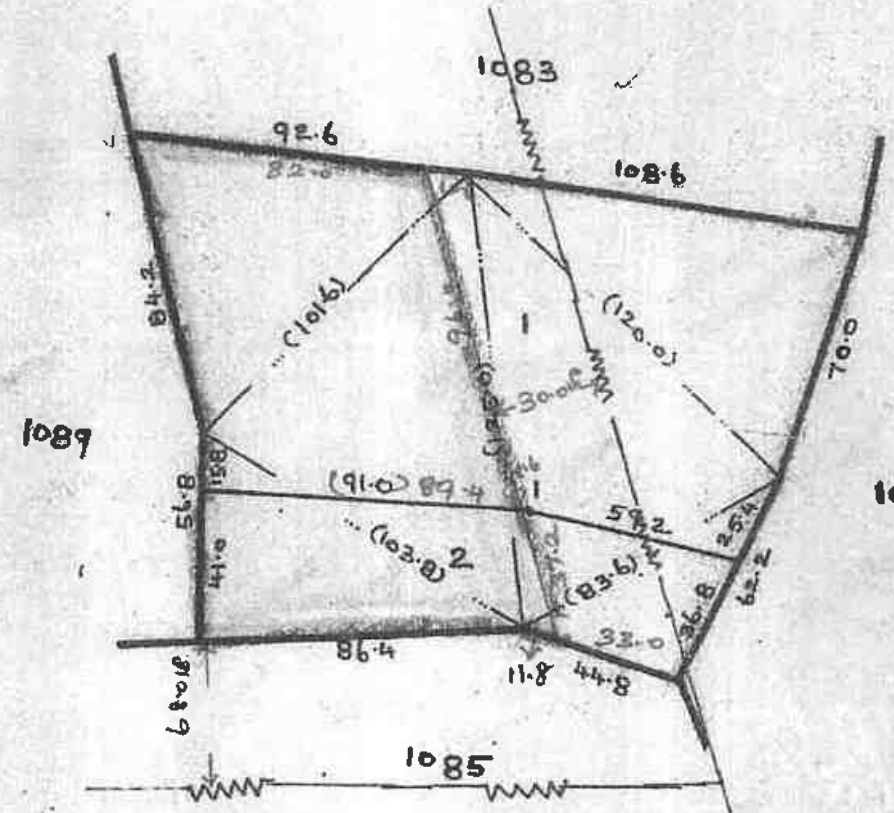
வட்டம். முசிறி

கிராமம்

பெயர். புன் ஆம்

புல எண். 1084

பரப்பு: ஹெக்டேர் 2.14.0



புலப்படம்

SF: 1084/1– 0.77.00 ஹெக்டேர்

SF: 1084/2– 0.34.90 ஹெக்டேர்



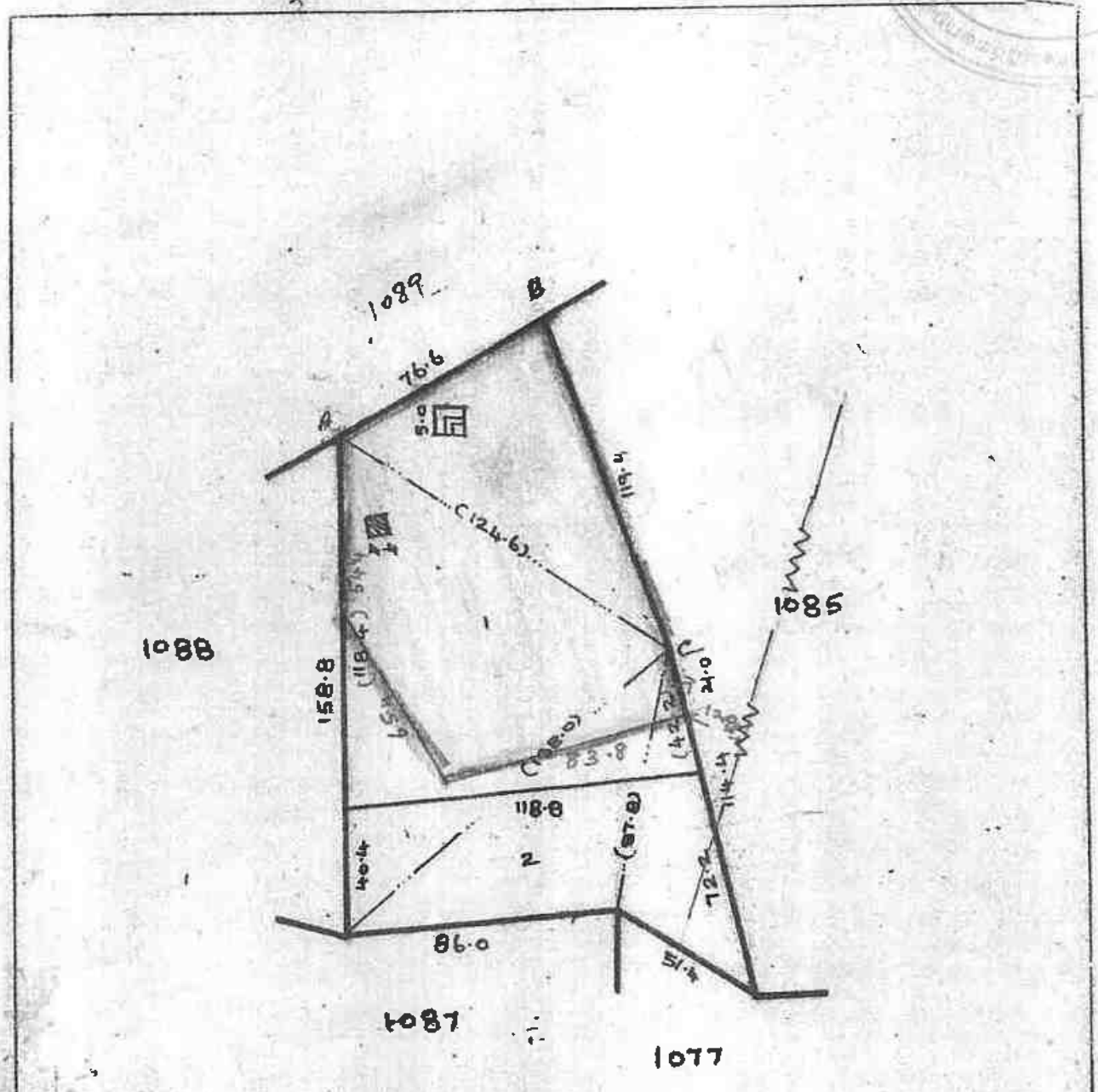
LEASE APPLIED AREA

அளவு : 1: 2000

கிராமம் { பெயர். புன்னம்

மாவட்டம். கரூர் அரவக்குறிச்சி

புல எண். 1086/ பரப்பு: ஹெக்டேர் 1 ஏர். 76.0



	C (124.6)		
	38.4	20.0	H
	20.4	16.6	
	A		
	B (76.6)		
	23.4	7.0	
	25.8	6.0	
	A		

புலப்படம் எண் உள்ளிட்ட அனைத்து கோடுகளும்
ரத்து: 1086/1 : மற்றும் 1.08 சென்ட்

LEASE APPLIED AREA

அளவு. 1:2000

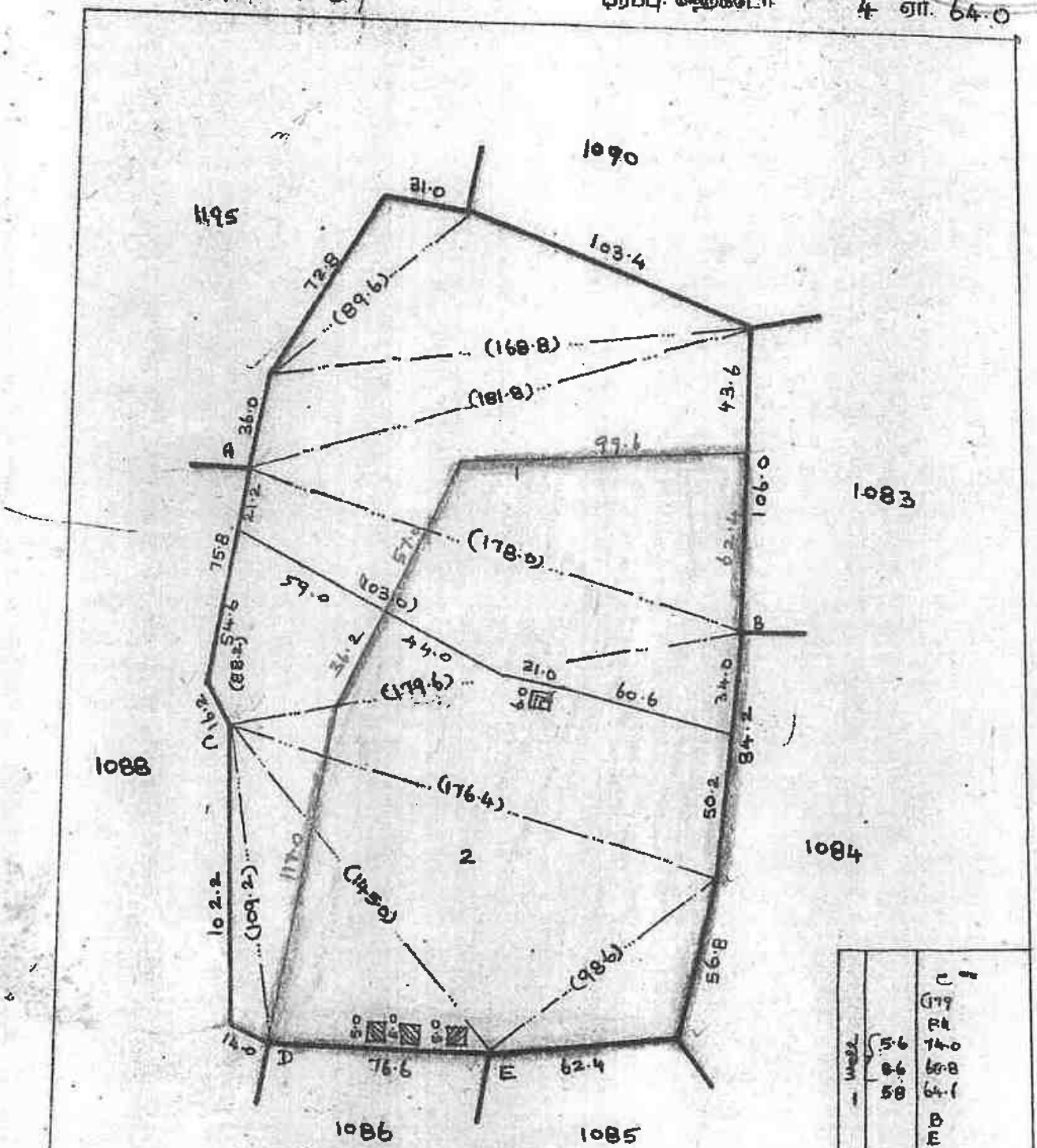
தயாரிப்பவர்
தாசில்தார்
30.3.84.

வரைந்தவர்
அ. லோகநாயகி
தலைமை நில அளவர்
29.3.84

197

வட்டம் கிராமம்

புல எண். 1089 பரப்பு: ஹெக்டேர் 4 ஏ. 64.0



Well	5.6	74.0
	8.6	68.8
	5.8	64.1
		B
		E
		76
House	1.0	65.1
	1.6	60.2
	0.4	50.8
	1.4	45
	2.4	-
	3.2	

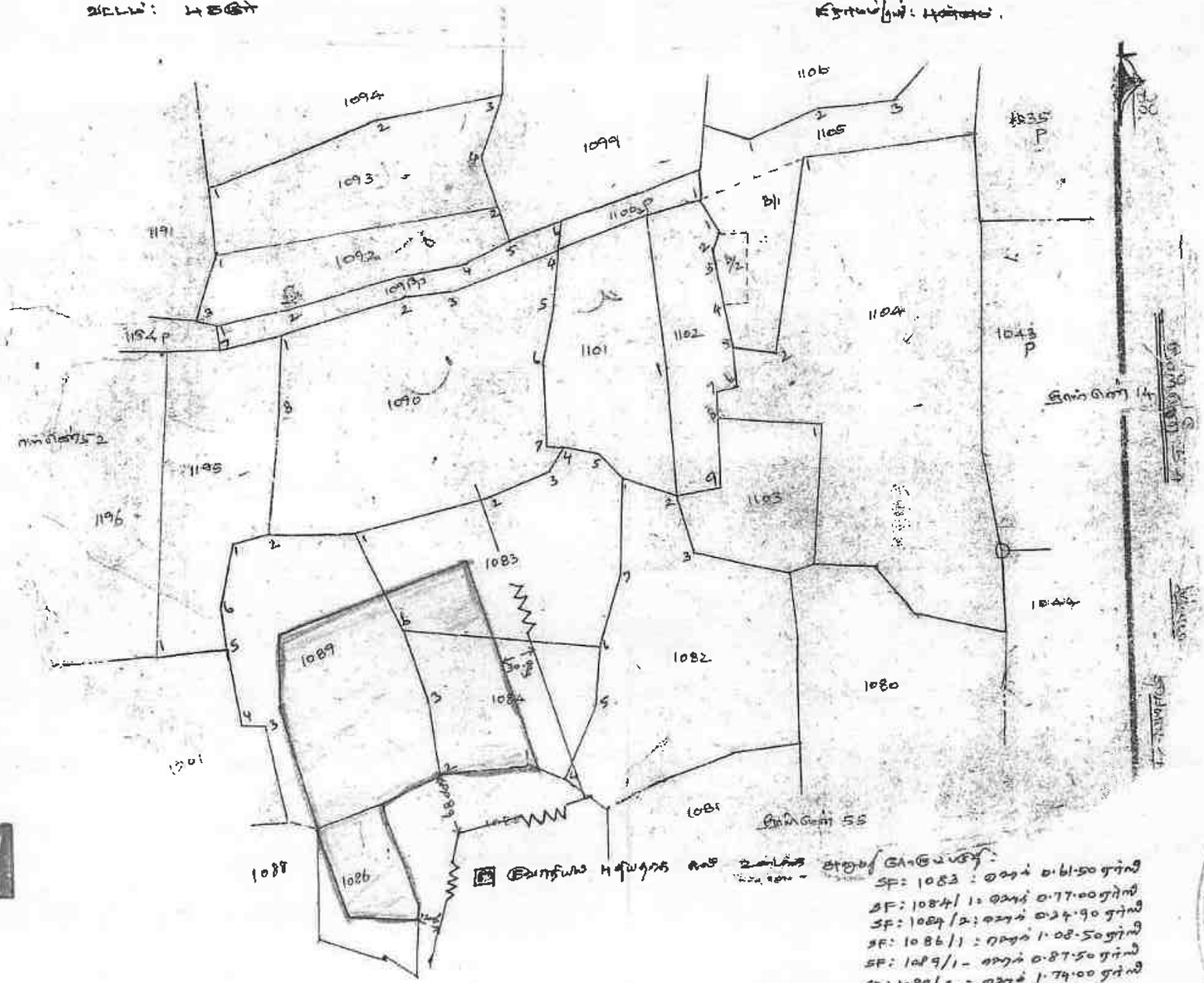
மேலாய்வு புலங்களாக பல உட்கோள்கள் அமைக்கப்பட்டுள்ளன
SF: 1089/1 பரப்பு: 0.87.50 ஹெக்டேர்

மேலாய்வு புலங்களாக பல உட்கோள்கள் அமைக்கப்பட்டுள்ளன
SF: 1089/2 பரப்பு: மொத்தம் 1.74.00 ஹெக்டேர்

குறிப்படம்.

அளவு 1: 2000

EASE APPLIED AREA



227

ANNEXURE-III

ANNEXURE-IV

தலைமை இயக்குநர் அலுவலகம்
புதிய கட்டுமானம் மற்றும் பராமரிப்பு

கி. எண். 35 14 புனலம். 281

1	2	3	4	5	6	7	8	9	10	11	12
							கு. பை.	ஹெ. ஏர்ஸ்	ரு. ப்பை.		
1078	2	1078–பா	ர	பு	...	8–4	6 1 38	1 50·0	2 09	2168 பொ. மாரப்ப கவுண்டரும் மற்றும் ஏழு பேர்களும். *	கிணறு.
								3 95·0	5 47		
1079	...	1079	அ	புற	...	...	... ...	0 08·5	...	.....	கால் பாதை.
1080	...	1080	ர	பு	...	8–4	6 1 38	5 32·0	7 36	2212 க. பெரியம் மாளும் மற்றும் ஒன்பது பேர் களும். *	
1081	1	1081–பா	ர	பு	...	8–4	6 1 38	1 30·0	1 79	169 வை. கருமண கவுண்டர்.	
	(2)	–பா	ர	பு	...	8–4	6 1 38	1 62·0	2 25	1636 பெ. செல்லப்ப கவுண்டர் (1), ச. பார்வதி (2).	
								2 92·0	4 04		
1082	(1)	1082–பா	ர	பு	...	8–4	6 1 38	2 66·0	3 67	1637 மு. கந்தசாமி கவுண்டர் (1), பெ. முருகே சன் (2).	
	(2)	–பா	ர	பு	...	8–4	6 1 38	2 10·5	2 92	1638 மா. ராம சாமி (1), மா. சுப்ப ராயன் (2).	
								4 76·5	6 59		
1083	...	1083	ர	பு	...	8–4	6 1 38	3 53·5	4 89	682 வி. பழனிசாமி கவுண்டர்.	
1084	1	1084–பா	ர	பு	...	8–4	6 1 38	1 69·0	2 34	2228 அ. மாராயம் மாளும் மற்றும் பத்து பேர் களும். *	
	2	–பா	ர	பு	...	8–4	6 1 38	0 45·0	0 62	1824 வை. சுப்பண கவுண்டர் (1), வை. பெருமாள் கவுண்டர் (2), வை. செல்லப்ப கவுண்டர் (3).	
								2 14·0	2 96		
1085	...	1085	ர	பு	...	8–4	6 1 38	5 22·0	7 22	2085 மா. சுப்ப ராயனும் மற்றும் ஐந்து பேர்களும். *	கிணறு.
1086	1	1086–1	ர	பு	...	8–4	6 1 38	1 25·5	1 74	32 ப. அங்கமுத்து கவுண்டர்.	கிணறு.

— தொடர்ச்சி நகல் —

* விவரப்பட்டியலைப் பார்க்கவும்.

நேரில் நிர்வாக அலுவலர்,
17, புன்னம் சோமம்,
புகளூர் வட்டம்,
கரூர் மாவட்டம்.

1	2	3	4	5	6	7	8	9	10	11	12
							சூ. பை.	ஹெ. ஏர்ஸ்	சூ. பை.		
1086	2	1086–2	ர	பு	...	8–4	6	1 38	0 50·5	0 70	1975 க. ராமாயியும் மற்றும் நான்கு பேர்களும். *
									1 76·0	2 44	
1087	...	1087	அ	புற	...	...	...	...	0 22·0	...	..... கால் பாதை.
1088	1	1088–1	ர	பு	...	8–4	6	1 38	0 71·0	0 99	32 ப. அங்குத்து கவுண்டர்.
	2	–2	ர	பு	...	8–4	6	1 38	0 06·5	0 08	1159 க. ராமசா.
									0 77·5	1 07	
1089	1	1089–பா	ர	பு	...	8–4	6	1 38	2 32·0	3 21	2169 அ. மாராயி யம்மாளும் மற்றும் ஏழு பேர்களும். *
	2	–பா	ர	பு	...	8–4	6	1 38	2 32·0	3 21	2086 வை. கருப்பண கவுண்டரும் மற்றும் ஐந்து பேர்களும். *
									4 64·0	6 42	
1090	...	1090	ர	பு	...	8–4	6	1 38	6 20·0	8 58	314 ஞா. சடையம் மாள்.
1091	...	1091	அ	புற	...	...	...	...	0 41·5	...	..... வண்டிப் பாதை.
1092	(1)	1092–1	ர	பு	...	8–4	6	1 38	1 44·0	1 99	1639 பெ. காளியப் பன் (1). பெ. ரங்க சாமி (2).
	(2)	–2	ர	பு	...	8–4	6	1 38	0 47·5	0 66	170 கு. கருப்பண்ண கவுண்டர்.
									1 91·5	2 65	
1093	(1)	1093–1	ர	பு	...	8–4	6	1 38	1 75·5	2 44	1639 பெ. காளியப் பன் (1). பெ. ரங்க சாமி (2).
	(2)	–2	ர	பு	...	8–4	6	1 38	0 94·5	1 30	170 கு. கருப்பண்ண கவுண்டர்.
									2 70·0	3 74	

* விவரப்பட்டியலைப் பார்க்கவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	1083	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	-	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	1083 ,	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	3 - 53.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	4.89
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	10486
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.டி.பிரபாகரன்

குறிப்பு:

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1083/-/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	1084	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	1	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	1084 ,	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	P	12. பரப்பு (ஹெக்டேர் - ஏர்)	1 - 69.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	2.34
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	10486
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.டி.பிரபாகரன்

குறிப்பு:

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1084/1/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	1084	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	2	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	1084 ,	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	P	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 45.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.62
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	10486
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.டி.பிரபாகரன்

குறிப்பு:

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1084/2/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	1086	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	1	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	1086-1 ,	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	P	12. பரப்பு (ஹெக்டேர் - ஏர்)	1 - 25.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.74
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	10486
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	1	16. பெயர்	1.டி.பிரபாகரன்

குறிப்பு:

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1086/1/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	**1089**	9. மண் வயனமும் ரகமும்	**8 - 4**
2. உட்பிரிவு எண்	**1**	10. மண் தரம்	**6**
3. பழைய புல உட்பிரிவு எண்	**1089 ,**	11. தீர்வை (ரூ - ஹெ)	**1.38**
4. பகுதி	**P**	12. பரப்பு (ஹெக்டேர் - ஏர்)	**2 - 32.00**
5. அரசு / ரயத்துவாரி	**ரயத்துவாரி**	13. மொத்த தீர்வை (ரூ - பை)	**3.21**
6. நிலத்தின் வகை	**புஞ்சை**	14. பட்டா எண்	**10486**
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	**1.டி.பிரபாகரன்**

குறிப்பு:

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1089/1/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : கரூர்

வட்டம் : புகழூர்

கிராமம் : புன்னம்

1. புல எண்	1089	9. மண் வயனமும் ரகமும்	8 - 4
2. உட்பிரிவு எண்	2	10. மண் தரம்	6
3. பழைய புல உட்பிரிவு எண்	1089 ,	11. தீர்வை (ரூ - ஹெ)	1.38
4. பகுதி	P	12. பரப்பு (ஹெக்டேர் - ஏர்)	2 - 32.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	3.21
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	10486
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.டி.பிரபாகரன்

குறிப்பு:

-

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **14/07/017/1089/2/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

ANNEXURE-V

தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

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

மாவட்டம் : கரூர் வட்டம் : புகழூர்

வருவாய் கிராமம் : புன்னம் பட்டா எண் : 10486

உரிமையாளர்கள் பெயர்

1. கே தமிழரசன் மகன் டி.பிரபாகரன்

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	
1083	-	3 - 53.50	4.89	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1084	1	1 - 69.00	2.34	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1084	2	0 - 45.00	0.62	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1086	1	1 - 25.00	1.74	--	--	--	--	2025/0103/14/370848----------கிணறு Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1086	2	0 - 50.50	0.70	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1089	1	2 - 32.00	3.21	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1089	2	2 - 32.00	3.21	--	--	--	--	2025/0103/14/370848---------- Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
		12 - 7.00	16.71					

T.P.M.

குறிப்பு :	
	1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **P/14/07/017/010486/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
	2. இத் தகவல்கள் 07-08-2025 அன்று 01:16:00 PM நேரத்தில் அச்சடிக்கப்பட்டது.
	3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

கிராமக் கணக்கு

1434- ஆம் பசலியில் தேனி மாவட்டம் உத்தமபாளையம் வட்டம் 17, புலனம்

எண் 2

கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	சாகுபடியானின் பெயர்.	முதல் போகம்.					இரண்டாம் போகம்.					கிராம அலுவலரின் குறிப்புரை:- (1) புலன்களின் பகுதிகளில் பயிரிடப்பட்டிருந்தால் அவற்றில் நிலங்கள் அவற்றில் இல்லாத காரணம் என்பதும் (2) கைப்பற்றில் நிலம்-பாய்ச்சல் சாதனமும் (3) முற்றாகவோ பகுதியாகவோ சாகுபடி செய்யப்படாமல் தரிசாக விடப்பட்டிருந்தால் அதற்கு பிரதான காரணங்களும்	கீழ்க்கண்டவைகளில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது அதன் பகுதியில். (அ) வனம், (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம், (இ) வியாபார மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம், (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும், (ஊ) விதைக்கப்பட்ட நிகர பரப்பில் சேர்க்கப்படாத பரவைப் பயிர்களும் தோப்புகளும், (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	பயிர் பார்வையிட்ட அலுவலர் குறிப்புரைகள்.
நில அளவை எண்.	உட்பிரிவு எண்.	நீளம்.	அகலம்.	ஒரு போகம் அல்லது இரு போகம்.		நிலத்தின் எந்த பகுதி மாவது சாகுபடியானால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அல்லது மாதத்தில் துறவை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிராக / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரக்காடு.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அல்லது மாதத்தில் துறவை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிராக / அறுவடையான பரப்பு	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரக்காடு.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(18அ)	(19)
1083	—	3.5	4.89	1 போக	ம. மாதவன்			—								—			
1084	1	1.50	2.14	"	—do—			—						—					
1084	2	1.50	0.12	"	—do—		—							—					
1086	1	12.50	1.74	"	—do—		—							—					
1086	2	0.55	0.20	"	—do—		—							—					
1089	1	2.30	3.21	"	—do—		—							—					
1089	2	2.30	3.21	"	—do—		—							—		—			

— உண்மை நகல் —

கிராம நிர்வாக அலுவலர்,
17, புலனம் கிராமம்,
உத்தமபாளையம் வட்டம்,
தேனி மாவட்டம்.

கிராம நிர்வாக அலுவலர் ★ கிராமம் ★ தேனி.

380/36—R.F. III-A-10—10,00,000 Cps.-GBP.-MDU.-7,-2024.

239

22

ANNEXURE-VI

PHOTOCOPY OF THE LEASE AREA

Site photos in respect of rough stone and gravel quarry lease in S.F.No's: 1083(Part),1084/1(Part),1084/2(Part),1086/1(Part), 1089/1(Part), & 1089/2(Part) Patta - Land - over an extent of 5.43.40 Hectares– Punnam Village– Pugalur Taluk – Karur District, Tamil Nadu State in belongs to **Mr.T.Prabhakaran.**





227 ANNEXURE VII

Government of India



பிரபாகரன் த
Prabhakaran T
பிறந்த நாள்/DOB: 06/12/1983
ஆண்/ MALE

Download Date: 14/11/2018

Issue Date: 12/05/2017

2644 7354 9062
VID : 9195 0062 8883 2783

எனது ஆதார், எனது அடையாளம்

Unique Identification Authority of India

முகவரி:
S/O தமிழரசன், எண் 201, பழைய போஸ்ட் ஆபீஸ் தெரு, வெங்கமேடு, கரூர், கரூர், தமிழ்நாடு - 639006

Address:
S/O Thamilarasan, 201, OLD POST OFFICE STREET, VENGAMEDU, Karur, Karur, Tamil Nadu - 639006

2644 7354 9062
VID : 9195 0062 8883 2783

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


INCOME TAX DEPARTMENT
GOVT. OF INDIA
T PRAZHAVADAN
TAMILARASAN
ADCPP4177F



ANNEXURE-VIII

Reg. No : M16GEO104
College Code : 514

No.2KN 043495

பெரியார் பல்கலைக்கழகம்
PERIYAR UNIVERSITY



அறிவியல் புலம்
FACULTY OF SCIENCE

பெரியார் பல்கலைக்கழகம் ஜூலை 2017 ஆம் ஆண்டு நடத்திய
பயன்பாட்டுப்புவியமைப்பியல் தேர்வில்
P வெள்ளையன்
முதல் வகுப்பில் உயர் தகமையுடன் **O** தரத்தில் தேர்ச்சி பெறுத ததகுதியை நிறைவு செய்ததால்
மேற்படி தேர்வில் பங்கேற்ற **ஆய்வியல் நிறைஞர்** என்னும்
பட்டத்தை வழங்கும் பொருட்டு **பெரியார் பல்கலைக்கழக ஆட்சிக்குழு**
வாழ்த்துகிறது

The Syndicate of the **PERIYAR UNIVERSITY** hereby makes known that
VELLAIYAN P has been
admitted to the Degree of **MASTER OF PHILOSOPHY**
having been certified by duly appointed Examiners to be qualified to receive the same in
APPLIED GEOLOGY
and was placed in **FIRST CLASS EXEMPLARY WITH O GRADE**
at the Examination held in **JULY 2017** by Periyar University.

Given under the Seal of the University

Dated : 20.03.2018
Salem - 636011,
Tamil Nadu, India.

Controller of Examinations i/c | Registrar | Vice-Chancellor

Scanned with ACE Scanner

Cell: 9885799345
E-mail -ellammangranites@gmail.com

M/s ELLAMMAN GRANITES

PLOT NO 1,ROOM NO 10, BANKERS COLONY,SRIKAKULAM ANDHRA PRADESH-532001

Ref. No.- EG/EC/2022/02

Date – 02.11.2022

EXPERIENCE CERTIFICATE

This is to certify that **Mr.P.Vellaiyan** Geologist worked in M/s Ellamman Granites as Mines Manager in Sy.No.71, Mukhalingapuram Village, Tekkali Mandal, Srikakulam District, Andhra Pradesh State from **20.07.2017** to **31.10.2022.** During his working period he carried out Boundary demarcation survey using DGPS, Reserve Estimation, direct and co-ordinate the production activities, Ensure Mine Safety and Surface plan prepared. We found him a sincere, honest, hardworking, dedicated employee with a professional attitude and very good job knowledge. He is amiable in nature and character is well.

We wish him every success in life.

For ELLAMMAN GRANITES

R. Bala Raju

Proprietor

(Signature with date and official Seal)

(Signature of Employee)

Cell: 9885799345
E-mail -ellammangranites@gmail.com

M/s ELLAMMAN GRANITES

PLOT NO 1,ROOM NO 10, BANKERS COLONY,SRIKAKULAM ANDHRA PRADESH-532001

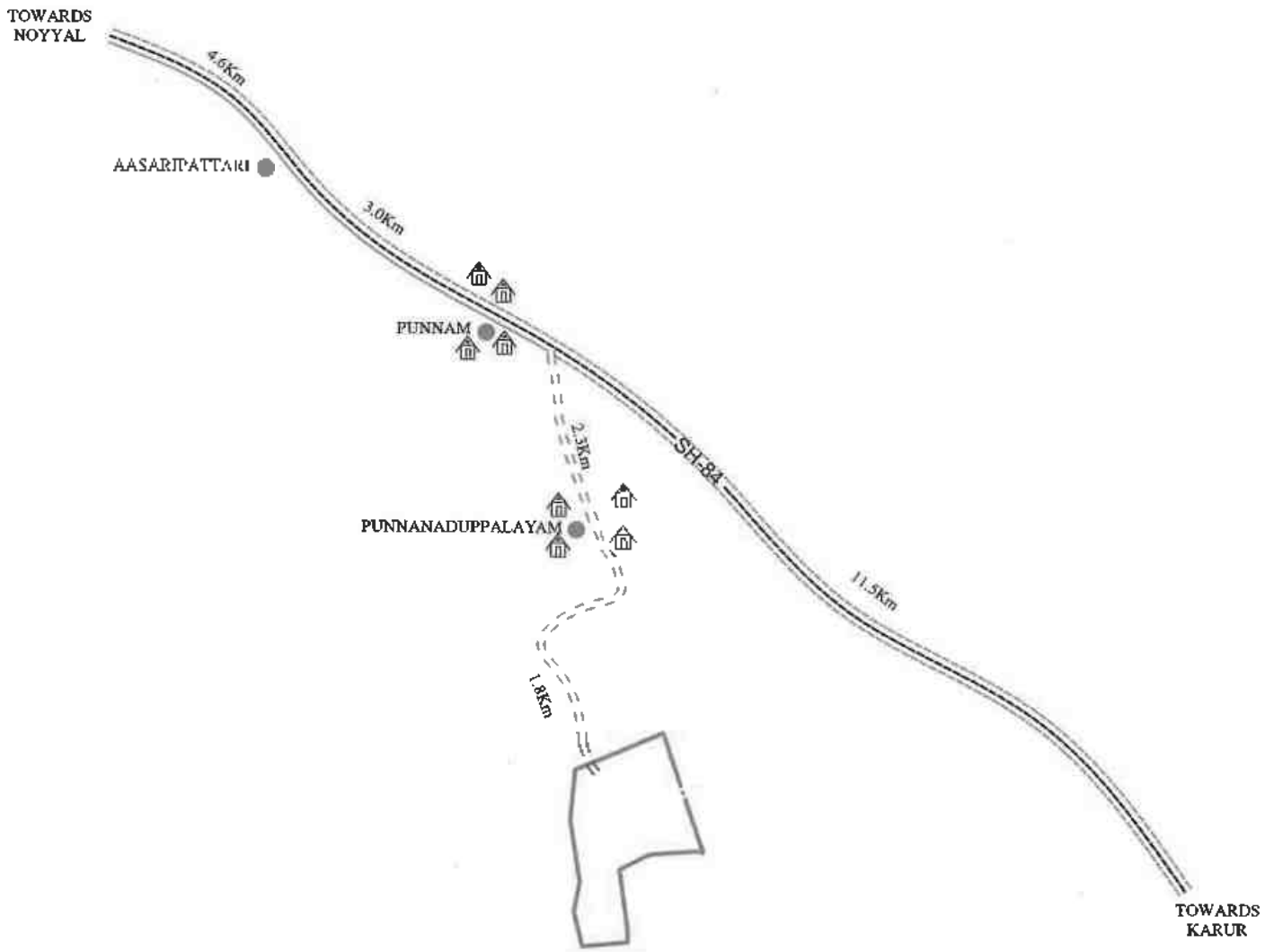
S.No	Nature of Practical Experience	Place of Work	Period of Experience		Total Working Experience		
			From	To	Year	Month	Days
1	Worked as Geologist and it Boundary demarcation survey using DGPS, Reserve Estimation, direct and co-ordinate the production activities, Ensure Mine Safety and Surface plan prepared.	Open Cast Mines and Office	20.07.2017	31.10.2022	5	3	11

For ELLAMMAN GRANITES

Proprietor

(Signature with date and official Seal)

(Signature of Employee)



246

PLATE No-I

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(PART),1084/1(PART), 1084/2(PART),1086/1(PART), 1089/1(PART) &1089/2(PART
EXTENT	: 5.43.40 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

MINE LEASE AREA

APPROACH ROAD

CART ROAD

SH-84 ROAD

HABITATION

KEY MAP

Not to Scale

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

Dr.S.KARUPPANNAN,M.Sc.,Ph.D.
QUALIFIED PERSON

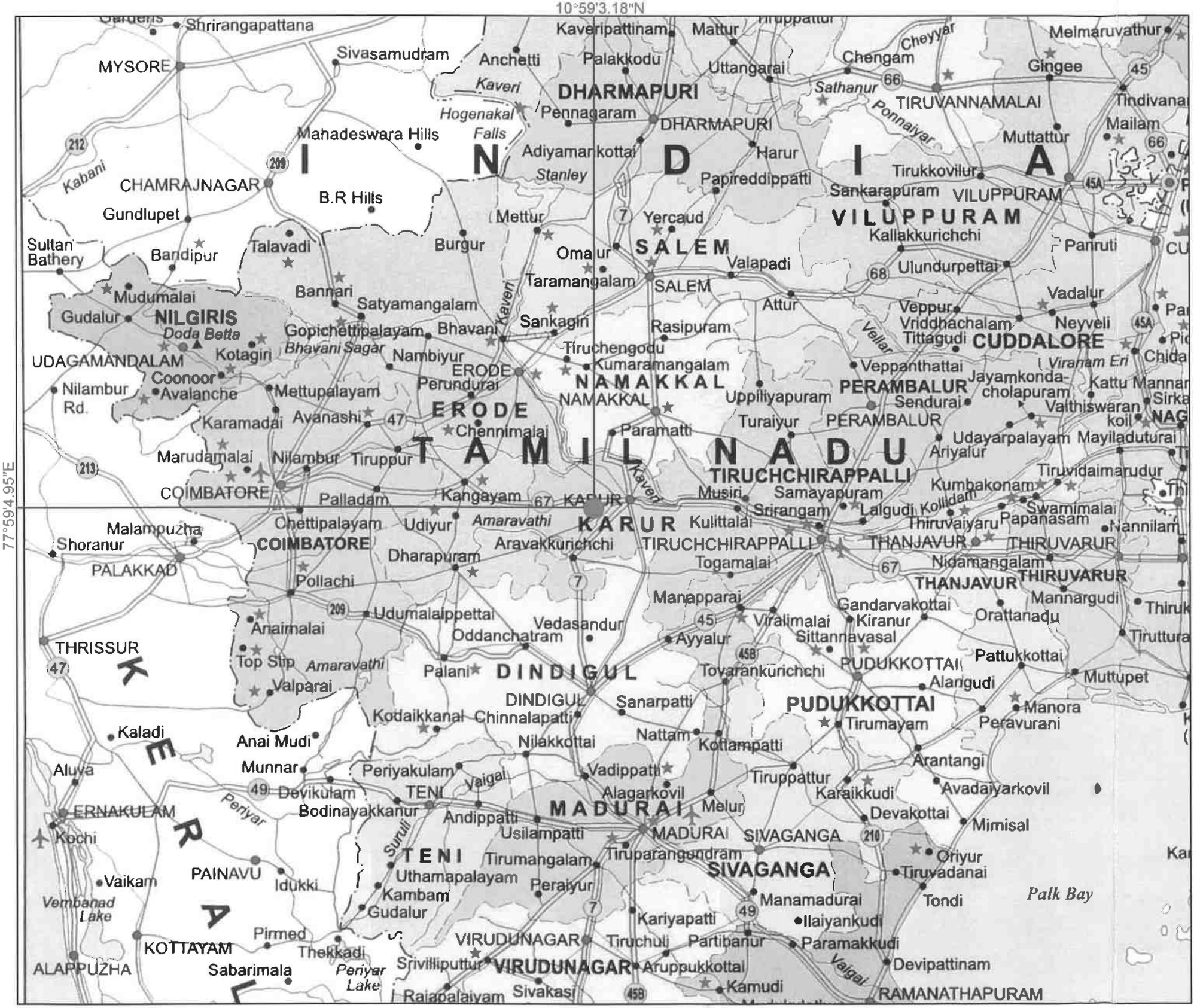


PLATE No-IA

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(PART),1084/1(PART), 1084/2(PART),1086/1(PART), 1089/1(PART) &1089/2(PART)
EXTENT	: 5.43.40 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

MINE LEASE AREA :

TOPO SHEET NO : 58-F/13

LATITUDE : 10°58'50.43"N *to* 10°59'3.18"N

LONGITUDE : 77°59'4.95"E to 77°59'12.95"E

LOCATION PLAN
NOT TO SCALE

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

Dr.S.KARUPPANNAN,M.Sc.,Ph.D.
QUALIFIED PERSON

10°59'3.18"N

77°59'4.95"E

PLATE No-IB

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(PART),1084/1(PART), 1084/2(PART),1086/1(PART), 1089/1(PART) &1089/2(PART)
EXTENT	: 5.43.40 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

TOPO SHEET NO : 58-F/13

LATITUDE : 10°58'50.43"N *to* 10°59'3.18"N

LONGITUDE : 77°59'4.95"E to 77°59'12.95"E

MINE LEASE AREA

10KM RADIUS

CONVENTIONAL SYMBOLS

TOPOSHEET MAP
SCALE– 1:1,00,000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

Dr.S.KARUPPANNAN,M.Sc.,Ph.D.
QUALIFIED PERSON



PLATE No-IC

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(PART),1084/1(PART), 1084/2(PART),1086/1(PART), 1089/1(PART) &1089/2(PART)
EXTENT	: 5.43.40 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE AREA
- APPROACH ROAD
- CART ROAD
- VILLAGE ROAD
- 100m RADIUS
- 200m RADIUS
- 300m RADIUS
- 400m RADIUS
- 500m RADIUS
- EXISTING PIT

