

## ANNEXURE

# THIRU. P. CHANDRAMOHAN ROUGH STONE & GRAVEL QUARRY

Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District

**ToR obtained vide**

**Lr No.SEIAA-TN/F.No.9705/ToR-1444/2022 Dated :08.05.2023**

**CLUSTER EXTENT = 6.57.8 ha**

<b>Project Proponent</b>	<b>Proposed Project</b>	<b>Extent</b>
<b>Thiru.P. Chandramohan, S/o. Palanisamy, No. 9/1A, Pongali Mudaliyar Street, KNP Road, Karamadai, Coimbatore District – 641 104.</b>	<b>S.F.Nos. 428/2, 429/1 &amp; 429/2 Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District,</b>	<b>1.81.5 ha</b>

## LIST OF ANNEXURES

<b>Proposed Quarry</b>		
P1  <b>THIRU.P. CHANDRAMOHAN</b>	Copy of ToR	1A – 23A
	Copy of 500m Radius Letter	24A – 25A
	Copy of Mining plan approval letter & Existing letter	26A – 29A
	Copy of Approved Mining plan and Drawing	30A – 109A
<b>Existing Quarry</b>		
E1	Copy of Mining Plan	110A-184A
E2	Copy of EC	185A-210A
E3	Copy of EC	211A-212A
	Copy of Lab data	213A-283A
	Copy of Consultant Accreditation certificate	284A



THIRU. DEEPAK S. BILGI, I.F.S.  
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT  
ASSESSMENT AUTHORITY-TAMILNADU

3<sup>rd</sup> Floor, Panagal Maaligai,  
No.1, Jeenis Road, Saidapet,  
Chennai - 600 015.  
Phone No. 044-24359973  
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**TERMS OF REFERENCE (ToR)**

**Lr No.SEIAA-TN/F.No.9705/ToR-1444/2022 Dated:08.05.2023.**

To

Thiru.P.Chandramohan,  
Slo.Palanisamy,  
No.9/1A, Pongali Mudaliyar Street,  
KNP Road, Karamadai,  
Coimbatore District-641104

Sir / Madam,

**Sub:** SEIAA, Tamil Nadu – Terms of Reference with public Hearing (ToR) for the Proposed Rough Stone and Gravel Quarry over an extent of 1.81.5Ha SF.No.428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District by Thiru.P.Chandramohan - under project category – “B1” and Schedule S.No.1 (a) – ToR issued along with Public Hearing - preparation of EIA report – Regarding.

- Ref:**
1. Online proposal No.SIA/TN/MIN/412754/2022 dated 06.01.2023.
  2. Your application submitted for Terms of Reference dated: 04.01.2023.
  3. Minutes of the 368<sup>th</sup> SEAC Meeting held on 19.04.2023.
  4. Minutes of the 615<sup>th</sup> SEIAA meeting held on 08.05.2023 & 09.05.2023.

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

The proponent, Thiru.P.Chandramohan has submitted application for Terms of Reference (ToR) with public Hearing on 04.01.2023, in Form-I, Pre- Feasibility report for the Proposed Rough

  
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Stone and Gravel Quarry over an extent of 1.81.5Ha SF.No.428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore, Tamil Nadu.

**Discussion by SEAC and the Remarks:-**

**Rough Stone and Gravel Quarry over an extent of 1.81.5Ha SF.No.428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District by Thiru.P.Chandramohan - For Terms of Reference.**

**(SIA/TN/MIN/412754/2022 dated 06.01.2023)**

The proposal was placed in the 368<sup>th</sup> SEAC Meeting held on 19.04.2023. The details of the minutes are available in the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The project proponent, Thiru.P.Chandramohan has applied for Terms of Reference for the Rough Stone and Gravel Quarry over an extent of 1.81.5Ha SF.No.428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per the precise area communication the lease period is for 5 years. The mining plan is for 5years. The production for 5 years shall not to exceed 70532m<sup>3</sup> of Rough Stone & 1080m<sup>3</sup> of Gravel and shall exceed the ultimate depth of 35m BGL.

Based on the presentation and details furnished by the project proponent, **SEAC decided to grant Terms of Reference (TOR) with Public Hearing** subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit CCR for the earlier EC issued Lr. No. SEIAA-TN/F.No.5642/1 (a)/EC.No.3901/2016 Dt:14.06.2017.
2. The PP shall submit photographs of fencing, greenbelt and garland drain.
3. AD mines letter for the existing pit with details of earlier lease period and pit dimension.
4. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m 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.
5. The study on impact of the dust & other environmental impacts due to proposed quarrying operations on the Rose flowers being cultivated through greenhouse nearby.

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6. The Proponent shall furnish photographs of greenbelt, fencing and garland drain around the boundary of the proposed quarry.
7. The proponent shall furnish a revised EMP budget for entire life of proposed mining.
8. The revised and corrected version of the Production & Development Plan shall be produced with showing the safety berm width of 2m is maintained for the bench height of 2m distinctly in the gravel formation and it shall be duly signed by the concerned QP & approved by the concerned AD (Geology & Mining).
9. 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 prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease during the time of appraisal for obtaining the EC.
10. The Proponent shall submit a conceptual 'Slope Stability Plan' indicating the mitigating measures for the proposed quarry during the appraisal while obtaining the EC, as the depth of the proposed quarry working is extended beyond 30 m below ground level.
11. 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.
12. 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.
13. 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.
14. 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,
  - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
  - b. Quantity of minerals mined out.
  - c. Highest production achieved in any one year
  - d. Detail of approved depth of mining.
  - e. Actual depth of the mining achieved earlier.
  - f. Name of the person already mined in that leases area.

  
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- g. If EC and CTO already obtained, the copy of the same shall be submitted.
- h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
15. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
16. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc.,
17. The PP shall furnish the revised manpower including the statutory & competent persons as required under the provisions of the MMR 1961 for the prosed quarry based on the volume of rock handled & area of excavation.
18. 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.
19. 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.
20. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
21. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
22. 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.

  
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23. 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.
24. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
25. 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.
26. 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.
27. 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.
28. 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.
29. Impact on local transport infrastructure due to the Project should be indicated.
30. 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.
31. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
32. Public Hearing points raised and commitments 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 and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.

  
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33. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
34. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
35. 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.
36. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the **appendix-I** in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
37. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site-specific choices. The proponent shall earmark the 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
38. 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.
39. 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.
40. 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

  
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- 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.
41. 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.
  42. 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.
  43. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  44. 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.
  45. 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.
  46. 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.
  47. 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.

  
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**Appendix - I**  
**List of Native Trees Suggested for Planting**

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Aegle marmelos</i>	Vilvam	வில்வம்
2	<i>Adenaanthera pavonina</i>	Manjadi	மஞ்சாடி, ஆனைக்குன்றிமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usil	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தாரை
6	<i>Bauhinia racemosa</i>	Aathi	ஆத்தி
7	<i>Bauhinia tomentosa</i>	Iruvathi	இருவாத்தி
8	<i>Buchanania axillaris</i>	Kattuma	காட்டுமா
9	<i>Borassus flabellifer</i>	Panai	பனை
10	<i>Butea monosperma</i>	Murukkamaram	முருக்கமரம்
11	<i>Bobax ceiba</i>	Ilavu, Sevvilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Purnai	புன்னை
13	<i>Cassia fistula</i>	Sarakondrai	சரக்கொன்றை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொன்றை
15	<i>Chloroxylon sweetenia</i>	Purasamaram	பரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Marjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவூளி
18	<i>Creteva adansoni</i>	Mavalingum	மாவிளங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உசா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உசா
21	<i>Diospyro sebenum</i>	Karungali	கருங்காலி
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகனை
23	<i>Ficus amplissima</i>	Kalltchi	கல் இச்சி
24	<i>Hibiscus tiliaceou</i>	Aatrupoovarasu	ஆற்றுப்புவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aavili	ஆயா மரம், ஆயிலி
27	<i>Lannea coromandelica</i>	Odhnam	ஓதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Lepisanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டை மரம்
30	<i>Limonia acidissima</i>	Vila maram	வில்லா மரம்
31	<i>Litsea glutinos</i>	Pisinpattai	அரம்பா, பிசின்பட்டை
32	<i>Madhuca longifolia</i>	Illuppai	இலுப்பை
33	<i>Manilkara hexandra</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழ்மரம்
35	<i>Mitragyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுணா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுணா
38	<i>Phoenix sylvestre</i>	Eachai	ஈச்சமரம்
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

  
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40	<i>Premna mollissima</i>	Munnai	முள்ளை
41	<i>Premna serratifolia</i>	Narumunnai	நறு முள்ளை
42	<i>Premna tomentosa</i>	Malaipoovarasu	மலை புவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வன்னி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வேங்கை
45	<i>Pterospermum canescens</i>	Veruangu, Tada	வெண்ணாங்கு
46	<i>Pterospermum xylocarpum</i>	Polavu	புலவு
47	<i>Putranjiva roxburghii</i>	Karpala	கறிபாலு
48	<i>Salvadora persica</i>	Ugaa Maram	ஊகா மரம்
49	<i>Sapindus emarginatus</i>	Manipungan, Soapukai	மணிப்புங்கன் சோப்புக்காய்
50	<i>Saraca asoca</i>	Asoca	அசோகா
51	<i>Streblus asper</i>	Piray maram	பிராய் மரம்
52	<i>Strychnos nuxvomica</i>	Yetti	எட்டி
53	<i>Strychnos potatorum</i>	Therthang Kottai	தேத்தான் கொட்டை
54	<i>Syzygium cumini</i>	Naval	நாவல்
55	<i>Terminalia belleric</i>	Thandri	தான்றி
56	<i>Terminalia arjuna</i>	Ven marudhu	வெண் மருது
57	<i>Toona ciliata</i>	Sandhana vembu	சந்தன வேம்பு
58	<i>Thespesia populnea</i>	Puvarasu	புவரசு
59	<i>Walsuratrifoliata</i>	valvura	வால்சுரா
60	<i>Wrightia tinctoria</i>	Veppalai	வெப்பாலை
61	<i>Pithecolobium dulce</i>	Kodukkapuli	கொடுக்காப்புளி

## Appendix-II

## Display Board

(Size 6' x5' with Blue Background and White Letters)

-----கரங்கம்

கரங்கத்தில் சுவாமி செயல்பாடுகளுக்கான சுற்றுச்சூழல் அனுமதி கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது எனவும், தேதி: 14.05.2023 சுற்றுச்சூழல் அனுமதி தேதி வரை செயல்படுத்தக்கூடாது என்பது