TOPO SHEET NO : 58-F/13

LATITUDE : 10°58'50.43"N *to* 10°59'3.18"N

LONGITUDE : 77°59'4.95"E to 77°59'12.95"E

SATELITE IMAGERY MAP
SCALE– 1:5000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

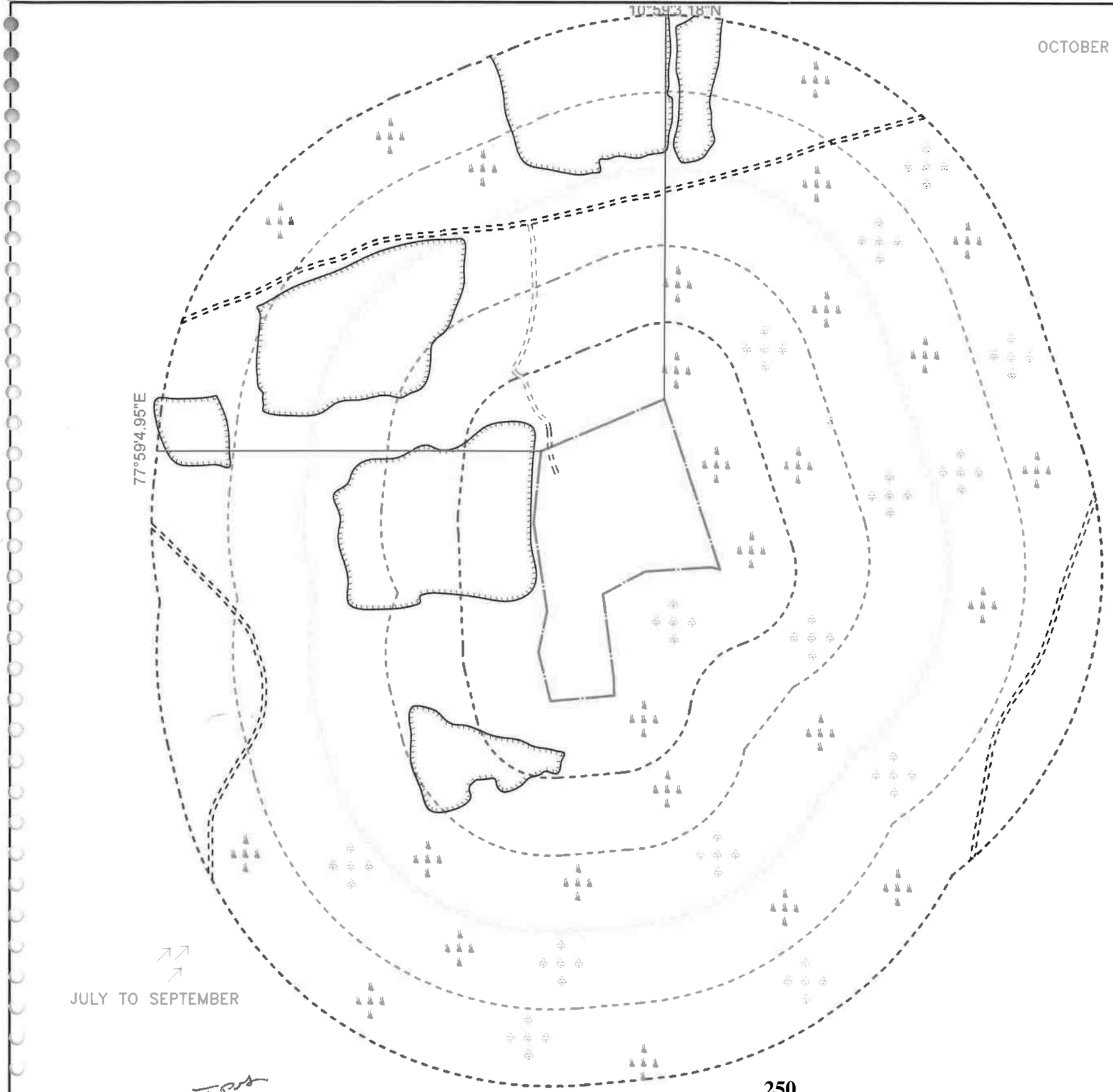


PLATE No-ID

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(PART),1084/1(PART), 1084/2(PART),1086/1(PART), 1089/1(PART) &1089/2(PART)
EXTENT	: 5.43.40 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE AREA
- APPROACH ROAD
- CART ROAD
- VILLAGE ROAD
- 100m RADIUS
- 200m RADIUS
- 300m RADIUS
- 400m RADIUS
- 500m RADIUS
- SHRUBS & TREES
- WIND DIRECTION
- EXISTING PIT

TOPO SHEET NO : 58-F/13

LATITUDE : 10°58'50.43"N *to* 10°59'3.18"N

LONGITUDE : 77°59'4.95"E to 77°59'12.95"E

ENVIRONMENTAL PLAN
SCALE– 1:5000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

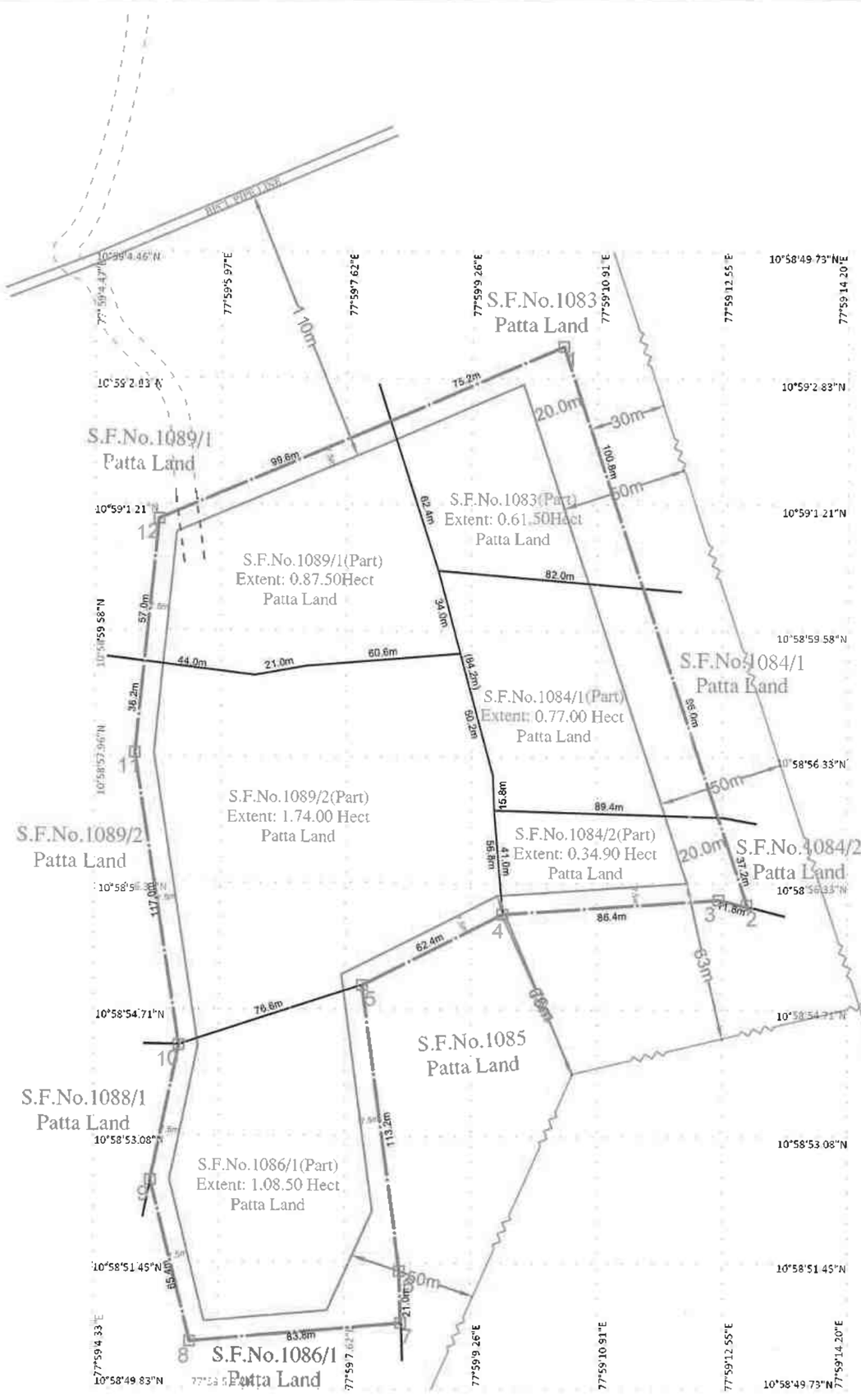


PLATE No- II

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

ID	LATITUDE	LONGITUDE
1	10°59'3.18"N	77°59'10.60"E
2	10°58'55.94"N	77°59'12.95"E
3	10°58'56.04"N	77°59'12.58"E
4	10°58'55.88"N	77°59'9.74"E
5	10°58'54.98"N	77°59'7.90"E
6	10°58'51.33"N	77°59'8.35"E
7	10°58'50.64"N	77°59'8.36"E
8	10°58'50.43"N	77°59'5.61"E
9	10°58'52.51"N	77°59'5.11"E
10	10°58'54.23"N	77°59'5.49"E
11	10°58'57.95"N	77°59'4.95"E
12	10°59'1.02"N	77°59'5.28"E

INDEX

MINE LEASE BOUNDARY

SAFETY BOUNDARY

APPROACH & CART ROAD

BOUNDARY PILLAR STONES □1 □2

HT EB LINE

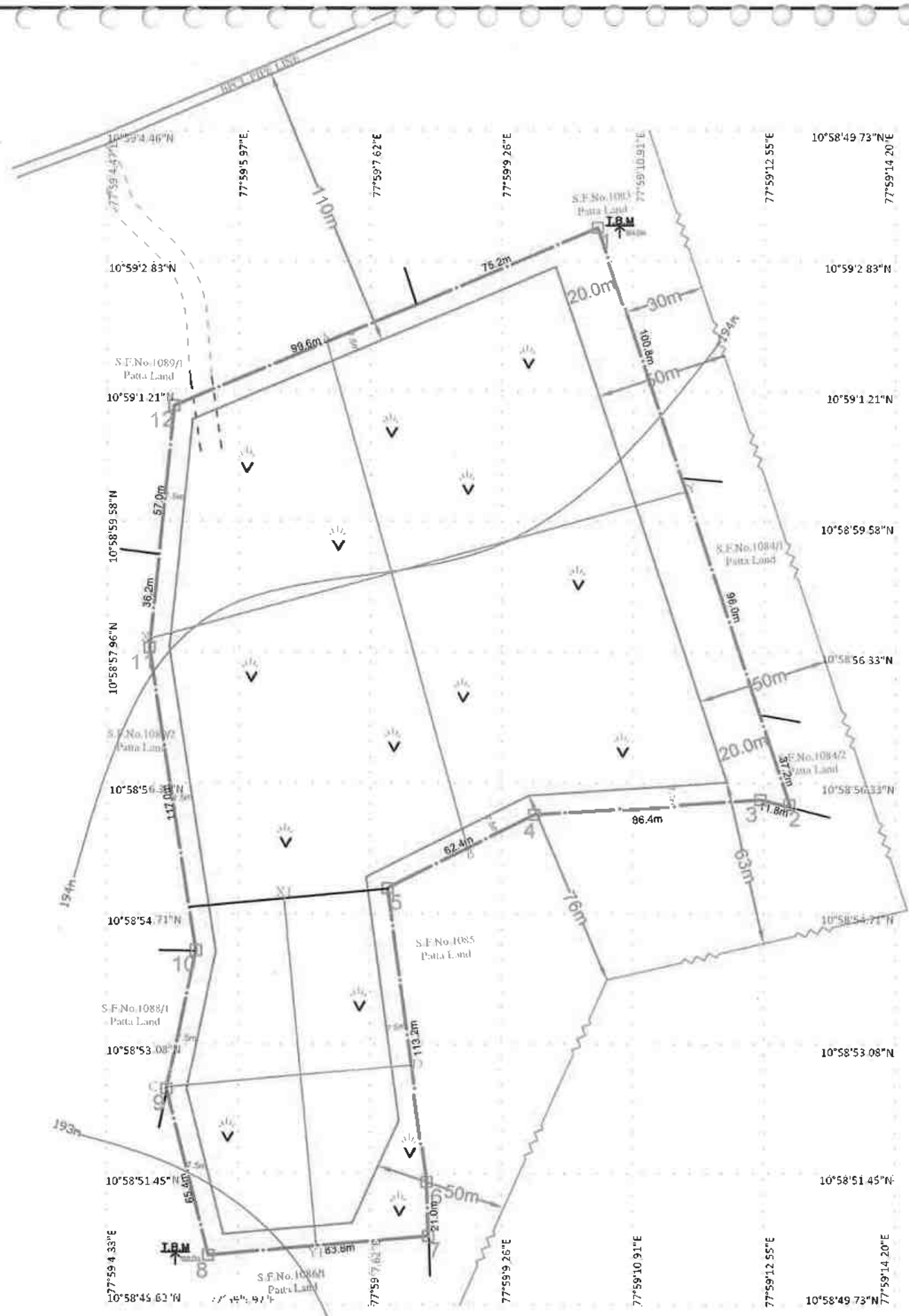
BPCL PIPE LINE

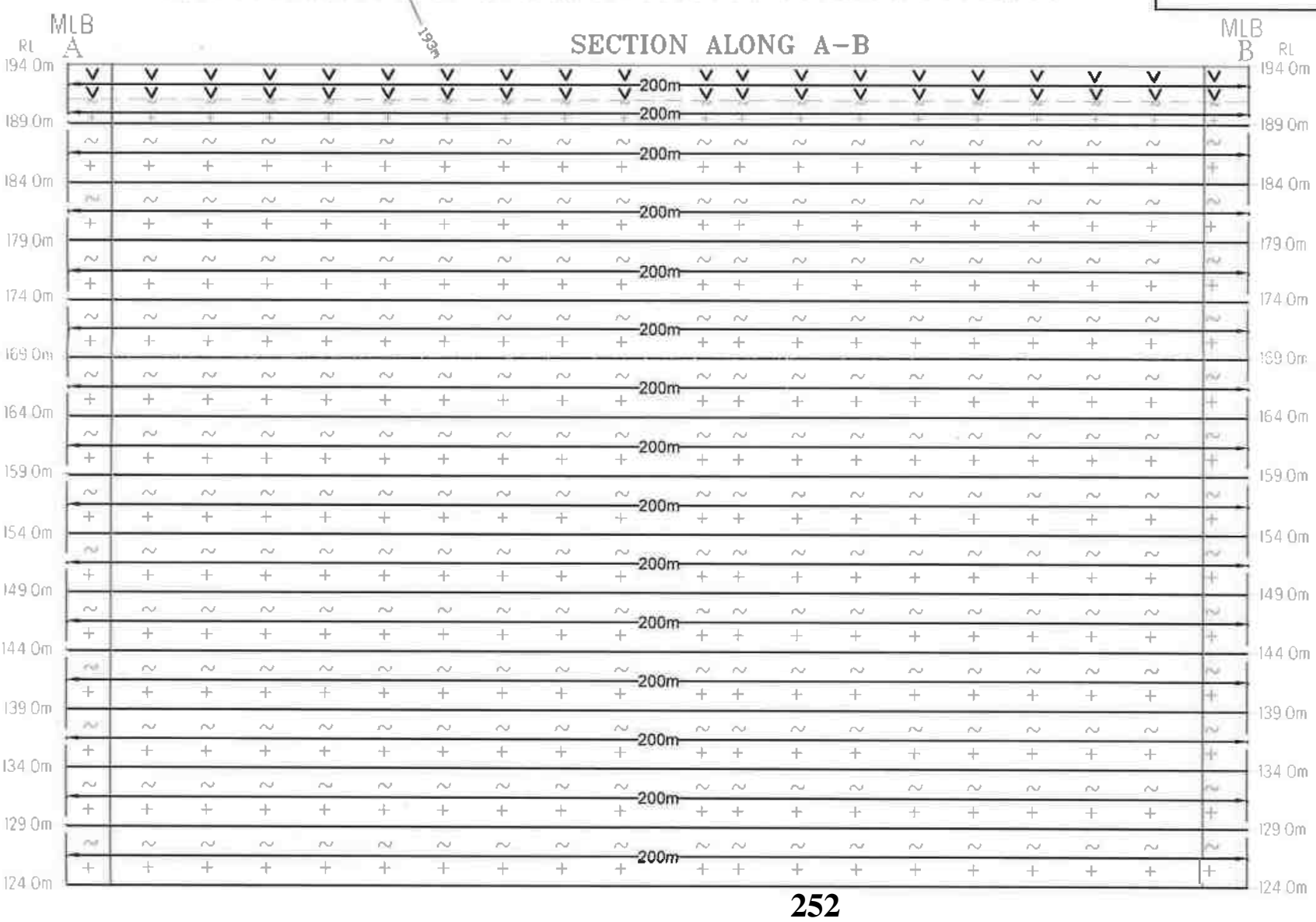
MINE LEASE PLAN
SCALE 1 : 2000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON





N

PLATE No- III

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- BOUNDARY PILLAR STONES (□1□2)
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK (TBM)
- CONTOURS LINES (194m)
- HT EB LINE
- BPCL PIPE LINE
- ROUGH STONE

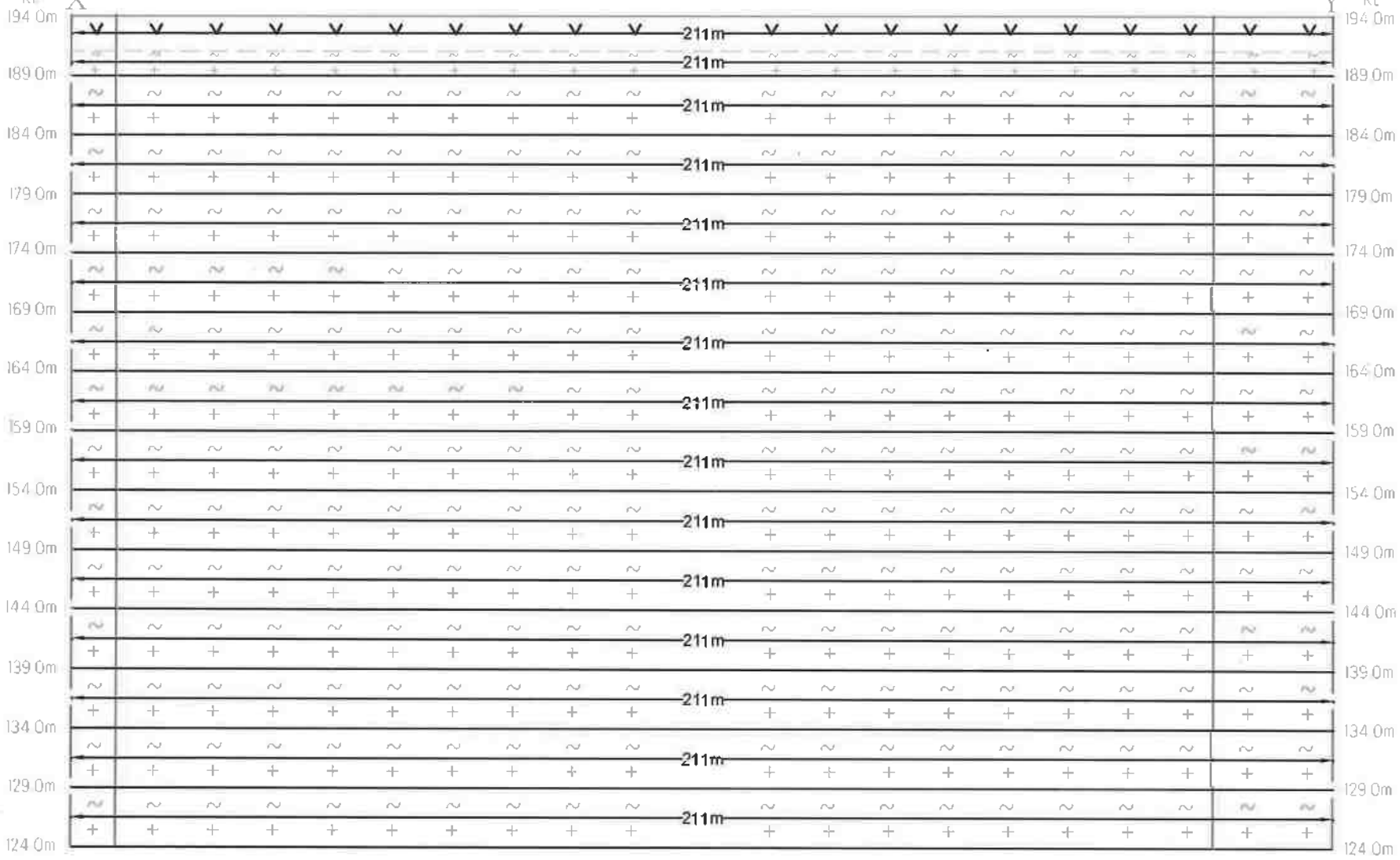
SURFACE & GEOLOGICAL PLAN
SCALE - 1:2000

Prepared By:

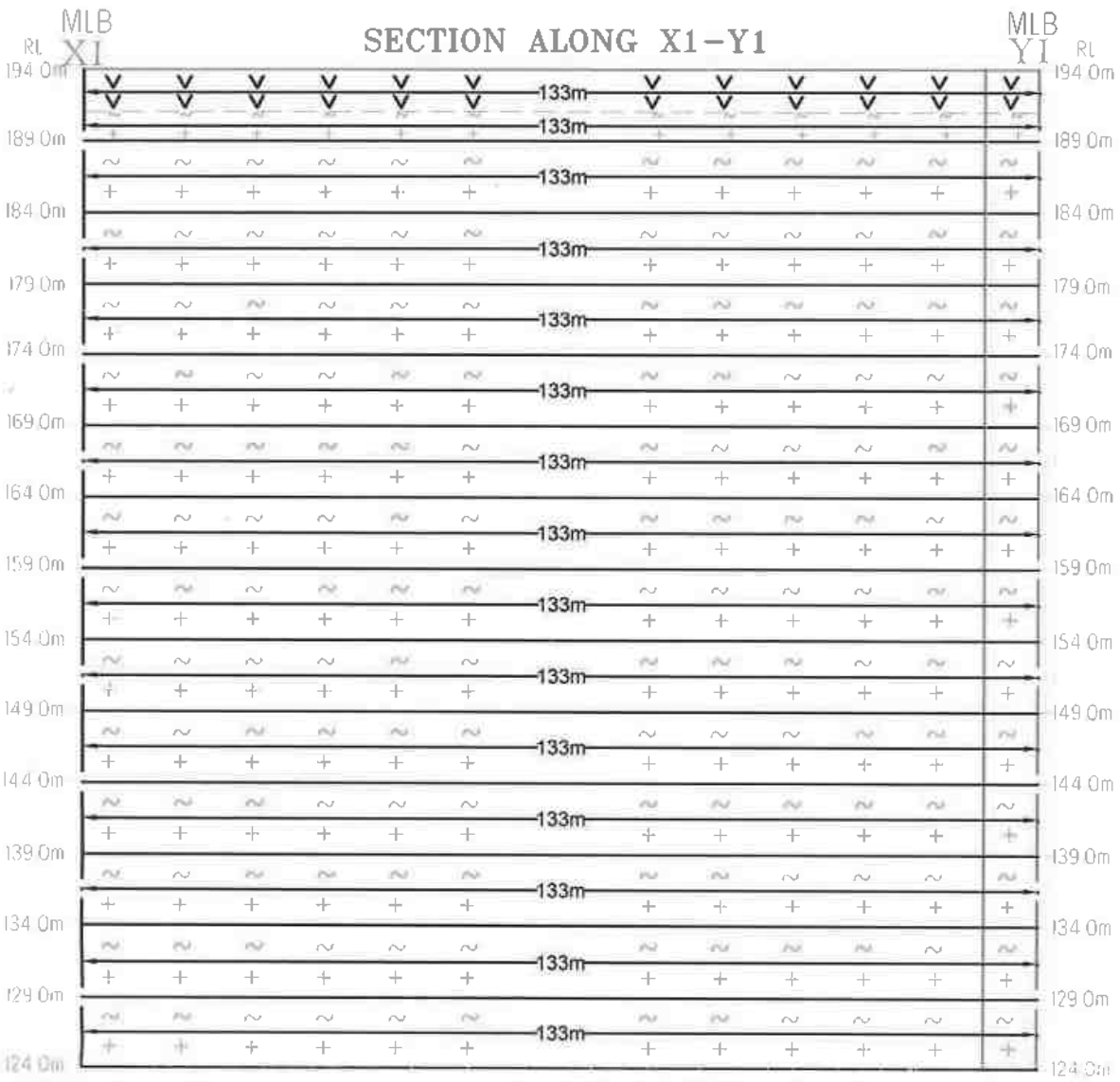
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

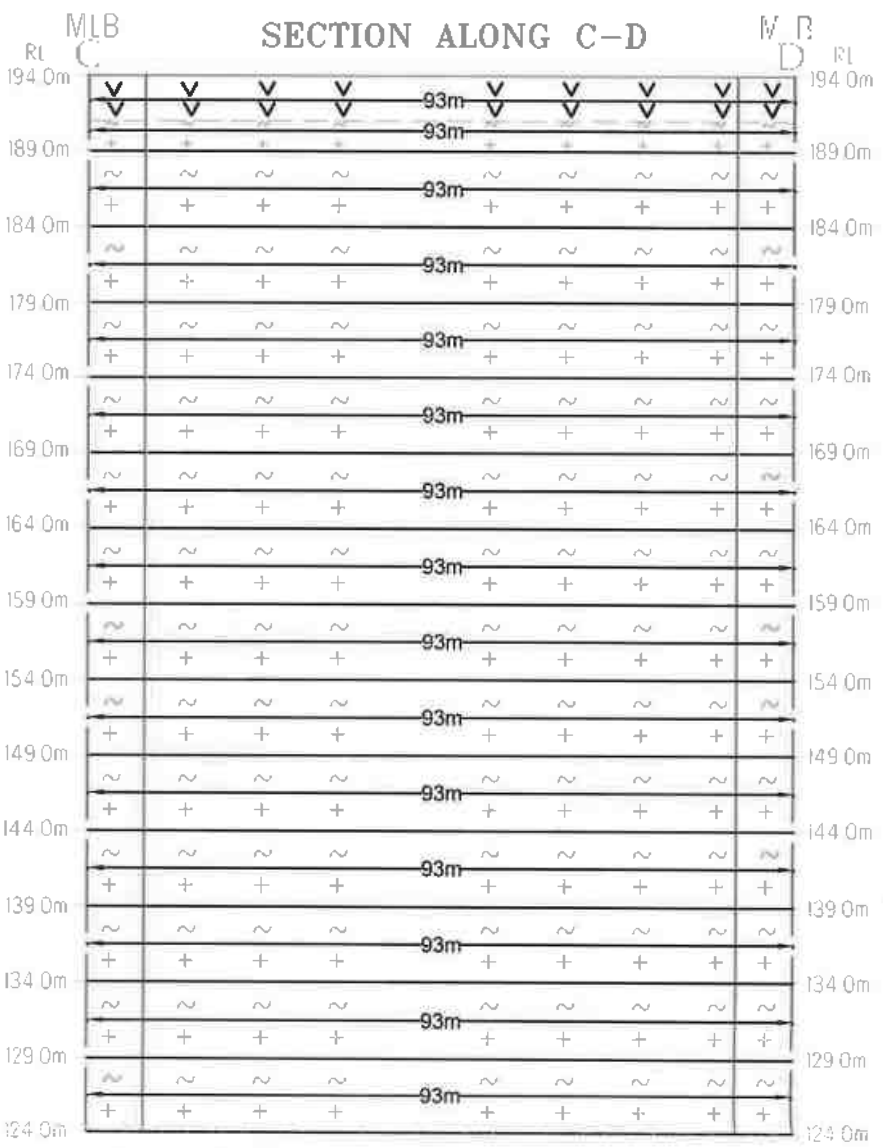
SECTION ALONG X-Y



SECTION ALONG X1-Y1



SECTION ALONG C-D



GEOLOGICAL RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
XY-AB	I	211	200	3	126600	.....	126600	2	.....	253200
	I	211	200	2	84400	84400	.....	2.75	232100	.....
	II	211	200	5	211000	211000	.....	2.75	580250	.....
	III	211	200	5	211000	211000	.....	2.75	580250	.....
	IV	211	200	5	211000	211000	.....	2.75	580250	.....
	V	211	200	5	211000	211000	.....	2.75	580250	.....
	VI	211	200	5	211000	211000	.....	2.75	580250	.....
	VII	211	200	5	211000	211000	.....	2.75	580250	.....
	VIII	211	200	5	211000	211000	.....	2.75	580250	.....
	IX	211	200	5	211000	211000	.....	2.75	580250	.....
	X	211	200	5	211000	211000	.....	2.75	580250	.....
	XI	211	200	5	211000	211000	.....	2.75	580250	.....
	XII	211	200	5	211000	211000	.....	2.75	580250	.....
	XIII	211	200	5	211000	211000	.....	2.75	580250	.....
	XIV	211	200	5	211000	211000	.....	2.75	580250	.....
TOTAL					2954000	2827400	126600		7775350	253200
X1Y1-CD	I	133	93	3	37107	.....	37107	2	.....	74214
	I	133	93	2	24738	24738	.....	2.75	68029.50	.....
	II	133	93	5	61845	61845	.....	2.75	170073.75	.....
	III	133	93	5	61845	61845	.....	2.75	170073.75	.....
	IV	133	93	5	61845	61845	.....	2.75	170073.75	.....
	V	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VI	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	VIII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	IX	133	93	5	61845	61845	.....	2.75	170073.75	.....
	X	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XI	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XIII	133	93	5	61845	61845	.....	2.75	170073.75	.....
	XIV	133	93	5	61845	61845	.....	2.75	170073.75	.....
TOTAL					865830	828723	37107		2278988.25	74214
GRAND TOTAL					3819830	3656123	163707	.....	10054338.25	327414

PLATE No- IIIA

GEOLOGICAL SECTIONS
SCALE - HOR 1 : 1000 & VER 1: 500

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

MINE LEASE BOUNDARY

SAFETY DISTANCE

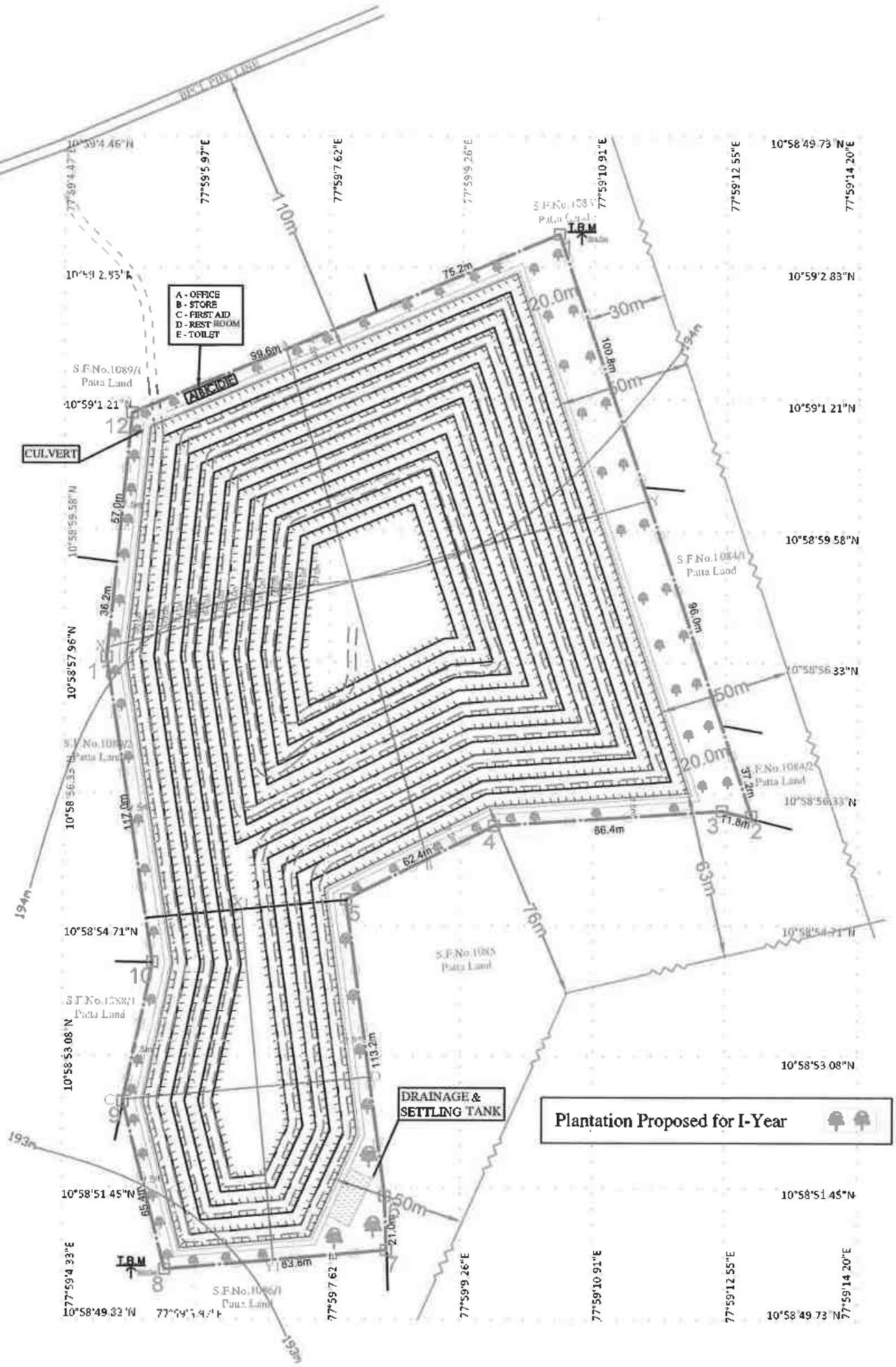
GRAVEL

ROUGH STONE

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON



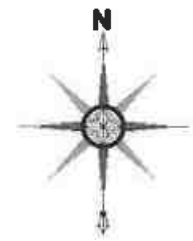


PLATE No- IV

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

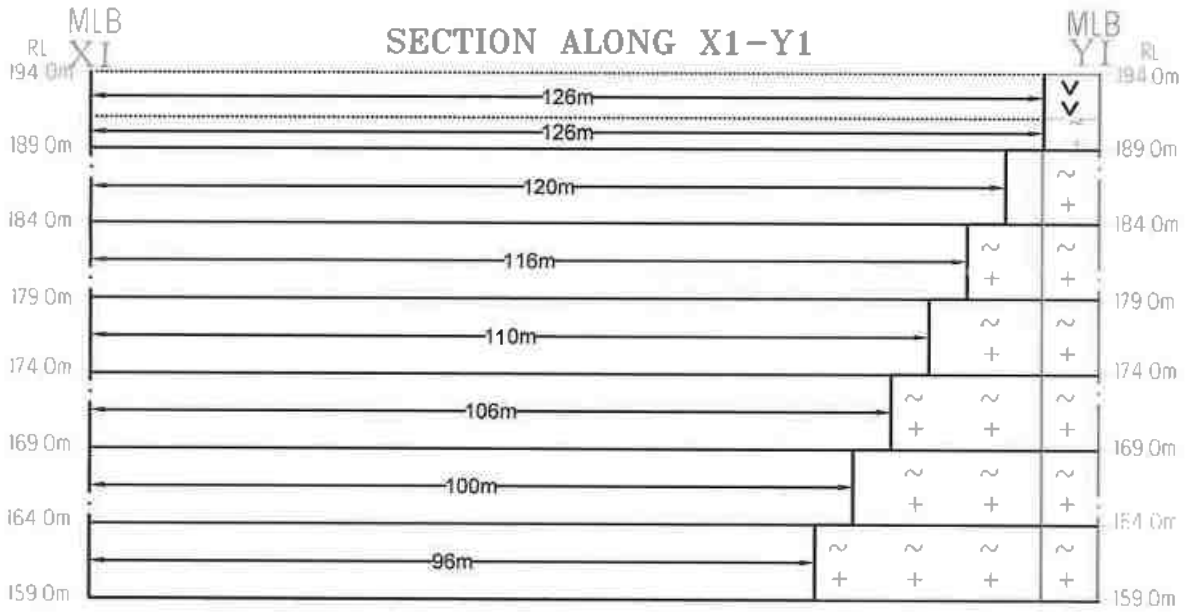
LEASE APPLIED AREA:

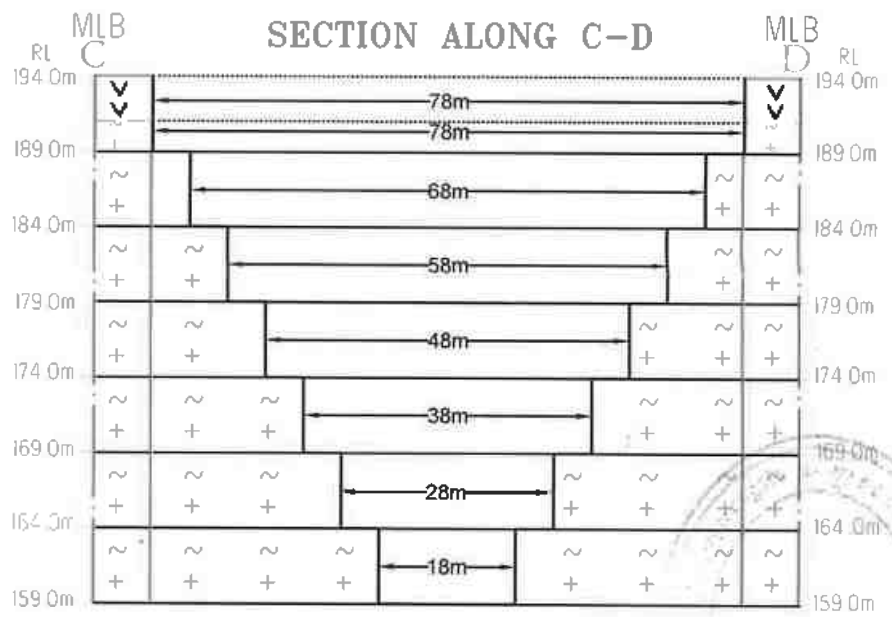
S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part),1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- HAUL ROAD
- BOUNDARY PILLAR STONES (□1 □2)
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK (TBM)
- CONTOURS LINES (194m)
- HT EB LINE
- BPCL PIPE LINE
- FENCING
- ULTIMATE BENCH
- DRAINAGE & SETTLING TANK
- ROUGH STONE

CONCEPTUAL PLAN
PLAN SCALE 1: 2000



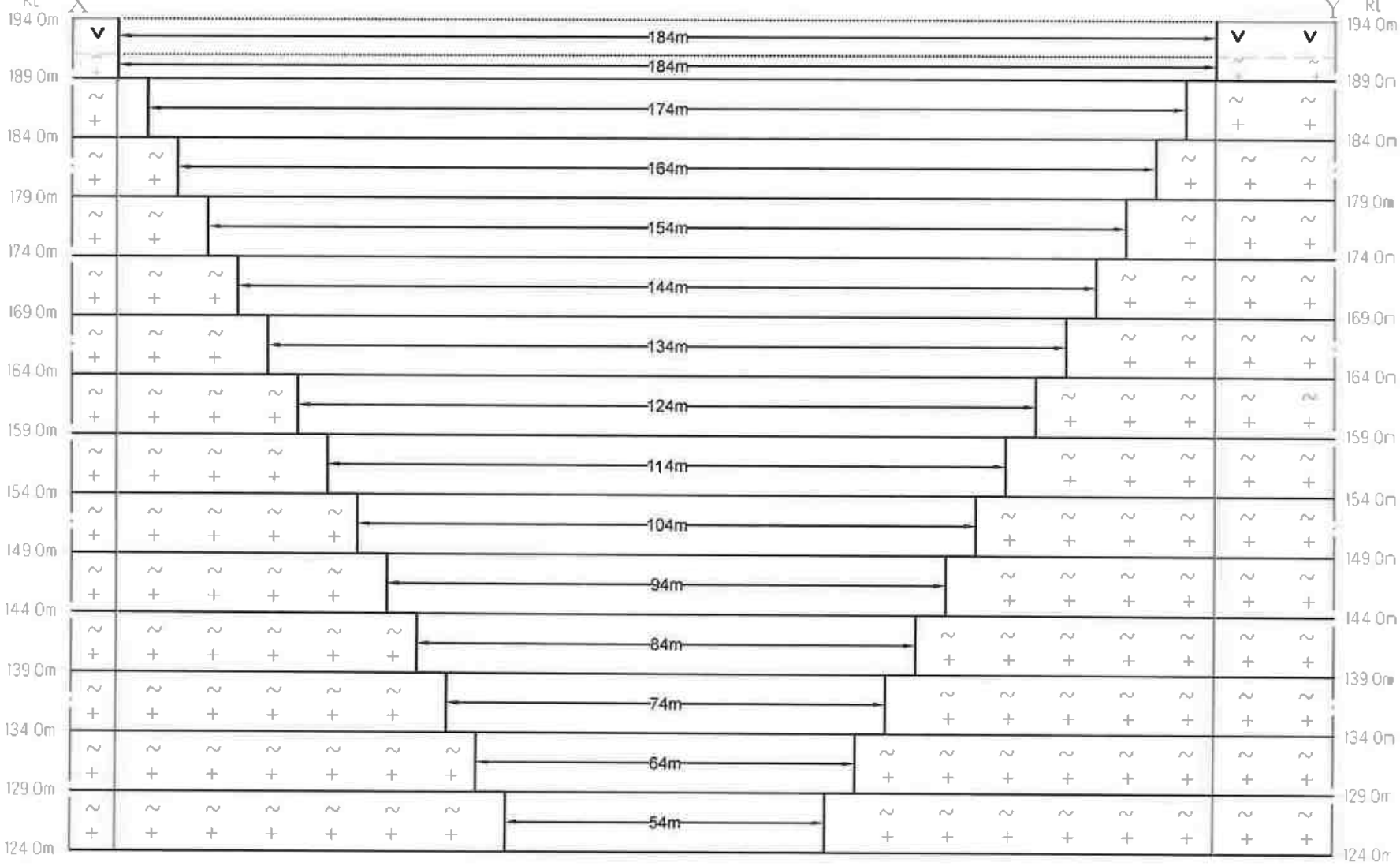


Prepared By:

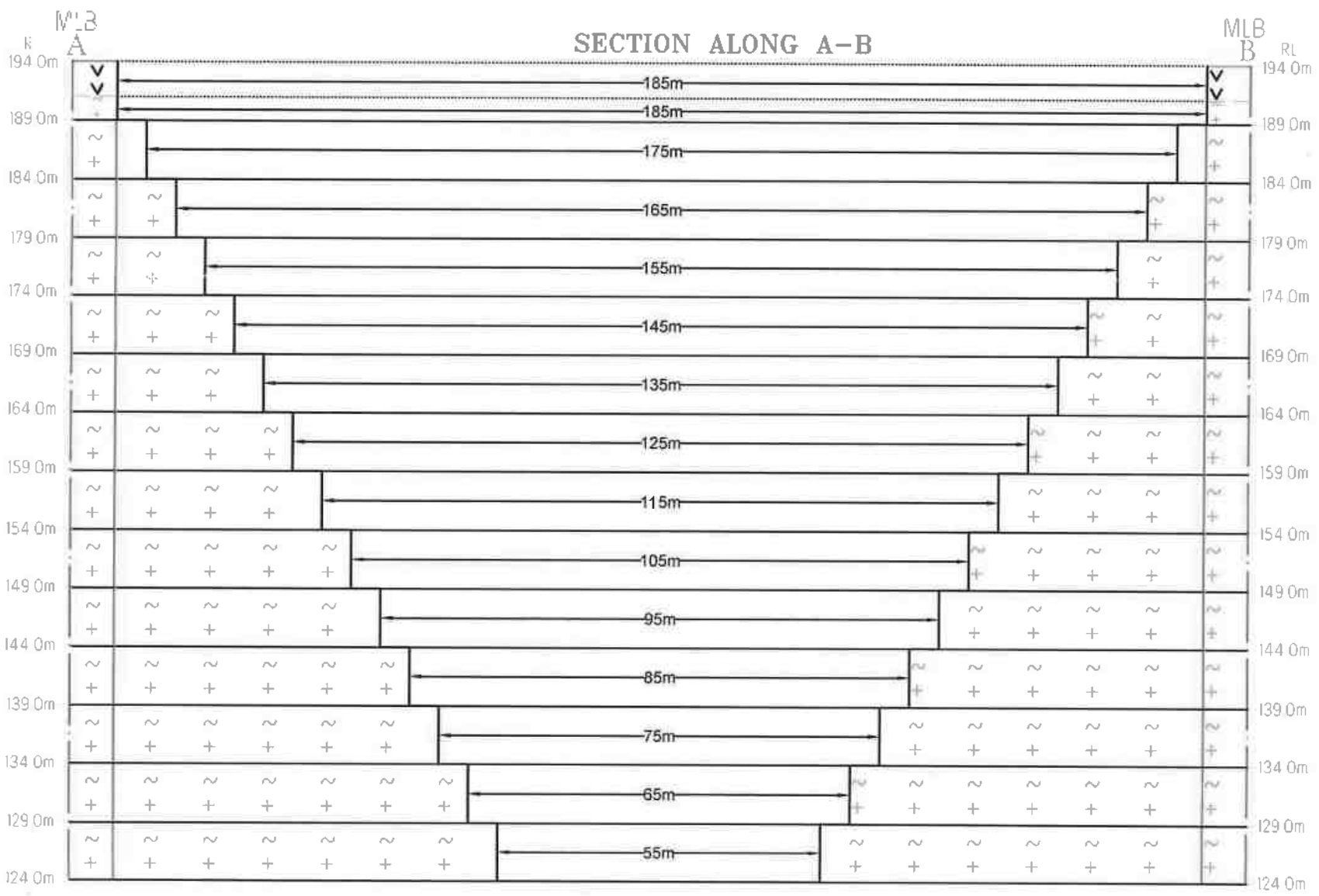
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

SECTION ALONG X–Y



SECTION ALONG A–B



MINEABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
XY-AB	I	184	185	3	102120		102120	2		204240
	I	184	185	2	68080	68080	.....	2.75	187220	.....
	II	174	175	5	152250	152250	.....	2.75	418687	.....
	III	164	165	5	135300	135300	.....	2.75	372075	.....
	IV	154	155	5	119350	119350	.....	2.75	328212	.....
	V	144	145	5	104400	104400	.....	2.75	287100	.....
	VI	134	135	5	90450	90450	.....	2.75	248737	.....
	VII	124	125	5	77500	77500	.....	2.75	213125	.....
	VIII	114	115	5	65550	65550	.....	2.75	180263	.....
	IX	104	105	5	54600	54600	.....	2.75	150150	.....
	X	94	95	5	44650	44650	.....	2.75	122788	.....
	XI	84	85	5	35700	35700	.....	2.75	98175	.....
	XII	74	75	5	27750	27750	.....	2.75	76312	.....
	XIII	64	65	5	20800	20800	.....	2.75	57200	.....
	XIV	54	55	5	14850	14850	.....	2.75	40838	.....
TOTAL					1113350	1011230	102120		2780882	204240
XIYI-CD	I	126	78	3	29484		29484	2		58968
	I	126	78	2	19656	19656	.....	2.75	54054	.....
	II	121	68	5	41140	41140	.....	2.75	113135	.....
	III	116	58	5	33640	33640	.....	2.75	92510	.....
	IV	111	48	5	26640	26640	.....	2.75	73260	.....
	V	106	38	5	20140	20140	.....	2.75	55385	.....
	VI	101	28	5	14140	14140	.....	2.75	38885	.....
	VII	96	18	5	8640	8640	.....	2.75	23760	.....
TOTAL					193480	163996	29484	.....	450989	58968
GRAND TOTAL					1306830	1175226	131604	.....	3231871	263208

PLATE No - IVA

CONCEPTUAL SECTIONS

SCALE - HOR 1 : 1000 & VER 1: 500

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

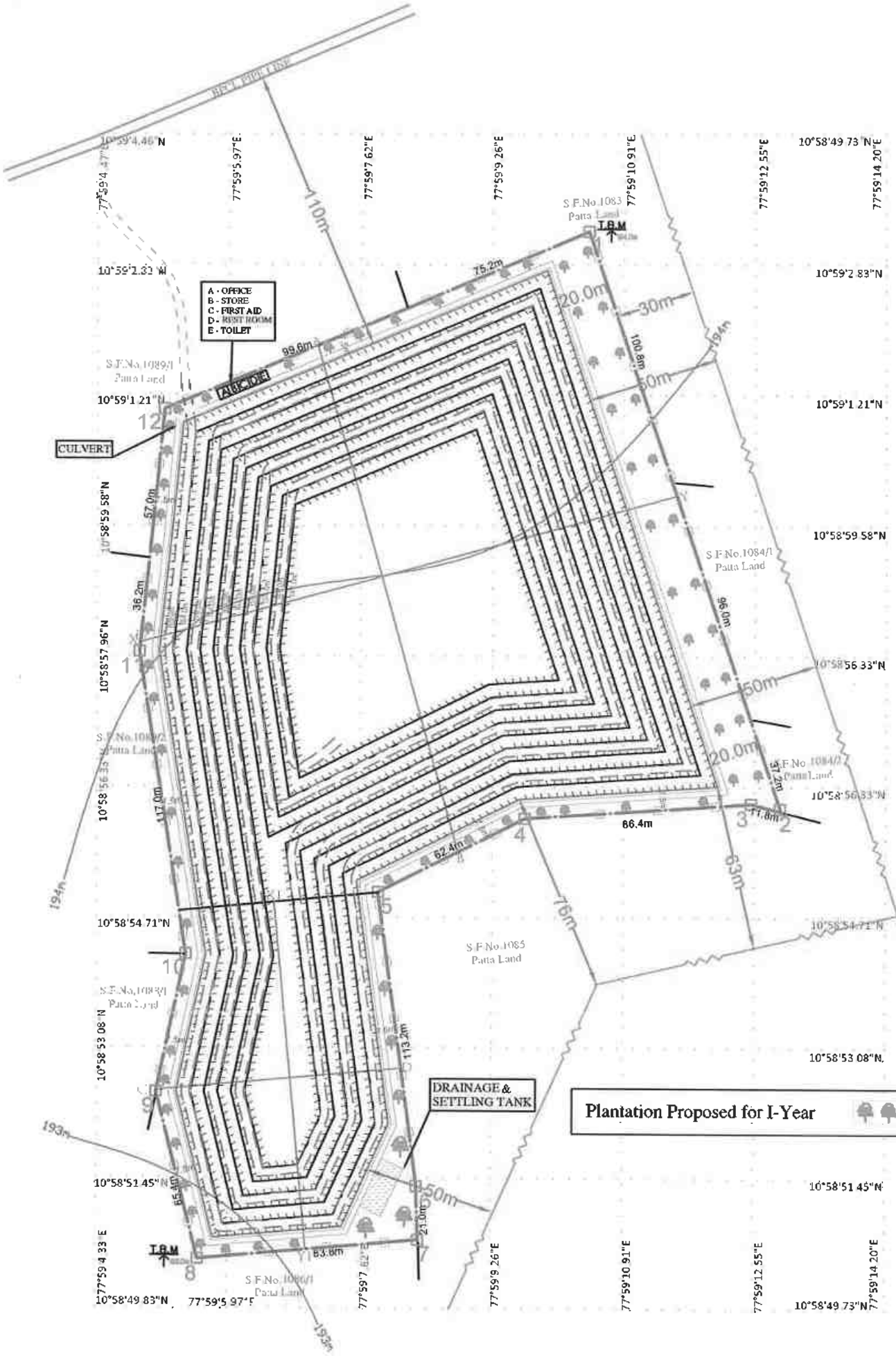
INDEX

- MINE LEASE BOUNDARY
- SAFETY DISTANCE
- GRAVEL
- ROUGH STONE
- ESTIMATE BENCH

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON



N

PLATE No- V

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

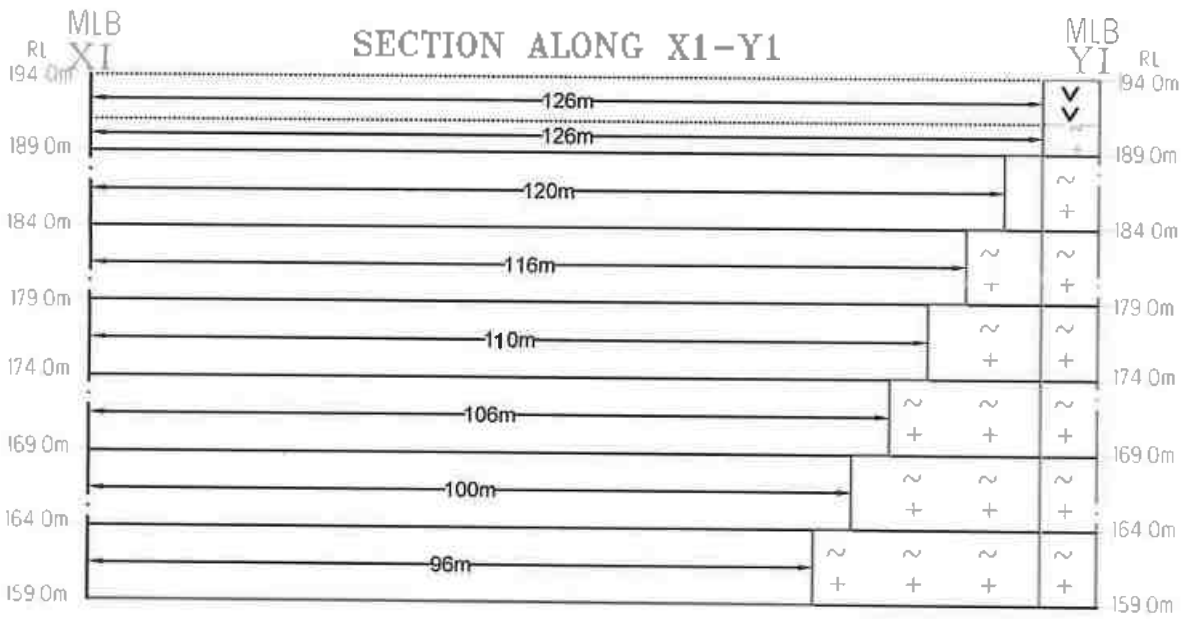
LEASE APPLIED AREA:

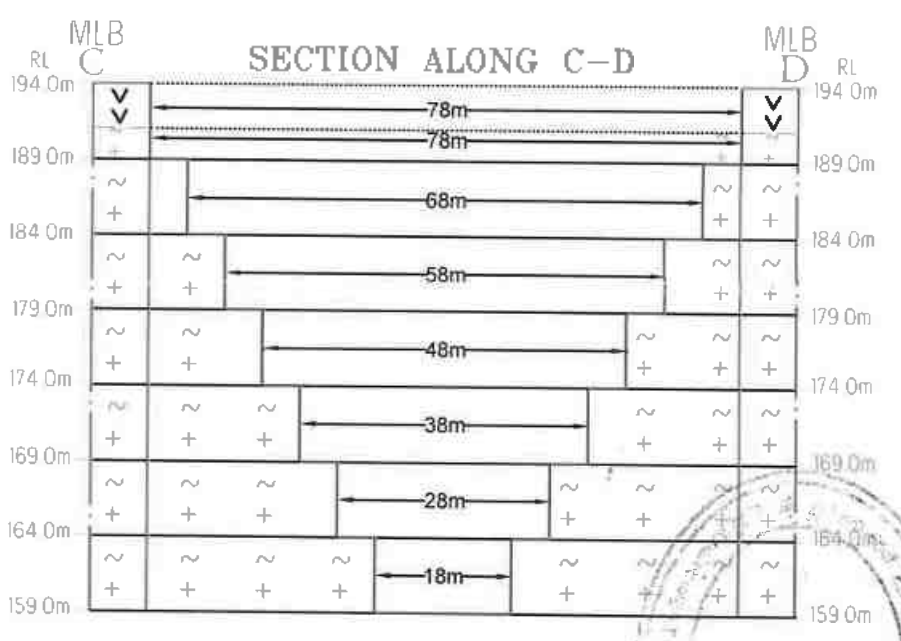
S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part),1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- HAUL ROAD
- BOUNDARY PILLAR STONES (1, 2)
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK (TBM)
- CONTOURS LINES (194m)
- HT EB LINE
- BPCL PIPE LINE
- FENCING
- PROPOSED & ULTIMATE BENCH
- DRAINAGE & SETTLING TANK
- ROUGH STONE

PROGRESSIVE MINE CLOSURE PLAN
PLAN SCALE 1: 2000



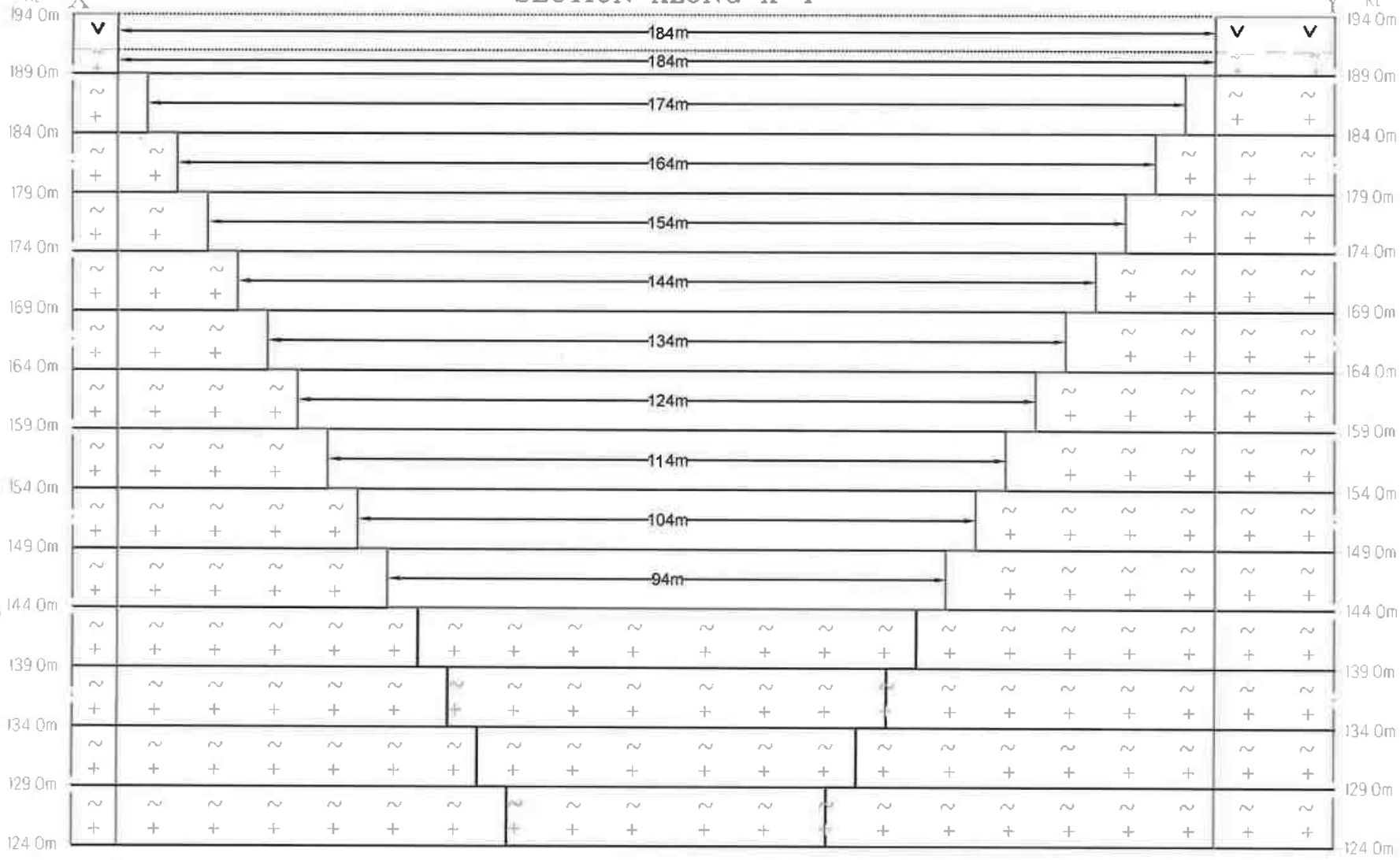


Prepared By:

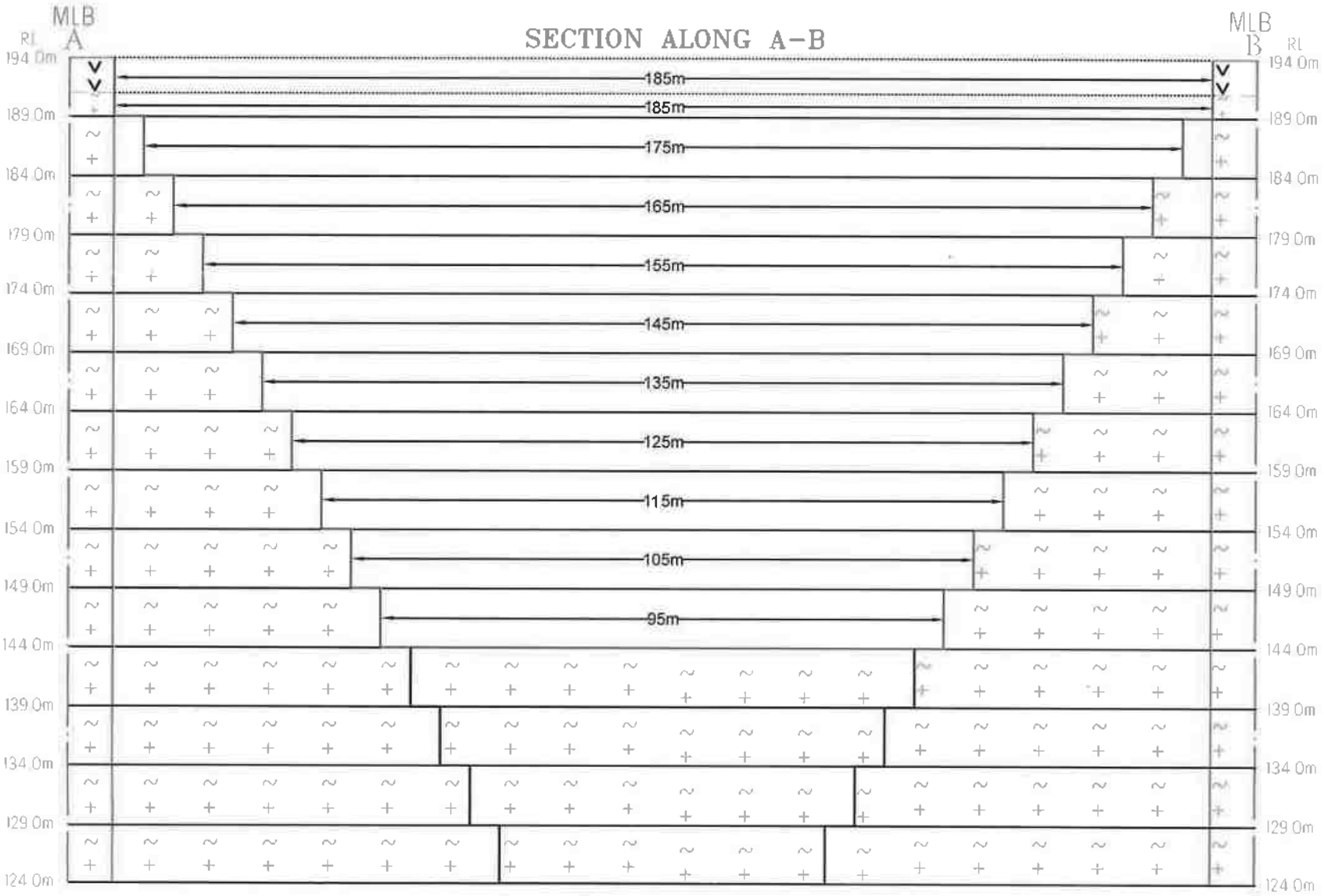
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

SECTION ALONG X–Y



SECTION ALONG A–B



PRODUCTION RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
XY-AB	I	184	185	3	102120	.....	102120	2	.....	204240
	I	184	185	2	68080	68080	.....	2.75	187220.0	.....
	II	174	175	5	152250	152250	.....	2.75	418687	.....
	III	164	165	5	135300	135300	.....	2.75	372075	.....
	IV	154	155	5	119350	119350	.....	2.75	328212	.....
	V	144	145	5	104400	104400	.....	2.75	287100	.....
	VI	134	135	5	90450	90450	.....	2.75	248737	.....
	VII	124	125	5	77500	77500	.....	2.75	213125	.....
	VIII	114	115	5	65550	65550	.....	2.75	180263	.....
	IX	104	105	5	54600	54600	.....	2.75	150150	.....
	X	94	95	5	44650	44650	.....	2.75	122788	.....
TOTAL					1014250	912130	102120	.....	2508357	204240
X1Y1-CD	I	126	78	3	29484	.....	29484	2	.....	58968
	I	126	78	2	19656	19656	.....	2.75	54054	.....
	II	121	68	5	41140	41140	.....	2.75	113135	.....
	III	116	58	5	33640	33640	.....	2.75	92510	.....
	IV	111	48	5	26640	26640	.....	2.75	73260	.....
	V	106	38	5	20140	20140	.....	2.75	55385	.....
	VI	101	28	5	14140	14140	.....	2.75	38885	.....
	VII	96	18	5	8640	8640	.....	2.75	23760	.....
TOTAL					193480	163996	29484	.....	450989	58968
GRAND TOTAL					1207730	1076126	131604	.....	2959346	263208

PLATE No- VA

PROGRESSIVE MINE CLOSURE SECTIONS
SCALE - HOR 1 : 1000 & VER 1: 500

APPLICANT:
Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

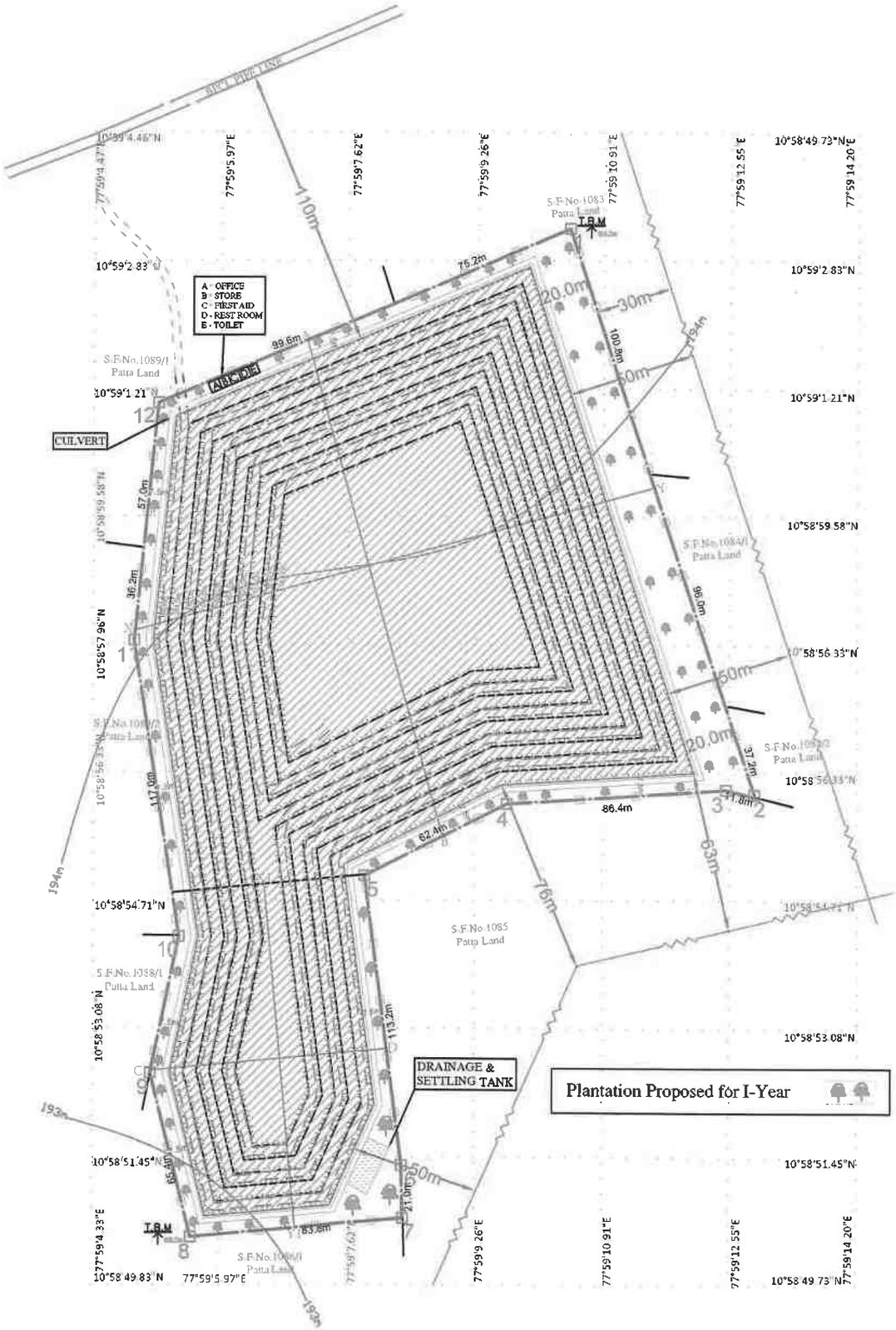
INDEX

- MINE LEASE BOUNDARY
- SAFETY DISTANCE
- GRAVEL
- ROUGH STONE
- PROPOSED BENCH
- ULTIMATE BENCH

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON



MINE LAYOUT LAND USE PATTERN

DESCRIPTION	PRESENT AREA (Hect)	AREA IN USE DURING THE QUARRYING PERIOD(Hect)	COLOR CODE
AREA UNDER QUARRYING	NIL	4.31.0	
INFRASTRUCTURE	NIL	0.02.0	ABCDE
ROADS	NIL	0.05.0	
UN-UTILIZED AREA	5.43.4	NIL	
GREEN BELT	NIL	0.82.4	
DRAINAGE & SETTLING TANK	NIL	0.23.0	
GRAND TOTAL	5.43.4	5.43.4	

PLATE No- VI

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part),1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- HAUL ROAD
- BOUNDARY PILLAR STONES □1□2
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK T.B.M
- CONTOURS LINES 194m
- HT EB LINE
- BPCL PIPE LINE
- FENCING
- PROPOSED BENCH
- DRAINAGE & SETTLING TANK

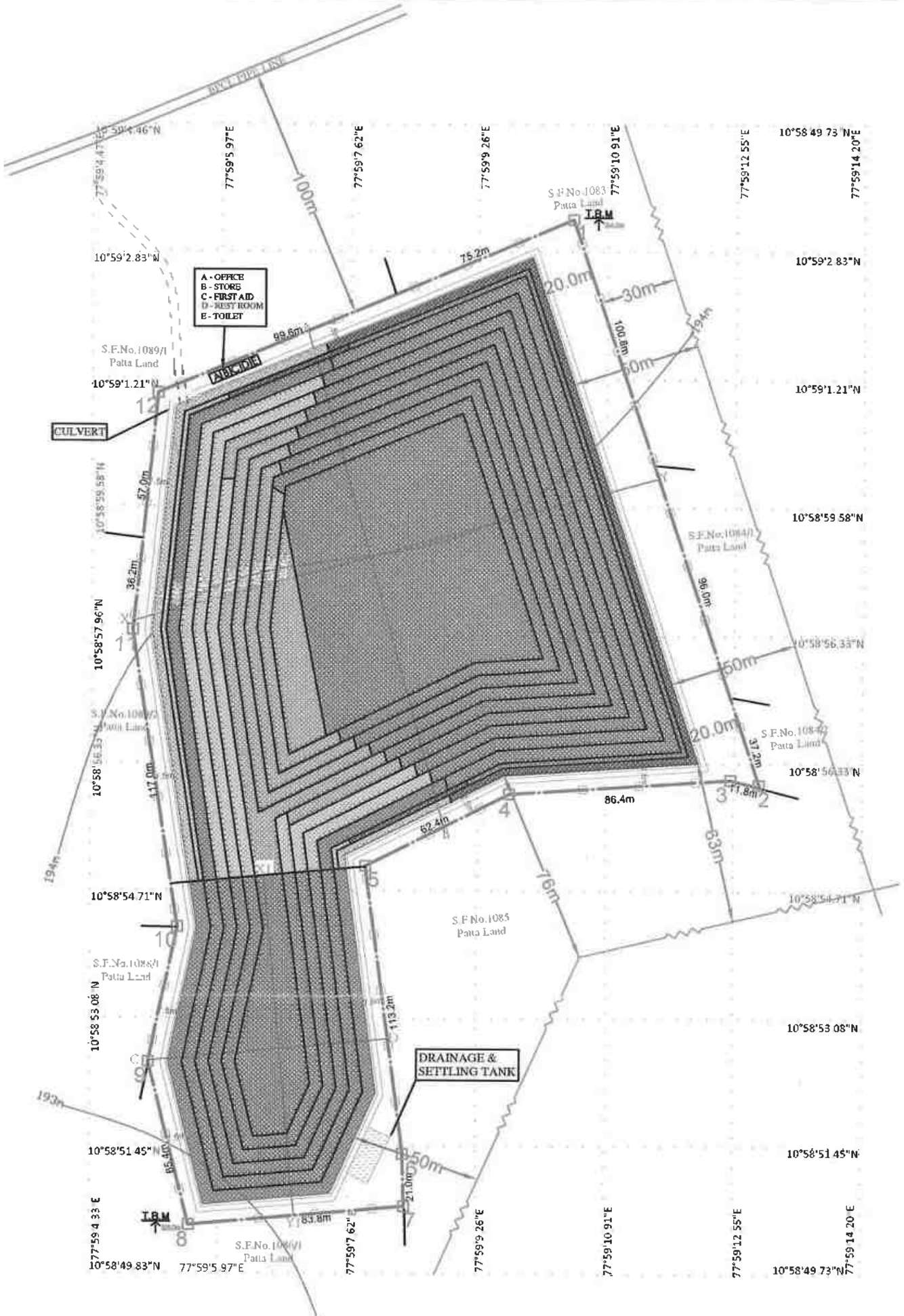
MINE LAYOUT PLAN & LAND USE PATTERN
PLAN SCALE 1 : 2000

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

FIRST FIVE YEARWISE DEVELOPMENT & PRODUCTION RESERVES



N

PLATE No- VII

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part),1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

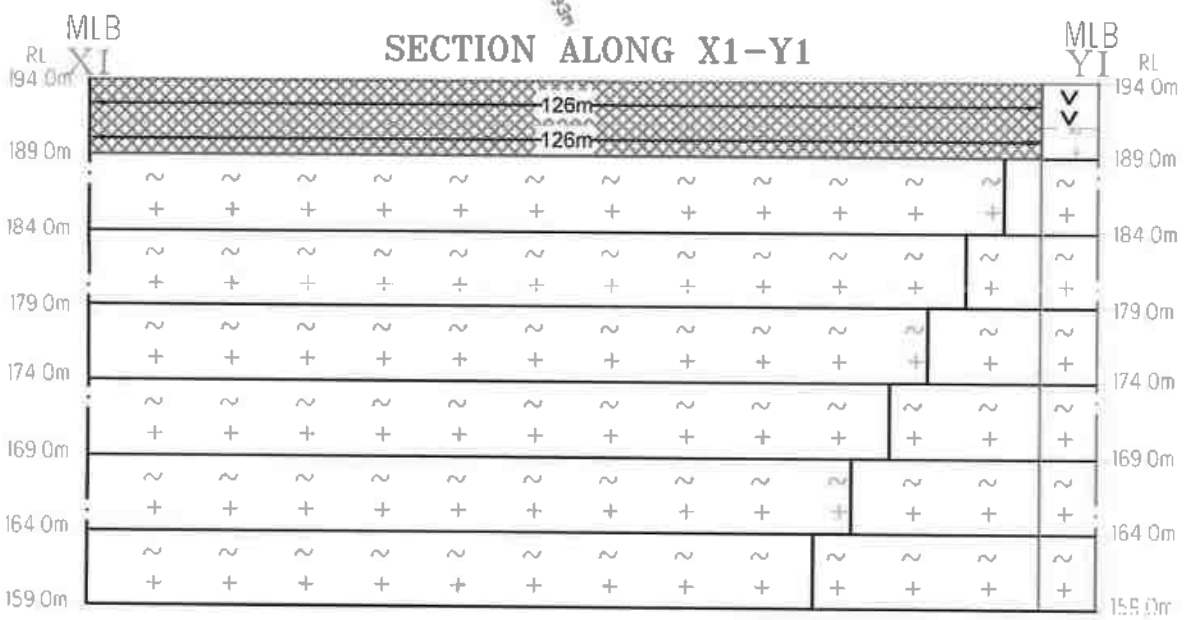
INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- HAUL ROAD
- BOUNDARY PILLAR STONES □1□2
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK T.B.M
- CONTOURS LINES 194 m
- HT EB LINE
- BPCL PIPE LINE
- FENCING
- PROPOSED & ULTIMATE BENCH
- DRAINAGE & SETTLING TANK
- ROUGH STONE