புகையுபத்தி வாராகச் செயல்பாடுகளைக் கரங்கத் திட்டம்	சுவாமியின் எல்லைப்பெய்தி சுற்றுச்சூழல் அமைக்க வேண்டும் கரங்கப்பாளையம் கழக தளப்பகுதியிலிருந்து 100 மீட்டர்கள் மீளமை இருக்க வேண்டும் சுற்றுச்சூழல் மாசு ஏற்படாதவாறு கரங்க பணிகளை மேற்கொள்ள வேண்டும் வாகனங்கள் செல்லும் பாதையில் மாசு ஏற்படாத அளவிற்கு தண்ணீரை முன்பாக தண்ணீர் வாரிகளின் மூலமாக அகலப்போது தெளிக்க வேண்டும் இளஞ்சாலை அமைவதும் தூசி மாசுபாட்டையும் குறைப்பதற்காக சுவாமியின் எல்லைப்பெய்தி சுற்றுச்சூழல் புகையுபத்தியை ஏற்படுத்த வேண்டும்.
கரங்கத்தில் செயல்பாடுகளைப்பொழுது நிலத்திழைவுகள் ஏற்படாதவாறும் மற்றும் கற்கள் பறக்காதவாறும் பாதுகாப்பு நடவடிக்கைகளை உள்விடமாக செயல்படுத்தப்பட வேண்டும்	கரங்கத்தில் இருந்து ஏற்படும் இளஞ்சாலை அமைவு 85 டி.சி.பி.எஸ். (ISA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த உட்பாடுகளை மேற்கொள்ள வேண்டும்.
கரங்க எ.ஊ. விலிகள் 1500 கீழ் கரங்கத்தில் உள்ள பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதற்கு காரதரமுள்ள கருப்பறை வசதிகளை செய்து தர வேண்டும்.	கரங்கம் தலைநகர் பகுதியிலிருந்து வந்தவர்களுக்கு வாகனங்கள் செல்லும் சாலைப்பகுதி பகுதி பாதுகாப்பு வேண்டும். கரங்கப்பாளையம் அருகில் உள்ள விவசாய பணிகள் மற்றும் நீரிழைப்புகள் பாதிக்கப்படக் கூடாது. நீரிழைப்புகள் பாதிக்கப்படாமல் இருப்பதற்கு உறுதி செய்யும் வகையில் சூழலியல் நிபந்தனைகளை மேற்கொண்டு கரங்கத்தில் வேண்டும்.
கரங்கத்திலிருந்து கரங்கம் போக்குவரத்தை எடுத்துச் செல்லும் கிராம மக்களுக்கு எந்த சிரமத்தினையும் ஏற்படுத்தாதவாறு பாதுகாப்பும் மற்றும் சுற்றுச்சூழல் பாதிக்காத வண்ணம் வாகனங்களை இயக்க வேண்டும்	கரங்கப்பணிகள் முடிக்கப்பட்டவுடன் கரங்க ஸ்டாடம் திட்டத்தில் உள்ளவாறு கரங்கத்தினால் ஸ்டாடம் வேண்டும்.
கரங்க நடவடிக்கைகளை முடித்தபின்னர் கரங்கப் பகுதி மற்றும் கரங்க நடவடிக்கைகளை இடைபூறு ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தராமல் விவசாயிகள் ஆகியவற்றின் வாராக்சிகு ஏற்ற வகையில் புகைப்படத்தியை உருவாக்க வேண்டும்.	(முடிவைப்படி நிபந்தனைகளை அறிவிக்கப்பட்டுள்ள) வாகன இயக்கப்படுத்தப்படும் பாதையில் மேலும் எந்தவித சுற்றுச்சூழல் சந்தை பாதிக்கக்கூடிய செயல்பாடுகளும் மற்றும் வரை அமைச்சுத்தில் இருப்பினாலும் வட்டம் அனுமதிக்க 94 - 2022/2023 (அல்லது) தனித்தனியாக உட்பாடு வரிப்படுத்தும் மரபுடைய சுற்றுச்சூழல் பொறியாளர் அனுமதி

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**Discussion by SEIAA and the Remarks:-**

The proposal was placed in the 615<sup>th</sup> Authority meeting held on 08.05.2023 & 09.05.2023. The Authority noted that this proposal was placed for appraisal in this 368<sup>th</sup> SEAC meeting held on 19.04.2023. After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) along with Public Hearing** under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal conditions in addition to the conditions in '**Annexure B**' of this minute.

1. The project proponent shall prepare mine closure plan considering quantity of Topsoil & Weathered rock. If any.
2. 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.

**Annexure 'B'****Cluster Management Committee**

1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.
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 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.
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.
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 furnish the Emergency Management plan within the cluster.

  
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9. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.
10. The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.
11. The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.

#### **Impact study of mining**

12. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following
  - a) Soil health & soil biological, physical land chemical features .
  - b) Climate change leading to Droughts, Floods etc.
  - c) Pollution leading to release of Greenhouse gases (GHG), rise in Temperature, & Livelihood of the local people.
  - d) Possibilities of water contamination and impact on aquatic ecosystem health.
  - e) Agriculture, Forestry & Traditional practices.
  - f) Hydrothermal/Geothermal effect due to destruction in the Environment.
  - g) Bio-geochemical processes and its foot prints including environmental stress.
  - h) Sediment geochemistry in the surface streams.

#### **Agriculture & Agro-Biodiversity**

13. Impact on surrounding agricultural fields around the proposed mining Area.
14. Impact on soil flora & vegetation around the project site.
15. 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.
16. 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.
17. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
18. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.


  
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**Forests**

19. The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
20. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.
21. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
22. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.

**Water Environment**

23. 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.
24. Erosion Control measures.
25. 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.
26. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
27. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.
28. 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.
29. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
30. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.

  
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**Energy**

31. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

**Climate Change**

32. 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.

33. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.

**Mine Closure Plan**

34. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.

**EMP**

35. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.

36. 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**

37. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.

**Disaster Management Plan**

38. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.

**Others**

39. 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.

  
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40. 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.
41. 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.

#### **A. STANDARD TERMS OF REFERENCE**

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

  
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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

  
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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

  
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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

  
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- 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

  
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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.


  
**MEMBER SECRETARY**  
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- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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

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

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

  
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- Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
  12. The EIA study report shall include the surrounding mining activity, if any.
  13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
  14. A study on the geological resources available shall be carried out and reported.
  15. A specific study on agriculture & livelihood shall be carried out and reported.
  16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
  17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
  18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
  19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
  20. Likely impact of the project on air, water, land, flora-fauna and nearby population
  21. Emergency preparedness plan in case of natural or in plant emergencies
  22. Issues raised during public hearing (if applicable) and response given
  23. CER plan with proposed expenditure.
  24. Occupational Health Measures
  25. Post project monitoring plan
  26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
  27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
  28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
  29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
  30. Reserve funds should be earmarked for proper closure plan.

  
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31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

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

  
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**Copy to:**

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. The APCCF (C), Regional Office, MoEF & CC (SZ), 34, HEPC Building, 1<sup>st</sup>& 2<sup>nd</sup> Floor, Cathedral Garden Road, Nungambakkam, Chennai -34.
5. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
6. The District Collector, Coimbatore District.
7. The EO/BDO, Paladurai Village, Madukkarai Taluk, Coimbatore District
8. Stock File.

From

Thiru.V.Sasikumar, M.Sc.,  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

To

Thiru.P.Chandramohan,  
9/1A, Pongali Mudaliyar Street,  
KNP road, Karamadai,  
Coimbatore.

**Rc.No.350/Mines/2019 Dated: 21.11.2022**

Sir,

Sub: Mines & Minerals – Minor Mineral – Coimbatore District –  
Mettupalayam Taluk – Chikkarampalayam Village - Survey  
Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2  
(0.47.0 Hec) - over an extent of 1.81.5 hectares of patta  
land - Application preferred by Thiru.P.Chandramohan for  
quarrying Roughstone and gravel - Precise area  
communicated - Details of quarries situated within 500  
meter radial distance - Requested – furnished - reg.

- Ref. 1. Assistant Director, Dept. of Geology and Mining,  
Coimbatore Letter Rc.No.350/Mines/2019, Dated:  
18.10.2022.
2. Thiru.P.Chandramohan, Coimbatore letter dated:  
09.11.2022.

\*\*\*\*\*

I invite kind attention to the reference cited wherein  
Thiru.P.Chandramohan has been issued precise area for the grant of  
Rough Stone and gravel quarry lease over an extent of 1.81.5 hectares of  
patta land in Survey Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and  
429/2 (0.47.0 Hec) of Chikkarampalayam Village, Mettupalayam Taluk,  
Coimbatore District.

In the reference 2<sup>nd</sup> cited of Thiru.P.Chandramohan has requested  
to furnish the details of quarries situated within 500 meter radial  
distance from the proposed area.

In this connection the details of abandoned, expired, existing and  
proposed quarries situated within 500 meter radial distance from the  
proposed area are furnished below.

**i) Existing Quarries**

Sl. No.	Name of the Owner	Village &S.F.Nos.	Extent in Hect.	Lease period	Remarks
1.	M/s.Technomax Building Solution India Pvt Ltd	Bellathi 345/3 (P)	1.45.8	26.10.2018 to 25.10.2023	24 A

2.	S.Palanisamy	Chickkarampalayam 435/2B1, 435/2B2, 435/2C, 435/2D & 435/2E	1.55.0	10.10.2022 to 09.10.2027	
3.	M/s.Palanivel Sri Blue Metals	Chikkarampalayam 60/1B, 61 & 428/1A	1.75.5	13.10.2022 to 12.10.2027	

4.76.3

**ii) Expired Quarries**

Sl. No.	Name of the Owner	Village & S.F.Nos.	Extent in Hect.	Lease period	Remarks
-NIL-					

**iii) Abandoned quarries**

Sl. No.	Name of the Owner	Village & S.F.Nos.	Extent in Hect.	Lease period	Remarks
1	N.Kandasamy & M.Shanmugam	Chikkarampalayam 65/1	0.77.0	24.12.2007 to 23.12.2012	
2	M/s.Technomax Building Solution India Pvt Ltd	Bellathi 345/2	2.13.5	12.01.2009 to 11.01.2014	

**iv) Proposed quarries**

Sl. No.	Name of the Owner	Village & S.F.Nos.	Extent in Hect.	Remarks
1	P.Chandramohan	Chikkarampalayam 428/2, 429/1 & 429/2	1.81.5	Subject area Precise area communicated

**v) Future Proposed quarries**

Sl. No.	Name of the Owner	Village & S.F.Nos.	Extent in Hect.	Remarks
---NIL---				

6.57-8

*[Signature]*  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

*[Signature]*  
21/11/22

From  
Thiru.V.Sasikumar, M.Sc.,  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

To  
Thiru.P.Chandramohan,  
9/1A, Pongali Mudaliyar Street,  
KNP road, Karamadai,  
Coimbatore.

**Rc.No.350/Mines/2022 Dated: 21.11.2022**

Sir,

Sub: Mines & Minerals – Minor Mineral – Coimbatore District –  
Mettupalayam Taluk – Chikkarampalayam Village - Survey  
Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2  
(0.47.0 Hec) - over an extent of 1.81.5 hectares of patta land  
- Application preferred by Thiru.P.Chandramohan for  
quarrying Rough stone and gravel – Submission of mining  
plan for approval – approved – regarding.

- Ref: 1. Quarry lease application dated 08.04.2022 preferred by  
Thiru.P.Chandramohan, Coimbatore.  
2. Assistant Director, Dept. of Geology and Mining,  
Coimbatore Letter Rc.No.350/Mines/2022, Dated:  
18.10.2022  
3. Mining Plan submitted by Thiru.P.Chandramohan  
dated: 09.11.2022.

\*\*\*\*\*

In response to the precise area communicated by the Assistant  
Director of Geology and Mining, Coimbatore the applicant  
Thiru.P.Chandramohan vide reference 3<sup>rd</sup> cited has submitted three  
copies of mining plan for the grant of Roughstone and gravel quarry  
lease over an extent of 1.81.5 hectares of patta land in Survey Nos.  
428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2 (0.47.0 Hec) of  
Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.

2. The mining plan submitted for the grant of Rough stone and  
gravel quarry lease over an extent of 1.81.5 hectares of patta land in  
Survey Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2 (0.47.0  
Hec) of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore  
District has been verified in detail.

3. As per the guidelines/instructions issued by the Commissioner  
of Geology and Mining, Chennai vide letter Rc.No.3868/LC/2012, dated  
19.11.2012, the mining plan is hereby approved, subject to the following  
conditions:

- (i) The mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such laws are made by the Central Government, State Government or any other authority.
- (ii) This approval of the mining plan does not in any way imply the approval of the Government in terms or any other provisions of the Mines and Minerals (Development and Regulation) Amended Act, 2015, 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) 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) As per the Assistant Director, Dept. of Geology and Mining, Coimbatore letter Rc.No.350/Mines/2022, Dated: 18.10.2022 the following conditions have been incorporated in the Mining Plan.
- a) No hindrance should be caused to the adjacent pattadars and public.
- b) A safety distance of 7.5 meters should be provided for the adjacent patta lands from the lease applied area.
- c) DGPS survey should be done by the Government recognized agency and boundary stones should be erected along the entire boundary of the leased out area.
- d) Quarrying should be done in are seeking permission along after leaving proper safety distance.
- v) 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.

Encl: Two copies of Approved Mining Plan.

  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

Copy submitted to:  
The Commissioner of Geology and Mining, Chennai-32.

  
21/11/22

From

Thiru.V.Sasikumar, M.Sc.,  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

To

Thiru.P.Chandramohan,  
9/1A, Pongali Mudaliyar Street,  
KNP road, Karamadai,  
Coimbatore.

**Rc.No.350/Mines/2022 Dated: 21.11.2022**

Sir,

Sub : Mines & Minerals - Minor Mineral - Coimbatore District - Mettupalayam Taluk - Chikkarampalayam Village - Survey Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2 (0.47.0 Hec) - over an extent of 1.81.5 hectares of patta land - Application preferred by Thiru.P.Chandramohan for quarrying Rough stone and gravel - Precise area communicated - Mining Plan - approved - further particulars called for - furnished - regarding.

- Ref: 1. Assistant Director, Dept. of Geology and Mining, Coimbatore Letter Rc.No.350/Mines/2022, Dated: 18.10.2022.  
2. Thiru.P.Chandramohan, Coimbatore letter dated: 09.11.2022.

\*\*\*\*\*


In the reference 2<sup>nd</sup> cited Thiru.P.Chandramohan has requested to furnish certain particulars regarding the precise area granted in Survey Nos. 428/2 (0.70.0 Hec), 429/1 (0.64.50 Hec) and 429/2 (0.47.0 Hec) over an extent of 1.81.5 hectares of patta land in Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District. In this connection the following details are furnished.

The area was previously held under quarry lease and the details are as follows

Sl. No.	Name of the Exlessee	SF.No/ Extent	District Collector's proceedings No. & Date	Validity	Lease Period
1	P.Backiyavathi	428/2, 429/1, 429/2 & 1.81.5 Hec	Rc.No.2321/2004/MM2 & 2322/2004/MM2 dt: 07.01.2005	5 Years	21.01.2005 to 20.01.2010
2	P.Backiyavathi	428/2, 429/1, 429/2 & 1.81.5 Hec	Rc.No.1627/2009/MM1 dt: 02.09.2010	5 years	02.09.2010 to 01.09.2015

3	P.Backiyavathi	428/2, 429/1, 429/2 & 1.81.5 Hec	Rc.No.756/Mine s/2015 dt: 17.10.2017	5 Years	17.10.2017 to 16.10.2022
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At the time of inspection, the quarry pit with a dimension of pit 1) 47 Meter (length) X 71 Meter (width) X 17 Meter depth, pit 2) 86 Meter (length) X 70 Meter (width) X 22 Meter depth, pit 3) 57 Meter (length) X 26 Meter (width) X 6 Meter depth and pit 4) 53 Meter (length) X 27 Meter (width) X 2 Meter depth are noticed in the applied area.

  
Assistant Director,  
Dept. of Geology and Mining,  
Coimbatore.

  
2-10-22



தமிழ்நாடு இயக்குநர் அலுவலகம்  
21 NOV 2022

**MINING PLAN AND PROGRESSIVE QUARRY  
CLOSURE PLAN FOR CHIKKAMPALAYAM  
ROUGH STONE AND GRAVEL QUARRY**

(PREPARED UNDER RULES 41 & 42 AS AMENDED IN TAMIL NADU MINOR MINERAL CONCESSION RULES, 1959)

*Patta Lands / Lease Period = Five Years ✓*

IN

**LOCATION OF THE QUARRY LEASE APPLIED AREA**

EXTENT : 1.81.5 Ha ✓  
S.F.NOS : 428/2, 429/1 & 429/2  
VILLAGE : CHIKKAMPALAYAM ✓  
TALUK : METTUPALAYAM ✓  
DISTRICT : COIMBATORE ✓  
STATE : TAMIL NADU ✓

FOR

**APPLICANT**

**Thiru.P.Chandramohan, ✓**

S/o. Palanisamy, ✓

No. 9/1A, Pongali Mudaliyar Street,  
KNP Road, Karamadai,  
Coimbatore District – 641 104 ✓

**PREPARED BY**

**P.Viswanathan, M.Sc. ✓**

Qualified Person ✓

No.17, Advaita Ashram Road,  
Alagapuram, Salem District – 636 004.  
Cell: +91 94422 78601 & 94433 56539.  
E-mail: infogeoexploration@gmail.com







**P.Chandramohan,**  
S/o. Palanisamy,  
No. 9/1A, Pongali Mudaliyar Street,  
KNP Road, Karamadai,  
Coimbatore District – 641 104.

**DECLARATION OF THE APPLICANT**

The Mining Plan and Progressive Quarry Closure Plan in Respect of Chikkarampalayam Rough Stone and Gravel Quarry in S.F.Nos. 428/2, 429/1 & 429/2 over an extent of 1.81.5 Ha of Patta lands in Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State has been prepared in full consultation with me.

I have understood its contents and agree to implement the same in accordance with Laws, Rules and Act applicable to Quarry.

Signature of the Applicant

P.Chandramohan

Place: Coimbatore

Date: 19.10.2022



## CERTIFICATE

Certified that I am, **P.Viswanathan, M.Sc.**, having an office at Regd. Off. No. 17, Advaita Ashram Road, Alagapuram, Salem – 636 004, holding a Post Graduate Degree in Applied Geology (M.Sc., Applied Geology) from Periyar University, Salem and I worked in the field of Geology in a role of Geologist.

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

Accordingly, I am prepare this Mining Plan and Progressive Quarry Closure Plan in Respect of Chikkarampalayam Rough Stone and Gravel Quarry in S.F.Nos. 428/2, 429/1 & 429/2 over an extent of 1.81.5 Ha of Patta lands in Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State for **Thiru.P.Chandramohan, S/o. Palanisamy**, residing at No. 9/1A, Pongali Mudaliyar Street, KNP Road, Karamadai, Coimbatore District – 641 104, Tamil Nadu State. Since the Mining Plan is prepared as per the provisions contained in Rule 15(I)(a) and (I)(b) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.

Signature of the Qualified Person

  
P.Viswanathan, M.Sc.,

Place: Salem

Date: 21.10.2022

**P.Viswanathan, M.Sc.,**

No. 17, Advaita Ashram Road,

Alagapuram, Salem District – 636 004.

Cell: +91 94422 78601 & 94433 56539.



**CERTIFICATE FROM THE QUALIFIED PERSON**

This is to certify that the Provisions of under Rules 41 & 42 as per the Amended under Tamil Nadu Minor Mineral Concession Rules, 1959 have been observed in the preparation of Mining Plan and Progressive Quarry Closure Plan for Chikkarampalayam Rough Stone and Gravel Quarry in S.F.Nos. 428/2, 429/1 & 429/2 over an extent of 1.81.5 Ha of Patta lands in Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State has been prepared for

**Thiru.P.Chandramohan,**

S/o. Palanisamy,

No. 9/1A, Pongali Mudaliyar Street,

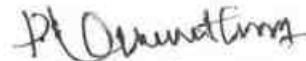
KNP Road, Karamadai,

Coimbatore District – 641 104.

Whenever specific permissions/ exemptions/ relaxations and approvals are required, the Applicant will approach the concerned authorities of the Assistant Director, Department of Geology and Mining, Coimbatore District, Tamil Nadu for such permissions/ exemptions/ relaxations and approvals.

It is also certified that information furnished in the above Mining Plan are true and correct to the best of my knowledge.

Signature of the Qualified Person

  
P.Viswanathan, M.Sc.,

Place: Salem

Date: 21.10.2022

**P.Viswanathan, M.Sc.,**

No. 17, Advaita Ashram Road,

Alagapuram, Salem District – 636 004.

Cell: +91 94422 78601 & 94433 56539.



**CERTIFICATE FROM THE QUALIFIED PERSON**

Certified that the Provisions of Mines Act, Rules and Regulations and Orders made there under have been observed in the preparation of Mining Plan and Progressive Quarry Closure Plan for Chikkarampalayam Rough Stone and Gravel Quarry in S.F.Nos. 428/2, 429/1 & 429/2 over an extent of 1.81.5 Ha of Patta lands in Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State has been prepared for

**Thiru.P.Chandramohan,**

S/o. Palanisamy,

No. 9/1A, Pongali Mudaliyar Street,

KNP Road, Karamadai,

Coimbatore District – 641 104.

Whenever specific permissions/ exemptions/ relaxations and approvals are required, the Applicant will approach the concerned authorities of Director General of Mines Safety (DGMS), No.5, II Street, Block-AA, Anna Nagar, Chennai - 40, Tamil Nadu for such permissions / exemptions / relaxations and approvals.

It is also certified that information furnished in the Mining Plan are true and correct to the best of my knowledge.