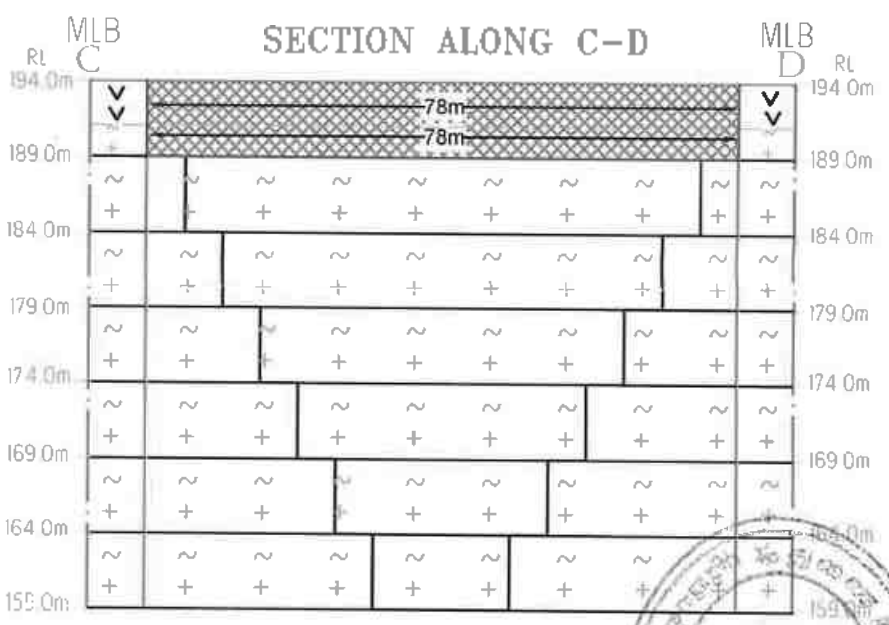
FIRST FIVE YEARWISE DEVELOPMENT, PRODUCTION PLAN & SECTIONS

PLAN SCALE 1 :2000
SECTION HOR 1 : 1000 & VER 1: 500

SECTION ALONG X1–Y1



SECTION ALONG C–D



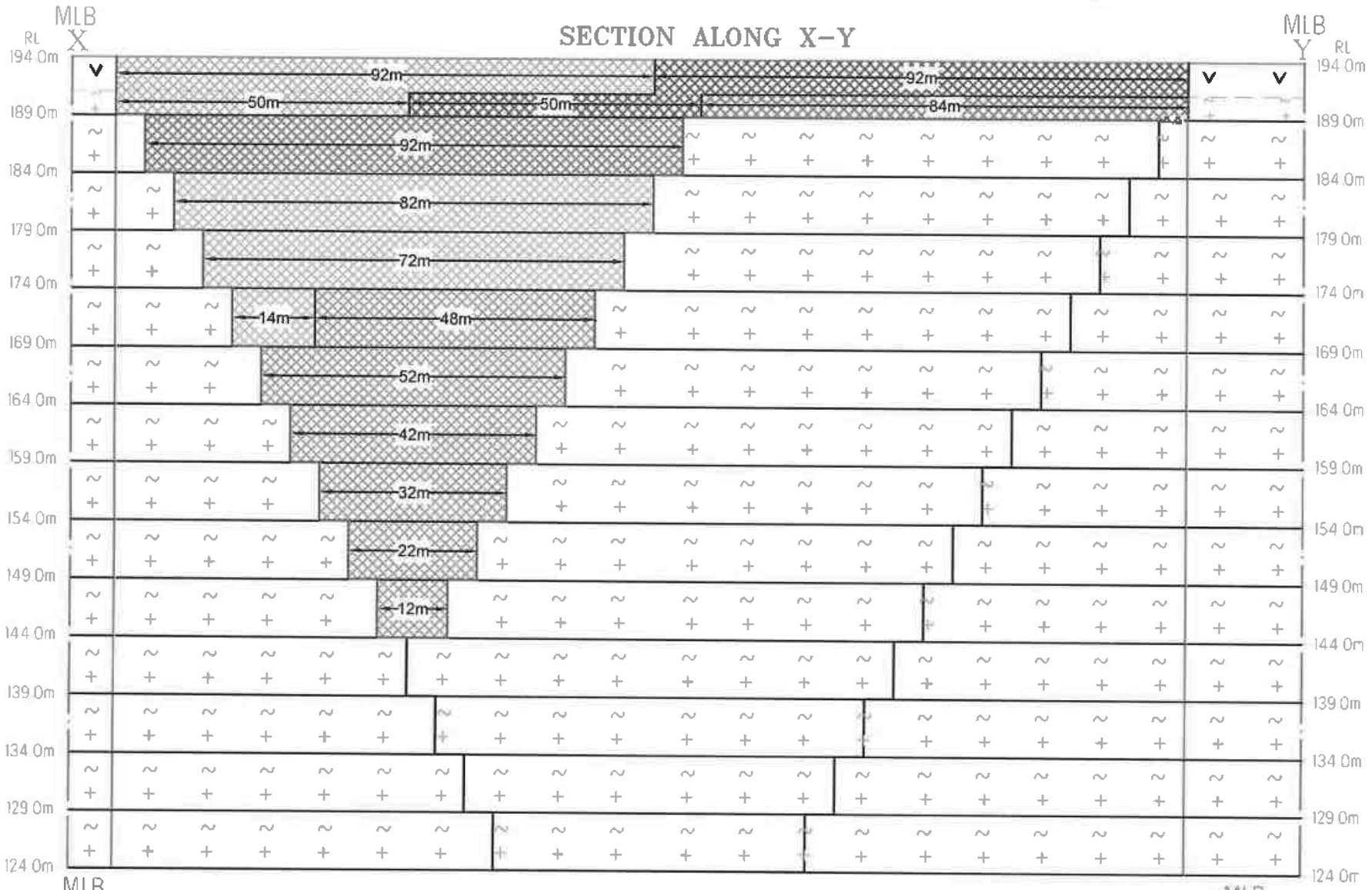
- I - Year Proposed area to be Quarried
- II - Year Proposed area to be Quarried
- III - Year Proposed area to be Quarried
- IV - Year Proposed area to be Quarried
- V - Year Proposed area to be Quarried
- Second Five Year area to be Quarried

Prepared By:

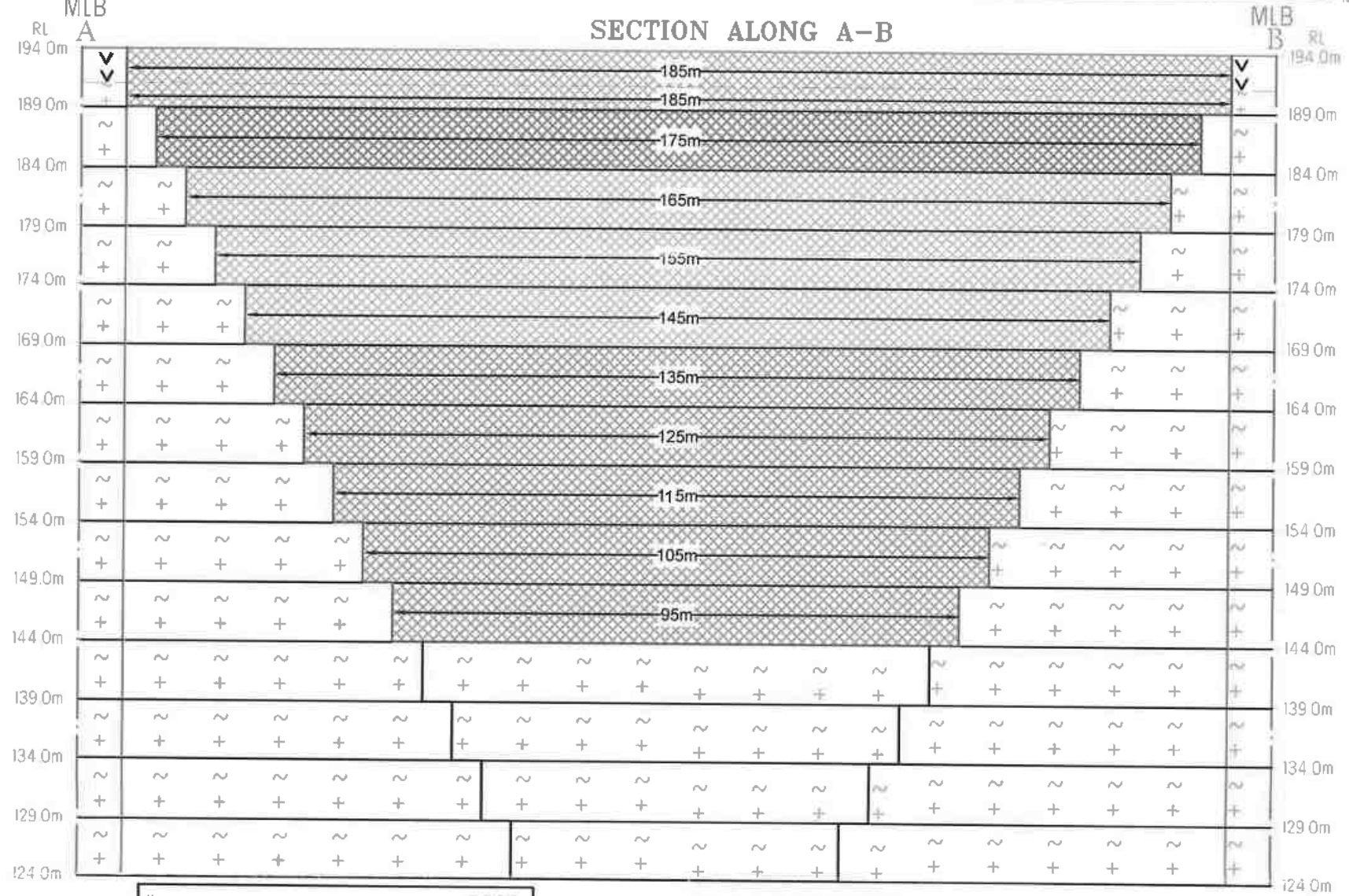
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

SECTION ALONG X–Y



SECTION ALONG A–B



I - Year Proposed area to be Quarried

II - Year Proposed area to be Quarried

III - Year Proposed area to be Quarried

IV - Year Proposed area to be Quarried

V - Year Proposed area to be Quarried

FIRST FIVE - YEARWISE PRODUCTION RESERVES

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
I	XY-AB	I	92	185	3	51060	----	51060	2	----	102120
		I	50	185	2	18500	18500	----	2.75	50875	----
TOTAL						69560	18500	51060	----	50875	102120
II	XY-AB	I	92	185	3	51060	----	51060	2	----	102120
		I	50	185	2	18500	18500	----	2.75	50875	----
TOTAL						69560	18500	51060	----	50875	102120
III	X1Y1-CD	I	126	78	3	29484	----	29484	2	----	58968
		I	126	78	2	19656	19656	----	2.75	54054	----
	XY-AB	I	84	185	2	31080	31080	----	2.75	85470	----
		II	92	175	5	80500	80500	----	2.75	221375	----
TOTAL						160720	131236	29484	----	360899	58968
IV	XY-AB	III	82	165	5	67650	67650	----	2.75	186037	----
		IV	72	155	5	55800	55800	----	2.75	153450	----
		V	14	145	5	10150	10150	----	2.75	27913	----
TOTAL						133600	133600	0	----	367400	0
V	XY-AB	V	48	145	5	34800	34800	----	2.75	95700	----
		VI	52	135	5	35100	35100	----	2.75	96525	----
		VII	42	125	5	26250	26250	----	2.75	72187	----
		VIII	32	115	5	18400	18400	----	2.75	50600	----
		IX	22	105	5	11550	11550	----	2.75	31763	----
		X	12	95	5	5700	5700	----	2.75	15675	----
TOTAL						131800	131800	0	----	362450	0
GRAND TOTAL						465240	433636	131604	----	1192499	263208

PLATE No- VIIA

FIRST FIVE YEARWISE DEVELOPMENT & PRODUCTION SECTIONS

SECTION HOR 1 : 1000 & VER 1: 500

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No : 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1 (Part) & 1089/2(Part)
EXTENT : 5.43.4 Hect
VILLAGE : PUNNAM
TALUK : PUGALUR
DISTRICT : KARUR

INDEX

MINE LEASE BOUNDARY

SAFETY DISTANCE

GRAVEL

ROUGH STONE

PROPOSED BENCH

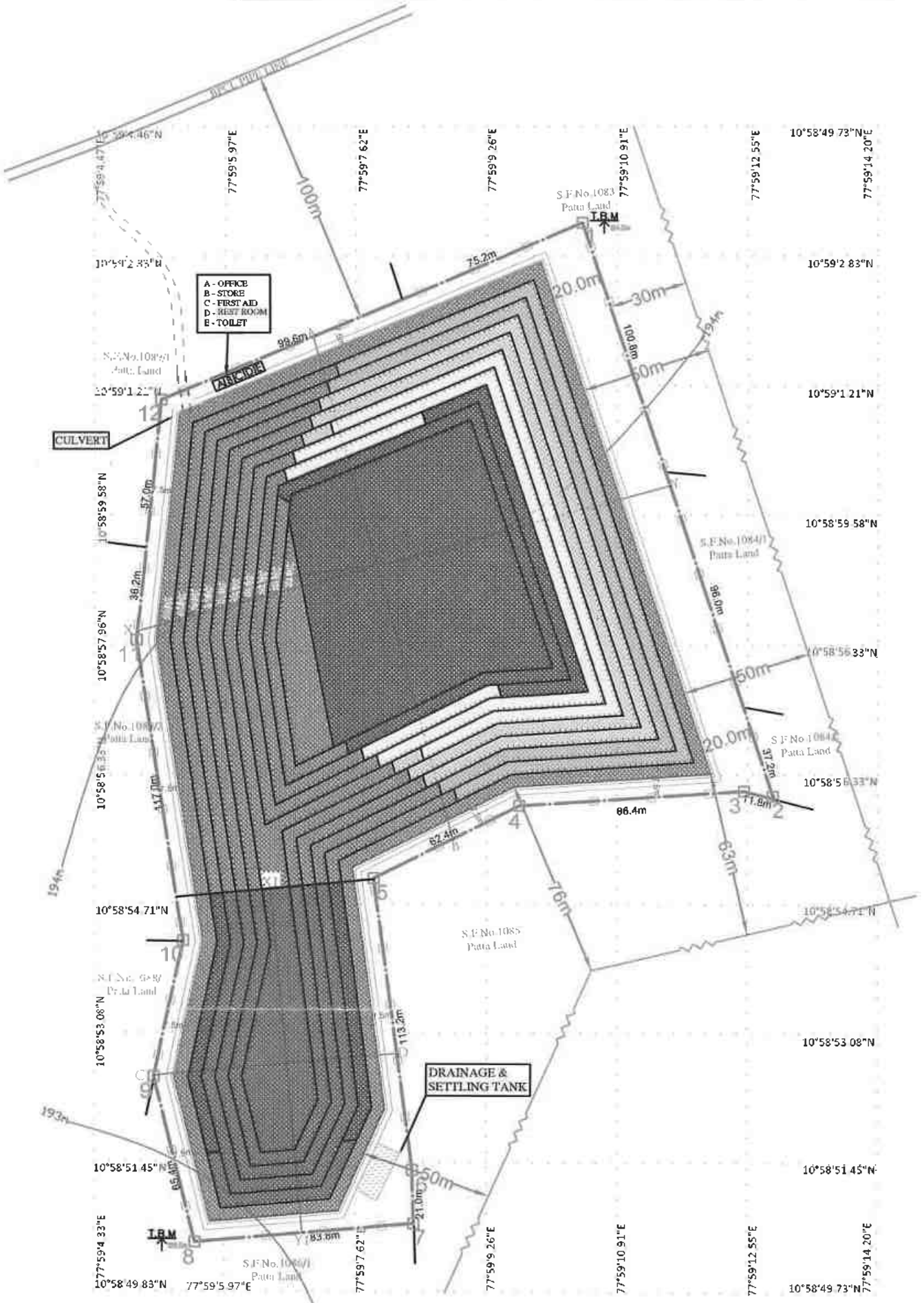
ULTIMATE BENCH

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

SECOND FIVE YEARWISE DEVELOPMENT & PRODUCTION RESERVES



N

PLATE No- VIII

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

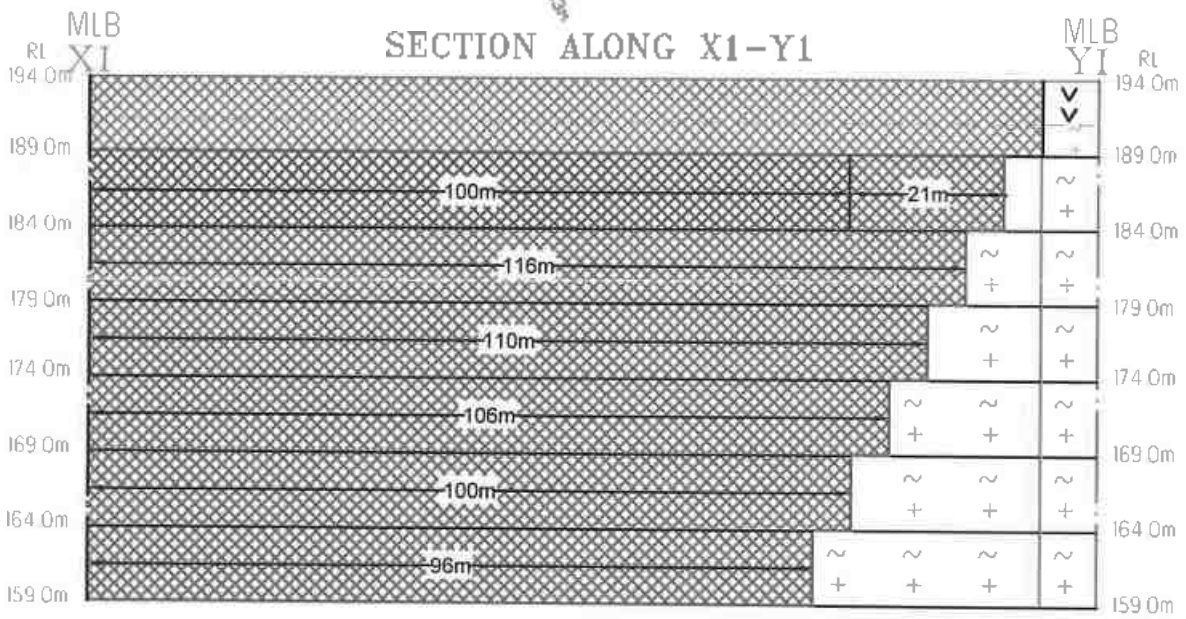
S.F.No	: 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part),1089/1(Part) & 1089/2(Part)
EXTENT	: 5.43.4 Hect
VILLAGE	: PUNNAM
TALUK	: PUGALUR
DISTRICT	: KARUR

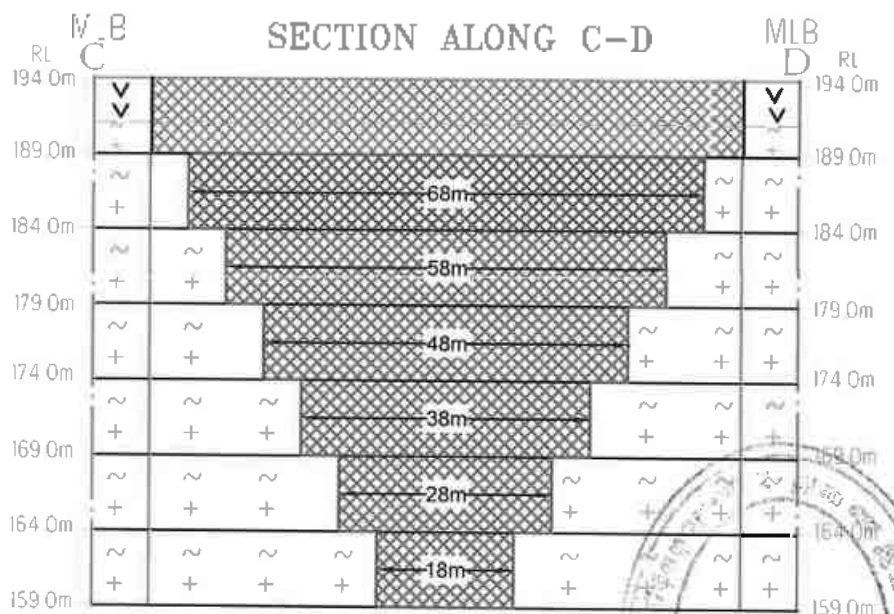
INDEX

- MINE LEASE BOUNDARY
- SAFETY BOUNDARY
- APPROACH & CART ROAD
- HAUL ROAD
- BOUNDARY PILLAR STONES (1, 2)
- GRAVEL & SHRUBS
- TEMPORARY BENCH MARK (TBM)
- CONTOURS LINES (194m)
- HT EB LINE
- BPCL PIPE LINE
- FENCING
- PROPOSED & ULTIMATE BENCH
- DRAINAGE & SETTLING TANK
- ROUGH STONE

SECOND FIVEYEARWISE DEVELOPMENT, PRODUCTION PLAN & SECTIONS

PLAN SCALE 1 :2000
SECTION HOR 1 : 1000 & VER 1: 500





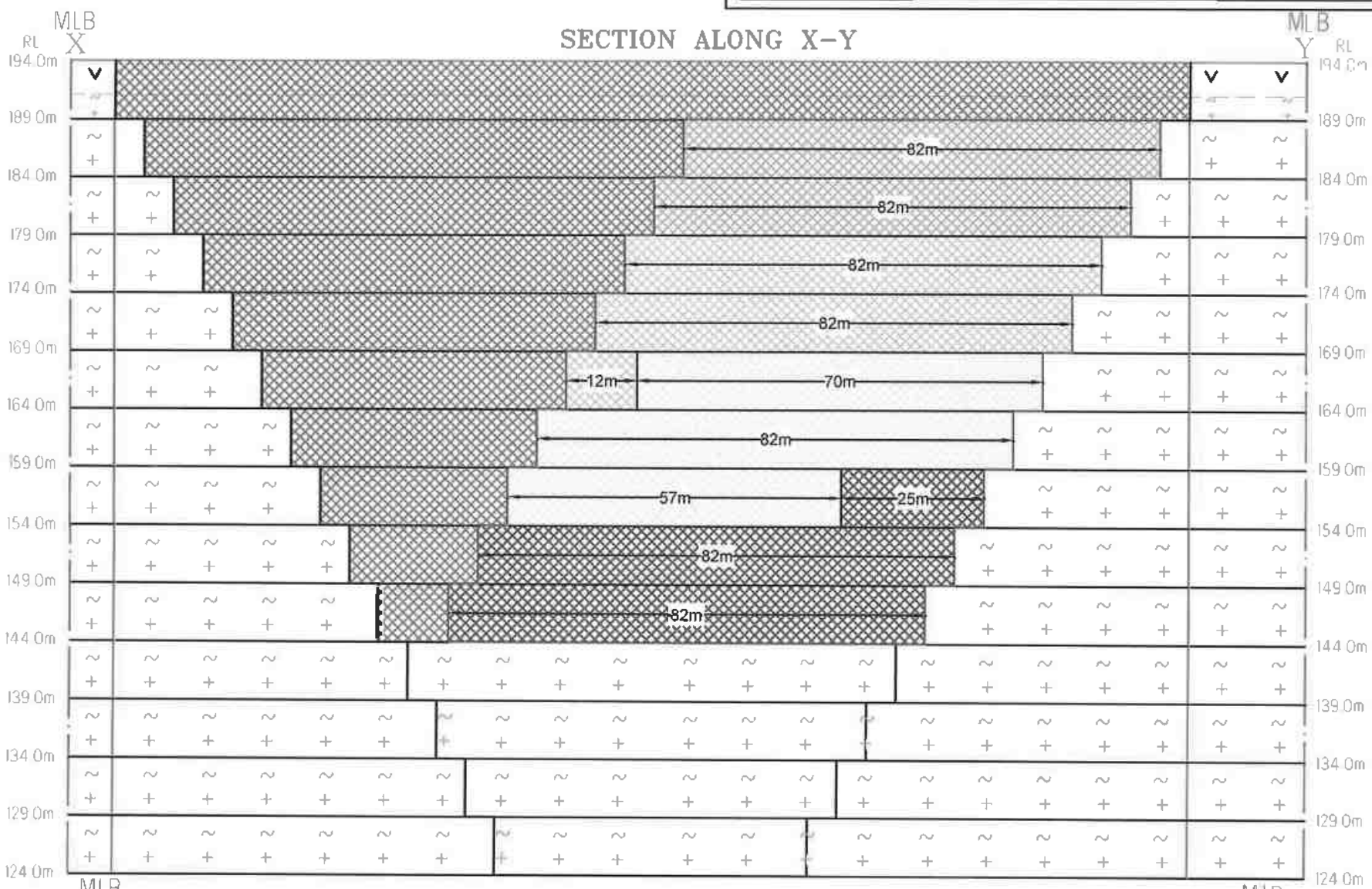
First Five Year area to be Quarried	
VI - Year Proposed area to be Quarried	
VII - Year Proposed area to be Quarried	
VIII - Year Proposed area to be Quarried	
IX - Year Proposed area to be Quarried	
X - Year Proposed area to be Quarried	

Prepared By:

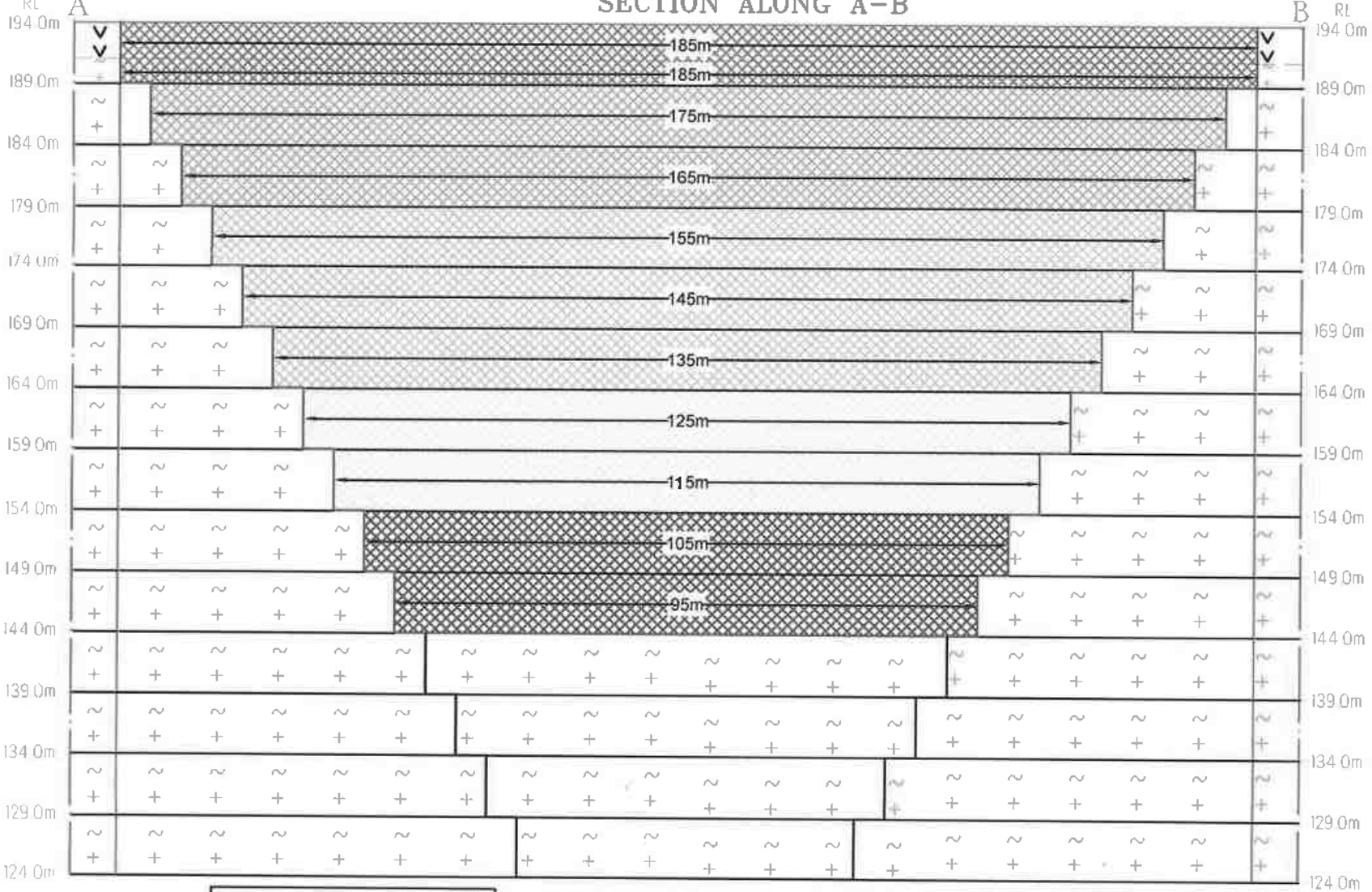
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

SECTION ALONG X-Y



SECTION ALONG A-B



First Five Year area to be Quarried

VI - Year Proposed area to be Quarried

VII - Year Proposed area to be Quarried

VIII - Year Proposed area to be Quarried

IX - Year Proposed area to be Quarried

X - Year Proposed area to be Quarried

SECOND FIVE - YEARWISE PRODUCTION RESERVES

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in M^3	Rough Stone in M^3	Gravel in M^3	Bulk Density	Rough Stone in (MT)	Gravel in (MT)
VI	XY-AB	II	82	175	5	71750	71750	----	2.75	197312	----
		III	82	165	5	67650	67650	----	2.75	186038	----
TOTAL						139400	139400	0	----	383350	0
VII	XY-AB	IV	82	155	5	63550	63550	----	2.75	174762	----
		V	82	145	5	59450	59450	----	2.75	163488	----
		VI	12	135	5	8100	8100	----	2.75	22275	----
TOTAL						131100	131100	0	----	360525	0
VIII	XY-AB	VI	70	135	5	47250	47250	----	2.75	129938	----
		VII	82	125	5	51250	51250	----	2.75	140937	----
		VIII	57	115	5	32775	32775	----	2.75	90131	----
TOTAL						131275	131275	0	----	361006	0
IX	XY-AB	VIII	25	115	5	14375	14375	----	2.75	39531	----
		IX	82	105	5	43050	43050	----	2.75	118388	----
		X	82	95	5	38950	38950	----	2.75	107112	----
	X1Y1-CD	II	100	68	5	34000	34000	----	2.75	93500	----
TOTAL						130375	130375	0	----	358531	0
X	X1Y1-CD	II	21	68	5	7140	7140	----	2.75	19635	----
		III	116	58	5	33640	33640	----	2.75	92510	----
		IV	111	48	5	26640	26640	----	2.75	73260	----
		V	106	38	5	20140	20140	----	2.75	55385	----
		VI	101	28	5	14140	14140	----	2.75	38885	----
		VII	96	18	5	8640	8640	----	2.75	23760	----
TOTAL						110340	110340	0	----	303435	0
GRAND TOTAL						642490	642490	0	----	1766847	0
						1207730	1076126	131604	----	2969346	263208

PLATE No- VIIIA

SECOND FIVE YEARWISE DEVELOPMENT & PRODUCTION SECTIONS

SECTION HOR 1 : 1000 & VER 1: 500

APPLICANT:

Mr.T.PRABHAKARAN
S/o TAMILARASAN,
No.201, OLD POST OFFICE STREET,
VENGAMEDU, KARUR TALUK
KARUR DISTRICT - 639 006.

LEASE APPLIED AREA:

S.F.No : 1083(Part), 1084/1(Part), 1084/2(Part), 1086/1(Part), 1089/1 (Part) & 1089/2(Part)
EXTENT : 5.43.4 Hect
VILLAGE : PUNNAM
TALUK : PUGALUR
DISTRICT : KARUR

INDEX

MINE LEASE BOUNDARY

SAFETY DISTANCE

GRAVEL

ROUGH STONE

PROPOSED BENCH

ULTIMATE BENCH

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

P.VELLAIYAN,M.Sc., M.Phil.,
QUALIFIED PERSON

சான்று.

கருர் மாவட்டம், புகளூர் வட்டம், புன்னம் கோவில், S.F. 1083/- பகுதி என்ற 0.61.5, S.F. 1084/1 (பகுதி) என்ற 0.77.0 ஏர்ஸ், S.F. 1084/2 (பகுதி) என்ற 0.34.90 ஏர்ஸ், S.F. 1086/1 (பகுதி) என்ற 1.08.5 ஏர்ஸ், S.F. 1089/1 (பகுதி) என்ற 0.87.5 ஏர்ஸ்மற்றும் S.F. 1089/2 (பகுதி) என்ற 1.74.00 ஏர்ஸ் ஆகமொத்தம் என்ற 5.43.40 ஏர்ஸ் பரப்பளவில் திரு. T. பரமசிவன் என்பவர் 10 ஆண்டுகளுக்கு சுரங்கம் கனிமம் வெட்டியெடுக்க குத்தகை உரிமம் கோரியுள்ள மேற்படி 4N. எண்களின் 500 மீட்டர் சுற்றளவுக்குள் கீழ்க்கண்டவாறு உரிமம் உள்ள மற்றும் உரிமம் புதுவதற்கு கல்குவாரிகள் உள்ளன என்பதாக இந்த கனிம ஆய்வுப்பதிவாகும்.

வ. எண்.	குவாரியின் வகை	புலஎண்	பரப்பு என்ற ஏர்ஸ்	அனுமதி காலம்	உரிமையாளர் பெயர்.
1.	உரிமம் உள்ளகுவாரி	1199/2,3,4,5,6,7,8,9 1200/4,5,6,7,8,9,10,11,12 1201/. (பகுதி)	3.82.50	15-11-2023 to 14-11-2028	VST Blue Metals.
2.	உரிமம் உள்ள குவாரி	1197/1(பகுதி) 1197/5 1197/6 1197/7	2.58.0	08-05-2023 to 07-05-2028	VST Blue Metals.
3.	உரிமம் புதுபுக்கு விண்ணப்பிக்கப்பட்ட குவாரி	1196/1A 1196/1B (பகுதி) 1197/12A (பகுதி)	3.61.0	23-10-2017 to 22-10-2022	VST Blue Metals.

4.	உரிமம் புதுப்பித்து வழங்கப்பட்ட குவாரி 2 உரிமம்	1232/1A (P), 1232/1 (P) 1232/3, 4(P), 5 (P), 6 (P), 7 (P), 8 (P), 9 (P), 1233/5B (P) 1233/6B (P) 1233/7 (P), 8 (P) 9	2.00.50	03-12-2018 to 02-12-2023	தரம் குறைந்த கனிமம்.
5.	புதுப்பித்து பெறப்பட்ட கூடுதல் வழங்குதலில் உள்ளது. குவாரி செய்யப்பட வேண்டியவை.	1092/1A - 1B - 2A1 693- 1A - 1B	1.63.50	04-05-2018 to 03-05-2023	தரம் குறைந்த கனிமம் குறைபாடுகள் II நடுக்கோடுகள்.

19125.

கிராம நிர்வாக அலுவலர்,
17. புன்னம் கிராமம்,
புகளூர் வட்டம்,
கரூர் மாவட்டம்.

आरतीय गुणवत्ता परिषद्
QUALITY COUNCIL OF INDIA
Creating an Ecosystem for Quality

NABET

National Accreditation Board for Education and Training

Certificate of Accreditation

Geo Technical Mining Solutions, Dharmapuri

5/1485-3, Salem Main Road, Elakkiyampatty, Dharmapuri, Tamil Nadu

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

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1.	Mining of minerals - including opencast and underground mining	1	1 (a) (i)	A

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated January 24, 2024, 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/24/3142 dated Feb 19, 2024. The accreditation needs to be renewed before the expiry date by Geo Technical Mining Solutions, Dharmapuri following due process of assessment.

Issue Date
Feb 19, 2024

Valid up to
Dec 31, 2026

Mr. Ajay Kumar Jha
Sr. Director, NABET

Certificate No.
NABET/EIA/23-26/RA 0319

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.

ANNEXURE-I

ந.க.எண். 869/கனிமம்/2025

மாவட்ட ஆட்சியர் அலுவலகம்,
புவியியல் மற்றும் சுரங்கத்துறை,
கரூர்

நாள்: 06.09.2025.

குறிப்பாணை

பொருள்: **கனிமங்களும் குவாரிகளும்** - கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் - சாதாரணகற்கள் மற்றும் கிராவல் குவாரி குத்தகை உரிமம் வேண்டி திரு.T. பிரபாகரன் என்பவர் விண்ணப்பம் செய்தது - வருவாய் கோட்டாட்சியர் நிலயிருப்பு அறிக்கை வரப்பெற்றது - உதவி புவியியலாளர் புலத்தணிக்கை மேற்கொண்டு அறிக்கை சமர்ப்பித்தது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்க திட்டம் மற்றும் மாநில சுற்றுச்சூழல் தாக்கல் மதிப்பீட்டு ஆணைய இசைவினை பெற்று சமர்பிக்கக் கோருதல் - தொடர்பாக.

பார்வை:

1. திரு.T.பிரபாகரன், த/பெ.தமிழரசன், கதவு எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு, வெங்கமேடு, கரூர் மாவட்டம் குவாரி குத்தகை உரிமம் வழங்கக் கோரும் இணையவழி விண்ணப்பம் நாள்: 18.08.2025.

2. வருவாய் கோட்டாட்சியர், கரூர் அவர்களின் நில இருப்பு அறிக்கை ந.க.எண். அ1/6529/2025, நாள்:02.09.2025

3. உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை கரூர் என்பவரது புலத்தணிக்கை அறிக்கை நாள:06.09.2025.

4. அரசாணை (பல்வகை) எண். 169, தொழில் (எம்எம்.சி-1) துறை நாள்: 04.08.2020 இணைத்து வரப்பெற்றுள்ளது. (தமிழ்நாடு அரசிதழ் சிறப்பு வெளியீடு எண். 315 நாள்: 04.08.2020).

*****

கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பு நிலத்திலிருந்து பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க கதவு எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு, வெங்கமேடு, கரூர் மாவட்டம் என்ற முகவரியில் வசித்து வரும் திரு.T.பிரபாகரன், என்வர் பார்வை 1-இல் கண்டுள்ளவாறு விண்ணப்பம் செய்துள்ளனர்.

மேற்படி விண்ணப்பம் தொடர்பாக, வருவாய் கோட்டாட்சியர், கரூர் அவர்கள் புலத்தணிக்கை மேற்கொண்டு புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2

(பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் மட்டும் தமிழ்நாடு சிறு கனிமச்சலுகை விதிகளில் விதி எண்கள்.19-(1), 20 மற்றும் 22 -இன் கீழ் திரு.T. பிரபாகரன், என்பவருக்கு 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்க நிபந்தனைகளுக்குட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளார்.

மேற்படி விண்ணப்பம் தொடர்பாக, உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கரூர் அவர்கள் புலத்தணிக்கை மேற்கொண்டு கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் மட்டும் தமிழ்நாடு சிறு கனிமச்சலுகை விதிகளில் விதி எண்கள்.19-(1), 20 மற்றும் 22-இன் கீழ் திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவருக்கு 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் கீழ்கண்ட நிபந்தனைகளுக்குட்பட்டு வழங்கலாம் என பரிந்துரை செய்துள்ளார்.

சிறப்பு நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு கிழக்கு திசையில் புல எண்கள்.1083,1086 மற்றும் புல எண் 1084 கிழக்கு மற்றும் தெற்கு திசையில் செல்லும் உயரழுத்த மின்பாதைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்ய வேண்டும்.
2. விண்ணப்ப புலத்தின் வடக்கு திசையில் 110 மீட்டர் தொலைவில் BPCL பெட்ரோலியம் கொண்டு செல்லும் பைப்லைனிற்கு யாதொரு சேதமின்றி குவாரிப்பணி செய்ய வேண்டும்.

வருவாய் கோட்டாட்சியர், கரூர் மற்றும் உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கரூர் ஆகியோரின் பரிந்துரைகள் மற்றும் நிபந்தனைகளின் அடிப்படையில் கரூர் மாவட்டம், புகளூர் வட்டம், கரூர் மாவட்டம், புகளூர் வட்டம், புன்னம் கிராமம் பட்டா புல எண்கள் 1083 (பகுதி) (0.61.50 ஹெக்டேர்), 1084/1 (பகுதி) (0.77.00 ஹெக்டேர்), 1084/2 (பகுதி) (0.34.90 ஹெக்டேர்), 1086/1 (பகுதி) (1.08.50 ஹெக்டேர்), 1089/1(பகுதி) (0.87.50 ஹெக்டேர்), மற்றும் 1089/2 (பகுதி) (1.74.00 ஹெக்டேர்), ஆகியவற்றின் மொத்தம் 5.43.40 ஹெக்டேர்ஸ் பரப்பில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண். 19(1), 20 மற்றும் 22-இன்படியும் மேலும் கீழ்கண்ட நிபந்தனைகளுக்கு உட்பட்டு பத்து வருட காலத்திற்கு திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

சிறப்பு நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு கிழக்கு திசையில் புல எண்கள்.1083,1086 மற்றும் புல எண் 1084 கிழக்கு மற்றும் தெற்கு திசையில் செல்லும் உயரழுத்த மின்பாதைக்கு 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்ய வேண்டும்.

2. விண்ணப்ப புலத்தின் வடக்கு திசையில் 110 மீட்டர் தொலைவில் BPCL பெட்ரோலியம் கொண்டு செல்லும் பைப்லைனிற்கு யாதொரு சேதமின்றி குவாரிப்பணி செய்ய வேண்டும்.

நிபந்தனைகள்:-

1. விண்ணப்ப புலத்திற்கு அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் மற்றும் புறம்போக்கு நிலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு யாதொரு சேதமுமின்றி முறையாக குவாரிப்பணி செய்ய வேண்டும்.

2. குத்தகைக்காலத்தில் கைத்துளைப்பான் கருவி கொண்டு பாறைகளை துளையிட்டும், மிதமான வெடிபொருள் பயன்படுத்தியும், பொதுமக்களுக்கோ, பொது சொத்துக்களுக்கோ சேதம் ஏற்படாத வண்ணம் குவாரிப்பணி செய்ய வேண்டும்.

3. குவாரித் தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்ய Mettaliferrous Mines, விதிகளின்படி அகலமானதும், பாதுகாப்பானதுமான Benches அமைத்து பாதுகாப்பான முறையில் குவாரிக்குள் வாகனங்கள் சென்றுவரவும் மற்றும் குவாரி தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்தும் குவாரிப்பணி செய்ய வேண்டும்.

4. குவாரி குத்தகை வழங்க ஏதுவாக துணை இயக்குநர் (சுரங்கம்) அவர்களால் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினையும், மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (SEIAA) அனுமதி பெற்று மாவட்ட நிர்வாகத்திற்கு விண்ணப்பதாரரால் சமர்ப்பிக்கப்பட வேண்டும்.

எனவே, தமிழ்நாடு சிறு கனிம சலுகை விதிகள்-1959 விதி எண்.41-இன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு திரு.T. பிரபாகரன், த/பெ.தமிழரசன், என்பவர் கேட்டுக்கொள்ளப்படுகிறார். மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ஆம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-இன்படி சுற்றுச்சூழல் தாக்கல் மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

06/9/25

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
கரூர்.