Signature of the Qualified Person

P.Viswanathan, M.Sc.,

Place: Salem

Date: 21.10.2022

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**LIST OF ANNEXURES**



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**MINING PLAN AND PROGRESSIVE QUARRY CLOSURE PLAN FOR  
CHIKKARAMPALAYAM ROUGH STONE AND GRAVEL QUARRY OVER AN  
EXTENT OF 1.81.5 Ha IN CHIKKARAMPALAYAM VILLAGE,  
METTUPALAYAM TALUK, COIMBATORE DISTRICT, TAMIL NADU STATE.**

(PREPARED UNDER RULES 41 & 42 AS PER THE AMENDED UNDER TAMIL NADU MINOR MINERAL  
CONCESSION RULES, 1959)

**1.0 INTRODUCTION AND EXECUTIVE SUMMARY**

This Mining Plan and Environment Management Plan are prepared for **Thiru.P.Chandramohan**, S/o. Palanisamy, residing at No. 9/1A, Pongali Mudaliyar Street, KNP Road, Karamadai, Coimbatore District – 641 104.

The applicant applied for Rough Stone and Gravel quarry over an extent of 1.81.5 Ha of Patta lands in S.F.Nos. 428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State under Rules 19 (1) & 20 of Tamil Nadu Minor Mineral Concession Rules, 1959.

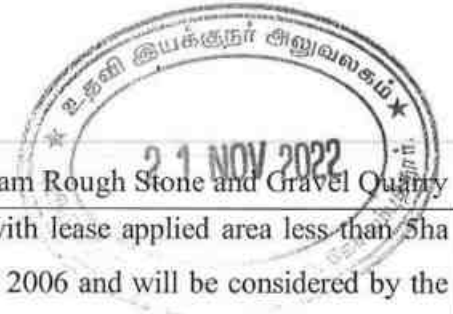
The application was processed by the Assistant Director, Department of Geology and Mining, Coimbatore District and passed a Precise Area Communication letter vide **Rc.No.350/Mines/2022, Dated: 18.10.2022** to submit Mining Plan for the approval in Department of Geology and Mining, Coimbatore District and obtain Environmental Clearance from the SEIAA, Chennai, Tamil Nadu State, with the conditions to provide:

1. No hindrance shall be caused to the adjoining Patta lands and Public while carrying out Rough Stone and Gravel quarrying operations.
2. A safety distance of 7.5 meters should be provided to the adjacent patta lands.
3. Each boundary pillar should be planted via inspected by a government approved company in accordance with DGPS (Differential Global Positioning System) in the lease area.
4. Child labor should not be engaged for quarry operation.

(Please refer Annexure No – I).

In order to ensure compliance of the order of the Honourable Supreme Court Dated: 27.02.2012 in I.A.No.12.13.2011 in Special Leave Petition SLP (C) No 19628-19629/2009, it has been now decided that all mining projects of minor minerals including their renewal irrespective of sizes of the lease would hence forth require prior environmental clearance mining project within the lease applied





area up to less than 100ha including projects or minor mineral with lease applied area less than 5ha would be treated as category B as defined in the EIA notification 2006 and will be considered by the state notified by MoEF as prescribed procedure under EIA notification 2006.

In the above circumstances the applicant through his consultant is hereby preparing the Mining Plan, Environmental Management Plan and Progressive Quarry Closure Plan for approval and subsequent submission of Form-I, Form-IM and Pre-feasibility report to obtain environmental clearance from the SEIAA, Chennai, Tamil Nadu State, Rough Stone and Gravel quarry. This mining plan is prepared by considering the Rules 41 & 42 as Amended in Tamil Nadu Minor Mineral Concession Rules, 1959 and as per the EIA Notification 2006 and its subsequent Amendment and judgments till 2022.

**Short Notes of Mining Plan:**

- a. Village Panchayat - Chikkarampalayam
- b. Panchayat Union - Karamadai
- c. The Geological Resources are **4,37,835m<sup>3</sup>** of Rough Stone and **2,602m<sup>3</sup>** of Gravel formation in the entire area.
- d. The Total Mineable Reserves are **1,55,626m<sup>3</sup>** of Rough Stone and **1,080m<sup>3</sup>** of Gravel in the entire area.
- e. The proposed quantity of reserves/ (level of production) to be mined are **70,532m<sup>3</sup>** of Rough Stone and **1,080m<sup>3</sup>** of Gravel for five years in the entire area.
- f. Total extent of the lease applied area = 1.81.5 Ha
- g. Topography of the area = The area exhibits Flat terrain
- h. Proposed Depth of mining = 35m (2m Gravel + 33m Rough Stone) below the ground level
- i. Mining Plan Period = Five years
- j. It is a fresh lease application but, the applied area has been considered quarrying operation earlier. The quarry lease was previously granted in the favour of **Tmt.P.Bhagyavathi**, over an extent of 1.81.5 hectares of Patta lands in S.F.Nos. 428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District vide **Rc.No.756/Mines/2015, Dated: 17.10.2017** for the period of five years from 17.10.2017 to 16.10.2022 for quarrying of Rough Stone and Gravel. The lessee has obtained Environmental Clearance from the State Level Environment Impact Assessment Authority, Tamil Nadu vide letter No. **SEIAA-TN/F.No.5642/1(a)/EC.No: 3901/2016, Dated: 14.06.2017**. The applicant has again applied a quarry lease on 08.04.2022, over an extent of 1.81.5 hectares of Patta lands in S.F.Nos. 428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk,



Coimbatore District for the period of five years. The application was meritoriously processed by the Assistant Director, Department of Geology and Mining, Coimbatore District and recommended the quarry lease for the period of five years.

- k. The maximum dimension of the **existing quarry pit** is given table below (Refer Plate No. II).

Existing Pit Dimension (maximum)			
Pit	Length (m)	Width (m)	Depth (m)
I	47	71	17m below ground level
II	86	70	22m below ground level
III	57	26	6m below ground level
IV	53	27	2m below ground level

- l. Method of mining / level of mechanization.  
Opencast mechanized method, the quarry operation involves shallow Jack hammer drilling, slurry blasting.
- m. Type of machineries proposed in the quarrying operation is given below:  
Excavators attached with rock breaker (Rental Basis).  
Jack hammer, Compressor (Diesel drive) (4 Jack hammer capacity) (Rental Basis).
- n. No trees will be uprooted due to this quarrying operation.
- o. The approach road from the main road to quarry is already existence in good condition. The same will be maintained and utilized for Transportation of quarry materials and machineries.
- p. There is No Export of this Rough Stone and Gravel.
- q. Topo sketch covering 10km and 1km radius around the proposed area with markings of habitations, water bodies including streams, rivers, roads, major structure like bridges, wells, archaeological importance, places of worships is marked and enclosed as Plate Nos. IA & IB.
- r. The lease applied area is about 1.81.5 Ha bounded by nine corners; the corners are designated as 1-9 Clockwise from the Southwestern corner the Co – ordinates for the all the corners are clearly marked in the Quarry Lease and Surface Plan enclosed as Plate No. II.
- s. The plans of proposed quarrying area showing the dimensions of the pit, their proposed depth and maximum area of proposed quarrying are enclosed as Plate Nos. III and IV.
- t. General conditions will not be applicable for the proposed area. The area applied for lease is 10Km away from the,
  - i) *Interstate Boundary,*
  - ii) *Protected area under wild life protection ACT, 1972,*
  - iii) *Critically polluted areas as identified by CPCB,*
  - iv) *Notified Eco sensitive areas.*



Mining Plan and PQCP

Chikkarampalayam Rough Stone and Gravel Quarry

- u. There is no waste anticipated during this quarry operation, hence waste dump is not proposed in the lease applied area.
- v. Around 14 employees are deploying in the quarrying operation.
- w. Total Cost of the project is about **Rs.34,39,000/-**.
- x. Infrastructures around the lease applied area given below in the table:

TABLE-1

Particulars	Location	Approximate aerial distance and direction from lease applied area
Nearest Post Office	Belladhi	2km – NW
Nearest School	Chikkarampalayam	1km – SW
Nearest Dispensary	Karamadai	3km – SW
Nearest Town	Karamadai	3km – SW
Nearest Police Station	Karamadai	3km – SW
Nearest Hospital	Karamadai	3km – SW
Nearest D.S.P. Office	Mettupalayam	8km – NW
Nearest Railway Station	Karamadai	3km – SW
Nearest Airport	Coimbatore	25km – SE
Nearest Seaport	Kochi	166km – SW
District Head quarters	Coimbatore	25km – S

**2.0 GENERAL INFORMATION**

**2.1 a) Name of the Applicant :** Thiru.P.Chandramohan,  
S/o. Palanisamy

**b) Address of the Applicant (With Phone No and Aadhaar No)**

Address : No. 9/1A, Pongali Mudaliyar Street,  
KNP Road, Karamadai,  
Coimbatore District.

Pin Code : 641 104

Mobile No : +91 99161 37577

Aadhaar No : 8787 7709 5761

Email ID : ckpchandramohan@gmail.com

**c) Status of the Applicant (Individual / Company / Firm):**

The applicant is an Individual.

**2.2 a) Mineral which the Applicant intends to mine:**

The Applicant intends to quarry Rough Stone and Gravel only.

**b) Precise area communication letter details received from the Competent Authority of the Government:**

The precise area communication letter was received from the Assistant Director, Department of Geology and Mining, Coimbatore District vide **Rc.No. 350/Mines/2022, Dated: 18.10.2022** to submit approved mining plan and to obtain Environmental Clearance from the SEIAA, Chennai, Tamil Nadu State.

**c) Period of permission / lease to be granted:**

Five Years.

**d) Name and address of the Qualified Person who preparing the Mining Plan:**

Name : **P.Viswanathan, M.Sc.,**  
Qualified Person

Address : No.17, Advaita Ashram Road,  
Alagapuram, Salem District – 636 004.

Telephone : 0427- 2431989 (Office)

Cell No : +91 94422 78601 & 94433 56539

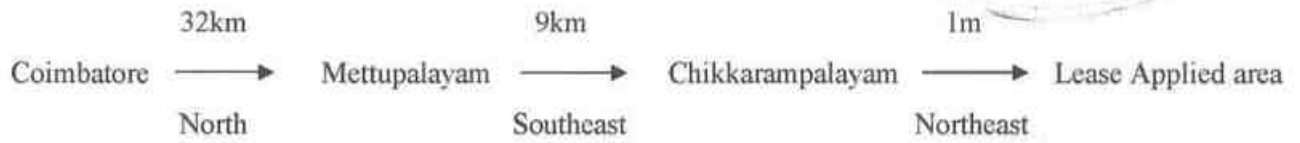
Email : [infogeoexploration@gmail.com](mailto:infogeoexploration@gmail.com)



**3.0 LOCATION**

**a) Details of the area with location map:**

The lease applied area is located about 25km North side of Coimbatore, 8km Southeast side of Mettupalayam and 1km Northeast side of Chikkarampalayam Village.



**Location Map of the Lease Applied Area**

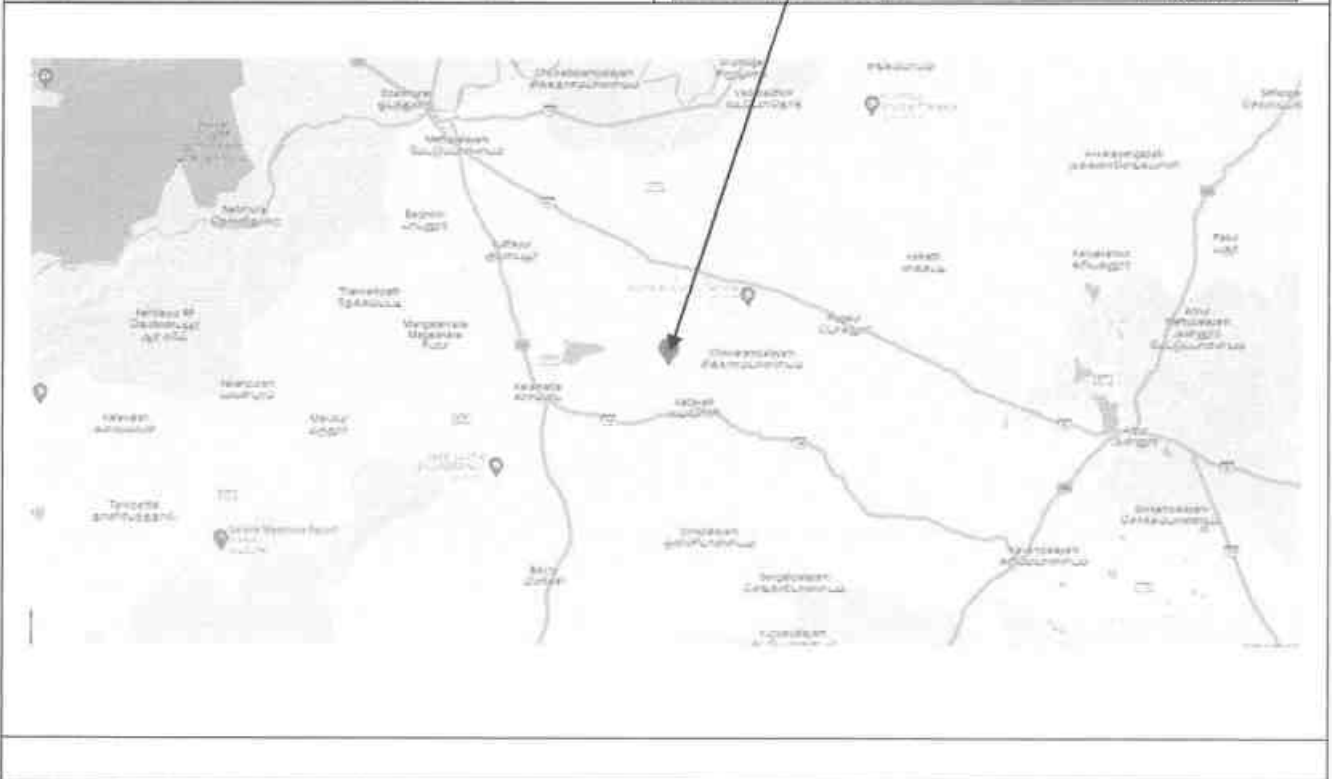
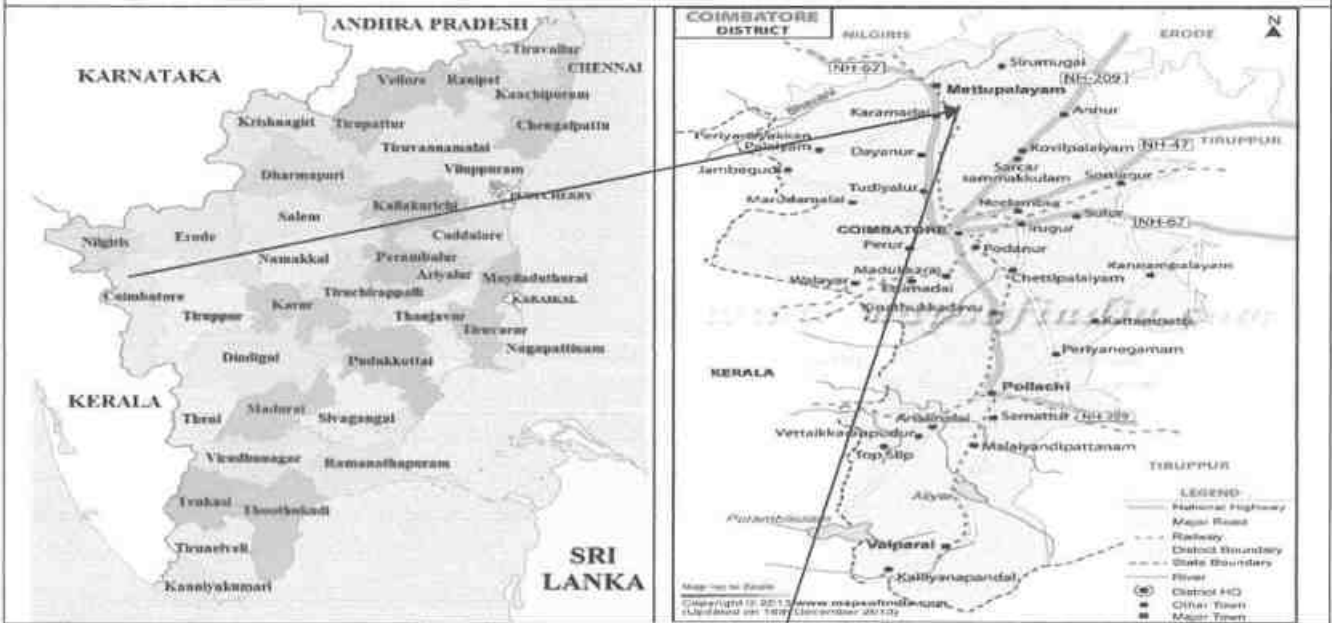




TABLE-2

District	Taluk	Village	S.F. No.	Lease Applied Area (Ha)	Patta No
Coimbatore	Mettupalayam	Chikkarampalayam	428/2	0.70.0	1534
			429/1	0.64.5	1535
			429/2	0.47.0	
<b>Total Extent</b>				<b>1.81.5</b>	

**b) Classification of the area (Ryotwari/ Poramboke / others):**

It is a Patta land classified as punjai (Barren land) which is not fit for vegetation/ Cultivation.

**c) Ownership / Occupancy of the applied area (surface right):**

It is a Patta land, S.F.No. 428/2 is registered in the name of the applicant (Thiru.P.Chandramohan) and S.F.Nos. 429/1 & 429/2 is registered in the name of Tmt.P.Bhagyavathi. The applicant has obtained consent from pattadhar. Please Refer patta copy and consent document as Annexure Nos. IV & VII.

**d) Topo sheet No. with latitude and longitude:**

The lease applied area falls in the Topo sheet No: 58 – A/15 & 58 – A/16 Latitude between: 11°14'57.26"N to 11°15'02.15"N and Longitude between: 76°59'25.42"E to 76°59'30.96"E on WGS datum-1984. Please refer the Plate Nos. I to II.

**e) Existence of public road / Railway line, if any nearby and approximate distance:**

The approach (Cart track) road is situated on the Southern side which is connects to the Karamadai – Vadavalli Village Road located at 100m on the Southern side of the applied area.

Multiple road access is available from the quarry to state highways and National Highway, no villages are enrooted hence the traffic density is not much more due to the transportation of Rough Stone.

The approach road from the quarry is already existed and the same will be utilized for haulage and maintained during the entire lease period, tree sapling will be planted on the either side of the road to prevent dust and noise propagation to the nearby areas.

The Nearest Railway line is Coimbatore – Ooty which is about 3km on the Southwestern side of the lease applied area.



**PART - A**

**4.0 GEOLOGY AND MINERAL RESERVES**

**4.1 Brief description of the Topography and general Geology of the area (with plans):**

The lease applied area exhibits Flat terrain. The area has gentle sloping towards North side. The altitude of the area is 350m (max) above Mean Sea level. The area is covered by 2m thickness of Gravel formation. Massive Charnockite which is clearly inferred from the existing quarry pits.

The Water table is found at a depth of 70m in summer and at 65m in rainy seasons. Average annual rainfall is about 1213mm.

**Topographical View of lease applied area**



Peninsular gneiss forms the oldest rock formations, in which the massive formation of Charnockite lies over with rich accumulation of recent quaternary formation. On regional scale of the Charnockite body is N30°E – S30°W with dipping towards SE60°.

The general geological sequences of the rocks in this area are given below:

<b>AGE</b>	<b>FORMATION</b>
Recent	- Quaternary Formation (Gravel)
-----Unconformity-----	
Archaean	- Charnockite Peninsular Gneiss complex

lob



**4.2 Details of exploration already carried out if any:**

State Geology and Mining Dept, Govt. of Tamil Nadu, has carried out the Regional prospecting and exploration in these areas during 1992 to 1993.

Geological Survey of India has carried out detailed mapping in Coimbatore District. Besides, the Qualified Person and his team members made a detailed geological study of the proposed area. The Rough Stone formation is clearly inferred from the existing quarry pits.

**4.3 Estimation of Reserves:**

**a) Geological reserves with geological sections on a scale of 1:1000 / 1:2000**

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

Totally three sections have been drawn, one section is drawn as Length wise as (X-Y) and other two sections are drawn as Width wise as (A-B & C-D) to cover the maximum area considered for lease.

The Topographical, Geological Plan and Sections demarcated the commercial marketable Rough Stone (Charnockite) deposit has been prepared in 1:1000 scale (please refer the Geological Plan and Sections Plate No. III). As the sale of Rough Stone is in terms of cubic meters (Volume) only and not in terms of tonnage.

**Geological Resources (Plate No. III):**

The Geological Resources of Rough Stone and Gravel are calculated up to a maximum depth of 35m (2m Gravel + 33m Rough Stone) below the ground level. The total Geological resources are calculated by sectional method and the resources are estimated after depletion of existing quarry pits.

The total geological resources are given table below:

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TABLE-3

GEOLOGICAL RESOURECES						
Section	Bench	Length (m)	Width (m)	Depth (m)	Geological Resources of Rough Stone (m <sup>3</sup> )	Gravel (m <sup>3</sup> )
XY-AB	I	2	18	2		72
	II	2	18	3	108	
	III	9	20	5	900	
	IV	44	100	5	22000	
	V	44	100	2	8800	
	V	44	148	3	19536	
	VI	44	148	2	13024	
	VI	72	148	3	31968	
	VII	72	148	5	53280	
	VIII	72	148	5	53280	
<b>Total</b>					<b>202896</b>	<b>72</b>
XY-CD	I	23	55	2		2530
	II	23	101	3	6969	
	III	51	149	5	37995	
	IV	51	149	5	37995	
	V	51	149	5	37995	
	VI	51	149	5	37995	
	VII	51	149	5	37995	
	VIII	51	149	5	37995	
<b>Total</b>					<b>234939</b>	<b>2530</b>
<b>Grand Total</b>					<b>437835</b>	<b>2602</b>

Total Geological Resources of Gravel : 2,602m<sup>3</sup>

Total Geological Resources of Rough Stone : 4,37,835m<sup>3</sup>

**Existing Pit Dimension:**

The lease applied area has been quarried in earlier the existing pit dimensions are follows:

TABLE-4

Existing Pit Dimension (maximum)			
Pit	Length (m)	Width (m)	Depth (m)
I	47	71	17m below ground level
II	86	70	22m below ground level
III	57	26	6m below ground level
IV	53	27	2m below ground level



**Available Mineable Reserves:**

The available Mineable reserves are calculated after leaving the safety distance and bench loss to a maximum depth of 35m below ground level.