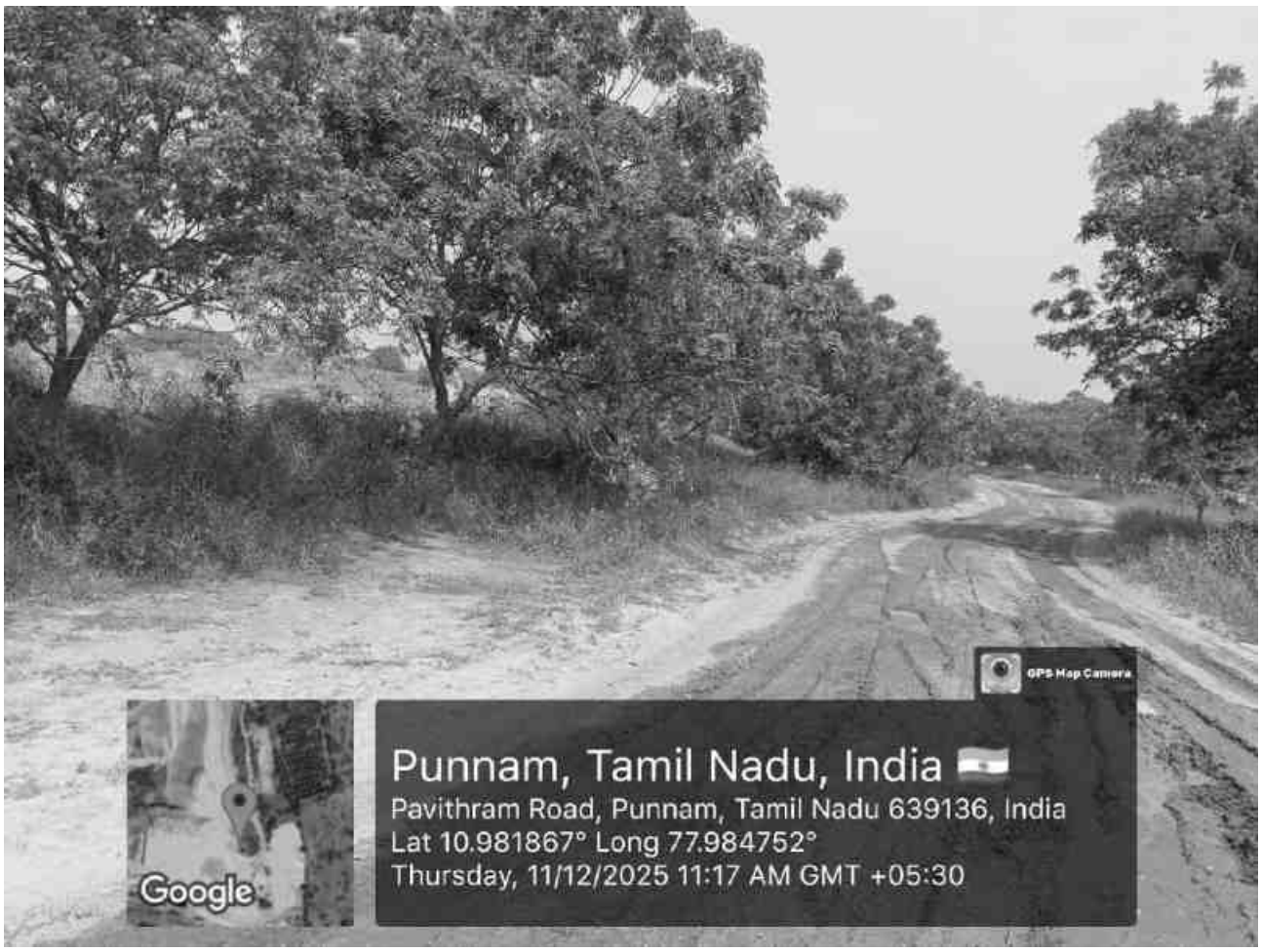
பெறுநர்

திரு.T. பிரபாகரன்,
த/பெ.தமிழரசன்,
எண்.201, பழைய போஸ்ட் ஆபிஸ் தெரு,
வெங்கமேடு,
கரூர் மாவட்டம்.

06/09/25

நகல்:-

1. மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை.
2. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, கிண்டி, சென்னை.


GPS Map Camera
Punnam, Tamil Nadu, India
Pavithram Road, Punnam, Tamil Nadu 639136, India
Lat 10.981867° Long 77.984752°
Thursday, 11/12/2025 11:17 AM GMT +05:30
Google


GPS Map Camera
Punnam, Tamil Nadu, India
Pavithram Road, Punnam, Tamil Nadu 639136, India
Lat 10.983671° Long 77.984886°
Thursday, 11/12/2025 11:10 AM GMT +05:30
Google


GPS Map Camera
Punnam, Tamil Nadu, India
Pavithram Road, Punnam, Tamil Nadu 639136, India
Lat 10.984177° Long 77.984846°
Thursday, 11/12/2025 11:10 AM GMT +05:30
Google


GPS Map Camera
Punnam, Tamil Nadu, India
Pavithram Road, Punnam, Tamil Nadu 639136, India
Lat 10.9826° Long 77.985153°
Thursday, 11/12/2025 11:16 AM GMT +05:30
Google

வருவாய் மற்றும் பேரிடர் மேலாண்மைத்துறை

அனுப்புநர்

மு.முகமது பைசல், பி.இ.,
வருவாய் கோட்டாட்சியர்,
கரூர்.

பெறுநர்

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
கரூர்.

நக.எண்.அ1/6529/2025, நாள்.02.09.2025.

அய்யா,

பொருள் : கனிமம் மற்றும் சுரங்கம் -சிறு கனிமங்கள் - கரூர் மாவட்டம் - புகழூர் வட்டம் - புன்னம் கிராமம் - பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ் 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன்என்பவர் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரியது- புலத்தணிக்கை செய்து உரிய ஆவணங்களுடன் அறிக்கை அனுப்பக் கோரியது - அறிக்கை அனுப்புதல் - தொடர்பாக.

பார்வை : 1. உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கரூர் அவர்களின் கடித எண். நக.எண்869/கனிமம்/2025, நாள்.18.08.2025.

2. இவ்வலுவலக கடிதம் நக.அ1/6529/2025, நாள்:22.08.2025.

3. புகழூர் வட்டாட்சியரின் அறிக்கை நக.ஆ1/2873/2025, நாள்.02/09.2025.

.....

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ் 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரி கரூர், உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை அவர்களிடம் திரு.T.பிரபாகரன் என்பவர் மனு அளித்தது தொடர்பாக விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டு அறிக்கை அனுப்பி வைக்குமாறு பார்வை 1-ல் காணும் கடிதத்தில் தெரிவிக்கப்பட்டதைத் தொடர்ந்து பார்வை 2-ல் காணும் இவ்வலுவலக கடிதத்தின் மூலம் புகழூர் வட்டாட்சியரிடம் அறிக்கை கோரப்பட்டது. பார்வை 3-ல் காணும் கடிதத்தில் புகழூர் வட்டாட்சியர் அறிக்கை சமர்ப்பித்துள்ளார்.

புகழூர் வட்டாட்சியர் அறிக்கையின் அடிப்படையில் புலத்தணிக்கை மற்றும் விசாரணை மேற்கொண்டு எனதறிக்கையினை பின்வருமாறு சமர்ப்பிக்கிறேன்.

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்.1083 விஸ்தீரணம் ஹெக்.3.53.50 ஏர்ஸ், புல எண்.1084/1 விஸ்தீரணம் ஹெக்.1.69.0 ஏர்ஸ், புல எண்.1084/2 விஸ்தீரணம் ஹெக்.0.45.0 ஏர்ஸ், புல எண்.1086/1 விஸ்தீரணம் ஹெக்.1.25.0 ஏர்ஸ், புல எண்.1089/1 விஸ்தீரணம் ஹெக்.2.32.0 ஏர்ஸ் மற்றும் புல எண்.1089/2 விஸ்தீரணம் ஹெக்.2.32.0 ஆக மொத்தம் ஹெக்.11.56.50 ஏர்ஸ் நிலமானது கே.தமிழரசன் மகன் டி.பிரபாகரன் என்பவர் பெயரில் தனிப்பட்டாவாக தாக்கலாகியுள்ளது, மேற்படி பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் பரப்பில் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்கதிரு.T.பிரபாகரன் என்பவர் குவாரி குத்தகை உரிமம் கோரியுள்ளார். மேற்படி குவாரி குத்தகை உரிமம் கோரும் புல எண்ணுக்கான நான்கெல்லைகள் விவரம் கீழ்கண்டவாறு உள்ளது.

புல எண்.1083 (பகுதி), 1084/1 (பகுதி), 1084/2 (பகுதி), 1086/1 (பகுதி), 1089/1 (பகுதி) மற்றும் 1089/2 (பகுதி) -க்கு நான்கெல்லை விவரம்

1.	புல எண்.1086/2 – T.பிரபாகரன் நிலம் புல எண்.1085 கந்தசாமி (வ) நிலம்	தெற்கு
2.	புல எண்.1089/1 (பகுதி) - T.பிரபாகரன் நிலம் புல எண்.1083 (பகுதி) - T.பிரபாகரன் நிலம்	வடக்கு
3.	புல எண்.1089/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1089/2 (பகுதி) –T.பிரபாகரன் நிலம் புல எண்.1088/1 - T.பிரபாகரன் நிலம் புல எண்.1088/2 - T.பிரபாகரன் நிலம்	மேற்கு
4.	புல எண்.1083 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/1 (பகுதி) T.பிரபாகரன் நிலம்	கிழக்கு

"அ1" அறிவிப்பு:

குவாரி குத்தகை உரிமம் கோருவது தொடர்பாக புன்னம் கிராமத்தில் 23.08.2025-ஆம் தேதியில் "அ1" விளம்பரம் பிரசுரம் செய்யப்பட்டதில் நாளது தேதிவரை பொதுமக்களிடமிருந்து ஆட்சேபணை ஏதும் வரப்பெறவில்லை.

குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் :

மேற்கண்ட குத்தகை உரிமம் கோரும் புலத்திலிருந்து 300 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம் அங்கீகரிக்கப்பட்ட குடியிருப்புகள், வீட்டு மனைகள், ஆதிதிராவிடர் மற்றும் பிற்படுத்தப்பட்டோர் நத்தம், கல்வி நிறுவனங்கள், கோவில்கள், மசூதிகள், சர்ச்சுகள், வனநிலங்கள், சாலைகள், நெடுஞ்சாலைகள், புராதான சின்னங்கள் ஏதும் இல்லை.

மேலும் புல எண்.1084/1-ல் 30 மீட்டர் தொலைவில் மற்றும் புல எண்.1086/1-ல் 12 மீட்டர் தொலைவில் உயரழுத்த மின்கம்பிகள் உள்ளது. மேற்கண்ட புல எண்.1086/1 மற்றும் புல எண்.1089/2-ல் பயன்பாட்டில் இல்லாத கிணறுகள் அமைந்துள்ளது. மேற்படி குத்தகை உரிமம் கோரும் புல எண்களில் பதிவு செய்யப்பட்ட வில்லங்கங்கள், ஈடு, ஒத்தி, தானம், ஜப்தி, நீதிமன்ற நடவடிக்கைகள், உயில் பாத்தியம் மற்றும் அரசால் நில ஊர்ஜிதம் செய்ய உத்தேசிக்கப்படவில்லை என்பதையும், ஒருங்கிணைந்த புலத்திற்கு வடபுறம் சுமார் 100 மீட்டர் தொலைவில் பெட்ரோலியம் கொண்டு செல்லும் ONGL பாதை உள்ளது. மேலும் 50 மீட்டர் சுற்றளவில் நீர்நிலைகள் ஏதும் இல்லை.

குத்தகை உரிமைக் கட்டணம்:

மனுதாரர் குவாரி குத்தகை உரிமக் கட்டணம் IOB வங்கியில் ரூ.1500/-க்கான சலான் எண். 20250818031277 நாள்.18.08.2025-ன் படி செலுத்தி சலான் நகல் இணைக்கப்பட்டுள்ளது.

பரிந்துரை :

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ், 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ் நிலத்திற்கு 30 மீட்டர் தொலைவில் உயர் மின்னழுத்த கம்பிகள் செல்வதால் 20 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ் நிலத்திற்கு 12 மீட்டர் தொலைவில் உயர் மின் அழுத்த கம்பிகள் செல்வதால் 38 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் என ஆக மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவருக்கு பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் வழங்கலாம் என பரிந்துரை செய்து பார்வை 3-ல் காணும் கடிதத்தில் புகழூர் வட்டாட்சியர் அறிக்கையாக சமர்ப்பித்துள்ளார்..

எனவே , கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராம புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ் 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவருக்கு 10 ஆண்டுகளுக்கு புதிதாக குவாரி குத்தகை உரிமம் வழங்க அனுமதி வழங்கலாம் என்பதையும், இத்துடன் புலத்தணிக்கை குறிப்பு, புகழூர் வட்டாட்சியர் அறிக்கை, விசாரணை ஆவணங்கள், கிராம கணக்கு நகல்கள் ஆகியவற்றை இத்துடன் இணைத்தனுப்பியுள்ளேன் என்பதையும், பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

இணைப்பு: மேற்கண்டவாறு.

02/9/25

வருவாய் கோட்டாட்சியர்

கரூர்.

2/9/25

புலத்தணிக்கை குறிப்பு

வட்டம்	:	புகழூர்
கிராமம்	:	புன்னம்
புல எண்கள்	:	1083 (பகுதி), 1084/1 (பகுதி), 1084/2 (பகுதி), 1086/1 (பகுதி), 1089/1 (பகுதி) மற்றும் 1089/2 (பகுதி)
வகைப்பாடு	:	ரயத்து புன்செய்
புலத்தணிக்கை நாள்	:	02.09.2025

கரூர் மாவட்டம் - புகழூர் வட்டம் - புன்னம் கிராமம் - பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ் 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரி கரூர், உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை அவர்களிடம் திரு.S.செந்தில்குமார் என்பவர் மனு அளித்தது தொடர்பாக மனு அளித்தது தொடர்பாக இன்று (02.09.2025) புகழூர் வட்டாட்சியர், கபரமத்தி குறுவட்ட வருவாய் ஆய்வாளர், மற்றும் புன்னம் கிராம நிர்வாக அலுவலர் ஆகியோருடன் புலத்தணிக்கை செய்யப்பட்டது.

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்.1083 விஸ்தீரணம் ஹெக்.3.53.50 ஏர்ஸ், புல எண்.1084/1 விஸ்தீரணம் ஹெக்.1.69.0 ஏர்ஸ், புல எண்.1084/2 விஸ்தீரணம் ஹெக்.0.45.0 ஏர்ஸ், புல எண்.1086/1 விஸ்தீரணம் ஹெக்.1.25.0 ஏர்ஸ், புல எண்.1089/1 விஸ்தீரணம் ஹெக்.2.32.0 ஏர்ஸ் மற்றும் புல எண்.1089/2 விஸ்தீரணம் ஹெக்.2.32.0 ஆக மொத்தம் ஹெக்.11.56.50 ஏர்ஸ் நிலமானது கே.தமிழரசன் மகன் டி.பிரபாகரன் என்பவர் பெயரில் தனிப்பட்டாவாக தாக்கலாகியுள்ளது. மேற்படி பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் பரப்பில் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்கதிரு.T.பிரபாகரன் என்பவர் குவாரி குத்தகை உரிமம் கோரியுள்ளார். மேற்படி குவாரி குத்தகை உரிமம் கோரும் புல எண்ணுக்கான நான்கெல்லைகள் விவரம் கீழ்கண்டவாறு உள்ளது.

புல எண்.1083 (பகுதி), 1084/1 (பகுதி), 1084/2 (பகுதி), 1086/1 (பகுதி), 1089/1 (பகுதி) மற்றும் 1089/2 (பகுதி)-க்கு நான்கெல்லை விவரம்

1.	புல எண்.1086/2 – T.பிரபாகரன் நிலம் புல எண்.1085 கந்தசாமி (வ) நிலம்	தெற்கு
2.	புல எண்.1089/1 (பகுதி) - T.பிரபாகரன் நிலம் புல எண்.1083 (பகுதி) - T.பிரபாகரன் நிலம்	வடக்கு
3.	புல எண்.1089/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1089/2 (பகுதி) -T.பிரபாகரன் நிலம் புல எண்.1088/1 - T.பிரபாகரன் நிலம் புல எண்.1088/2 - T.பிரபாகரன் நிலம்	மேற்கு
4.	புல எண்.1083 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/2 (பகுதி) - T.பிரபாகரன் நிலம்	கிழக்கு

"அ1" அறிவிப்பு:

குவாரி குத்தகை உரிமம் கோருவது தொடர்பாக புன்னம் கிராமத்தில் 23.08.2025-ஆம் தேதியில் "அ1" விளம்பரம் பிரசுரம் செய்யப்பட்டதில் நாளது தேதிவரை பொதுமக்களிடமிருந்து ஆட்சேபணை ஏதும் வரப்பெறவில்லை.

குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் :

மேற்கண்ட குத்தகை உரிமம் கோரும் புலத்திலிருந்து 300 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம் அங்கீகரிக்கப்பட்ட குடியிருப்புகள், வீட்டு மனைகள், ஆதிதிராவிடர் மற்றும் பிற்படுத்தப்பட்டோர் நத்தம், கல்வி நிறுவனங்கள், கோவில்கள், மசூதிகள், சர்ச்சுகள், வனநிலங்கள், சாலைகள், நெடுஞ்சாலைகள், புராதான சின்னங்கள் ஏதும் இல்லை. மேலும் புல எண்.1084/1-ல் 30 மீட்டர் தொலைவில் மற்றும் புல எண்.1086/1-ல் 12 மீட்டர் தொலைவில் உயரழுத்த மின்கம்பிகள் உள்ளது. மேற்கண்ட புல எண்.1086/1 மற்றும் புல எண்.1089/2-ல் பயன்பாட்டில் இல்லாத கிணறுகள் அமைந்துள்ளது. மேற்படி குத்தகை உரிமம் கோரும் புல எண்களில் பதிவு செய்யப்பட்ட வில்லங்கங்கள், ஈடு, ஒத்தி, தானம், ஜப்தி, நீதிமன்ற நடவடிக்கைகள், உயில் பாத்தியம் மற்றும் அரசால் நில ஊர்ஜிதம் செய்ய உத்தேசிக்கப்படவில்லை என்பதையும், ஒருங்கிணைந்த புலத்திற்கு வடபுரம் சுமார் 100 மீட்டர் தொலைவில் பெட்ரோலியம் கொண்டு செல்லும் ONGL பாதை உள்ளது. மேலும் 50 மீட்டர் சுற்றளவில் நீர்நிலைகள் ஏதும் இல்லை.

குத்தகை உரிமைக் கட்டணம்:

மனுதாரர் குவாரி குத்தகை உரிமக் கட்டணம் IOB வங்கியில் ரூ.1500/-க்கான சலான் எண். 20250818031277 நாள்.18.08.2025-ன் படி செலுத்தி சலான் நகல் இணைக்கப்பட்டுள்ளது.

பரிந்துரை :

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ், 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ் நிலத்திற்கு 30 மீட்டர் தொலைவில் உயர் மின்னழுத்த கம்பிகள் செல்வதால் 20 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ் நிலத்திற்கு 12 மீட்டர் தொலைவில் உயர் மின் அழுத்த கம்பிகள் செல்வதால் 38 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் என ஆக மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவருக்கு பத்து ஆண்டுகளுக்கு புதிதாக குவாரி குத்தகை உரிமம் வழங்க அனுமதி வழங்கலாம்.

வருவாய் கோட்டாட்சியர்,

கரூர்

வருவாய் மற்றும் பேரிடர் மேலாண்மைத்துறை

அனுப்புநர்
கி.தனசேகரன்,
வருவாய் வட்டாட்சியர்,
புகழூர்.

பெறுநர்
வருவாய் கோட்டாட்சியர்,
கரூர்.

நக.ஆ1/ 2873 /2025, நாள்:02 .09.2025.

அய்யா,

பொருள்: கனிமம் மற்றும் சுரங்கம் – சிறு கனிமங்கள் – கரூர் மாவட்டம் – புகழூர் வட்டம் – புன்னம் கிராமம் – பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ் 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவர் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரியது – அறிக்கை அனுப்புதல் – தொடர்பாக.

வருவாய் கோட்டாட்சியர் அலுவலகம் கரூர். 02 SEP 2025

பார்வை: 1. கரூர் வருவாய் கோட்டாட்சியர் அவர்களின் கடிதம் நக.அ1/6529/2025, நாள்.22.08.2025.

2. கபரமத்தி குறுவட்ட வருவாய் ஆய்வாளரின் அறிக்கை அதிமு/122/2025, நாள். 01.09.2025.

****

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவர் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரி அளித்த மனுவின் மீது பார்வை 1-ல் காணும் கரூர் வருவாய் கோட்டாட்சியர் அவர்களின் கடிதத்தில் தெரிவித்துள்ளவாறு புலத்தணிக்கை மற்றும் விசாரணை மேற்கொண்டு எனதறிக்கையினை பின்வருமாறு சமர்ப்பிக்கிறேன்.

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்.1083 விஸ்தீரணம் ஹெக்.3.53.50 ஏர்ஸ், புல எண்.1084/1 விஸ்தீரணம் ஹெக்.1.69.0 ஏர்ஸ், புல எண்.1084/2 விஸ்தீரணம் ஹெக்.0.45.0 ஏர்ஸ், புல எண்.1086/1 விஸ்தீரணம் ஹெக்.1.25.0 ஏர்ஸ், புல எண்.1089/1 விஸ்தீரணம் ஹெக்.2.32.0 ஏர்ஸ் மற்றும் புல எண்.1089/2 விஸ்தீரணம் ஹெக்.2.32.0 ஆக மொத்தம் ஹெக்.11.56.50 ஏர்ஸ் நிலமானது கே.தமிழரசன் மகன் டி.பிரபாகரன் என்பவர் பெயரில் தனிப்பட்டாவாக தாக்கலாகியுள்ளது. மேற்படி பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2

(பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் பரப்பில் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க திரு.T.பிரபாகரன் என்பவர் குவாரி குத்தகை உரிமம் கோரியுள்ளார். மேற்படி குவாரி குத்தகை உரிமம் கோரும் புல எண்ணுக்கான நான்கெல்லைகள் விவரம் கீழ்கண்டவாறு உள்ளது.

புல எண்.1083 (பகுதி), 1084/1 (பகுதி), 1084/2 (பகுதி), 1086/1 (பகுதி), 1089/1 (பகுதி) மற்றும் 1089/2 (பகுதி) –க்கு நான்கெல்லை விவரம்

1.	புல எண்.1086/2 – T.பிரபாகரன் நிலம் புல எண்.1085 கந்தசாமி (வ) நிலம்	தெற்கு
2.	புல எண்.1089/1 (பகுதி) – T.பிரபாகரன் நிலம் புல எண்.1083 (பகுதி) – T.பிரபாகரன் நிலம்	வடக்கு
3.	புல எண்.1089/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1089/2 (பகுதி) – T.பிரபாகரன் நிலம் புல எண்.1088/1 – T.பிரபாகரன் நிலம் புல எண்.1088/2 – T.பிரபாகரன் நிலம்	மேற்கு
4.	புல எண்.1083 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/2 (பகுதி) – T.பிரபாகரன் நிலம்	கிழக்கு

"அ1" அறிவிப்பு:

குவாரி குத்தகை உரிமம் கோருவது தொடர்பாக புன்னம் கிராமத்தில் 23.08.2025–ஆம் தேதியில் "அ1" விளம்பரம் பிரசுரம் செய்யப்பட்டதில் நாளது தேதிவரை பொதுமக்களிடமிருந்து ஆட்சேபனை ஏதும் வரப்பெறவில்லை.

குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் :

மேற்கண்ட குத்தகை உரிமம் கோரும் புலத்திலிருந்து 300 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம் அங்கீகரிக்கப்பட்ட குடியிருப்புகள், வீட்டு மனைகள், ஆதிதிராவிடர் மற்றும் பிற்படுத்தப்பட்டோர் நத்தம், கல்வி நிறுவனங்கள், கோவில்கள், மசூதிகள், சர்ச்சுகள், வனநிலங்கள், சாலைகள், நெடுஞ்சாலைகள், புராதான சின்னங்கள் ஏதும் இல்லை. மேலும் புல எண்.1084/1–ல் 30 மீட்டர் தொலைவில் மற்றும் புல எண்.1086/1–ல் 12 மீட்டர் தொலைவில் உயரழுத்த மின்கம்பிகள் உள்ளது. மேற்கண்ட புல எண்.1086/1 மற்றும் புல எண்.1089/2–ல் பயன்பாட்டில் இல்லாத கிணறுகள் அமைந்துள்ளது. மேற்படி குத்தகை உரிமம் கோரும் புல எண்களில் பதிவு செய்யப்பட்ட வில்லங்கங்கள், ஈடு, ஒத்தி, தானம், ஜப்தி, நீதிமன்ற நடவடிக்கைகள், உயில் பாத்தியம் மற்றும் அரசால் நில ஊர்ஜிதம் செய்ய உத்தேசிக்கப்படவில்லை என்பதையும், ஒருங்கிணைந்த புலத்திற்கு வடபுறம் சுமார் 100 மீட்டர் தொலைவில் பெட்ரோலியம் கொண்டு செல்லும் ONGL பாதை உள்ளது. மேலும் 50 மீட்டர் சுற்றளவில் நீர்நிலைகள் ஏதும் இல்லை.

குத்தகை உரிமைக் கட்டணம்:

மனுதாரர் குவாரி குத்தகை உரிமக் கட்டணம் IOB வங்கியில் ரூ.1500/–க்கான சலான் எண். 20250818031277 நாள்.18.08.2025–ன் படி செலுத்தி சலான் நகல் இணைக்கப்பட்டுள்ளது.

பரிந்துரை :

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ், 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ் நிலத்திற்கு 30 மீட்டர் தொலைவில் உயர் மின்னழுத்த கம்பிகள் செல்வதால் 20 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ் நிலத்திற்கு 12 மீட்டர் தொலைவில் உயர் மின் அழுத்த கம்பிகள் செல்வதால் 38 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் என ஆக மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவருக்கு பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் வழங்கலாம் என்பதையும், மேலும் மேற்கண்ட புல எண்ணிற்கான கிராம கணக்கு, புல வரைபட நகல்கள் புன்னம் கிராம நிர்வாக அலுவலர் அறிக்கை ஆகியவற்றை இத்துடன் இணைத்து அனுப்பியுள்ளேன் என்பதையும் பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

இணைப்பு–மேற்கண்டவாறு.

வட்டாட்சியர்,
புகழூர்.

புலத்தணிக்கை குறிப்பு

கிராமம்: புன்னம் புலத்தணிக்கை நாள்.01.09.2025

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவர் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரி அளித்த மனு மீது 01.09.2025 கபரமத்தி குறுவட்ட வருவாய் ஆய்வாளர், கபரமத்தி குறுவட்ட நில அளவர், புன்னம் கிராம நிர்வாக அலுவலர் ஆகியோருடன் புலதணிக்கை செய்யப்பட்டது.

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்.1083 விஸ்தீரணம் ஹெக்.3.53.50 ஏர்ஸ், புல எண்.1084/1 விஸ்தீரணம் ஹெக்.1.69.0 ஏர்ஸ், புல எண்.1084/2 விஸ்தீரணம் ஹெக்.0.45.0 ஏர்ஸ், புல எண்.1086/1 விஸ்தீரணம் ஹெக்.1.25.0 ஏர்ஸ், புல எண்.1089/1 விஸ்தீரணம் ஹெக்.2.32.0 ஏர்ஸ் மற்றும் புல எண்.1089/2 விஸ்தீரணம் ஹெக்.2.32.0 ஆக மொத்தம் ஹெக்.11.56.50 ஏர்ஸ் நிலமானது கே.தமிழரசன் மகன் டி.பிரபாகரன் என்பவர் பெயரில் தனிப்பட்டாவாக தாக்கலாகியுள்ளது. மேற்படி பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் பரப்பில் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க திரு.T.பிரபாகரன் என்பவர் குவாரி குத்தகை உரிமம் கோரியுள்ளார். மேற்படி குவாரி குத்தகை உரிமம் கோரும் புல எண்ணுக்கான நான்கெல்லைகள் விவரம் கீழ்கண்டவாறு உள்ளது.

புல எண்.1083 (பகுதி), 1084/1 (பகுதி), 1084/2 (பகுதி), 1086/1 (பகுதி), 1089/1 (பகுதி) மற்றும் 1089/2 (பகுதி) –க்கு நான்கெல்லை விவரம்

1.	புல எண்.1086/2 – T.பிரபாகரன் நிலம் புல எண்.1085 கந்தசாமி (வ) நிலம்	தெற்கு
2.	புல எண்.1089/1 (பகுதி) – T.பிரபாகரன் நிலம் புல எண்.1083 (பகுதி) – T.பிரபாகரன் நிலம்	வடக்கு
3.	புல எண்.1089/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1089/2 (பகுதி) – T.பிரபாகரன் நிலம் புல எண்.1088/1 – T.பிரபாகரன் நிலம் புல எண்.1088/2 – T.பிரபாகரன் நிலம்	மேற்கு

4.	புல எண்.1083 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/1 (பகுதி) T.பிரபாகரன் நிலம் புல எண்.1084/2 (பகுதி) – T.பிரபாகரன் நிலம்	கிழக்கு

"அ1" அறிவிப்பு:

குவாரி குத்தகை உரிமம் கோருவது தொடர்பாக புன்னம் கிராமத்தில் 23.08.2025–ஆம் தேதியில் "அ1" விளம்பரம் பிரகரம் செய்யப்பட்டதில் நாளது தேதிவரை பொதுமக்களிடமிருந்து ஆட்சேபனை ஏதும் வரப்பெறவில்லை.

குடியிருப்பு மனைகள் மற்றும் கட்டுமானங்கள் :

மேற்கண்ட குத்தகை உரிமம் கோரும் புலத்திலிருந்து 300 மீட்டர் சுற்றளவிற்குள் கிராம நத்தம் அங்கீகரிக்கப்பட்ட குடியிருப்புகள், வீட்டு மனைகள், ஆதிதிராவிடர் மற்றும் பிற்படுத்தப்பட்டோர் நத்தம், கல்வி நிறுவனங்கள், கோவில்கள், மசூதிகள், சர்ச்சுகள், வனநிலங்கள், சாலைகள், நெடுஞ்சாலைகள், புராதான சின்னங்கள் ஏதும் இல்லை. மேலும் புல எண்.1084/1–ல் 30 மீட்டர் தொலைவில் மற்றும் புல எண்.1086/1–ல் 12 மீட்டர் தொலைவில் உயரழுத்த மின்கம்பிகள் உள்ளது. மேற்கண்ட புல எண்.1086/1 மற்றும் புல எண்.1089/2–ல் பயன்பாட்டில் கிணறுகள் அமைந்துள்ளது. மேற்படி குத்தகை உரிமம் கோரும் புல எண்களில் பதிவு செய்யப்பட்ட வில்லங்கங்கள், ஈடு, ஒத்தி, தானம், ஜப்தி, நீதிமன்ற நடவடிக்கைகள் , உயில் பாத்தியம் மற்றும் அரசால் நில ஊர்ஜிதம் செய்ய உத்தேசிக்கப்படவில்லை என்பதையும், ஒருங்கிணைந்த புலத்திற்கு வடபுறம் சுமார் 100 மீட்டர் தொலைவில் பெட்ரோலியம் கொண்டு செல்லும் ONGL பாதை உள்ளது. மேலும் 50 மீட்டர் சுற்றளவில் நீர்நிலைகள் ஏதும் இல்லை.

குத்தகை உரிமைக் கட்டணம்:

மனுதாரர் குவாரி குத்தகை உரிமக் கட்டணம் IOB வங்கியில் ரூ.1500/–க்கான சலான் எண். 20250818031277 நாள்.18.08.2025–ன் படி செலுத்தி சலான் நகல் இணைக்கப்பட்டுள்ளது.

பரிந்துரை :

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) ஹெக். 0.61.50 ஏர்ஸ் 1084/1 (பகுதி) ஹெக். 0.77.0 ஏர்ஸ் நிலத்தில் 30 மீட்டர் தொலைவில் உயர் மின்னழுத்த கம்பிகள் செல்வதால் 20 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1084/2 (பகுதி) ஹெக். 0.34.90 ஏர்ஸ், 1086/1 (பகுதி) ஹெக். 1.08.50 ஏர்ஸ் நிலத்தில் 12 மீட்டர் தொலைவில் உயர் மின்னழுத்த கம்பிகள் செல்வதால் 38 மீட்டர் உத்தேசிக்கப்பட்ட பகுதியில் இருந்து குறைத்தும், 1089/1 (பகுதி) ஹெக். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) ஹெக். 1.74.00 ஏர்ஸ் என ஆக மொத்தம் ஹெக்.5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவருக்கு பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் வழங்க பரிந்துரை செய்கிறேன்.

வட்டாட்சியர்,
புகழூர்.

வழக்கு 122/2025 தேதி 19.02.25

மனுதாரர் மனைவியின் சொத்தை அபகரித்து
விற்றுத்தரப்பட்டதாக.

மனுதாரருடைய தந்தை பெயரில் புலவேலன்
1093(பகு) சர்வே எண்ணில் 1084/1 பகுதி - 077 ஏக்கர்
1084/2 பகுதி 0.34.0 ஏக்கர் 1085/1 பகுதி 1.08 ஏக்கர்
1089/1 பகுதி 2.81.5 ஏக்கர் 1089/2 பகுதி 1.14.5 ஏக்கர்
என மொத்தம் சர்வே எண்களில் 5.77 ஏக்கர் நிலம்
சொந்தமாக இருந்தது. இந்நிலையில் [illegible]
என்பவர் இந்நிலத்தை போலியாக [illegible]
என்பவருக்கு விற்றுள்ளார். இது [illegible]
தெரியவந்தது. [illegible]
[illegible]

மனுதாரர் இந்நிலத்தை விற்பனை செய்ய
முடியாதபடி [illegible] 1084/1
பகுதியை [illegible] இந்நிலத்தை விற்பனை செய்ய
முடியாதபடி [illegible]

இந்நிலையில் மனுதாரர் கொடுத்த புகார் மனுவின்
மீது [illegible] அந்நிலத்தை [illegible]
நிலம் சர்வே செய்தபோது அந்நிலத்தில் [illegible]
உள்ளதாகவும் [illegible] மனுதாரர்
மீது [illegible] மனுதாரர்
மீது [illegible]
[illegible]

(தமிழ்)

புலஞ்சை சொந்த ஜமீன்தார் சுப்பிரமணிய வாண்டையார் மனைவி சகதேவிக்கும் குத்தகை மதிப்பீட்டாளர் புலஞ்சை புலவண் 1084 லிருந்து 30 மரப்படியும் தரிசாண் 1086 லிருந்து 12 மரப்படியும் ஒப்பந்தத்தின் மேல் பணம் கொடுத்தார். இந்த குத்தகை ஒப்பந்தத்தின் புலவண் 1086/1-ம் பஞ்சம் 1089/2-ம் என இரண்டு கோஷ்டிகளாக உள்ளன. இரண்டு பஞ்சாயத்தும் சுமுகமாக முடிவடைந்தபடியால் தனித்தனியே கணக்கு எழுதப்பட்டுள்ளது. குத்தகை ஒப்பந்தத்தின் படியும் பஞ்சாயத்தார் முடிவின் படியும் ஜமீன்தார் சகதேவிக்கு நெல் கொடுக்க வேண்டியதாகும். ஆனால் ஜமீன்தார் சகதேவி நெல் வாங்க மறுத்து விட்டபடியால் நெல்லுக்கு பதிலாக பணம் கொடுக்கப்பட்டது. இந்த பணம் ஜமீன்தார் சகதேவி நெல்லுக்கு பதிலாக வாங்கிக் கொண்டதாக கணக்கில் எழுதப்பட்டுள்ளது. இந்த பணம் ஜமீன்தார் சகதேவி நெல்லுக்கு பதிலாக வாங்கிக் கொண்டதாக கணக்கில் எழுதப்பட்டுள்ளது. இந்த பணம் ஜமீன்தார் சகதேவி நெல்லுக்கு பதிலாக வாங்கிக் கொண்டதாக கணக்கில் எழுதப்பட்டுள்ளது.

குத்தகை மதிப்பீட்டாளர் புலஞ்சை புலவண் 1086/1-ம் பஞ்சம் 1089/2-ம் ஆகிய இரண்டு கோஷ்டிகளாக உள்ளன. இரண்டு பஞ்சாயத்தும் சுமுகமாக முடிவடைந்தபடியால் தனித்தனியே கணக்கு எழுதப்பட்டுள்ளது. குத்தகை ஒப்பந்தத்தின் படியும் பஞ்சாயத்தார் முடிவின் படியும் ஜமீன்தார் சகதேவிக்கு நெல் கொடுக்க வேண்டியதாகும். ஆனால் ஜமீன்தார் சகதேவி நெல் வாங்க மறுத்து விட்டபடியால் நெல்லுக்கு பதிலாக பணம் கொடுக்கப்பட்ட

இணைக்கப்பட்ட படம் பிரிவு

பிரிவு - இந்த நில உரிமம் வேண்டும் புலவன்கள்
1083/ 1084/1, 1084/2 அகியவற்றில்
மதிப்பீடு செய்யப்படுகிறது.

பிரிவு ② - புலவன் 1087/1, 1089/2
பிரிவுகளுக்கு - ① வரை புலவன் படம் பிரிவு

1088/1 - பிரிவுகள்

இப்படி வரைபடத்தை புலத்தில் பிரிவுகள்
பிரிவு உள்ளது. இதில் ② படம் தவிர, பிரிவுகளில்
நில நிர்ணயம் செய்யவேண்டும் என்பதாகும். 1083/பகு
1084/1 பகு 1084/2 பகு 1085/1 பகு
1089/1 பகு 1089/2 பகு ஆக மொத்தம்
மொத்தம் 5.43.40 ஹெக்டேர் நிலத்தில் இதை படத்தில்
பிரிவு வரும் பிரிவுகளை மதிப்பீடு செய்ய
மதிப்பீடு செய்ய வேண்டும்.

தீர்வு

வருவாய் ஆய்வாளர்,
க. பரமத்தி ஒரு வட்டம்,
பரமத்தி வட்டம்.

கதேர் முலபட்டம், புகதேர் பட்டம், பறமத்தி முதலட்டம், இரண்டட்ட நுகிலவய் அய்தவாளர் என்பவர்.

கதேர் முலபட்டம், புகதேர் பட்டம், புன்னம் கோமம், கோமு சர்வமை அதுவலர் அதிய நான் அன்கும் வாக்குமூலம்.

கதேர் முலபட்டம், புகதேர் பட்டம், புன்னம் கிரமம், S.F. 1083/ Part எனம் 0.61.50 ஏர்ஸ். S.F. 1084/1 Part எனம். 0.77.0 ஏர்ஸ், S.F. 1084/2 (Part) எனம். 0.34.90 ஏர்ஸ். S.F. 1086/1 (Part) எனம். 1.08.50 ஏர்ஸ், S.F. 1089/1 (Part) எனம். 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (Part) எனம். 1.74.00 ஏர்ஸ் ஆக மொத்தம் எனம். 5.43.40 ஏர்ஸ் நிலப்பரப்பில் நிதி. த. மாதவகாண் என்பவர் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண்ணை பயன்படுத்தி சுமார் 2 மீட்டர் அகலம் 0.45 மீட்டர் உயரம் கொண்ட சுற்றுச்சுவர் எழுப்பி வருகின்றார் கிழக்கு மேற்காக எனது வயல்களை பிரித்து வருகின்றார்.