**TABLE-5**

<b>MINEABLE RESERVES</b>						
<b>Section</b>	<b>Bench</b>	<b>Length (m)</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>Mineable Reserves of Rough Stone (m<sup>3</sup>)</b>	<b>Gravel (m<sup>3</sup>)</b>
XY-AB	IV	28	70	5	9800	
	V	28	66	2	3696	
	V	28	104	3	8736	
	VI	28	94	2	5264	
	VI	51	94	3	14382	
	VII	46	84	5	19320	
	VIII	41	74	5	15170	
	<b>Total</b>					<b>76368</b>
XY-CD	I	15	36	2		1080
	II	12	78	3	2808	
	III	37	120	5	22200	
	IV	33	110	5	18150	
	V	28	100	5	14000	
	VI	23	90	5	10350	
	VII	18	80	5	7200	
	VIII	13	70	5	4550	
	<b>Total</b>					<b>79258</b>
<b>Grand Total</b>					<b>155626</b>	<b>1080</b>

The mineable reserves have been computed as 1,55,626m<sup>3</sup> of Rough Stone and 1,080m<sup>3</sup> of Gravel at the rate of 100% recovery upto a maximum depth of 35m below ground level for a period of five years.

**5.0 MINING**

**5.1 Method of mining (opencast / underground):**

Open cast Mechanized Mining is being carried out with 5.0 meter vertical bench with a bench width is not less than the bench height.

However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of Regulation 106 (2) (b) as above is seldom possible due to various inherent petro genetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available with the Regulation 106 (2) (b) of MMR-1961, under Mine Act - 1952.

**5.2 Mode of working (mechanized, semi mechanized, manual):**

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

The quarry operation involves shallow Jack hammer drilling, slurry explosives in blasting, excavation, loading and transportation of Rough Stone to the needy crusher.

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

Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and slurry explosives blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy crushers.

Occasionally hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting. The primary boulders thus splitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast mechanized method of mining.

**5.3 Proposed Bench Height and Width:**

The Charnockite is hard and compact rock, the bench height is proposed 5.0 meter vertical bench the width of the bench is not less than the Height.

**5.4 Indicate the overburden / mineral production expected pit wise as detailed below (composite plan and section showing pit layout, dumps, disposal of waste if any etc.):**

The overburden in the form of Gravel formation, the Gravel will be directly loaded into tippers for the filling and levelling of low lying areas, this will be done only after obtaining permission and paying necessary seigniorage fees to the Government. The excavated Rough Stone will be directly loaded into tippers to the needy customers. The Composite year wise Development and production plan and sections indicating the Pit lay out, Green belt development are shown in Plate Nos. III.



**Year wise development and Production**

**TABLE-6**

<b>YEARWISE RESERVES</b>							
<b>Section</b>	<b>Year</b>	<b>Bench</b>	<b>Length (m)</b>	<b>Width (m)</b>	<b>Depth (m)</b>	<b>Recoverable Reserves of Rough Stone (m<sup>3</sup>)</b>	<b>Gravel (m<sup>3</sup>)</b>
XY-CD	I	I	15	36	2		1080
		II	12	78	3	2808	
		III	20	120	5	12000	
		<b>Total</b>					<b>14808</b>
XY-AB	II	III	17	120	5	10200	
		IV	11	70	5	3850	
		<b>Total</b>					<b>14050</b>
	III	IV	17	70	5	5950	
		V	17	66	2	2244	
		V	17	104	3	5304	
		<b>Total</b>					<b>13498</b>
	IV	VI	12	94	2	2256	
		VI	35	94	3	9870	
		VII	5	84	5	2100	
<b>Total</b>					<b>14226</b>		
V	VII	20	84	5	8400		
	VIII	15	74	5	5550		
	<b>Total</b>					<b>13950</b>	
<b>Grand Total</b>						<b>70532</b>	<b>1080</b>

The Recoverable reserves have been computed as 70,532m<sup>3</sup> of Rough Stone and 1,080m<sup>3</sup> of Gravel for five years at 100% recovery upto depth of 35m below ground level.

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



Mining Plan and PQCP

Chikkarampalayam Rough Stone and Gravel Quarry

One lorry load	=	6m <sup>3</sup> (approx.)
Total No of Working days	=	300 Days per year
Total quantity to be removed in these five years plan period	=	70,532m <sup>3</sup>
Hence total lorry loads per day	=	70,532m <sup>3</sup> / 6m <sup>3</sup>
	=	11,755 lorry loads
	=	11,755 / 5 years
	=	2,351 / 300 Days
Rough Stone	=	<b>7 - 8 Lorry loads per day</b>
Total quantity of Gravel to be removed during one year	=	1,080m <sup>3</sup>
Hence total Lorry loads per day	=	1,080m <sup>3</sup> / 6m <sup>3</sup>
	=	180 Lorry loads
	=	180 / 1 year
	=	180 / 300 days
Gravel	=	<b>0.6 Lorry load per day</b>

Working hours = 8.30 am to 5.30 pm (with 12.30-1.30 pm lunch break)

**5.5 Machineries to be used:**

**For Mining:**

The following machineries are utilized on rental basis for the development and production work at this quarry.

TABLE-7

**I. DRILLING MACHINE:**

S. No.	Type	Nos	Dia Hole mm	Size Capacity	Motive power
1	Jack hammer	2	30-35	1.2m to 2.0m	Compressed air
2	Compressor	1	-	400 psi	Diesel Drive

**II. EXCAVATION & LOADING EQUIPMENT:**

S. No.	Type	Nos	Capacity	Motive Power
1	Excavator with Bucket and Rock Breaker	1	300	Diesel Drive

**III. HAULAGE WITHIN THE MINE & TRANSPORT EQUIPMENT:**

S. No.	Type	Nos	Capacity	Motive Power
1	Tippers	1	20 tonnes	Diesel Drive



**5.6 Disposal of Overburden/Waste:**

The overburden in the form of Gravel formation, the Gravel will be directly loaded into tippers for the filling and levelling of low lying areas, this will be done only after obtaining permission and paying necessary seigniorage fees to the Government. The excavated Rough Stone (100%) will be directly loaded into Tippers to the needy customers. There is no Waste anticipated during this plan period hence, disposal of waste does not arise.

**5.7 Brief note on conceptual mining plan for the entire lease period base on the geological, mining and Environment considerations:**

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

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

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

TABLE-8

Ultimate Pit Dimension (maximum)		
Length (m)	Width (m)	Depth (m)
115	132	35m below ground level

Greenbelt has proposed on the Panchayat roads by planting native species of Neem, Casuarina and Pongamia pinnata, etc., tree sapling. All the base line information studies like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out every year as per the MoEF & CC Norms. It is proposed to engage any local institution to monitor the EIA and EMP during the course of quarrying operation after the grant of quarry lease.

There is no waste anticipated during the entire life of quarry. Hence, backfilling is not possible in this quarry. After completion of quarry operation, the quarry pit will be allowed to collect the seepage and rainwater, the water storage will be kept as temporary reservoir for charging the nearby wells and the storage water will be used for afforestation purpose. The quarry pit will be fenced with barbed wire fencing to prevent inadvertent entry of public and cattle (Refer Plate No. IV).



**6.0 BLASTING**

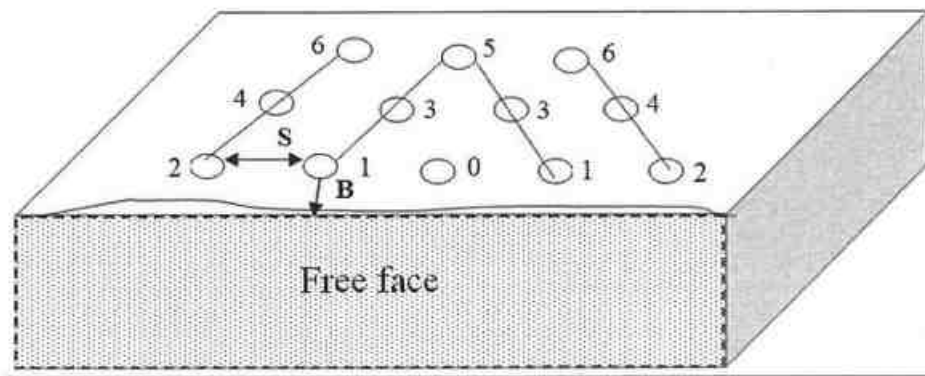
**6.1 Blasting pattern:**

The quarrying operation is proposed to be carried out by Mechanized Opencast Method in conjunction with conventional method of mining using Jack hammer drilling and slurry blasting of shattering effect for loosening the Rough Stone.

Drilling and blasting parameters are as follows:

Depth of Each hole	:	1.5m
Diameter of hole	:	30-32mm
Spacing between holes	:	1.2m
Burden for hole	:	1.0m
Pattern of hole	:	Zigzag – Multi-rows
Inclination of holes	:	80° from horizontal
Use of delay detonators	:	25millisecond relays
Detonating fuse	:	“Detonating” Cord

**BLASTING PATTERN DRAWING**



**Staggered “V” Pattern of Blasting Design**

Spacing	=	1.2m
Burden	=	1.0m
Depth of the hole	=	1.5m
No of holes proposed per day	=	40 Holes

**6.2 Type of explosives to be used:**

Small Dia. 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough Stone. No deep hole drilling or primary blasting is proposed.

**6.3 Measures proposed to minimize ground vibration due to blasting:**

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

Shallow depths jackhammer drilling & 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 (millisecond delays) permits to divide the shot in 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	= 40 Holes
Yield	= 122 Tons
Powder factor	= 6 Tons/Kg of explosives
Total explosive required	= 20 Kg-Slurry explosives
Charge/ hole	= 0.5 Kg
Blasting at day time only	= 12.00 – 12.30p.m (whenever required)

**6.4 Storage and safety measures to be taken while blasting:**

The applicant will engage authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/Permit Mines Manager. The explosives agencies should be having the valid Blaster certificate. He will blast holes in the quarry site. After the completion of Blasting the Explosive Agencies will take it out back the remaining quantity of Explosives. The magazine is available at the quarry site to temporarily store the explosives.





## 7.0 MINE DRAINAGE

### 7.1 Depth of water table (based on nearby wells and water bodies):

The Water Table in the area is 70m in summer season and 65m in rainy season which is observed from the nearby bore wells and the data obtained from existing private boreholes. The lease area is fully covered by Massive Charnockite formation. Hence the Ground Water problem will not arise. If water seepage may occur due to the fracture, the same will be used for Greenbelt.

TABLE-9

Type	Distance & Direction	Location
Bore Well	500m Northeast side	11°15'17.73"N 76°59'34.91"E

### 7.2 Arrangements and places where the mine water is finally proposed to be discharged:

Quarry operations are confined well above the water table during the entire lease period. If water is encountered at due to rain water and seepage, the same will be pumped out by 5HP water pumps to the Greenbelt development areas. Besides, the water will also be used for dust suppression on haul roads during Haulage of machineries.



**8.0 OTHER PERMANENT STRUCTURES (also shown in the map)**

**8.1 Habitations/ Villages natham:**

There is no approved habitation within 300m radius from the lease applied area.

**8.2 Power Lines (HT/LT):**

There is no EB (LT/HT) line situated within 50m radius of the lease applied area.

**8.3 Water bodies (river, ponds, lake, odai, canal, etc.):**

There is no River, Pond, Lake, Odai, Canal located within 50m radius of the lease applied area.

**8.4 Archaeological / historical monuments:**

There are no Archaeological / historical monuments within 500m radius from the lease applied area.

**8.5 Road (NH, SH, others):**

The Nearest National Highway (NH-181) Coimbatore – Gundlupete Road is situated about 4.0km on the Southwestern side of the lease applied area.

The State Highway (SH-168) Karamadai – Kariyampalayam Road is situated about 1.0km on the Southeastern side of the lease applied area.

The Major District Road (MD-979) Karamadai – Sirumugai Road is situated about 3.0km on the Northwestern side of the lease applied area.

**8.6 Places of worships:**

There is no place of worships within the radius of 500m from the lease applied area.

**8.7 Reserved forest / forest / social forest / wild life sanctuary etc.,:**

There is no reserved forest / forest / social forest / wild life sanctuary etc., within radius of 1km of the lease applied area.



**SALIENT FEATURES**

S. No.	Salient Features Present around site	Prescribed safety distance	If any present within Prescribed distance it's actual distance and direction from the area															
1.	Railways, Highways, Reservoirs or Canal	50m	None of the above situated within 50m radius.															
2.	Village Road	10m	There is no Village Road is situated within 10m radius of the lease applied area.															
3.	Habitation / Village	300m	There is no approved habitation within 300m radius from the lease applied area (Refer Plate No I-B).															
4.	Adjacent Patta lands / Govt. Land	7.5m/10m	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Direction</th> <th>Classification</th> <th>Safety Distance</th> </tr> </thead> <tbody> <tr> <td>North</td> <td>Patta Land</td> <td>7.5m</td> </tr> <tr> <td>East</td> <td>Patta Land</td> <td>7.5m</td> </tr> <tr> <td>South</td> <td>Patta Land</td> <td>7.5m</td> </tr> <tr> <td>West</td> <td>Patta Land</td> <td>7.5m</td> </tr> </tbody> </table> <p>(Refer Plate No. II).</p>	Direction	Classification	Safety Distance	North	Patta Land	7.5m	East	Patta Land	7.5m	South	Patta Land	7.5m	West	Patta Land	7.5m
Direction	Classification	Safety Distance																
North	Patta Land	7.5m																
East	Patta Land	7.5m																
South	Patta Land	7.5m																
West	Patta Land	7.5m																
5.	Housing area, EB line (HT & LT Line)	50m	There is no EB (LT/HT) line or Housing area situated within 50m radius of the lease applied area (Refer Plate No. II).															
6.	Boundaries of the permitted area	7.5m/10m	<p>The boundaries of the permitted areas are as follows:</p> <p>North - S.F.Nos. 427 &amp; 426            East - S.F.No. 430            South - S.F.Nos. 432 &amp; 433            West - S.F.No. 428/1B</p> <p>(Refer Plate No. II).</p>															
7.	Reserve forest	1km	There is no reserved forest located within the radius of 1km from the lease applied area. (Refer Plate No. IA and IB).															
8.	Protected area / ECO sensitive area/ Wild Life Sanctuary	10km	There is no ECO sensitive Zone/ Wild Life Sanctuary/ Critically Polluted Area/ HACA/ CRZ located within 10km radius of the area. (Refer Plate No. IA).															



**9.0 EMPLOYMENT POTENTIAL & WELFARE MEASURES**

**9.1 Employment potential (skilled, semi skilled, un skilled):**

The following manpower's are proposed in the mining plan to carry out the day-to-day quarrying activities, the same employment is maintaining aimed at the proposed production target and also to comply with the statutory provisions of the Metalliferous Mines Regulations, 1961.

a. Skilled labour:

Mine Foreman	:	1
Blaster/mate	:	1
Excavator – Operator & Driver	:	2
Jack hammer operator	:	4

b. Semi-skilled:

Security	:	1
----------	---	---

c. Unskilled:

Labour & Helper	:	3
Co-operator and Cleaner	:	2
<b>Total</b>	:	<b>14</b>

The above manpower is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations. It is been ensured that the labour will not be employed less than 18 years, **No child labour** will engaged or entertained for any kind of quarrying operations. All the labours engaged for quarrying operations will be insured during the quarry lease period.

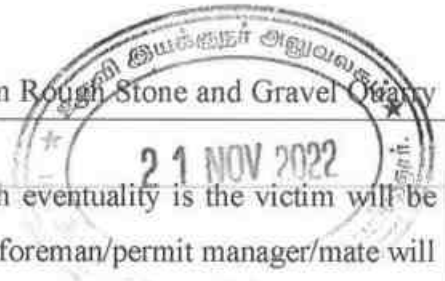
**9.2 Welfare Measures:**

a. **Drinking Water:**

Packaged drinking water is available from the nearby approved water vendors in Karamadai which is about 3.0km on the Southwestern side of the lease applied area.

b. **Sanitary Facilities:**

Hygienic modern Sanitary Facilities will be constructed as semi permanent structure and it will be maintained periodically as hygienic.



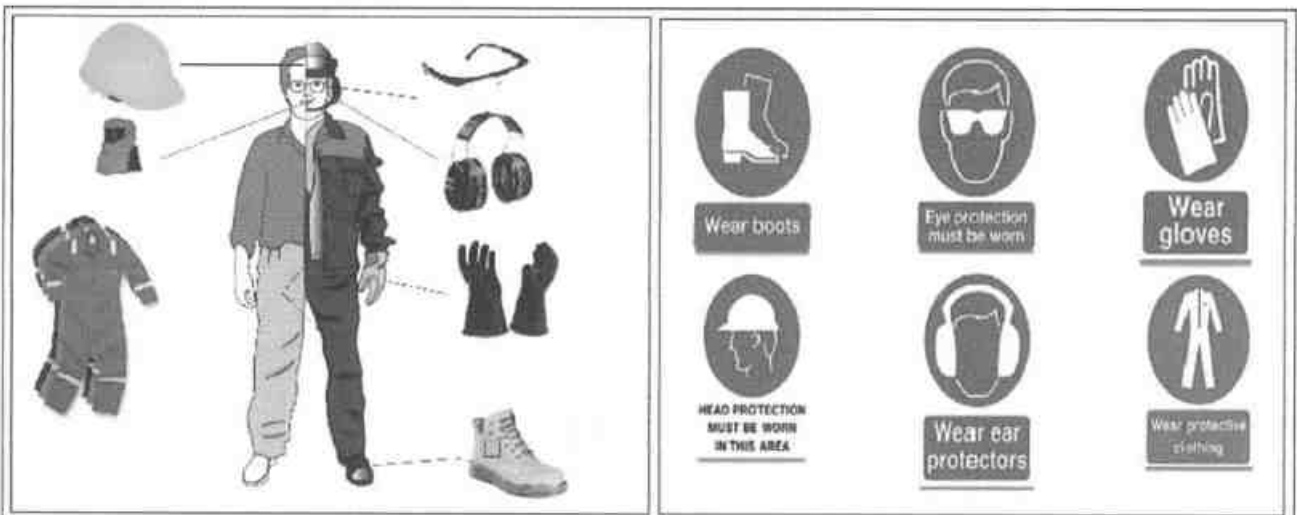
**c. First aid facility:**

First aid kits are kept in Mines office room, in case of such eventuality is the victim will be given first aid immediately at the site by the competent and statutory foreman/permit manager/mate will be in charge of first aid and injured person will be taken to the hospital by the applicant vehicle. Hospital is available in Karamadai located at a distance of 3.0km on the Southwestern side.

**d. Labour Health:**

Periodically medical check-up related to occupational health safety will be conducted to all the workers in applicant own cost.

**e. Precautionary safety measures to the labourers:**



- Helmets,
- Mine Goggles,
- Ear plugs,
- Ear muffs,
- Dust mask,
- Reflector jackets,
- Safety Shoes

All personnel protective devices will be provided as per the specification approved by Director of mines safety. Periodically medical check-up will be conducted for all workers for any mine health related problems. Proper training and vocational education will be given by qualified and experienced safety officer to all the employees about the safety and systematic Rough Stone quarrying operations. The drillers and workers will be sent for vocational training periodically, to carry out the quarrying operations scientifically and to safe guard the men and machinery and to create awareness about conventional opencast quarrying operations.



**PART – B**

**10.0 ENVIRONMENT MANAGEMENT PLAN**

**10.1 Existing Land use pattern:**

The quarry lease applied area exhibits Flat terrain. The area is a dry barren land devoid of Agriculture and Habitations. The lease applied area has utilized only for quarry operation in earlier.

LAND USE TABLE-10

Description	Present area (Ha)	Area at the end of this quarrying period (Ha)
Quarrying Pit	1.25.0	1.43.0
Infrastructure	Nil	0.01.0
Roads	0.02.0	0.02.0
Green Belt	Nil	0.11.0
Unutilized Area	0.54.5	0.24.5
<b>Grand Total</b>	<b>1.81.5</b>	<b>1.81.5</b>






**10.2 Water Regime:**

It is a simple opencast quarry operation. The quality of water will not be affected due to this quarrying operation. However, mitigation measures will be carried out like Garland drains constructed on all sides of quarry pit to avoid surface run-off rain water entering into the pit.







The waste water discharged to water bodies will be met the standard prescribed under the Environment (Protection) Act – 1986 by The Ministry of Environment, Forest and Climate change.

## 10.3 Flora and Fauna:

TABLE-11

S.No.	Name of the plant (Scientific)	Family Name	Common Name	Habit	Picture
1.	<i>Cocos nucifera</i>	<i>Areaceae</i>	Coconut, Thennai	Tree	
2.	<i>Curcuma longa</i>	<i>Zingiberaceae</i>	Turmeric	Herb	
3.	<i>Sorghum bicolor</i>	<i>Poaceae</i>	Solam	Grass	
4.	<i>Borassus flabellifera</i>	<i>Areaceae</i>	Palmyra Palm	Tree	
5.	<i>Calotropis gigantea</i>	<i>Asclepiadaceae</i>	Crown Flower, Erukku	Shrub	

List of Fauna

S.No.	Scientific Name	Common Name	Picture
1.	<i>Egretta garzetta</i>	Little egret	
2.	<i>Boiga spp</i>	Cat snake	
3.	<i>Dicrurus macrocercus</i>	Black drongo	
4.	<i>Calotes versicolor</i>	Garden Lizard	
5.	<i>Funambulus palmarum</i>	Indian palm squirrel	
6.	<i>Hieroglyphus sp</i>	Grasshopper	



**10.4 Climatic Conditions:**

The area receives rainfall of about 1213mm/annum and the rainy season is mainly from Oct - Dec during monsoon. The summer is hot with maximum temperature of 35°C and winter encounters a minimum temperature of 22°C.