மேற்கண்ட புல. எண்கள். 1083/. உள்ள 3.53.50, S.F. 1084/1 உள்ள. 1.69.0, S.F. 1084/2 உள்ள. 0.45.0, S.F. 1086/1 உள்ள. 1.25.0, S.F. 1086/2 உள்ள. 0.50.5, S.F. 1089/1 உள்ள. 2.32.0, S.F. 1089/2 உள்ள. 2.32.0 ஆக மொத்தம் எனம். 12.07.00 ஏர்ஸ் நிலமனது இ. தமிழரசன் மகன் த. மாதவகாண் என்பவருக்கு சொந்தமானது. இதில் மேற்கண்ட புலத்தில் எனம். 5.43.40 ஏர்ஸ் நிலப்பரப்பில் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண்ணை பயன்படுத்தி 2 மீட்டர் உயரம் சுற்றுச்சுவர் த. மாதவகாண் மகன் அமைத்துள்ளார். மேற்கண்ட நிலங்கள் அருகில் வேறு யாரும் எவ்வித உரிமை கோரவில்லை என்பதை

தெரிவித்துக் கொள்கிறேன். மேலும் இவ்வுள்ள புலத்தினை சுற்றி 300 மீட்டர் சுற்றளவில் கோழி வளர்ப்பு, அங்கீகரிக்கப்பட்ட வீட்டு மனைகள், குடியிருப்புகள், பள்ளிக்கூடம், கல்லூரி அல்லது கோயில் கட்டுமானங்கள் ஏதும் இல்லை. மேலும் குற்றச்சாட்டு உரிமம் கோரும் புலம் S.F. 1084/Part மற்றும் 30.0 மீட்டர் தொலைவில் உயரழுத்த மின் கம்பம் உள்ளது. S.F. 1086/Part மற்றும் 12.0 மீட்டர் தொலைவில் உயரழுத்த மின் கம்பம் உள்ளது என்பதையும் தெரிவித்துக்கொள்கிறேன். குற்றச்சாட்டு உரிமம் கோரும் புலத்திலிருந்து 50 மீட்டர் தொலைவில் சிலைகள், தெருக்கூத்தாடிகள், குடைகள், இசைகள் மற்றும் 300 மீட்டர் சுற்றளவில் பழங்குடி இன்னாய்வுகள் மற்றும் 60 மீட்டர் சுற்றளவில் வனப்பகுதி ஏதும் இல்லை என்பதையும் மேற்படி புலத்தில் பதிவு செய்யப்பட்ட மற்றும் பதிவு செய்யப்படாத கால்நடைகளான, எ.மு, குதிரை, நாய், கழுதை, இதரமான கடைநிலைகள், உயர் பாதுகாப்பு மற்றும் அரசால் கால வரம்பு ஏதும் விதிக்கப்படாவில்லை என்பதையும், கூடு கூடிய 'அ' வகைப்பாடு அரசாணை வகைப்பாடு குறிப்பீடு அடிப்படையில் ஏதும் மேற்படாவில்லை என்பதையும் தெரிவித்துக்கொள்கிறேன். மேலும் இவ்வுள்ள புலத்தில் S.F. 1086/2 மற்றும் S.F. 1089/2 ல் பயன்பாட்டில் இல்லாத இணைப்புகளை அகற்றிக்கொள்ளவும், என்பதையும் தெரிவித்துக்கொள்கிறேன்.

19/25

இ.ஆ.ப.
உள்ளகம் கோயம்.

சான்று.

இதற் மைவட்டம், புதுகோட்டை, 17, புள்ளம் நாடாமம், S.F. 1083/- உள்ள 3.53.50, S.F. 1084/1 உள்ள 1.69.0, S.F. 1084/2 உள்ள 0.45.0, S.F. 1086/1 உள்ள 1.25.0, S.F. 1086/2 உள்ள 0.50.5, S.F. 1089/1 உள்ள 2.32.0, S.F. 1089/2 உள்ள 2.32.0 ஆக மொத்தம் மொத்த 12.07.00 ஏக்ஸ் நிலமானது பட்டா எண் 10486 ல் இந. தமிழரசி மகன் ந. மாறுபாகன் என்பவருக்கு சொந்தமான பூமி இருக்கின்றது. சர்வாதான இந்த பூமி மீதும் நிரவாகி மேல் எடுத்து எடுக்க நடவடிக்கை உரிமம் கோரி மனு அளித்துள்ளார். இதற்கண்ட புல எண்களில் உள்ள 12.07.00 ல் நடவடிக்கை உரிமம் ஆகவும் உள்ள மொத்த 5.43.40 ஏக்ஸ் நிலத்திற்கு மட்டுமே உபயோகம் பண்ணுமாறு.

வடக்கு - S.F. 1089/1 Part - ந. மாறுபாகன் நிலம்
S.F. 1083/ Part - ந. மாறுபாகன் நிலம்

தெற்கு - S.F. 1086/2 - ந. மாறுபாகன் நிலம்.
S.F. 1085/- கந்தசாமி (ம) நிலம்.

கிழக்கு - S.F. 1083/Part - ந. மாறுபாகன் நிலம்
S.F. 1084/1 Part - ந. மாறுபாகன் நிலம்
S.F. 1084/2 Part - ந. மாறுபாகன் நிலம்

மேற்கு - S.F. 1089/1 Part - ந. மாறுபாகன் நிலம்
S.F. 1089/2 Part - ந. மாறுபாகன் நிலம்
S.F. 1088/1 } - ந. மாறுபாகன் நிலம்
S.F. 1088/2 }

மேற்படி கிராமம் உள்பட மேலும் புலிந்தகுத்து 300 மீ சுற்றளவிற்குள் வேறு எந்த அங்கீகரிக்கப்பட்ட குடியிருப்பு பகுதிகள் ஏதும் இல்லை. என்றும் 50 மீட்டர் சுற்றளவில் அருகில் பள்ளிகள், கோவில், பிறகு தனி நிறுவனங்கள் அல்லது குடிசை வகை - தொழில் அமைப்புகள் ஏதும் இல்லை என்பதை தெரிவித்துக்கொள்கிறேன்.

11/12/25

கிராம நிர்வாக அலுவலர்,
17. புள்ளம் கிராமம்,
புலவூர் வட்டம்,
கரூர் மாவட்டம்.

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

நகஎண்.ஆ1/2873/2025
நாள் : 23.08.2025

வட்டாட்சியர் அலுவலகம்,
புகழூர்.

A1 விளம்பர அறிவிப்பு

கரூர் மாவட்டம், புகழூர் வட்டம், புன்னம் கிராமம், பட்டா புல எண்கள்.1083 (பகுதி) மொத்த பரப்பு 0.61.50 ஏர்ஸ், 1084/1 (பகுதி) மொத்த பரப்பு 0.77.0 ஏர்ஸ், 1084/2 (பகுதி) மொத்த பரப்பு 0.34.50 ஏர்ஸ், 1086/1 (பகுதி) மொத்த பரப்பு 1.08.50 ஏர்ஸ், 1089/1 (பகுதி) மொத்த பரப்பு 0.87.50 ஏர்ஸ் மற்றும் 1089/2 (பகுதி) மொத்த பரப்பு 1.74.00 ஏர்ஸ் ஆகியவற்றின் மொத்தம் மொத்த பரப்பு 5.43.40 ஏர்ஸ் நிலப்பரப்பில் திரு.T.பிரபாகரன் என்பவர் 10 ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் கோரி கரூர் வருவாய் கோட்டாட்சியர் அவர்களிடம் விண்ணப்பித்துள்ளார். மேற்காணும் பரப்பில் பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குத்தகை உரிமம் வழங்க புன்னம் கிராம பொதுமக்களுக்கு ஆட்சேபனைகள் ஏதுமிருப்பின் அத்தகைய ஆட்சேபனையை எழுத்து மூலமாகவோ, நேரிலோ அல்லது தபால் மூலமாகவோ இந்த அறிவிக்கை பிரசித்தம் செய்யப்பட்ட 7 நாட்களுக்குள் அடியிற்கையொப்பமிட்டவருக்குத் தெரிவித்துக் கொள்ள வேண்டியது. குறிப்பிட்ட காலத்திற்குள் எவ்வித ஆட்சேபனையும் வரப்பெறவில்லையென்றால், ஆட்சேபனைகள் ஏதுமில்லை எனக் கருதி மேல் நடவடிக்கை எடுக்கப்படும் என அறிவிக்கப்படுகிறது.

23/8/2025

வட்டாட்சியர்,
புகழூர்.

பெறுநர்:

கிராம நிர்வாக அலுவலர், புன்னம் கிராமம் மேற்கண்ட விளம்பரத்தை நன்கு விளம்பரம் செய்து அதற்கான அத்தாட்சியை சமர்ப்பிக்க அறிவுறுத்தப்படுகிறார்.

23.08.25

புன்னம் கிராமக் குடிகளாகிய நாங்கள் இந்த விளம்பர அறிவிக்கையை கிராம நிர்வாக அலுவலகம் தகவல் பலகையில் அறிவிப்பு செய்ததன் மூலம் பிரசித்தம் செய்ததைத் தெரிந்து கொண்டோம்.

கிராமக் குடிகள் கையொப்பம்:-

1.	S. திருமலைவேலம்	S. திருமலைவேலம்	9952377477
2.	P. ...	P. ...	9698599180
3.	S. ...	S. ...	6380598596
4.	...	...	99945 19974
5.	K.N. ...	K.N. GURUSAMY	98431 43462
6.	G. Vasanthi	G. VASANTHI	99432 23462
7.	S. ...	S. INDRAMoorthy	9443302023
8.	...	S. ...	9952152637
9.	R. ...	R. ...	8870411035
10.	...	...	184120321 53
11.	T. Banumathy	T. Banumathi	9366621385
12.	C. ...	C. ...	99948 84890
13.	T. ...	T. ...	9443107279 9944941575
14.	P. Vanitha	P. VANITHA	8754021575
15.	...	...	

மேற்கண்ட AI வாயிலாக அனுப்பு கோரிக்கை அனுமதிக்கப்பட்ட நகல் பயனாளர் வாயிலாக நேரடியாக நேரில் அனுப்பப்பட்ட நகல்களுடன் ஒப்பிடப்பட்டு சரிபார்க்கப்பட்டது.

19/9/25

சோழ நிர்வாக அலுவலர்,
17, புள்ளம் சோழன்,
புலவர் வடம்,
கதிர் மாவட்டம்.

Government of Tamil Nadu

E-Challan

Payable at - DTO KARUR

Remitter Copy

Challan Number	20250818031277	**Challan Date**	18-Aug-2025	**Payment Date**	18-Aug-2025 18:52:54
Remitter Type	Public	**Remitter Code**	30	**Remitter Name**	T Prabhakaran
Mobile No.	9842576716	**Aadhaar No.**		**Remitter Address**	201, Old Post office Street, Vengamedu,
Department	05502-Directorate of Geology and Mining	**District**	KARUR	**DDO Code**	28010081
DDO / Office Name	AD GEOLOGY & MINING KARUR	**Department Transaction ID**	68a326b87db30	**Office Name**	

Receipt Type	Sub Type	Acct Code	Amount	Reference No.	Remark
Fees	Application Fees	0853001020H22705	1500	Rule 19(1)	Application Fees for Rule 19(1)

Payment Mode	Online	**Payment Type**	null	**Payment Status**	SUCCESS
Challan Amount (Rs.)	1,500			**Bank Name**	IOB
Amount (in words)	One Thousand Five Hundred Rupees only.			**Bank ref no.**	IP252305263620

Please Note*, Department Transaction ID and Office Name fields are created only for 4 interface department Registration and Transport and CT for there specific requirements and the values entered in this fields are values passed by them not from IFHRMS

Please Note*, This is a system generated Challan and does not require signature
Note : FOR INDIAN BANK BRANCHES, PLEASE USE CBS SCREEN NO 424 FOR PERFORMING V COLLECT

For Office Use Only

தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

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

மாவட்டம் : கரூர் வட்டம் : புகழூர்

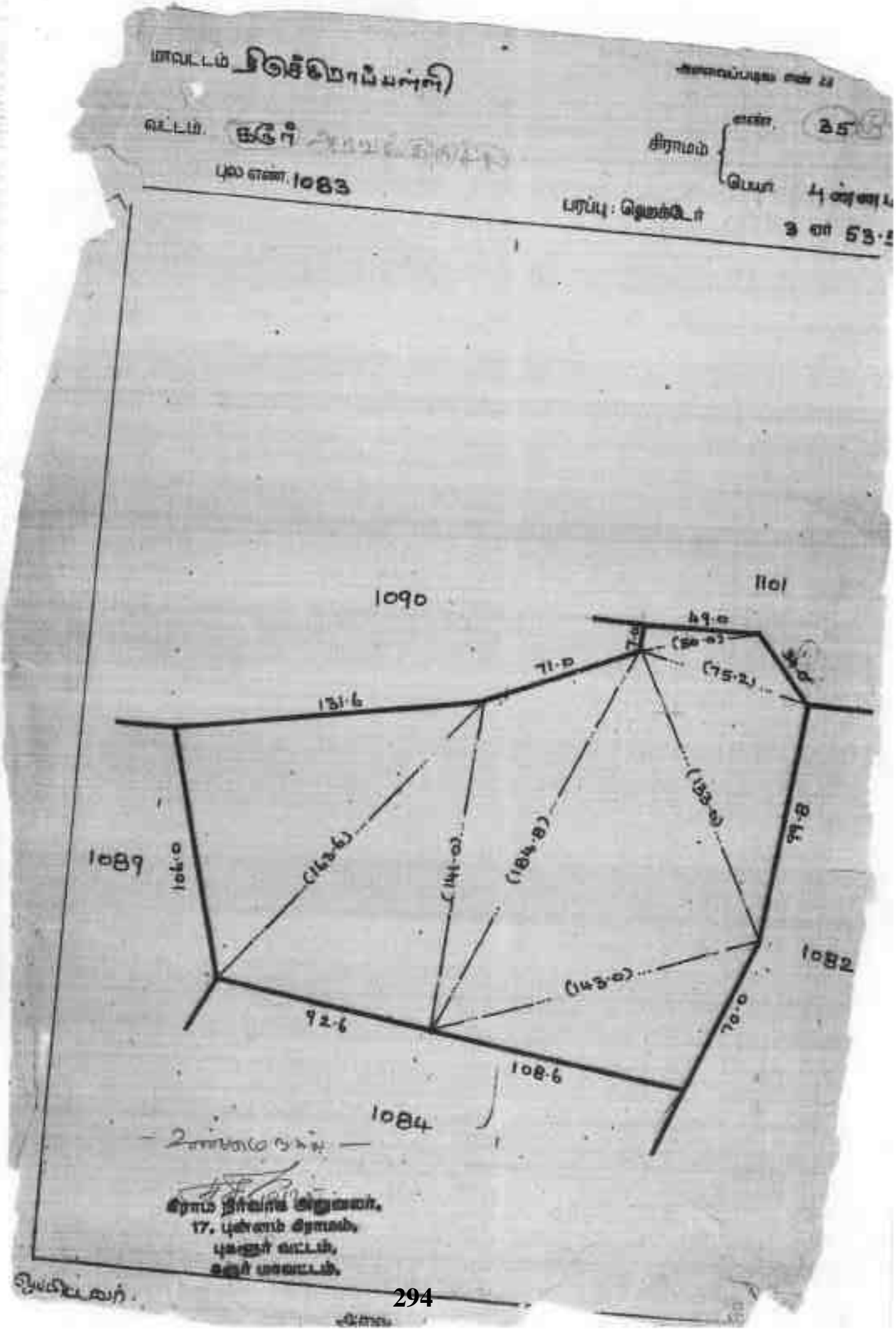
வருவாய் கிராமம் : புன்னம் பட்டா எண் : 10486

உரிமையாளர்கள் பெயர்

1. கே தமிழரசன் மகன் டி.பிரபாகரன்

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	
1083	-	3 - 53.50	4.89	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1084	1	1 - 69.00	2.34	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1084	2	0 - 45.00	0.62	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1086	1	1 - 25.00	1.74	--	--	--	--	2025/0103/14/370848--- -----இனாம் Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1086	2	0 - 50.50	0.70	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1089	1	2 - 32.00	3.21	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
1089	2	2 - 32.00	3.21	--	--	--	--	2025/0103/14/370848--- ------ Digitally signed:approved through AutoMutation - 05/08/2025 04:36:43:PM
		12 - 7.00	16.71					

குறிப்பு :	
	1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **https://eservices.tn.gov.in** என்ற இணைய தளத்தில் **P/14/07/017/010486/10739** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
	2. இத் தகவல்கள் 01-09-2025 அன்று 02:37:30 PM நேரத்தில் அச்சடிக்கப்பட்டது.
	3.கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்


1090
1101
49.0
71.0
131.6
(143.6)
(141.0)
(184.8)
(153.0)
(148.0)
92.6
108.6
70.0
1089
1082
1084

வட்டம். திருத்தணம்பள்ளி

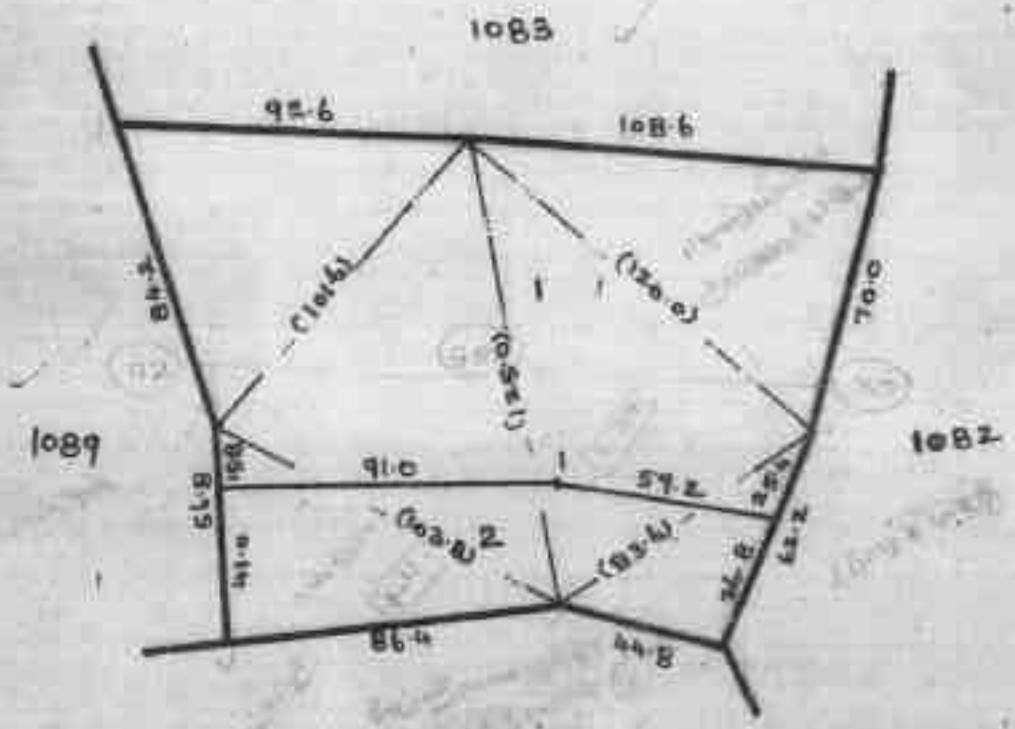
எண் 35

கிராமம் { பெயர் 4க்:

வட்டம். கடுர்

புல எண். 1084

பரப்பு: ஹெக்டேர் 2. ஏர்

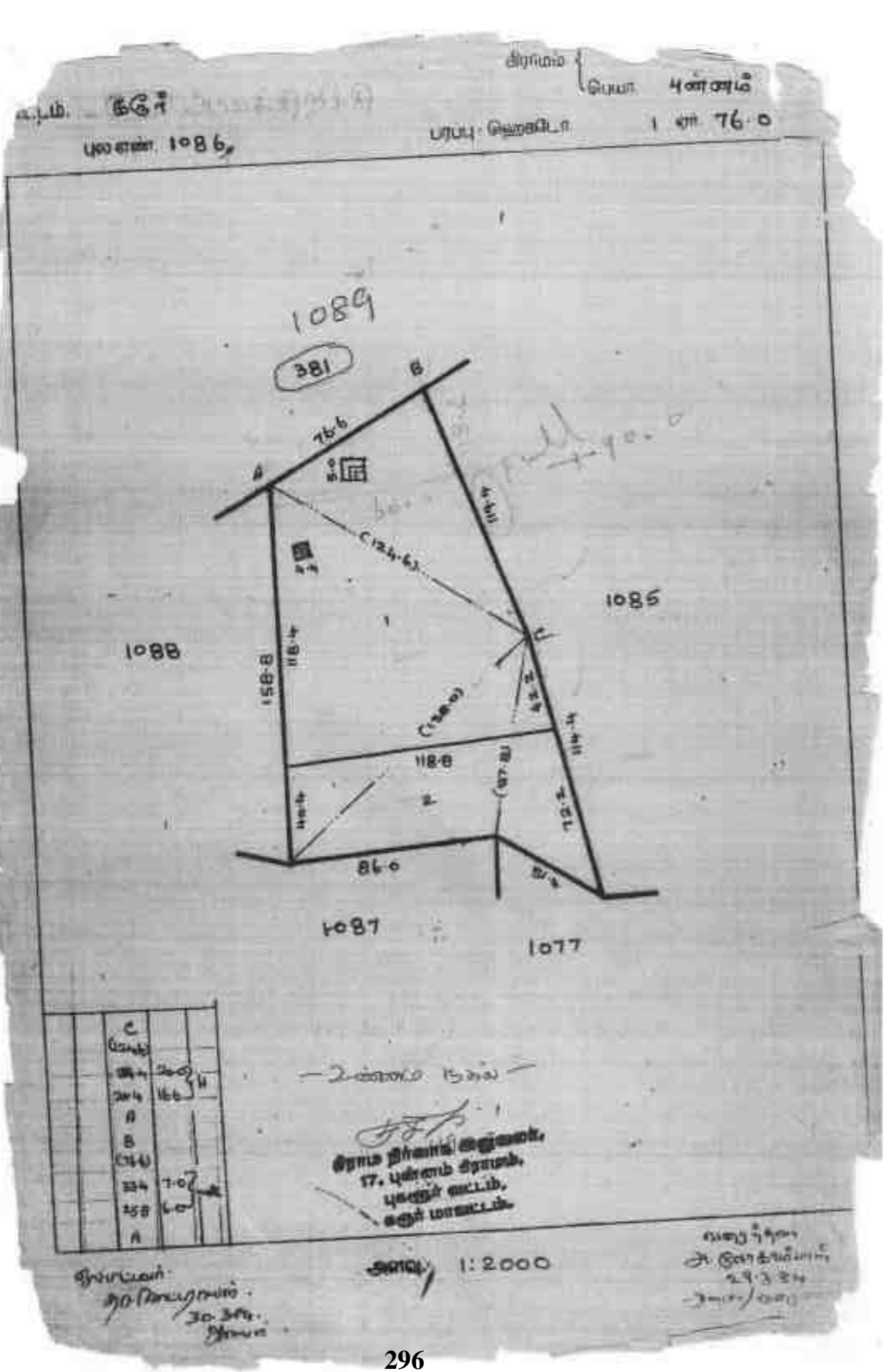


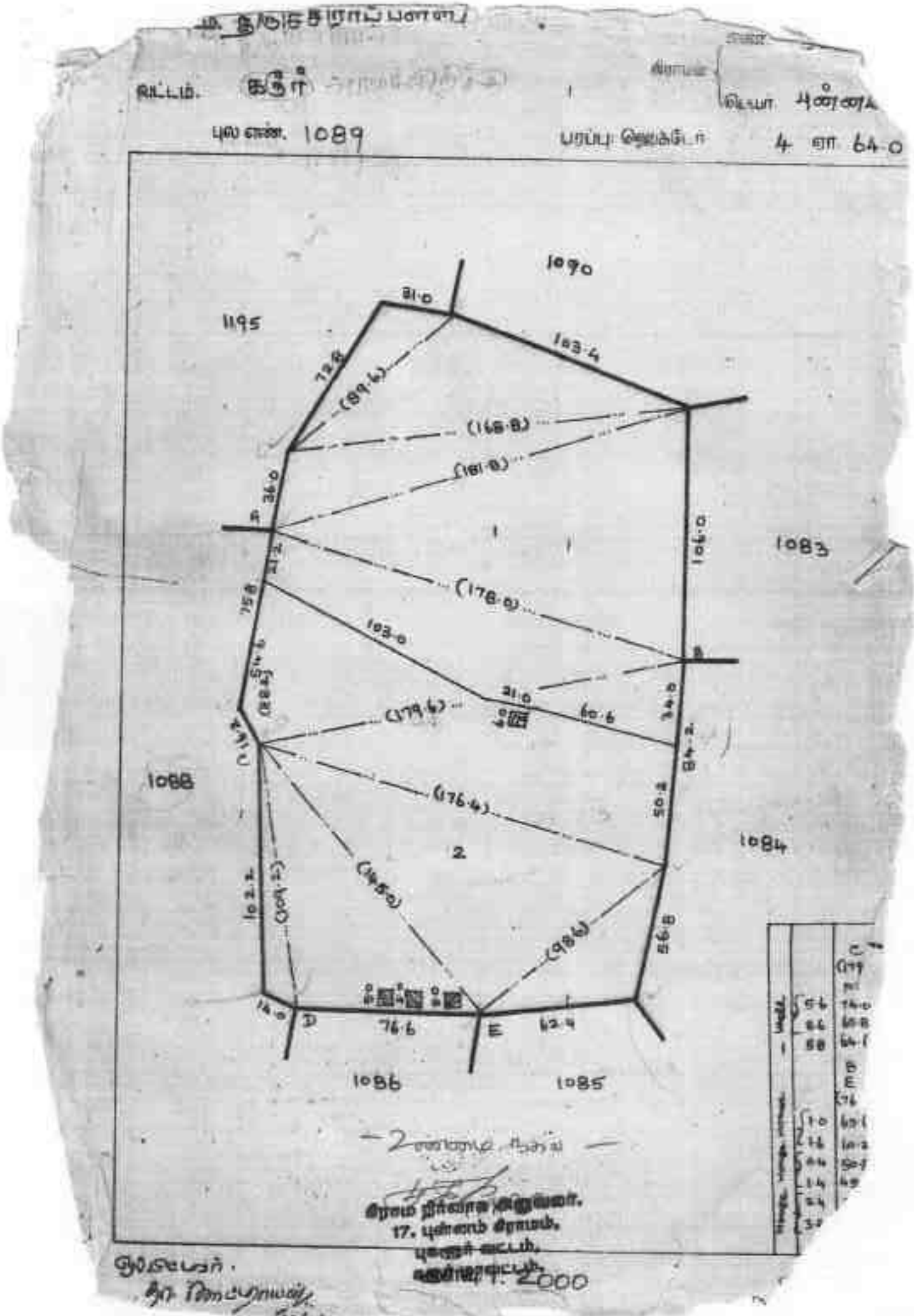
— 2 சென்டால் சமம் —

சோம நிர்வாக அலுவலர்,
17. புன்னம் சோமம்,
புகளூர் வட்டம்,
கரூர் மாவட்டம்.

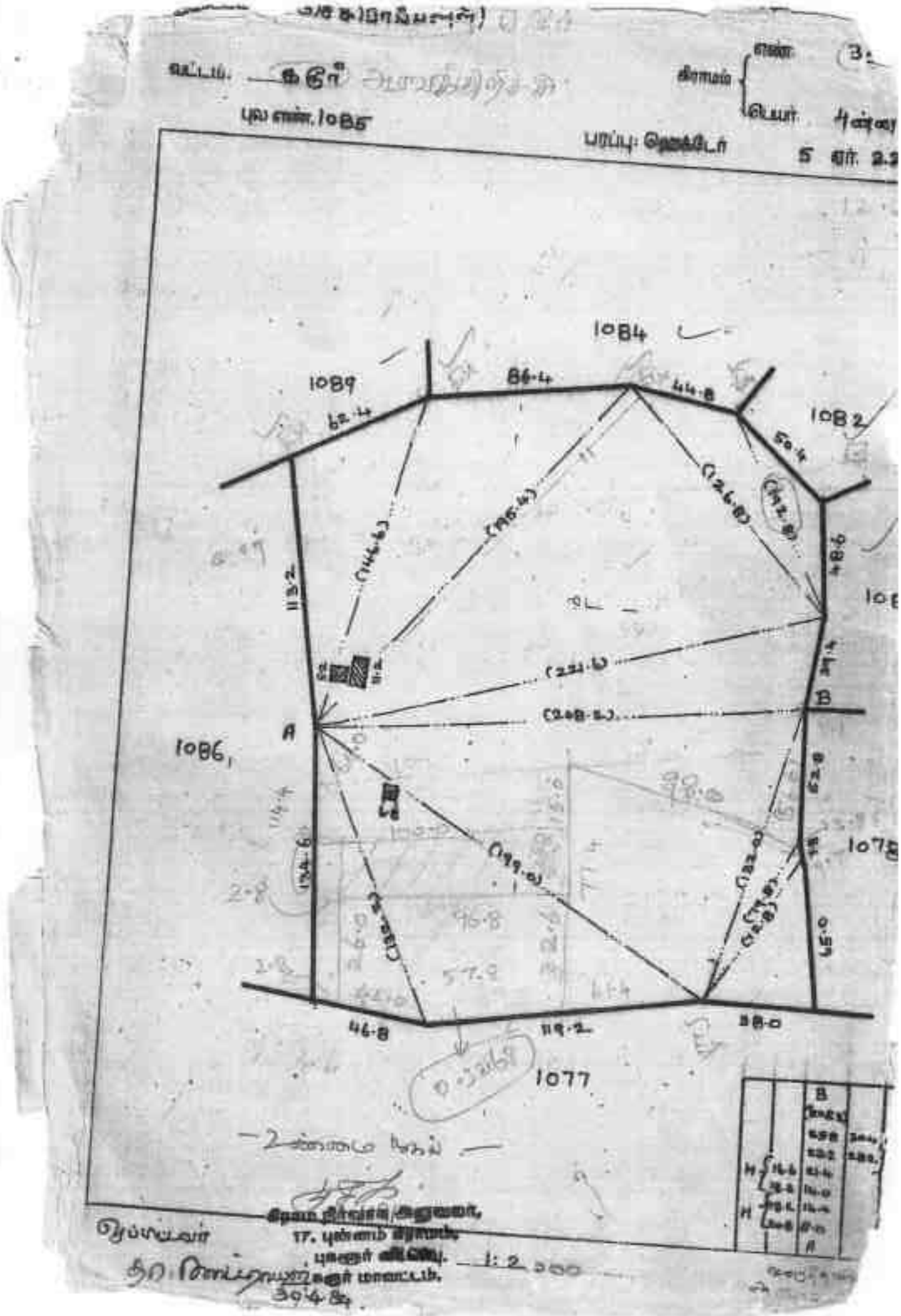
		B		
		(B2B)		
1	244	84		
		B		

1:2000


1089
381
B
A
76.6
C (124.6)
1085
1088
118.4
118.8
118.8
1087
1077
86.0


1090
1195
1083
1088
1084
1086
1085
1
2
A
B
C
D
E
81.0
183.4
72.8
(89.6)
(168.8)
(181.8)
36.0
106.0
(178.0)
75.8
27.2
103.0
(288.5)
31.0
(179.4)
60.6
34.0
84.2
(176.4)
50.4
102.2
(98.5)
(98.6)
89.8
14.0
76.6
62.4

297


1084
1089
1082
1086
1078
1077
86.4
44.8
62.4
50.4
113.2
46.8
119.2
38.0
A
B

1	2	3	4	5	6	7	8	9	10	11	12
							ரூ. அ.	தொ. எ. ச.	ரூ. அ.		
1086	2	1086-2	ச	ந	...	8-4	6	1 38	0 50·5	0 70	1975 க. ராமசாமியும் மற்றும் நான்கு பேர்களும். *
									1 76·0	2 44	
1087	—	1087	அ	ஈபு	...	...	...	...	0 22·0	...	..... காடு பாறை.
1088	1	1088-1	ச	ந	...	8-4	6	1 38	0 71·0	0 99	32 ப. அங்குராத்து வுண்டார்.
	2	-2	ச	ந	...	8-4	6	1 38	0 06·5	0 08	1159 க. ராமசாமி.
									0 77·5	1 07	
1089	1	1089-பா	ச	ந	...	8-4	6	1 38	2 32·0	3 21	2169 அ. மாரிமுத்து பண்டாரம் மற்றும் ஏழு பேர்களும். *
	2	-பா	ச	ந	...	8-4	6	1 38	2 32·0	3 21	2086 வை. சுப்பன வுண்டரும் மற்றும் நான்கு பேர்களும். *
									4 64·0	6 42	
1090	—	1090	ச	ந	...	8-4	6	1 38	6 20·0	8 58	314 ஞா. சடையம் மனை.
1091	—	1091	அ	ஈபு	...	...	...	...	0 41·5	...	..... வண்டி பாதை.
1092	(1)	1092-1	ச	ந	...	8-4	6	1 38	1 44·0	1 99	1639 பெ. காளியப்பன் (1). பெ. சங்கசாமி (2).
	(2)	-2	ச	ந	...	8-4	6	1 38	0 47·5	0 66	170 சு. சுப்பன வுண்டார்.
									1 91·5	2 65	
1093	(1)	1093-1	ச	ந	...	8-4	6	1 38	1 75·5	2 44	1639 பெ. காளியப்பன் (1). பெ. சங்கசாமி (2).
	(2)	-2	ச	ந	...	8-4	6	1 38	0 94·5	1 30	170 சு. சுப்பன வுண்டார்.
									2 70·0	3 74	

— அல்லாம் நீக்கம் —

நிலம் நிலைக்கிறார்.
17. புலவர் நிலம்.
புலவர் வட்டம்,
கதர் மாவட்டம்.

1	2	3	4	5	6	7	8	9	10	11	12
							ஏ. ஸை.	நெ. ஏக்ஸ்	ஏ. ஸை.		
1078	2	1078-பா	ர	பு	...	8-4	6	1 38	1 50·0	2 09	2168 பொ. மாரப்ப கவுண்டரும் மற்றும் ஏழு பேர்களும். *	கிணறு.
									3 95·0	5 47		
1079	...	1079	அ	பற	...	...	...	...	0 08·5	...	.....	காய்ந்தது.
1080	...	1080	ர	பு	...	8-4	6	1 38	5 32·0	7 36	2212 க. பெரியம்மாளும் மற்றும் ஒன்பது பேர்களும். *	
1081	1	1081-பா	ர	பு	...	8-4	6	1 38	1 30·0	1 79	169 வை. கருப்பண கவுண்டர்.	
	(2)	-பா	ர	பு	...	8-4	6	1 38	1 62·0	2 25	1636 பெ. செல்லப்ப கவுண்டர் (1). ச. பாத்தாயி (2).	
									2 92·0	4 04		
1082	(1)	1082-பா	ர	பு	...	8-4	6	1 38	2 66·0	3 67	1637 மு. கந்தசாமி கவுண்டர் (1). பெ. முருகேசன் (2).	
	(2)	-பா	ர	பு	...	8-4	6	1 38	2 10·5	2 92	1638 மா. சாம சாமி (1). மா. சுப்ப ராயன் (2).	
									4 76·5	6 59		
1083	...	1083	ர	பு	...	8-4	6	1 38	3 53·5	4 89	682 வி. பழனிசாமி கவுண்டர்.	
1084	1	1084-பா	ர	பு	...	8-4	6	1 38	1 69·0	2 34	2228 அ. மாராயும் மாரும் மற்றும் பத்து பேர்களும். *	
	2	-பா	ர	பு	...	8-4	6	1 38	0 45·0	0 62	1824 வை. கருப்பண கவுண்டர் (1). வை. பெருமாள் கவுண்டர் (2). வை. செல்லப்ப கவுண்டர் (3).	
									2 14·0	2 96		
1085	...	1085	ர	பு	...	8-4	6	1 38	5 22·0	7 22	2085 மா. சுப்ப ராயனும் மற்றும் ஐந்து பேர்களும். *	கிணறு.
1086	1	1086-1	ர	பு	...	8-4	6	1 38	1 25·5	1 74	32 ப. அங்கமுத்து கவுண்டர்.	கிணறு.

* விவரப்பட்டியலைப் பார்க்கவும்.

—2 வது பக்கம் பார்க்க—

சோம நிர்வாக அலுவலர்.
17. புன்னம் சிறுமம்.
கரூர் வட்டம்.

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220830**
NABL ULR No. : **TC1573025000032613F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180744
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a) Date of Monitoring , - : 06.03.25 - 07.03.25
(b) Duration of Monitoring , minutes : 1440
(c) Avg. Ambient Temperature , °C : 30.5
(d) Relative Humidity , %(Avg.) : 51
(e) Sky Appearance , - : Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.79	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.45	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.25	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.82	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220830

NABL ULR No. : TC157302500003261 3F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.58	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220829**
NABL ULR No. : **TC1573025000032612F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180745	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.50	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.00	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.09	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.34	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.19	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220829

NABL ULR No. : TC157302500003261 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220828**
NABL ULR No. : **TC1573025000032611F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180746
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.22	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.43	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.78	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.45	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.56	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220828**

NABL ULR No. : **TC157302500003261 1F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.03	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220824**
NABL ULR No. : **TC1573025000032607F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180747
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.55	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.25	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.63	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.69	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220824**

NABL ULR No. : **TC1573025000032607F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.31	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **14/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220823**

NABL ULR No. : **TC1573025000032606F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180748	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.32	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.64	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.61	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.77	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.79	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220823**

NABL ULR No. : **TC1573025000032606F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **14/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220825**
NABL ULR No. : **TC1573025000032608F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur. 639111
Tamil Nadu. India

Sample Registration No.	: SR02EN-2511180749	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram'		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.17	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.34	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.38	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.30	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.45	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220825**

NABL ULR No. : **TC1573025000032608F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220822**
NABL ULR No. : **TC1573025000032605F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180750	Received On	: 17/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 17/03/2025
Sample Condition	: Good	Completed On	: 21/03/2025
Sample Details (if any)		Date of Report	: 21/03/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.38	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.76	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.26	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.12	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.50	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511220822**

NABL ULR No. : **TC1573025000032605F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.44	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220826**
NABL ULR No. : **TC1573025000032609F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180751
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.17	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.88	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220826

NABL ULR No. : TC157302500003260 9F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220821**
NABL ULR No. : **TC1573025000032604F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur. 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180752
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.05	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.24	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.27	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited

Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220827**
NABL ULR No. : **TC1573025000032610F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180753
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.49	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.17	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.40	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220827**

NABL ULR No. : **TC157302500003261OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.43	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220820**
NABL ULR No. : **TC1573025000032603F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180754
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.20	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.25	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.52	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.57	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220820**

NABL ULR No. : **TC157302500003260 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.22	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220819**
NABL ULR No. : **TC1573025000032602F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur. 639111
Tamil Nadu. India

Sample Registration No. : SR02EN-2511180755
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.96	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.32	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.07	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220819**

NABL ULR No. : **TC157302500003260 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.08	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220818**

NABL ULR No. : **TC157302500003260 1F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180756
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.56	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.13	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.74	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.98	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.63	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220818**

NABL ULR No. : **TC157302500003260lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.49	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **28/03/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220817**

NABL ULR No. : **TC157302500003260OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180757
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.41	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.08	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.00	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220817**

NABL ULR No. : **TC157302500003260OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.22	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220816**

NABL ULR No. : **TC157302500003259 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180758
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.02	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.03	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.14	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.21	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.39	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220816**

NABL ULR No. : **TC157302500003259 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	4.95	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **28/03/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220815**

NABL ULR No. : **TC157302500003259 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180759
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.60	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.60	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.51	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220815**

NABL ULR No. : **TC157302500003259 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.23	400 Max
9	Benzene (C'6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220813**

NABL ULR No. : **TC157302500003259 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180760
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.19	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.23	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.52	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.61	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220813

NABL ULR No. : TC157302500003259 6F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220814**

NABL ULR No. : **TC157302500003 2597F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180761
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.94	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.74	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.06	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.28	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220814

NABL ULR No. : TC157302500003259 7F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.15	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220811**

NABL ULR No. : **TC157302500003259 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180762
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 31/03/2025
Commenced On : 31/03/2025
Completed On : 04/04/2025
Date of Report : 04/04/2025

S. No. Sampling Information:

(a) Date of Monitoring , - : 27.03.25-28.03.25
(b) Duration of Monitoring , minutes : 1440
(c) Avg. Ambient Temperature , °C : 30.5
(d) Relative Humidity , %(Avg.) : 47
(e) Sky Appearance , - : Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.64	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.28	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.37	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.22	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.80	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220811**

NABL ULR No. : **TC157302500003259 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.57	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220812**

NABL ULR No. : **TC157302500003259 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180763
Sample Name : Ambient Air Quality
Sample Condition . : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 31/03/2025
Commenced On : 31/03/2025
Completed On : 04/04/2025
Date of Report : 04/04/2025

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature . °C	: 30.5
(d)	Relative Humidity . %(Avg.)	47
(e)	Sky Appearance . -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.36	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.72	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.02	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.31	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220812**

NABL ULR No. : **TC157302500003259 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220809**

NABL ULR No. : **TC157302500003259 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180764	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.08	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.17	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.54	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220809

NABL ULR No. : TC157302500003259 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.02	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*******End of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220808**

NABL ULR No. : **TC157302500003259lF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180765	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 27.03.25-28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.37	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.74	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.18	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.61	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.67	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220808**

NABL ULR No. : **TC157302500003259lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220806**

NABL ULR No. : **TC157302500003258 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180766	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.18	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.37	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.54	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.75	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.77	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220806**

NABL ULR No. : **TC157302500003258 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.16	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220810**

NABL ULR No. : **TC157302500003259 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180767	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 27.03.25- 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance . -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.04	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.07	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.31	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.27	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.44	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220810**
NABL ULR No. : **TC157302500003259 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.02	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220761**

NABL ULR No. : **TC157302500003254 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur.
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180810	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.68	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.20	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	51.25	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.71	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.85	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220761**

NABL ULR No. : **TC157302500003254 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.50	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220756**

NABL ULR No. : **TC157302500003253 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180811	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.80	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	48.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.73	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.16	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220756**

NABL ULR No. : **TC157302500003253 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.72	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220757**

NABL ULR No. : **TC157302500003254OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180812	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.00	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.20	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.77	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220757**

NABL ULR No. : **TC157302500003254OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	4.99	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220759**

NABL ULR No. : **TC157302500003254 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180813	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.12	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.97	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.62	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220759**

NABL ULR No. : **TC157302500003254 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.74	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220758**

NABL ULR No. : **TC157302500003254lF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180814	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.34	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.10	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.11	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.73	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220758**

NABL ULR No. : **TC157302500003254lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1-Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220760**

NABL ULR No. : **TC157302500003254 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180815	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.19	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.90	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.77	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.60	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.37	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220760**

NABL ULR No. : **TC157302500003254 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220755**

NABL ULR No. : **TC157302500003253 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180816	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.47	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.95	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.99	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.69	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.43	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220755**

NABL ULR No. : **TC157302500003253 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C'6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **19/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220754**

NABL ULR No. : **TC1573025000032537F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180817	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring . minutes	1440
(c)	Avg. Ambient Temperature . °C	: 31.5
(d)	Relative Humidity . %(Avg.)	45
(e)	Sky Appearance . -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.26	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.53	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.81	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.81	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Accuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220754**

NABL ULR No. : **TC157302500003253 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220753**

NABL ULR No. : **TC157302500003253 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180818	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.06	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.46	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.95	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.21	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220753**

NABL ULR No. : **TC157302500003253 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.09	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **19/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220764**

NABL ULR No. : **TC157302500003254 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180819	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.21	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.43	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.92	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.12	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.33	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220764**

NABL ULR No. : **TC157302500003254 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220750**

NABL ULR No. : **TC157302500003253 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180820	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.15	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.31	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.26	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.26	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.42	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220750**

NABL ULR No. : **TC157302500003253 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.19	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220749**

NABL ULR No. : **TC1573025000032532F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180821	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.07	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.07	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.80	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.10	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220749**

NABL ULR No. : **TC157302500003253 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.05	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220751**

NABL ULR No. : **TC157302500003253 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180822	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.43	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.86	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.69	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.96	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.62	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220751**

NABL ULR No. : **TC157302500003253 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.49	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220748**

NABL ULR No. : **TC157302500003253 1F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180823	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Sample Quantity	: NAa		
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.28	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.56	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.37	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.06	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.99	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22):	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220748**

NABL ULR No. : **TC157302500003253 1F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
			2004		
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.33	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220752**

NABL ULR No. : **TC1573025000032535F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180824	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.07	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.14	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.10	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.19	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.38	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220752**

NABL ULR No. : **TC157302500003253 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.06	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220747**

NABL ULR No. : **TC157302500003253OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180825	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.56	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.37	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.50	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220747**
NABL ULR No. : **TC157302500003253OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.48	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220743**

NABL ULR No. : **TC157302500003252 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180826	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good .	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.17	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.34	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.91	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.50	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.60	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220743**

NABL ULR No. : **TC157302500003252 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.15	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220745**

NABL ULR No. : **TC157302500003252 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180827
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 21/04/2025
Commenced On : 21/04/2025
Completed On : 25/04/2025
Date of Report : 25/04/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.06	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.12	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.04	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.27	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220745**

NABL ULR No. : **TC157302500003252 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220742**

NABL ULR No. : **TC157302500003252 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180828
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.47	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.94	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.93	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.67	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220742

NABL ULR No. : TC157302500003252SF

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220741**

NABL ULR No. : **TC157302500003 2524F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180829
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sample Source : ~
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.54	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.65	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.79	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.80	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22):	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220741**

NABL ULR No. : **TC157302500003252 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
			2004		
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.44	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **02/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220740**

NABL ULR No. : **TC157302500003252 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180830	Received On	: 28/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 28/04/2025
Sample Condition	: Good	Completed On	: 02/05/2025
Sample Details (if any)		Date of Report	: 02/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.10	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.41	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.93	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.19	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220740**

NABL ULR No. : **TC157302500003252 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.16	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220739**

NABL ULR No. : **TC157302500003252 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180831	Received On	: 28/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 28/04/2025
Sample Condition	: Good	Completed On	: 02/05/2025
Sample Details (if any)		Date of Report	: 02/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.21	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.41	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.87	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.10	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.32	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220739

NABL ULR No. : TC157302500003252 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.39	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220737**

NABL ULR No. : **TC1573025000032520F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180832
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	478
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.18	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.20	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.21	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.24	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220737

NABL ULR No. : TC157302500003252OF

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220736**

NABL ULR No. : **TC157302500003251 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180833
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.22	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.91	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.02	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.78	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.09	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220736**

NABL ULR No. : **TC157302500003251 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.09	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220730**

NABL ULR No. : **TC157302500003251 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180840	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.73	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	13.18	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	55.35	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	21.29	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	14.96	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220730**

NABL ULR No. : **TC157302500003251 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.64	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220744**

NABL ULR No. : **TC157302500003252 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180841	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.44	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.52	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	52.59	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	20.23	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	14.21	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220744**

NABL ULR No. : **TC157302500003252 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220725**

NABL ULR No. : **TC157302500003250 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180842	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.94	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.88	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.90	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.19	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220725**

NABL ULR No. : **TC157302500003250 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.86	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220728**

NABL ULR No. : **TC157302500003251 1F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180843	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.61	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.45	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.40	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.94	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220728

NABL ULR No. : TC157302500003251 1F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.35	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220726**

NABL ULR No. : **TC157302500003250 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180844	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.51	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.11	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.87	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.56	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.75	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220726**

NABL ULR No. : **TC157302500003250 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220724**

NABL ULR No. : **TC157302500003250 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180845	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.35	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.77	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.43	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.01	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.36	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220724**

NABL ULR No. : **TC157302500003250 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.14	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220727**

NABL ULR No. : **TC1573025000032510F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180846	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.44	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.88	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.58	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.35	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220727

NABL ULR No. : TC157302500003251OF

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220729**

NABL ULR No. : **TC157302500003251 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180847	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.44	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.71	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.74	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220729**

NABL ULR No. : **TC157302500003251 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.39	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **16/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220723**

NABL ULR No. : **TC157302500003250 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180848	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.05	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.21	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.85	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.14	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220723**

NABL ULR No. : **TC157302500003250 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220746**

NABL ULR No. : **TC157302500003252 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180849	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.23	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.47	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.66	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.02	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.26	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220746**

NABL ULR No. : **TC157302500003252 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220763**

NABL ULR No. : **TC1573025000032546F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180850	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.12	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.25	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.01	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.16	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.35	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220763**

NABL ULR No. : **TC157302500003254 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.21	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **16/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220722**

NABL ULR No. : **TC1573025000032505F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180851	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.10	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	40.83	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.70	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.03	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220722

NABL ULR No. : TC157302500003250 5F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.06	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220762**

NABL ULR No. : **TC157302500003254 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180852	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.33	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.73	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.43	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.63	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220762**

NABL ULR No. : **TC157302500003254 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.24	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220721**

NABL ULR No. : **TC157302500003250 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180853	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.57	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.14	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.92	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.95	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220721**

NABL ULR No. : **TC157302500003250 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.63	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220720**

NABL ULR No. : **TC1573025000032503F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180854	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.46	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.49	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.29	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220720**

NABL ULR No. : **TC157302500003250 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.34	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220719**

NABL ULR No. : **TC157302500003250 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180855	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.34	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.69	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.68	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.42	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220719**

NABL ULR No. : **TC157302500003250 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.18	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220718**

NABL ULR No. : **TC1573025000032501F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180856	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On -	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayamq		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.39	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.78	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.35	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.83	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.53	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220718**

NABL ULR No. : **TC157302500003250lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.45	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220717**

NABL ULR No. : **TC1573025000032500F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180857	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition .	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.47	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.04	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.32	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220717**

NABL ULR No. : **TC157302500003250OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220716**

NABL ULR No. : **TC157302500003249 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180858	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.62	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.81	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.61	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.08	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220716**

NABL ULR No. : **TC157302500003249 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220715**

NABL ULR No. : **TC157302500003249 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180859	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.61	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.22	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.14	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.13	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.74	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220715**

NABL ULR No. : **TC157302500003249 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.54	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220714**

NABL ULR No. : **TC157302500003249 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk.
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180860	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.32	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.65	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.72	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.20	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.09	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220714**

NABL ULR No. : **TC157302500003249 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220713**

NABL ULR No. : **TC157302500003249 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180861	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.38	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.77	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.22	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.22	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220713**

NABL ULR No. : **TC157302500003249 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.82	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220712**

NABL ULR No. : **TC157302500003249 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180862	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.43	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.86	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.59	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.54	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.32	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220712**

NABL ULR No. : **TC157302500003249 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220711**

NABL ULR No. : **TC157302500003249 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180863
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/24/05/2025
Test Report as per : NAAQ Norms

Received On : 26/05/2025
Commenced On : 26/05/2025
Completed On : 30/05/2025
Date of Report : 30/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.55	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.31	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.04	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.97	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220711**
NABL ULR No. : **TC157302500003249 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.21	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220830**
NABL ULR No. : **TC1573025000032613F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180744
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a) Date of Monitoring , - : 06.03.25 - 07.03.25
(b) Duration of Monitoring , minutes : 1440
(c) Avg. Ambient Temperature , °C : 30.5
(d) Relative Humidity , %(Avg.) : 51
(e) Sky Appearance , - : Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.79	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.45	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.25	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.82	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220830

NABL ULR No. : TC157302500003261 3F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.58	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220829**
NABL ULR No. : **TC1573025000032612F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180745	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.50	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.00	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.09	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.34	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.19	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220829

NABL ULR No. : TC157302500003261 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220828**
NABL ULR No. : **TC1573025000032611F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180746
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.22	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.43	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.78	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.45	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.56	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220828**

NABL ULR No. : **TC157302500003261 1F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.03	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220824**
NABL ULR No. : **TC1573025000032607F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180747
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 14/03/2025
Date of Report : 14/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.55	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.25	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.63	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.69	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220824**

NABL ULR No. : **TC1573025000032607F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.31	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **14/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220823**

NABL ULR No. : **TC1573025000032606F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180748	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.32	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.64	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.61	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.77	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.79	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220823**

NABL ULR No. : **TC1573025000032606F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **14/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220825**
NABL ULR No. : **TC1573025000032608F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur. 639111
Tamil Nadu. India

Sample Registration No.	: SR02EN-2511180749	Received On	: 10/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 14/03/2025
Sample Details (if any)		Date of Report	: 14/03/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram'		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 06.03.25 - 07.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	51
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.17	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.34	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.38	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.30	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.45	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220825

NABL ULR No. : TC1573025000032608F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 14/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220822**
NABL ULR No. : **TC1573025000032605F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180750	Received On	: 17/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 17/03/2025
Sample Condition	: Good	Completed On	: 21/03/2025
Sample Details (if any)		Date of Report	: 21/03/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.38	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.76	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.26	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.12	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.50	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511220822**

NABL ULR No. : **TC157302500003260 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.44	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220826**
NABL ULR No. : **TC1573025000032609F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180751
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.17	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.88	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220826

NABL ULR No. : TC157302500003260 9F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220821**
NABL ULR No. : **TC1573025000032604F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur. 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180752
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.05	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.24	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.27	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220821**

NABL ULR No. : **TC157302500003260 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220827**
NABL ULR No. : **TC1573025000032610F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180753
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.49	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.17	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.40	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220827**

NABL ULR No. : **TC157302500003261OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.43	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220820**

NABL ULR No. : **TC1573025000032603F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180754
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.20	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.25	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.52	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.57	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220820**

NABL ULR No. : **TC157302500003260 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.22	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : TR02EN-2511220819
NABL ULR No. : TC1573025000032602F

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180755
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 17/03/2025
Commenced On : 17/03/2025
Completed On : 21/03/2025
Date of Report : 21/03/2025

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 13.03.25-14.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	50
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.96	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.32	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.07	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 21/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511220819**

NABL ULR No. : **TC157302500003260 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.08	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **21/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220818**

NABL ULR No. : **TC1573025000032601F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180756
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.56	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.13	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.74	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.98	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.63	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220818**

NABL ULR No. : **TC157302500003260lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.49	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **28/03/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220817**

NABL ULR No. : **TC157302500003260OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180757
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.41	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.08	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.00	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220817**

NABL ULR No. : **TC157302500003260OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.22	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220816**

NABL ULR No. : **TC157302500003259 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180758
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'14.10"N, Longitude 77°59'38.21"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.02	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.03	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.14	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.21	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.39	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220816**

NABL ULR No. : **TC157302500003259 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	4.95	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **28/03/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220815**

NABL ULR No. : **TC157302500003259 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180759
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°58'30.67"N, Longitude 77°58'41.55"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Velayuthampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.60	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.60	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.51	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220815**

NABL ULR No. : **TC157302500003259 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.23	400 Max
9	Benzene (C'6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220813**

NABL ULR No. : **TC157302500003259 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180760
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.19	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.23	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.52	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.61	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220813**

NABL ULR No. : **TC157302500003259 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **28/03/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220814**

NABL ULR No. : **TC157302500003 2597F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180761
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 24/03/2025
Commenced On : 24/03/2025
Completed On : 28/03/2025
Date of Report : 28/03/2025

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 20.03.25-21.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	30
(d)	Relative Humidity , %(Avg.)	52
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.94	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.74	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.06	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.28	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220814

NABL ULR No. : TC157302500003259 7F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.15	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 28/03/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220811**

NABL ULR No. : **TC157302500003259 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180762
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 31/03/2025
Commenced On : 31/03/2025
Completed On : 04/04/2025
Date of Report : 04/04/2025

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25-28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.64	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.28	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.37	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.22	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.80	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220811**

NABL ULR No. : **TC157302500003259 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.57	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220812**

NABL ULR No. : **TC157302500003259 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180763
Sample Name : Ambient Air Quality
Sample Condition . : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/30/03/2025
Test Report as per : NAAQ Norms

Received On : 31/03/2025
Commenced On : 31/03/2025
Completed On : 04/04/2025
Date of Report : 04/04/2025

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature . °C	: 30.5
(d)	Relative Humidity . %(Avg.)	47
(e)	Sky Appearance . -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.36	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.72	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.02	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.31	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220812**

NABL ULR No. : **TC157302500003259 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220809**

NABL ULR No. : **TC157302500003259 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180764	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.08	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.17	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.54	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220809

NABL ULR No. : TC157302500003259 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.02	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220808**

NABL ULR No. : **TC157302500003259lF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180765	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25-28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.37	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.74	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.18	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.61	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.67	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220808**

NABL ULR No. : **TC157302500003259lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.30	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220806**

NABL ULR No. : **TC157302500003258 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180766	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 27.03.25 - 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.18	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.37	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.54	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.75	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.77	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220806**
NABL ULR No. : **TC157302500003258 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.16	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **04/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220810**

NABL ULR No. : **TC1573025000032593F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180767	Received On	: 31/03/2025
Sample Name	: Ambient Air Quality	Commenced On	: 31/03/2025
Sample Condition	: Good	Completed On	: 04/04/2025
Sample Details (if any)		Date of Report	: 04/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/30/03/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 27.03.25- 28.03.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 30.5
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance . -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.04	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.07	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.31	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.27	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.44	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220810**
NABL ULR No. : **TC157302500003259 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.02	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 04/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220761**

NABL ULR No. : **TC157302500003254 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur.
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180810	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.68	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.20	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	51.25	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.71	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.85	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220761**

NABL ULR No. : **TC157302500003254 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.50	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220756**

NABL ULR No. : **TC157302500003253 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180811	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.80	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	48.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.73	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.16	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220756**

NABL ULR No. : **TC157302500003253 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.72	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220757**

NABL ULR No. : **TC157302500003254OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180812	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.00	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.20	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.77	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220757**
NABL ULR No. : **TC157302500003254OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	4.99	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220759**

NABL ULR No. : **TC157302500003254 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180813	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.12	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.97	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.62	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220759**

NABL ULR No. : **TC157302500003254 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.74	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220758**

NABL ULR No. : **TC157302500003254lF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180814	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.34	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.10	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.11	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.73	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220758**

NABL ULR No. : **TC157302500003254lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1-Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220760**

NABL ULR No. : **TC157302500003254 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180815	Received On	: 07/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 07/04/2025
Sample Condition	: Good	Completed On	: 11/04/2025
Sample Details (if any)		Date of Report	: 11/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 04.04.25- 05.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.19	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.90	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.77	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.60	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.37	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 11/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220760**

NABL ULR No. : **TC157302500003254 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **11/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220755**

NABL ULR No. : **TC157302500003253 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180816	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.47	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.95	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.99	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.69	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.43	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220755**

NABL ULR No. : **TC157302500003253 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C'6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **19/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220754**

NABL ULR No. : **TC157302500003253 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180817	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.26	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.53	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.81	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.81	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220754**

NABL ULR No. : **TC157302500003253 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220753**

NABL ULR No. : **TC157302500003253 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180818	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.06	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.46	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.95	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.21	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220753**

NABL ULR No. : **TC157302500003253 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.09	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **19/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220764**

NABL ULR No. : **TC1573025000032547F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180819	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.21	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.43	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.92	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.12	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.33	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220764**

NABL ULR No. : **TC157302500003254 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220750**

NABL ULR No. : **TC157302500003253 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180820	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.15	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.31	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.26	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.26	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.42	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220750**

NABL ULR No. : **TC157302500003253 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.19	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220749**

NABL ULR No. : **TC1573025000032532F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180821	Received On	: 15/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 15/04/2025
Sample Condition	: Good	Completed On	: 19/04/2025
Sample Details (if any)		Date of Report	: 19/04/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 10.04.25- 11.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.07	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.07	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.80	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.10	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220749**

NABL ULR No. : **TC157302500003253 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.05	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 19/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220751**

NABL ULR No. : **TC157302500003253 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180822	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.43	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.86	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.69	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.96	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.62	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220751**

NABL ULR No. : **TC157302500003253 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.49	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220748**

NABL ULR No. : **TC157302500003253 1F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180823	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Sample Quantity	: NAa		
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.28	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.56	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.37	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.06	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.99	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22):	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220748**

NABL ULR No. : **TC157302500003253 1F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
			2004		
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.33	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220752**

NABL ULR No. : **TC1573025000032535F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180824	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.07	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.14	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.10	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.19	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.38	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220752**

NABL ULR No. : **TC157302500003253 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.06	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220747**

NABL ULR No. : **TC157302500003253OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180825	Received On	: 21/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 21/04/2025
Sample Condition	: Good	Completed On	: 25/04/2025
Sample Details (if any)		Date of Report	: 25/04/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.56	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.37	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.50	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220747**

NABL ULR No. : **TC157302500003253OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.48	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220743**

NABL ULR No. : **TC157302500003252 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180826
Sample Name : Ambient Air Quality
Sample Condition : Good .

Received On : 21/04/2025
Commenced On : 21/04/2025
Completed On : 25/04/2025
Date of Report : 25/04/2025

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.17	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.34	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.91	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.50	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.60	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220743**

NABL ULR No. : **TC157302500003252 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.15	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220745**

NABL ULR No. : **TC157302500003252 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180827
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 21/04/2025
Commenced On : 21/04/2025
Completed On : 25/04/2025
Date of Report : 25/04/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 17.04.25- 18.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	48
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.06	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.12	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.70	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.04	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.27	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 25/04/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220745**

NABL ULR No. : **TC157302500003252 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.12	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **25/04/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220742**

NABL ULR No. : **TC157302500003252 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180828
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'0.81"N, Longitude 77°59'10.20"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.47	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.94	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.93	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.67	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220742**

NABL ULR No. : **TC157302500003252SF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.40	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220741**

NABL ULR No. : **TC157302500003 2524F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180829
Sample Name : Ambient Air Quality
Sample Condition : Good
Sample Details (if any)
Batch No./QR Code : Latitude 10°59'24.88"N, Longitude 77°59'42.96"E
Sample Submission Type : Sampled by Lab Rep
Sample Source : ~
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.54	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.65	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.79	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.80	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22):	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220741**

NABL ULR No. : **TC157302500003252 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
			2004		
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.44	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220740**

NABL ULR No. : **TC157302500003252 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180830	Received On	: 28/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 28/04/2025
Sample Condition	: Good	Completed On	: 02/05/2025
Sample Details (if any)		Date of Report	: 02/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.05	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.10	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.41	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.93	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.19	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220740**

NABL ULR No. : **TC157302500003252 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.16	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220739**
NABL ULR No. : **TC1573025000032522F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180831	Received On	: 28/04/2025
Sample Name	: Ambient Air Quality	Commenced On	: 28/04/2025
Sample Condition	: Good	Completed On	: 02/05/2025
Sample Details (if any)		Date of Report	: 02/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/26/04/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.21	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.41	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.87	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.10	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.32	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220739

NABL ULR No. : TC157302500003252 2F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.39	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220737**

NABL ULR No. : **TC1573025000032520F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180832
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 10°59'45.74"N, Longitude 77°58'0.54"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Pullaiyampalayam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	478
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.18	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.20	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.21	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.24	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220737

NABL ULR No. : TC157302500003252OF

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220736**

NABL ULR No. : **TC157302500003251 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180833
Sample Name : Ambient Air Quality
Sample Condition : Good

Received On : 28/04/2025
Commenced On : 28/04/2025
Completed On : 02/05/2025
Date of Report : 02/05/2025

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/26/04/2025
Test Report as per : NAAQ Norms

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 24.04.25- 25.04.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	31
(d)	Relative Humidity , %(Avg.)	47
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.22	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	9.91	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.02	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.78	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.09	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220736

NABL ULR No. : TC157302500003251 9F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.09	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 02/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220730**

NABL ULR No. : **TC1573025000032513F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180840	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring . -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.73	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	13.18	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	55.35	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	21.29	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	14.96	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220730**

NABL ULR No. : **TC157302500003251 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.64	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220744**

NABL ULR No. : **TC157302500003252 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180841	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.44	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.52	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	52.59	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	20.23	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	14.21	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220744**

NABL ULR No. : **TC157302500003252 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220725**

NABL ULR No. : **TC157302500003250 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180842	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.94	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.88	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.90	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.19	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.49	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220725**

NABL ULR No. : **TC157302500003250 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.86	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220728**

NABL ULR No. : **TC157302500003251 1F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180843	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.61	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.45	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.40	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.94	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220728

NABL ULR No. : TC157302500003251 1F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.35	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220726**

NABL ULR No. : **TC157302500003250 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180844	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.51	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	12.11	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.87	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.56	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.75	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220726**

NABL ULR No. : **TC157302500003250 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220724**

NABL ULR No. : **TC157302500003250 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180845	Received On	: 05/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 05/05/2025
Sample Condition	: Good	Completed On	: 09/05/2025
Sample Details (if any)		Date of Report	: 09/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 01.05.25- 02.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 31.5
(d)	Relative Humidity , %(Avg.)	45
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.35	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.77	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.43	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.01	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.36	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 09/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220724**

NABL ULR No. : **TC157302500003250 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.14	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **09/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220727**

NABL ULR No. : **TC1573025000032510F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180846	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.44	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.88	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.71	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.58	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.35	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220727

NABL ULR No. : TC157302500003251OF

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.37	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220729**

NABL ULR No. : **TC157302500003251 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180847	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.30	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.59	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	43.44	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.71	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.74	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220729**

NABL ULR No. : **TC157302500003251 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.39	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **16/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220723**

NABL ULR No. : **TC1573025000032506F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180848	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.03	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.05	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.21	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.85	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.14	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220723**

NABL ULR No. : **TC157302500003250 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.11	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220746**

NABL ULR No. : **TC157302500003252 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180849	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.23	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.47	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	41.66	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.02	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.26	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220746

NABL ULR No. : TC157302500003252 9F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220763**

NABL ULR No. : **TC1573025000032546F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180850	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.12	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.25	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	42.01	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	16.16	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.35	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220763**

NABL ULR No. : **TC157302500003254 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.21	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **16/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220722**

NABL ULR No. : **TC1573025000032505F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180851	Received On	: 12/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 12/05/2025
Sample Condition	: Good	Completed On	: 16/05/2025
Sample Details (if any)		Date of Report	: 16/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 08.05.25- 09.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	: 32.5
(d)	Relative Humidity , %(Avg.)	41
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.10	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.21	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	40.83	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	15.70	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.03	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : TR02EN-2511220722

NABL ULR No. : TC157302500003250 5F

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.06	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 16/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220762**

NABL ULR No. : **TC157302500003254 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180852	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.33	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.73	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	50.43	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.63	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220762**

NABL ULR No. : **TC157302500003254 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.24	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220721**

NABL ULR No. : **TC157302500003250 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180853	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.57	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.14	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.92	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.43	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.95	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220721**

NABL ULR No. : **TC157302500003250 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.63	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220720**

NABL ULR No. : **TC157302500003250 3F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180854	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.29	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.57	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.46	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.49	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.29	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220720**

NABL ULR No. : **TC157302500003250 3F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.34	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220719**

NABL ULR No. : **TC157302500003250 2F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180855	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.34	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.69	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.96	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.68	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.42	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220719**

NABL ULR No. : **TC157302500003250 2F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.18	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220718**

NABL ULR No. : **TC157302500003250lF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180856	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition	: Good	Completed On -	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayamq		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.39	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.78	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	46.35	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.83	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.53	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220718**

NABL ULR No. : **TC157302500003250lF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.45	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS). Fine Dust Sampler(FDS). Multigas Analyser.Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **23/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220717**

NABL ULR No. : **TC1573025000032500F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180857	Received On	: 19/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 19/05/2025
Sample Condition .	: Good	Completed On	: 23/05/2025
Sample Details (if any)		Date of Report	: 23/05/2025
Batch No./QR Code	: Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam Chatram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 15.05.25- 16.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	32
(d)	Relative Humidity , %(Avg.)	43
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.24	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.47	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.04	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.32	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.17	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220717**

NABL ULR No. : **TC157302500003250OF**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.29	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 23/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220716**

NABL ULR No. : **TC157302500003249 9F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180858	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'0.81"N, Longitude 77°59'10.20"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.62	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.81	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	49.61	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	19.08	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	13.41	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220716**

NABL ULR No. : **TC157302500003249 9F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220715**

NABL ULR No. : **TC157302500003249 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180859	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'24.88"N, Longitude 77°59'42.96"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.61	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	11.22	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	47.14	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	18.13	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.74	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220715**

NABL ULR No. : **TC157302500003249 8F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.54	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220714**
NABL ULR No. : **TC157302500003249 7F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk.
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180860	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°58'14.10"N, Longitude 77°59'38.21"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No.	Sampling Information:	
(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.32	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.65	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.72	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.20	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.09	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

TEST REPORT

ORIGINAL

Test Report No. : **TR02EN-2511220714**

NABL ULR No. : **TC157302500003249 7F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.26	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit. DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220713**

NABL ULR No. : **TC157302500003249 6F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180861	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°58'30.67"N, Longitude 77°58'41.55"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Velayuthampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.38	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.77	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.22	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.39	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.22	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

ITC Labs
Assuring Integrity, Trust & Confidence
(Not affiliated with or a part of ITC Limited)

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai– 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220713**

NABL ULR No. : **TC157302500003249 6F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.82	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality. Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler. BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220712**

NABL ULR No. : **TC157302500003249 5F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180862	Received On	: 26/05/2025
Sample Name	: Ambient Air Quality	Commenced On	: 26/05/2025
Sample Condition	: Good	Completed On	: 30/05/2025
Sample Details (if any)		Date of Report	: 30/05/2025
Batch No./QR Code	: Latitude 10°59'45.74"N, Longitude 77°58'0.54"E		
Sample Submission Type	: Sampled by Lab Rep		
Sampling Location	: Pullaiyampalayam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/24/05/2025		
Test Report as per	: NAAQ Norms		

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.43	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.86	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	45.59	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.54	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	12.32	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220712**

NABL ULR No. : **TC157302500003249 5F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.36	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.

(A Group Company of Qualitek Labs Limited)

Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur Taluk, Chennai- 600096 (Tamil Nadu)

044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730

ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220711**

NABL ULR No. : **TC157302500003249 4F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180863
Sample Name : Ambient Air Quality
Sample Condition : Good

Sample Details (if any)

Batch No./QR Code : Latitude 11° 0'42.10"N, Longitude 77°58'57.83"E
Sample Submission Type : Sampled by Lab Rep
Sampling Location : Punnam Chatram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/24/05/2025
Test Report as per : NAAQ Norms

Received On : 26/05/2025
Commenced On : 26/05/2025
Completed On : 30/05/2025
Date of Report : 30/05/2025

S. No. Sampling Information:

(a)	Date of Monitoring , -	: 22.05.25- 23.05.25
(b)	Duration of Monitoring , minutes	1440
(c)	Avg. Ambient Temperature , °C	33
(d)	Relative Humidity , %(Avg.)	42
(e)	Sky Appearance , -	: Clear sky

S. No.	Parameter	Measuring Unit	Method	Result	Specification
	Discipline : Chemical				
	Group : Atmospheric Pollution				
(I)	**Ambient Air Quality Parameters**				
1	Sulphur Dioxide (SO2)	µg/m3	IS 5182(Part-2): 2001	5.27	80 Max
2	Nitrogen Dioxide (NO2)	µg/m3	IS 5182(Part -6): 2006	10.55	80 Max
3	Particulate Matter (PM 10)	µg/m3	IS 5182(Part-23): 2006	44.31	100 Max
4	Particulate Matter (PM 2.5)	µg/m3	IS 5182(Part-24): 2019	17.04	60 Max
5	Ozone (O3)	µg/m3	IS 5182(Part-9): 1974	11.97	180 Max
6	Lead (pb)	µg/m3	IS 5182(Part-22): 2004	BDL(DL:0.02)	1.0 Max

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 30/05/2025

Disclaimer :

- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Pvt. Ltd.
(A Group Company of Qualitek Labs Limited)
Plot No.2, Site No. 12/2A, Industrial Estate, Perungudi, Sholinganallur
Taluk, Chennai– 600096 (Tamil Nadu)
044-24962512 itclabs.chennai@itclabs.com www.itclabs.com

TC-15730
ORIGINAL

TEST REPORT

Test Report No. : **TR02EN-2511220711**
NABL ULR No. : **TC157302500003249 4F**

S. No.	Parameter	Measuring Unit	Method	Result	Specification
7	Carbon Monoxide (CO)	mg/m3	IS 5182(Part-10): 1999	BDL(DL:1.0)	2 Max
8	Ammonia (NH3)	µg/m3	IS 5182(Part-25): 2018	5.21	400 Max
9	Benzene (C6H6)	µg/m3	IS 5182(Part-11): 2006	BDL(DL:1.0)	5 Max
10	Benzo (a) Pyrene (Particulate Phase only)	ng/m3	IS 5182(Part-12): 2004	BDL(DL:1.0)	1 Max
11	Arsenic (As)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	6 Max
12	Nickel (Ni)	ng/m3	USEPA Method IO 3.4	BDL(DL:2.0)	20 Max

NOTE : NAAQ: National Ambient Air Quality, Instrument used: Respirable Dust Sampler(RDS), Fine Dust Sampler(FDS), Multigas Analyser,Low Flow Air Sampler, BDL: Below Detection Limit, DL: Detection Limit.

REMARKS : The above sample complies with NAAQ norms with respect to the above tested Parameters.

*****End of Report*****

Authorised by
Name : **Sakthivel**
Discipline : **Chemical**
Date : **30/05/2025**

Disclaimer :
- The test result related only to the items tested.
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers.

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210599**
NABL ULR No. : **TC1573025000032115F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100870
Sample Name : Bore Well Water
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 2.5lit x 1 No
Packaging Mode : Canned
Batch No./QR Code : Latitude 10°58'43.82"N, Longitude 77°59'7.83"E
Sample Submission Type : Sampled by Lab Rep
Sample Source : Ground Water
Date of Sampling : 07.03.2025
Sampling Location : Nearby Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : IS 10500:2012

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
Description: Clear liquid							
	Discipline : Chemical						
	Group : Water						
(I)	**Organoleptic &Physical Parameter**						
1	Odour	NA	Organoleptic	IS 3025 (Part 5) : 2018	Agreeable	Agreeable	Agreeable
2	pH Value @ 25°C	NA	pH Meter	IS 3025(Part-11): 2022	7.44	6.5-8.5	No Relaxation
3	Colour	Hazen Unit	Visual	IS 3025 (Part 4) : 2021	5	5	15
4	Taste	NA	Organoleptic	IS 3025(Part-8): 2023	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	Turbidity Meter	IS 3025(Part-10): 2023	0.3	1.0	5.0
6	Total Dissolved Solids	mg/L	Balance, Oven, Waterbath	IS 3025(Part-16): 2023	583	500	2000

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210599**

NABL ULR No. : TC157302500003211SF

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
(II)	**Parameters Concerning Undesirable Substances in excess amount**						
1	Calcium(as Ca)	mg/L	Titration	IS: 3025 (Part 40): 1991	87.5	75	200
2	Ammonia (as NH3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	BLQ(LOQ:0.1)	0.5	No Relaxation
3	Iron as Fe	mg/L	UV-Spectrophotometer	IS 3025 (Part 53): 2024	0.18	1	No Relaxation
4	Magnesium(as Mg)	mg/L	By Calculation	IS 3025 (Part 46): 2023	6.4	30	100
5	Chloride(as Cl)	mg/L	Titration	IS:3025 (Part 32):1988	157.4	250	1000
6	Sulphate(as SO4)	mg/L	UV-Spectrophotometer	IS : 3025 (Part 24 Sec1): 2022	33.8	200	400
7	Free Residual Chlorine	mg/L	UV-Spectrophotometer	IS 3025 (Part 26): 2021	BLQ(LOQ:0.1)	0.2	1.0
8	Fluoride(as F)	mg/L	UV-Spectrophotometer	IS 3025 (Part - 60): 2019	0.32	1.0	1.5
9	Nitrate(as NO3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	11.08	45	No Relaxation
10	Total Alkalinity(as CaCO3)	mg/L	Titration	IS 3025(Part-23): 2023	169	200	600
11	Total Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	210	200	600
(III)	**General Parameters**						
1	Biochemical Oxygen Demand for 3 days at 27 °C	mg/L	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
2	Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	169	Not Specified	Not Specified
3	Chemical Oxygen Demand	mg/L	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:5.0)	Not Specified	Not Specified
4	Dissolved Oxygen	mg/L	Titration	IS 3025 (Part: 38) 1989	6.9	Not Specified	Not Specified
5	Phenolphthalein Alkalinity (as CaCO3)	mg/L	Titration	IS 3025 (Part 23) : 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
6	Non Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	41	Not Specified	Not Specified
7	Electrical Conductivity @ 25°C	µmhos/cm	Conductivity Meter	IS 3025 (Part 14): 2013	988	Not Specified	Not Specified

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210599**
NABL ULR No. : TC157302500003211SF

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
8	Phosphate(as PO4)	mg/L	UV-Spectrophotometer	APHA 24th Edn. 4500 P B D (Spectrophotometry) : 2023	BLQ(LOQ:0.05)	Not Specified	Not Specified
9	Appearance	-	Visual	Visual Examination	Clear liquid	Not Specified	Not Specified
10	Silica as SiO2	mg/L	UV-Spectrophotometer	IS 3025 (Part - 35): 2023	11.08	Not Specified	Not Specified
	Discipline : Biological						
	Group : Water						
(IV)	**Microbiological Tests**						
1	*E.coli*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified
2	*Total Coliform*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified

NOTE : BLQ - Below Limit of Quantification, LOQ - Limit Of Quantification, MPN - Most Probable Number.

REMARKS : The above sample conforms to IS 10500-2012 Amd.No4.Nov 2021 Specification limit with respect to the above tested Parameters.

*******End of Report*******

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210598**
NABL ULR No. : **TC1573025000032114F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk.
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100871
Sample Name : Bore Well Water
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 2.5lit x 1 No
Packaging Mode : Canned
Batch No./QR Code : Latitude 10°59'21.18"N, Longitude 77°59'40.47"E
Sample Submission Type : Sampled by Lab Rep
Sample Source : Ground Water
Date of Sampling : 07.03.2025
Sampling Location : Punnam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : IS 10500:2012

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
Description: Clear liquid							
	Discipline : Chemical						
	Group : Water						
(I)	**Organoleptic &Physical Parameter**						
1	Odour	NA	Organoleptic	IS 3025 (Part 5) : 2018	Agreeable	Agreeable	Agreeable
2	pH Value @ 25°C	NA	pH Meter	IS 3025(Part-11): 2022	7.12	6.5-8.5	No Relaxation
3	Colour	Hazen Unit	Visual	IS 3025 (Part 4) : 2021	2	5	15
4	Taste	NA	Organoleptic	IS 3025(Part-8): 2023	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	Turbidity Meter	IS 3025(Part-10): 2023	0.1	1.0	5.0
6	Total Dissolved Solids	mg/L	Balance, Oven, Waterbath	IS 3025(Part-16): 2023	408	500	2000

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210598**
NABL ULR No. : TC157302500003211 4F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
(II)	**Parameters Concerning Undesirable Substances in excess amount**						
1	Calcium(as Ca)	mg/L	Titration	IS: 3025 (Part 40): 1991	61.2	75	200
2	Ammonia (as NH3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	BLQ(LOQ:0.1)	0.5	No Relaxation
3	Iron as Fe	mg/L	UV-Spectrophotometer	IS 3025 (Part 53): 2024	0.24	1	No Relaxation
4	Magnesium(as Mg)	mg/L	By Calculation	IS 3025 (Part 46): 2023	4.5	30	100
5	Chloride(as Cl)	mg/L	Titration	IS:3025 (Part 32):1988	110.2	250	1000
6	Sulphate(as SO4)	mg/L	UV-Spectrophotometer	IS : 3025 (Part 24 Sec1): 2022	23.7	200	400
7	Free Residual Chlorine	mg/L	UV-Spectrophotometer	IS 3025 (Part 26): 2021	BLQ(LOQ:0.1)	0.2	1.0
8	Fluoride(as F)	mg/L	UV-Spectrophotometer	IS 3025 (Part - 60): 2019	0.28	1.0	1.5
9	Nitrate(as NO3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	7.75	45	No Relaxation
10	Total Alkalinity(as CaCO3)	mg/L	Titration	IS 3025(Part-23): 2023	126	200	600
11	Total Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	147	200	600
(III)	**General Parameters**						
1	Biochemical Oxygen Demand for 3 days at 27 °C	mg/L	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
2	Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	126	Not Specified	Not Specified
3	Chemical Oxygen Demand	mg/L	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:5.0)	Not Specified	Not Specified
4	Dissolved Oxygen	mg/L	Titration	IS 3025 (Part: 38) 1989	6.4	Not Specified	Not Specified
5	Phenolphthalein Alkalinity (as CaCO3)	mg/L	Titration	IS 3025 (Part 23) : 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
6	Non Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	21	Not Specified	Not Specified
7	Electrical Conductivity @ 25°C	µmhos/cm	Conductivity Meter	IS 3025 (Part 14): 2013	658	Not Specified	Not Specified

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210598**

NABL ULR No. : TC157302500003211 4F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
8	Phosphate(as PO4)	mg/L	UV-Spectrophotometer	APHA 24th Edn. 4500 P B D (Spectrophotometry) : 2023	BLQ(LOQ:0.05)	Not Specified	Not Specified
9	Appearance	-	Visual	Visual Examination	Clear liquid	Not Specified	Not Specified
10	Silica as SiO2	mg/L	UV-Spectrophotometer	IS 3025 (Part - 35): 2023	7.75	Not Specified	Not Specified
	Discipline : Biological						
	Group : Water						
(IV)	**Microbiological Tests**						
1	*E.coli*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified
2	*Total Coliform*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified

NOTE : BLQ - Below Limit of Quantification, LOQ - Limit Of Quantification, MPN - Most Probable Number.

REMARKS : The above sample conforms to IS 10500-2012 Amd.No4.Nov 2021 Specification limit with respect to the above tested Parameters.

*******End of Report*******

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210597**
NABL ULR No. : **TC1573025000032113F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100872
Sample Name : Bore Well Water
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 2.5lit x 1 No
Packaging Mode : Canned
Batch No./QR Code : Latitude 11° 0'44.26"N, Longitude 77°58'47.17"E
Sample Submission Type : Sampled by Lab Rep
Sample Source : Ground Water
Date of Sampling : 07.03.2025
Sampling Location : Punnam Chantram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : IS 10500:2012

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
Description: Clear liquid							
	Discipline : Chemical						
	Group : Water						
(I)	**Organoleptic &Physical Parameter**						
1	Odour	NA	Organoleptic	IS 3025 (Part 5) : 2018	Agreeable	Agreeable	Agreeable
2	pH Value @ 25°C	NA	pH Meter	IS 3025(Part-11): 2022	8.02	6.5-8.5	No Relaxation
3	Colour	Hazen Unit	Visual	IS 3025 (Part 4) : 2021	5	5	15
4	Taste	NA	Organoleptic	IS 3025(Part-8): 2023	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	Turbidity Meter	IS 3025(Part-10): 2023	0.2	1.0	5.0
6	Total Dissolved Solids	mg/L	Balance, Oven, Waterbath	IS 3025(Part-16): 2023	494	500	2000

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210597**
NABL ULR No. : TC157302500003211 3F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
(II)	**Parameters Concerning Undesirable Substances in excess amount**						
1	Calcium(as Ca)	mg/L	Titration	IS: 3025 (Part 40): 1991	74.1	75	200
2	Ammonia (as NH3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	BLQ(LOQ:0.1)	0.5	No Relaxation
3	Iron as Fe	mg/L	UV-Spectrophotometer	IS 3025 (Part 53): 2024	0.19	1	No Relaxation
4	Magnesium(as Mg)	mg/L	By Calculation	IS 3025 (Part 46): 2023	5.4	30	100
5	Chloride(as Cl)	mg/L	Titration	IS:3025 (Part 32):1988	133.4	250	1000
6	Sulphate(as SO4)	mg/L	UV-Spectrophotometer	IS : 3025 (Part 24 Sec1): 2022	28.7	200	400
7	Free Residual Chlorine	mg/L	UV-Spectrophotometer	IS 3025 (Part 26): 2021	BLQ(LOQ:0.1)	0.2	1.0
8	Fluoride(as F)	mg/L	UV-Spectrophotometer	IS 3025 (Part - 60): 2019	0.19	1.0	1.5
9	Nitrate(as NO3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	9.39	45	No Relaxation
10	Total Alkalinity(as CaCO3)	mg/L	Titration	IS 3025(Part-23): 2023	133	200	600
11	Total Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	178	200	600
(III)	**General Parameters**						
1	Biochemical Oxygen Demand for 3 days at 27 °C	mg/L	BOD Incubator	IS 3025 (Part 44): 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
2	Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	133	Not Specified	Not Specified
3	Chemical Oxygen Demand	mg/L	COD Reflux Assembly	IS 3025 (Part: 58): 2023	BLQ(LOQ:5.0)	Not Specified	Not Specified
4	Dissolved Oxygen	mg/L	Titration	IS 3025 (Part: 38) 1989	6.6	Not Specified	Not Specified
5	Phenolphthalein Alkalinity (as CaCO3)	mg/L	Titration	IS 3025 (Part 23) : 2023	BLQ(LOQ:1.0)	Not Specified	Not Specified
6	Non Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	45	Not Specified	Not Specified
7	Electrical Conductivity @ 25°C	µmhos/cm	Conductivity Meter	IS 3025 (Part 14): 2013	882	Not Specified	Not Specified

Authorized Signatory
Name : **Dr. Prabakaran Vadivel**
Discipline : **Biological**
Date : **15/03/2025**

Authorised by
Name : **Vijay Anand**
Discipline : **Chemical**
Date : **15/03/2025**

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai:- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511241013**
NABL ULR No. : TC157302500003282OF

S. No.	Parameter	Measuring Unit	Instrument	Method	Result	Acceptable Limit	Permissible Limit
8	Phosphate(as PO4)	mg/L	UV-Spectrophotometer	APHA 24th Edn. 4500 P B D (Spectrophotometry) : 2023	BLQ(LOQ:0.05)	Not Specified	Not Specified
9	Appearance	-	Visual	Visual Examination	Clear liquid	Not Specified	Not Specified
10	Silica as SiO2	mg/L	UV-Spectrophotometer	IS 3025 (Part - 35): 2023	9.38	Not Specified	Not Specified
	Discipline : Biological						
	Group : Water						
(IV)	**Microbiological Tests**						
1	*E.coli*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified
2	*Total Coliform*	MPN/100ml	Microbiological	IS 1622: 1981	<2	Shall not be detectable in any 100 ml sample	Not Specified

NOTE : BLQ - Below Limit of Quantification, LOQ - Limit Of Quantification, MPN – Most Probable Number.

REMARKS : The above sample conforms to IS 10500-2012 Amd.No4.Nov 2021 Specification limit with respect to the above tested Parameters.

*******End of Report******

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210596**
NABL ULR No. : **TC1573025000032112F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100873
Sample Name : Surface Water
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 2.5lit x 1 No
Packaging Mode : Canned
Batch No./QR Code : Latitude 10°56'15.34"N, Longitude 77°59'40.72"E
Sample Submission Type : Sampled by Lab Rep
Date of Sampling : 07.03.2025
Sampling Location : Thathampalayam Lake
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : NA

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Clear liquid					
	Discipline : Chemical				
	Group : Water				
(I)	**Organoleptic &Physical Parameter**				
1	Odour	NA	Organoleptic	IS 3025 (Part 5) : 2018	Agreeable
2	pH Value @ 25°C	NA	pH Meter	IS 3025(Part-11): 2022	8.22
3	Colour	Hazen Unit	Visual	IS 3025 (Part 4) : 2021	2
4	Taste	NA	Organoleptic	IS 3025(Part-8): 2023	Agreeable
5	Turbidity	NTU	Turbidity Meter	IS 3025(Part-10): 2023	0.1
6	Total Dissolved Solids	mg/L	Balance, Oven, Waterbath	IS 3025(Part-16): 2023	336
(II)	**Parameters Concerning Undesirable Substances in excess amount**				
1	Calcium(as Ca)	mg/L	Titration	IS: 3025 (Part 40):	50.4

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210596**

NABL ULR No. : TC157302500003211 2F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				1991	
2	Ammonia (as NH3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	BLQ(LOQ:0.1)
3	Iron as Fe	mg/L	UV-Spectrophotometer	IS 3025 (Part 53): 2024	0.32
4	Magnesium(as Mg)	mg/L	By Calculation	IS 3025 (Part 46): 2023	3.7
5	Chloride(as Cl)	mg/L	Titration	IS:3025 (Part 32):1988	90.7
6	Sulphate(as SO4)	mg/L	UV-Spectrophotometer	IS : 3025 (Part 24 Sec1): 2022	19.5
7	Free Residual Chlorine	mg/L	UV-Spectrophotometer	IS 3025 (Part 26): 2021	BLQ(LOQ:0.1)
8	Fluoride(as F)	mg/L	UV-Spectrophotometer	IS 3025 (Part - 60): 2019	0.34
9	Nitrate(as NO3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	6.38
10	Total Alkalinity(as CaCO3)	mg/L	Titration	IS 3025(Part-23): 2023	74
11	Total Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	121
(III)	General Parameters				
1	Biochemical Oxygen Demand for 3 days at 27 °C	mg/L	BOD Incubator	IS 3025 (Part 44): 2023	2.4
2	Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	74
3	Chemical Oxygen Demand	mg/L	COD Reflux Assembly	IS 3025 (Part: 58): 2023	42
4	Dissolved Oxygen	mg/L	Titration	IS 3025 (Part: 38) 1989	5.7
5	Phenolphthalein Alkalinity (as CaCO3)	mg/L	Titration	IS 3025 (Part 23) : 2023	BLQ(LOQ:1.0)
6	Non Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	47
7	Electrical Conductivity @ 25°C	µmhos/cm	Conductivity Meter	IS 3025 (Part 14): 2013	580
8	Phosphate(as PO4)	mg/L	UV-Spectrophotometer	APHA 24th Edn. 4500 P B D (Spectrophotometry)	BLQ(LOQ:0.05)

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210596**

NABL ULR No. : TC157302500003211 2F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				: 2023	
9	Appearance	-	Visual	Visual Examination	Clear liquid
10	Silica as SiO2	mg/L	UV-Spectrophotometer	IS 3025 (Part - 35): 2023	6.39
	Discipline : Biological				
	Group : Water				
(IV)	**Microbiological Tests**				
1	E.coli	MPN/100ml	Microbiological	IS 1622: 1981	<2
2	Total Coliform	MPN/100ml	Microbiological	IS 1622: 1981	<2

NOTE : BLQ - Below Limit of Quantification, LOQ - Limit Of Quantification, MPN - Most Probable Number.

REMARKS : NA

*******End of Report*******

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511241013**

NABL ULR No. : **TC157302500003282OF**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100874
Sample Name : Surface Water
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 2.5lit x 1 No
Packaging Mode : Canned
Batch No./QR Code : Latitude 10°56'51.61"N, Longitude 78° 1'34.71"E
Sample Submission Type : Sampled by Lab Rep
Date of Sampling : 07.03.2025
Sampling Location : Amaravathi River
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : NA

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Clear liquid					
	Discipline : Chemical				
	Group : Water				
(I)	**Organoleptic &Physical Parameter**				
1	Odour	NA	Organoleptic	IS 3025 (Part 5) : 2018	Agreeable
2	pH Value @ 25°C	NA	pH Meter	IS 3025(Part-11): 2022	6.89
3	Colour	Hazen Unit	Visual	IS 3025 (Part 4) : 2021	5
4	Taste	NA.	Organoleptic	IS 3025(Part-8): 2023	Agreeable
5	Turbidity	NTU	Turbidity Meter	IS 3025(Part-10): 2023	0.3
6	Total Dissolved Solids	mg/L	Balance, Oven, Waterbath	IS 3025(Part-16): 2023	638
(II)	**Parameters Concerning Undesirable Substances in excess amount**				
1	Calcium(as Ca)	mg/L	Titration	IS: 3025 (Part 40):	95.7

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : TR02EN-2511241013

NABL ULR No. : TC157302500003282OF

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				1991	
2	Ammonia (as NH3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	BLQ(LOQ:0.1)
3	Iron as Fe	mg/L	UV-Spectrophotometer	IS 3025 (Part 53): 2024	0.48
4	Magnesium(as Mg)	mg/L	By Calculation	IS 3025 (Part 46): 2023	7.0
5	Chloride(as Cl)	mg/L	Titration	IS:3025 (Part 32):1988	172.3
6	Sulphate(as SO4)	mg/L	UV-Spectrophotometer	IS : 3025 (Part 24 Sec1): 2022	37.0
7	Free Residual Chlorine	mg/L	UV-Spectrophotometer	IS 3025 (Part 26): 2021	BLQ(LOQ:0.1)
8	Fluoride(as F)	mg/L	UV-Spectrophotometer	IS 3025 (Part - 60): 2019	0.42
9	Nitrate(as NO3)	mg/L	UV-Spectrophotometer	IS: 3025 (Part 34/Sec-1): 2023	12.12
10	Total Alkalinity(as CaCO3)	mg/L	Titration	IS 3025(Part-23): 2023	147
11	Total Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	230
(III)	**General Parameters**				
1	Biochemical Oxygen Demand for 3 days at 27 °C	mg/L	BOD Incubator	IS 3025 (Part 44): 2023	4.6
2	Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	147
3	Chemical Oxygen Demand	mg/L	COD Reflux Assembly	IS 3025 (Part: 58): 2023	60
4	Dissolved Oxygen	mg/L	Titration	IS 3025 (Part: 38) 1989	5.9
5	Phenolphthalein Alkalinity (as CaCO3)	mg/L	Titration	IS 3025 (Part 23) : 2023	BLQ(LOQ:1.0)
6	Non Carbonate Hardness(as CaCO3)	mg/L	Titration	IS 3025 (Part 21): 2009	83
7	Electrical Conductivity @ 25°C	µmhos/cm	Conductivity Meter	IS 3025 (Part 14): 2013	1046
8	Phosphate(as PO4)	mg/L	UV-Spectrophotometer	APHA 24th Edn. 4500 P B D (Spectrophotometry)	BLQ(LOQ:0.05)

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511241013**

NABL ULR No. : TC157302500003282OF

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				: 2023	
9	Appearance	-	Visual	Visual Examination	Clear liquid
10	Silica as SiO2	mg/L	UV-Spectrophotometer	IS 3025 (Part - 35): 2023	12.12
	Discipline : Biological				
	Group : Water				
(IV)	**Microbiological Tests**				
1	E.coli	MPN/100ml	Microbiological	IS 1622: 1981	<2
2	Total Coliform	MPN/100ml	Microbiological	IS 1622: 1981	<2

NOTE : BLQ - Below Limit of Quantification, LOQ - Limit Of Quantification, MPN - Most Probable Number.
REMARKS : NA

*******End of Report*******

Authorized Signatory
Name : Dr. Prabakaran Vadivel
Discipline : Biological
Date : 15/03/2025

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210595 (1)**
NABL ULR No. : **TC1573025000032111F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk.
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100879
Sample Name : Soil
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 1kg X 1 No
Packaging Mode : Poly Pack
Batch No./QR Code : Latitude:10°59'1.00"N, Longitude:77°59'7.29"E
Sample Submission Type : Sampled by Lab Rep
Date of Sampling : 07.03.2025
Sampling Location : Nearby Core
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : NA

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Organic Matter	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.140
2	Calcium(as Ca)	mg/kg	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	2018
3	pH Value	NA	pH Meter	USEPA 9040 C (Rev 3): 2004	8.04
4	Total Nitrogen (as N)	(% by mass)	Titration	IS 10158: 1982 (RA 2003)	0.068
5	Potassium(as K)	(% by mass)	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	0.0084
6	Total Soluble Sulphate (as So4)	(% by mass)	UV-Spectrophotometer	IS: 2720 (Part 27)	0.0132
7	Magnesium(as Mg)	mg/kg	ICPOES	ITC/CHN/FD/STP/020;	488

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210595 (1)**

NABL ULR No. : TC157302500003211 1F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				Issue No: 4.0: Issue Date: 13.09.2023	
8	Chloride(as Cl)	(% by mass)	Titration	APHA-24th Edition 2023 - 4500 Cl- B	0.0068
9	Moisture Content	(% by mass)	Balance. Oven	IS 2720 (Part-2): 1973	5.8
10	Total Organic Carbon	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.08
11	Cation Exchange Capacity	meq/100g	ICPMS	IS 2720 (Part 24) - 1976	25.88
12	Sand	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	13.40
13	Silt	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	73.40
14	Clay	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	13.2
15	Textural Class	NA	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	Silt Loam
16	Bulk Density	g/cc	Cylinder	Catt. on Advanvesion Agro - technologies for Improving Soil, Plant Atmosphere Systems From 11-31 Oct 2012	1.224
17	Electrical Conductivity	mS/m	Conductivity Meter	IS 14767 - 2000	0.306

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

ORIGINAL

Test Report No. : TR02EN-2511210595

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100879	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude:10°59'1.00"N, Longitude:77°59'7.29"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Nearby Core		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Phosphate(as P)	(% by mass)	UV-Spectrophotometer	IS 10158: 1982	0.0012

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*****End of Report*****

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210594 (1)**
NABL ULR No. : **TC1573025000032109F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk.
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100880	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude 10°59'17.55"N, Longitude 77°59'46.99"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Light Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Organic Matter	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.210
2	Calcium(as Ca)	mg/kg	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	1786
3	pH Value	NA	pH Meter	USEPA 9040 C (Rev 3): 2004	7.64
4	Total Nitrogen (as N)	(% by mass)	Titration	IS 10158: 1982 (RA 2003)	0.072
5	Potassium(as K)	(% by mass)	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	0.0058
6	Total Soluble Sulphate (as So4)	(% by mass)	UV-Spectrophotometer	IS: 2720 (Part 27)	0.0184
7	Magnesium(as Mg).	mg/kg	ICPOES	ITC/CHN/FD/STP/020;	388

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210594 (1)**

NABL ULR No. : TC157302500003210 9F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				Issue No: 4.0; Issue Date: 13.09.2023	
8	Chloride(as Cl)	(% by mass)	Titration	APHA-24th Edition 2023 - 4500 Cl- B	0.0088
9	Moisture Content	(% by mass)	Balance, Oven	IS 2720 (Part-2): 1973	7.6
10	Total Organic Carbon	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.12
11	Cation Exchange Capacity	meq/100g	ICPMS	IS 2720 (Part 24) - 1976	21.56
12	Sand	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	11.4
13	Silt	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	78.2
14	Clay	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	10.4
15	Textural Class	NA	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	Silt Loam
16	Bulk Density	g/cc	Cylinder	Catt. on Advanvesion Agro - technologies for Improving Soil, Plant Atmosphere Systems From 11-31 Oct 2012	1.158
17	Electrical Conductivity	mS/m	Conductivity Meter	IS 14767 - 2000	0.295

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited

Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

ORIGINAL

Test Report No. : TR02EN-2511210594

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100880	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude 10°59'17.55"N. Longitude 77°59'46.99"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Punnam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Light Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Phosphate(as P)	(% by mass)	UV-Spectrophotometer	IS 10158: 1982	0.0024

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

Since 1988

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210593 (1)**
NABL ULR No. : **TC157302500003210 8F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100881	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude 11° 0'42.33"N, Longitude 77°58'55.36"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Punnam Chantram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Organic Matter	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.190
2	Calcium(as Ca)	mg/kg	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	1846
3	pH Value	NA	pH Meter	USEPA 9040 C (Rev.3): 2004	8.14
4	Total Nitrogen (as N)	(% by mass)	Titration	IS 10158: 1982 (RA 2003)	0.056
5	Potassium(as K)	(% by mass)	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	0.0072
6	Total Soluble Sulphate (as So4)	(% by mass)	UV-Spectrophotometer	IS: 2720 (Part 27)	0.0202
7	Magnesium(as Mg)	mg/kg	ICPOES	ITC/CHN/FD/STP/020;	468

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210593 (1)**

NABL ULR No. : TC157302500003210 8F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				Issue No: 4.0; Issue Date: 13.09.2023	
8	Chloride(as Cl)	(% by mass)	Titration	APHA-24th Edition 2023 - 4500 Cl- B	0.0116
9	Moisture Content	(% by mass)	Balance, Oven	IS 2720 (Part-2): 1973	9.8
10	Total Organic Carbon	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.11
11	Cation Exchange Capacity	meq/100g	ICPMS	IS 2720 (Part 24) - 1976	29.40
12	Sand	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	13.6
13	Silt	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	76.6
14	Clay	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	9.8
15	Textural Class	NA	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	Silt Loam
16	Bulk Density	g/cc	Cylinder	Caft. on Advanvesion Agro - technologies for Improving Soil, Plant Atmosphere Systems From 11-31 Oct 2012	1.24
17	Electrical Conductivity	mS/m	Conductivity Meter	IS 14767 - 2000	0.408

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

ORIGINAL

Test Report No. : TR02EN-2511210593

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100881	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude 11° 0'42.33"N, Longitude 77°58'55.36"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Punnam Chantram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Phosphate(as P)	(% by mass)	UV-Spectrophotometer	IS 10158: 1982	0.0018

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730

ORIGINAL

Test Report No. : **TR02EN-2511210592 (1)**

NABL ULR No. : **TC1573025000032106F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100882
Sample Name : Soil
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 1kg X 1 No
Packaging Mode : Poly Pack
Batch No./QR Code : Latitude:10°58'4.82"N, Longitude:77°59'13.73"E
Sample Submission Type : Sampled by Lab Rep
Date of Sampling : 07.03.2025
Sampling Location : Pavithiram
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : NA

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Organic Matter	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.120
2	Calcium(as Ca)	mg/kg	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	2122
3	pH Value	NA	pH Meter	USEPA 9040 C (Rev 3): 2004	8.24
4	Total Nitrogen (as N)	(% by mass)	Titration	IS 10158: 1982 (RA 2003)	0.038
5	Potassium(as K)	(% by mass)	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	0.0048
6	Total Soluble Sulphate (as So4)	(% by mass)	UV-Spectrophotometer	IS: 2720 (Part 27)	0.0245
7	Magnesium(as Mg)	mg/kg	ICPOES	ITC/CHN/FD/STP/020;	426

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210592 (1)**

NABL ULR No. : TC157302500003210 6F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				Issue No: 4.0: Issue Date: 13.09.2023	
8	Chloride(as Cl)	(% by mass)	Titration	APHA-24th Edition 2023 - 4500 Cl- B	0.0072
9	Moisture Content	(% by mass)	Balance, Oven	IS 2720 (Part-2): 1973	8.6
10	Total Organic Carbon	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.070
11	Cation Exchange Capacity	meq/100g	ICPMS	IS 2720 (Part 24) - 1976	30.20
12	Sand	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	14.8
13	Silt	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	74.4
14	Clay	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	10.8
15	Textural Class	NA	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	Silt Loan
16	Bulk Density	g/cc	Cylinder	Caft. on Advanvesion Agro - technologies for Improving Soil, Plant Atmosphere Systems From 11-31 Oct 2012	1.12
17	Electrical Conductivity	mS/m	Conductivity Meter	IS 14767 - 2000	0.362

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*****End of Report*****

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

ORIGINAL

Test Report No. : TR02EN-2511210592

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur, 639111
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100882	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude:10°59'1.00"N, Longitude:77°59'7.29"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Pavithiram		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brown Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Phosphate(as P)	(% by mass)	UV-Spectrophotometer	IS 10158: 1982	0.0012

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : **TR02EN-2511210591 (1)**
NABL ULR No. : **TC1573025000032104F**

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2503100883
Sample Name : Soil
Sample Condition : Good
Sample Details (if any)
Sample Quantity : 1kg X 1 No
Packaging Mode : Poly Pack
Batch No./QR Code : Latitude 10°58'55.29"N, Longitude 77°57'56.40"E
Sample Submission Type : Sampled by Lab Rep
Date of Sampling : 07.03.2025
Sampling Location : Kuppam
Environment Condition : Good
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference : Test Request Form/07/03/2025
Test Report as per : NA

Received On : 10/03/2025
Commenced On : 10/03/2025
Completed On : 15/03/2025
Date of Report : 15/03/2025

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brownish Sandal Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Organic Matter	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.160
2	Calcium(as Ca)	mg/kg	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	986
3	pH Value	NA	pH Meter	USEPA 9040 C (Rev 3): 2004	8.08
4	Total Nitrogen (as N)	(% by mass)	Titration	IS 10158: 1982 (RA 2003)	0.072
5	Potassium(as K)	(% by mass)	ICPOES	ITC/CHN/FD/STP/020; Issue No: 4.0; Issue Date: 13.09.2023	0.0064
6	Total Soluble Sulphate (as So4)	(% by mass)	UV-Spectrophotometer	IS: 2720 (Part 27)	0.0198
7	Magnesium(as Mg)	mg/kg	ICPOES	ITC/CHN/FD/STP/020;	344

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511210591 (1)**

NABL ULR No. : TC157302500003210 4F

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
				Issue No: 4.0; Issue Date: 13.09.2023	
8	Chloride(as Cl)	(% by mass)	Titration	APHA-24th Edition 2023 - 4500 Cl- B	0.0058
9	Moisture Content	(% by mass)	Balance, Oven	IS 2720 (Part-2): 1973	6.8
10	Total Organic Carbon	(% by mass)	Titration	IS: 2720 (Part-22): 2020	0.09
11	Cation Exchange Capacity	meq/100g	ICPMS	IS 2720 (Part 24) - 1976	28.80
12	Sand	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	9.6
13	Silt	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	82.2
14	Clay	(% by mass)	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	8.2
15	Textural Class	NA	Weighing Balance	ITC/CHN/ENV/STP/032; Issue No: 2.0; Issue date: 09.09.2023	Silt Loam
16	Bulk Density	g/cc	Cylinder	Catt. on Advanvesion Agro - technologies for Improving Soil, Plant Atmosphere Systems From 11-31 Oct 2012	1.346
17	Electrical Conductivity	mS/m	Conductivity Meter	IS 14767 - 2000	0.288

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*******End of Report*******

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

ORIGINAL

Test Report No. : TR02EN-2511210591

Issued To :

Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk,
Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2503100883	Received On	: 10/03/2025
Sample Name	: Soil	Commenced On	: 10/03/2025
Sample Condition	: Good	Completed On	: 15/03/2025
Sample Details (if any)		Date of Report	: 15/03/2025
Sample Quantity	: 1kg X 1 No		
Packaging Mode	: Poly Pack		
Batch No./QR Code	: Latitude 10°58'55.29"N, Longitude 77°57'56.40"E		
Sample Submission Type	: Sampled by Lab Rep		
Date of Sampling	: 07.03.2025		
Sampling Location	: Kuppam		
Environment Condition	: Good		
Sampling Procedure	: ITC/CHN/GSOP/001		
Customer Reference	: Test Request Form/07/03/2025		
Test Report as per	: NA		

S. No.	Parameter	Measuring Unit	Instrument	Method	Result
Description: Brownish Sandal Coloured Soil Sample					
	Discipline : Chemical				
	Group : Pollution & Environment				
(I)	**General Parameters**				
1	Total Phosphate(as P)	(% by mass)	UV-Spectrophotometer	IS 10158: 1982	0.0018

NOTE : NA

REMARKS : The above sample are analysed as received basis only.

*****End of Report*****

Authorised by
Name : Vijay Anand
Discipline : Chemical
Date : 15/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220710

NABL ULR No. : TC157302500003249 3F

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur.
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180864
Sample Description* : Ambient Noise-Continuous Noise
Sample Location : Nearby Core
Sample details (if any) :-

Received On : 11-03-2025
Commenced On : 11-03-2025
Completed On : 13-03-2025
Date of Report : 13-03-2025

Sample Submission Type : Sampled by Lab Rep.
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference* : Test Request Form/07.03.25
Test Report as per : CPCB Standards

Sampling Information
Date of Monitoring : 06.03.25-07.03.25
Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	43.1	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	42.8	
3	8.01 - 8.00	IS 9989	41.5	
4	9.01 - 10.00	IS 9989	44.6	
5	10.01 - 11.00	IS 9989	49.3	
6	11.01 - 12.00	IS 9989	47.9	
7	12.01 - 1.00	IS 9989	47.7	
8	1.01 - 2.00	IS 9989	48.4	
9	2.01 - 3.00	IS 9989	48.5	
10	3.01 - 4.00	IS 9989	49.9	
11	4.01 - 5.00	IS 9989	48.8	
12	5.01 - 6.00	IS 9989	48.6	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511220710**

NABL ULR No. : **TC157302500003249 3F**

13	18.01 - 19.01	IS 9989	45.3	
14	19.01 – 20.00	IS 9989	42.3	
15	20.01 - 21.00	IS 9989	42.0	
16	21.01 - 22.00	IS 9989	40.3	
	Day Time Avg. Leq dB (A)		**45.7**	
17	10.01-11.00	IS 9989	40.2	70 Max (22.00 - 6.00)
18	11.01-12.00	IS 9989	38.9	
19	12.01-1.00	IS 9989	38.5	
20	1.01-2.00	IS 9989	38.0	
21	2.01-3.00	IS 9989	36.1	
22	3.01-4.00	IS 9989	35.4	
23	4.01-5.00	IS 9989	36.6	
24	5.01-6.00	IS 9989	38.6	
	Night Time Avg. Leq dB (A)		**37.8**	

"#" represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*****End Of Report*****

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai- 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

Since 1988

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220709

NABL ULR No. : TC157302500003249 2F

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180865
Sample Description* : Ambient Noise-Continuous Noise
Sample Location : Velayuthampalayam
Sample details (if any) :-

Received On : 11-03-2025
Commenced On : 11-03-2025
Completed On : 13-03-2025
Date of Report : 13-03-2025

Sample Submission Type : Sampled by Lab Rep.
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference* : Test Request Form/07.03.25
Test Report as per : CPCB Standards

Sampling Information
Date of Monitoring : 06.03.25-07.03.25
Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	44.7	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	44.4	
3	8.01 - 8.00	IS 9989	43.0	
4	9.01 - 10.00	IS 9989	46.5	
5	10.01 - 11.00	IS 9989	51.9	
6	11.01 - 12.00	IS 9989	49.2	
7	12.01 - 1.00	IS 9989	51.4	
8	1.01 - 2.00	IS 9989	50.2	
9	2.01 - 3.00	IS 9989	52.4	
10	3.01 - 4.00	IS 9989	52.2	
11	4.01 - 5.00	IS 9989	53.1	
12	5.01 - 6.00	IS 9989	52.4	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : TR02EN-2511220709

NABL ULR No. : TC1573025000032492F

13	18.01 - 19.01	IS 9989	48.3	
14	19.01 – 20.00	IS 9989	44.0	
15	20.01 - 21.00	IS 9989	43.5	
16	21.01 - 22.00	IS 9989	42.7	
	Day Time Avg. Leq dB (A)		**48.1**	
17	10.01-11.00	IS 9989	43.1	
18	11.01-12.00	IS 9989	40.8	
19	12.01-1.00	IS 9989	39.8	
20	1.01-2.00	IS 9989	41.8	
21	2.01-3.00	IS 9989	42.2	70 Max (22.00 - 6.00)
22	3.01-4.00	IS 9989	41.7	
23	4.01-5.00	IS 9989	42.2	
24	5.01-6.00	IS 9989	43.2	
	Night Time Avg. Leq dB (A)		**41.8**	

'#' represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*******End Of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220708

NABL ULR No. : TC157302500003249 1F

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur,
Tamil Nadu, India

Sample Registration No. : SR02EN-2511180866
Sample Description* : Ambient Noise-Continuous Noise
Sample Location : Punnam
Sample details (if any) :-

Received On : 11-03-2025
Commenced On : 11-03-2025
Completed On : 13-03-2025
Date of Report : 13-03-2025

Sample Submission Type : Sampled by Lab Rep.
Sampling Procedure : ITC/CHN/GSOP/001
Customer Reference* : Test Request Form/07.03.25
Test Report as per : CPCB Standards

Sampling Information
Date of Monitoring : 06.03.25-07.03.25
Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	38.7	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	40.1	
3	8.01 - 8.00	IS 9989	39.3	
4	9.01 - 10.00	IS 9989	44.4	
5	10.01 - 11.00	IS 9989	45.1	
6	11.01 - 12.00	IS 9989	43.5	
7.	12.01 - 1.00	IS 9989	44.1	
8	1.01 - 2.00	IS 9989	44.7	
9	2.01 - 3.00	IS 9989	44.0	
10	3.01 - 4.00	IS 9989	45.1	
11	4.01 - 5.00	IS 9989	45.9	
12	5.01 - 6.00	IS 9989	44.7	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : **TR02EN-2511220708**

NABL ULR No. : **TC1573025000032491F**

13	18.01 - 19.01	IS 9989	42.2	
14	19.01 – 20.00	IS 9989	40.8	
15	20.01 - 21.00	IS 9989	39.6	
16	21.01 - 22.00	IS 9989	39.5	
	Day Time Avg. Leq dB (A)		**42.6**	
17	10.01-11.00	IS 9989	40.0	70 Max (22.00 - 6.00)
18	11.01-12.00	IS 9989	39.6	
19	12.01-1.00	IS 9989	37.6	
20	1.01-2.00	IS 9989	38.5	
21	2.01-3.00	IS 9989	38.8	
22	3.01-4.00	IS 9989	38.9	
23	4.01-5.00	IS 9989	38.5	
24	5.01-6.00	IS 9989	40.9	
	Night Time Avg. Leq dB (A)		**39.1**	

'#' represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*******End Of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited

Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

TEST REPORT

Since 1988

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220707

NABL ULR No. : TC157302500003249OF

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180867			
Sample Description*	: Ambient Noise-Continuous Noise	Received On	: 11-03-2025	
Sample Location	: Salipalaiyam	Commenced On	: 11-03-2025	
Sample details (if any)	:-	Completed On	: 13-03-2025	
		Date of Report	: 13-03-2025	
Sample Submission Type	: Sampled by Lab Rep.			
Sampling Procedure	: ITC/CHN/GSOP/001			
Customer Reference*	: Test Request Form/07.03.25			
Test Report as per	: CPCB Standards			

Sampling Information

Date of Monitoring : 06.03.25-07.03.25

Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	43.2	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	44.7	
3	8.01 - 8.00	IS 9989	44.1	
4	9.01 - 10.00	IS 9989	46.7	
5	10.01 - 11.00	IS 9989	48.0	
6	11.01 - 12.00	IS 9989	46.3	
7	12.01 - 1.00	IS 9989	49.0	
8	1.01 - 2.00	IS 9989	48.2	
9	2.01 - 3.00	IS 9989	48.5	
10	3.01 - 4.00	IS 9989	48.9	
11	4.01 - 5.00	IS 9989	49.7	
12	5.01 - 6.00	IS 9989	49.0	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : TR02EN-2511220707

NABL ULR No. : TC157302500003249OF

13	18.01 - 19.01	IS 9989	40.6	
14	19.01 – 20.00	IS 9989	42.3	
15	20.01 - 21.00	IS 9989	41.3	
16	21.01 - 22.00	IS 9989	41.5	
	Day Time Avg. Leq dB (A)		**45.8**	
17	10.01-11.00	IS 9989	42.2	70 Max (22.00 - 6.00)
18	11.01-12.00	IS 9989	42.2	
19	12.01-1.00	IS 9989	38.9	
20	1.01-2.00	IS 9989	39.5	
21	2.01-3.00	IS 9989	40.7	
22	3.01-4.00	IS 9989	40.0	
23	4.01-5.00	IS 9989	39.5	
24	5.01-6.00	IS 9989	41.8	
	Night Time Avg. Leq dB (A)		**40.6**	

'#' represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*******End Of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

Since 1988

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220706

NABL ULR No. : TC157302500003248 9F

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180868			
Sample Description*	: Ambient Noise-Continuous Noise	Received On	: 11-03-2025	
Sample Location	: Pullaiyampalayam	Commenced On	: 11-03-2025	
Sample details (if any)	:-	Completed On	: 13-03-2025	
		Date of Report	: 13-03-2025	
Sample Submission Type	: Sampled by Lab Rep.			
Sampling Procedure	: ITC/CHN/GSOP/001			
Customer Reference*	: Test Request Form/07.03.25			
Test Report as per	: CPCB Standards			

Sampling Information

Date of Monitoring : 06.03.25-07.03.25

Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	44.1	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	45.7	
3	8.01 - 8.00	IS 9989	44.9	
4	9.01 - 10.00	IS 9989	47.7	
5	10.01 - 11.00	IS 9989	48.9	
6	11.01 - 12.00	IS 9989	47.1	
7	12.01 - 1.00	IS 9989	50.0	
8	1.01 - 2.00	IS 9989	49.1	
9	2.01 - 3.00	IS 9989	49.5	
10	3.01 - 4.00	IS 9989	49.9	
11	4.01 - 5.00	IS 9989	50.7	
12	5.01 - 6.00	IS 9989	50.0	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : TR02EN-2511220706

NABL ULR No. : TC1573025000032489F

13	18.01 - 19.01	IS 9989	41.5	
14	19.01 – 20.00	IS 9989	43.3	
15	20.01 - 21.00	IS 9989	42.1	
16	21.01 - 22.00	IS 9989	42.3	
	Day Time Avg. Leq dB (A)		**46.7**	
17	10.01-11.00	IS 9989	43.2	70 Max (22.00 - 6.00)
18	11.01-12.00	IS 9989	43.2	
19	12.01-1.00	IS 9989	39.7	
20	1.01-2.00	IS 9989	40.2	
21	2.01-3.00	IS 9989	41.6	
22	3.01-4.00	IS 9989	40.8	
23	4.01-5.00	IS 9989	40.2	
24	5.01-6.00	IS 9989	42.6	
	Night Time Avg. Leq dB (A)		**41.5**	

'#' represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*******End Of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited

Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Interstellar Testing Centre Private Limited

Since 1988

TEST REPORT

TC-15730
ORIGINAL

Test Report No. : TR02EN-2511220705

NABL ULR No. : TC157302500003248 8F

Issued To
Punnam Village Cluster Quarry Project
Punnam Village, Pugalur Taluk, Karur,
Tamil Nadu, India

Sample Registration No.	: SR02EN-2511180869			
Sample Description*	: Ambient Noise-Continuous Noise	Received On	:	11-03-2025
Sample Location	: Punnam Chatram	Commenced On	:	11-03-2025
Sample details (if any)	:-	Completed On	:	13-03-2025
		Date of Report	:	13-03-2025
Sample Submission Type	: Sampled by Lab Rep.			
Sampling Procedure	: ITC/CHN/GSOP/001			
Customer Reference*	: Test Request Form/07.03.25			
Test Report as per	: CPCB Standards			

Sampling Information

Date of Monitoring : 06.03.25-07.03.25

Time of Monitoring : 10.10am -10.10am

S.No.	Time of Monitoring	Method	Result	Specification
	Discipline : Chemical			
	Group : Atmospheric Pollution			
1	6.01 - 7.00	IS 9989	37.6	75 Max (6.00 - 22.00)
2	7.01 - 8.00	IS 9989	39.0	
3	8.01 - 8.00	IS 9989	38.4	
4	9.01 - 10.00	IS 9989	40.6	
5	10.01 - 11.00	IS 9989	41.8	
6	11.01 - 12.00	IS 9989	40.3	
7	12.01 - 1.00	IS 9989	42.6	
8	1.01 - 2.00	IS 9989	42.0	
9	2.01 - 3.00	IS 9989	42.3	
10	3.01 - 4.00	IS 9989	42.5	
11	4.01 - 5.00	IS 9989	43.3	
12	5.01 - 6.00	IS 9989	42.6	

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :
- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers

Test Report No. : TR02EN-2511220705

NABL ULR No. : TC157302500003248 8F

13	18.01 - 19.01	IS 9989	35.4	
14	19.01 – 20.00	IS 9989	36.9	
15	20.01 - 21.00	IS 9989	36.0	
16	21.01 - 22.00	IS 9989	36.1	
	Day Time Avg. Leq dB (A)		**39.8**	
17	10.01-11.00	IS 9989	37.5	70 Max (22.00 - 6.00)
18	11.01-12.00	IS 9989	37.5	
19	12.01-1.00	IS 9989	34.6	
20	1.01-2.00	IS 9989	35.1	
21	2.01-3.00	IS 9989	36.2	
22	3.01-4.00	IS 9989	35.6	
23	4.01-5.00	IS 9989	35.1	
24	5.01-6.00	IS 9989	37.1	
	Night Time Avg. Leq dB (A)		**36.1**	

'#' represents Customer Defined Fields

NOTE : Instrument used: Sound Level Meter

REMARKS : The above sample complies with CPCB Standards with respect to the above tested Parameters

*******End Of Report*******

Authorised by
Name : Sakthivel
Discipline : Chemical
Date : 13/03/2025

Interstellar Testing Centre Private Limited
Plot No. 2, S.No. 12/2A, Industrial Estate,
Perungudi, Sholinganallur Taluk, Chennai - 600 096.
Ph : 044 - 24962512
Email : itclabs.chennai@itclabs.com
Website : www.itclabs.com

Disclaimer :

- The test result related only to the items tested
- The test report shall not be reproduced in full or part without the written approval of ITC Labs, Chennai.
- The test items shall not be retained more than 15 days from the date of issue of test report except in the case as required by the regulatory bodies and Customers