**10.5 Human settlement:**

There are few villages located in this area within 5km radius; the approximate distance and population are given below:

TABLE-12

S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population
1.	Mongampalayam	1km – NE	2,800
2.	Vadavalli	1km – SE	4,000
3.	Chikkarampalayam	1km – SW	10,400
4.	Belladhi	2km – NW	7,800

Basic human welfare Amenities such as Health Centre, Schools, Communication Facilities, and Commercial Centres etc., are available at Karamadai located at a distance of 3.0km on the Southwestern side of the area.

**10.6 Plan for air, dust suppression:**

The air quality will be affected by the Suspended Particulate Matter (SPM) generated by the slurry blasting, Jack hammer drilling, loading and unloading during the Rough Stone quarry operation.

The following Mitigations measures will be carried out:

- Mist Water spraying will be carried out by means of water sprinklers to suppress the dust emission in the Haul roads.
- Vegetations will be formed on the non quarrying area.
- Avoiding spillages during the transportation.

Air quality will be monitored periodically as per Norms and Mitigative measures carried out to prevent dust and Air propagation in to air. The estimated budget for dust suppression would be around **Rs.52,000/year**.

**10.7 Plan for Noise level control:**

The noise level increased due to the Drilling, Blasting, Excavation and Transportation.



**Engineering Noise control:**

Noise will be created due to the usage of Machineries and Vehicles. The Noise will be controlled in the following manner.

- Selection of new low – noise equipment's is proposed to be deployed for the Rough Stone quarry operation.
- Modifications of older equipments.
- Implementation of effective preventive maintenance which reduces noise more than 50%.
- Developing Green belts which act as Acoustic barrier, pollution absorbent and noise controller.
- The drivers will be strictly instructed to move the vehicle during the transportation not exceed 40km per hour.
- Sentries with flags & whistle will posted in village road junction and populated area to control and regulate traffic.

Shallow holes of 32mm diameter and maximum depth of 1.5m will be drilled and conventional low power explosives such as slurry explosives, ordinary safety fuse will be used for Rough Stone. Hence, ground vibration and noise pollution i.e., minimal and restricted within the quarry working area.

Noise level monitoring and other Mitigation measures will be carried out to reduce Noise and Vibration. The estimated budget for Noise level monitoring would be around **Rs.2,000/Year**.

**10.8 Environment impact assessment statement describing impact of mining on the five years:**

In the mining plan proposed for a production of Rough Stone does not involve deep hole drilling and blasting. Such limited mining activity is not likely to cause any impact adversely on the environment. As far as pollution of air, water and noise concerned, the Environment impact studies will be conducted as per EIA notification issued by MoEF & CC. It is B2 Category mine. The estimated budget would be around **Rs.3,80,000/-**.

**10.9 Proposal for waste management:**

There is no waste anticipated in this Rough Stone and Gravel quarrying operation. The entire quarried out materials will be utilized (100%).

**10.10 Proposal for reclamation of land affected during mining activities and at the end of mining (refilling / fencing etc.):**

In the mining plan proposed only to a maximum depth of 35m below ground level has been envisaged as workable depth for safe & economic mining during entire lease applied area. There is no waste generated hence, backfilling is not possible. Hence, the quarry area will be fenced with Barbed wire fencing also safety bund constructed around the quarry to prevent inadvertent entry of public and cattle. The barbed wire fencing cost would be around **Rs.1,59,000/-**.



**10.11 Programme of Greenbelt development (indicate extend, number, name of species to be afforested):**

The safety zone all along the boundary barrier has been identified to be utilized for Greenbelt development. Appropriate native species of Neem, Pongamia Pinnata, Casuarina, etc., trees will be planted in a phased manner as described below.

**TABLE-13**

Years	No. of tress proposed to be planted	Survival %	Area to be covered sq.m	Name of the species	No. of trees expected to be grown
I	30	80	220	Neem, Pongamia Pinnata, Casuarina, etc.,	24
II	30	80	220		24
III	30	80	220		24
IV	30	80	220		24
V	30	80	220		24

Nearly 1,100 sq.m area is proposed to use under Greenbelt by planting 30 Number of trees saplings during every year with an anticipated survival rate of 80% (Please refer Plate No. III). The estimated budget for plantation and maintenance of Greenbelt development would be around **Rs.15,000/-** for the period of five years.

The Greenbelt Development will be formed in the quarried out top benches and approach road of the lease applied area. The cost would be around **Rs.20,000/-**.

**10.12 Proposed financial estimate / budget for (EMP) environment management:**

Budget Provision for the entire quarrying period:

**TABLE-14**

S. No	Monitory and Analysis Description	Rate per location	No. of location	Total Charges/ six months	Total Charges/ year
1	Ambient air quality monitoring	6500	4	26000	52000
2	Noise level monitoring	250	4	1000	2000
3	Ground vibration monitoring	1000	2	2000	4000
4	Water sampling and analysis	9000	1	9000	18000
<b>Total EMP Cost/ year</b>					<b>76,000</b>

The EMP cost would be around **Rs.3,80,000/-** for the period of five years.

125



<b>A. Project / investment / Operational cost</b>																						
i) Land cost	The Land value as per the Government																					
	Guideline land cost is calculated as follows,																					
	<table border="1"> <thead> <tr> <th>S.F.No</th> <th>Extent</th> <th>Cost/Ha</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>428/2</td> <td>0.70.0</td> <td>497000</td> <td>347900</td> </tr> <tr> <td>429/1</td> <td>0.64.5</td> <td>497000</td> <td>320565</td> </tr> <tr> <td>429/2</td> <td>0.47.0</td> <td>497000</td> <td>233590</td> </tr> <tr> <td><b>Total</b></td> <td><b>1.81.5</b></td> <td><b>Total</b></td> <td><b>902055</b></td> </tr> </tbody> </table>		S.F.No	Extent	Cost/Ha	Total	428/2	0.70.0	497000	347900	429/1	0.64.5	497000	320565	429/2	0.47.0	497000	233590	<b>Total</b>	<b>1.81.5</b>	<b>Total</b>	<b>902055</b>
	S.F.No		Extent	Cost/Ha	Total																	
	428/2		0.70.0	497000	347900																	
	429/1		0.64.5	497000	320565																	
429/2	0.47.0	497000	233590																			
<b>Total</b>	<b>1.81.5</b>	<b>Total</b>	<b>902055</b>																			
i.e., Rs.9,03,000/-																						
(Source: <a href="https://tnreginet.gov.in/portal/">https://tnreginet.gov.in/portal/</a> )																						
= Rs.9,03,000/-																						
ii) Machinery to be used	The following machineries are proposed to meet out the productions. Excavator attached with rock breaker, Tippers, Tractor mounted compressor with Jack hammer and loose tools (Rental Basis)	= Rs.10,00,000/-																				
iii) Refilling/ Fencing	Fencing will be constructed around the quarry pit to prevent the inadvertent entry of public and cattles cost would be around	= Rs.1,59,000/-																				
iv) Labourers shed	Labour sheds will be constructed as semi permanent structure. The cost would be around	= Rs.1,50,000/-																				
v) Sanitary facility	Adequate latrine and urinal accommodation shall be provided at conveniently accessible places the cost would be around	= Rs.1,00,000/-																				
vi) Others items	First aid room & accessories	= Rs.80,000/-																				
vii) Drinking water facility for the labourers	Packaged drinking water will be provided for all the Labours. Drinking water will be readily available at conveniently accessible points during the whole of the working shift the cost would be around	= Rs.1,00,000/-																				
viii) Sanitary arrangement	The latrine and urinal will keep clean and sanitary condition. The maintenance cost would be around	= Rs.70,000/-																				



Mining Plan and PQCP

Chikkarampalayam Rough Stone and Gravel Quarry

ix) Safety kit	All the Safety kit such as Helmet, Earmuffs, Goggles, Reflector Jackets, Safety shoes etc., will be provided to the workers by the applicant own cost which would be around	= Rs.1,00,000/-
x) Water sprinkling	Water will be sprinkled in the haul roads by water sprinklers the cost would be around	= Rs.1,50,000/-
xi) Garland drains Construction	Construction of garland drains to divert surface run-off from virgin area away from mining area	= Rs.1,44,000/-
xii) Greenbelt etc.	Greenbelt program will be carried out in the boundary barriers the cost would be around	= Rs.15,000/-
	Greenbelt program will be in the quarried out top benches and approach road	= Rs.20,000/-
	<b>Total Operational Cost</b>	<b>= Rs.29,91,000/-</b>
<b>B. EMP Cost:- (Per year)</b>		
Air Quality monitoring		Rs.52,000/-
Water Quality Sampling		Rs.18,000/-
Noise Monitoring		Rs. 2,000/-
Ground Vibration test		Rs. 4,000/-
<b>Total Cost</b>		<b>Rs.76,000/-</b>
Total EMP Cost for the five years period is <b>Rs.3,80,000/-</b>		
<b>Description</b>		<b>Amount (Rs.)</b>
<b>A. Operational Cost</b>		<b>29,91,000</b>
<b>B. EMP Cost</b>		<b>3,80,000</b>
<b>Total Project Cost (A+ B)</b>		<b>33,71,000</b>
The applicant indents to involve corporate environment responsibilities (CER) activity like Water Purifier, Cot & Bed facilities to the nearby Govt. Primary Health Centre and Water Purifier, Table & Bench facilities to the nearby Govt. School at 2.0% from the total project cost. The Cost would be around <b>Rs.68,000/-</b> .		<b>68,000</b>
<b>Total Cost</b>		<b>34,39,000</b>
The Total cost would be around thirty four lakhs and thirty nine thousand only.		

**11.0 PROGRESSIVE QUARRY CLOSURE PLAN****11.1 Introduction:**

The Progressive Quarry Closure Plan for Rough Stone and Gravel quarry over an extent of 1.81.5 Ha of Patta lands in S.F.Nos. 428/2, 429/1 & 429/2 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu State has been prepared for **Thiru.P.Chandramohan**, S/o. Palanisamy, residing at No. 9/1A, Pongali Mudaliyar Street, KNP Road, Karamadai, Coimbatore District – 641 104.

**11.2 Present Land use pattern:****LAND USE TABLE-15**

Description	Present area (Ha)
Quarrying Pit	1.25.0
Infrastructure	Nil
Roads	0.02.0
Green Belt	Nil
Unutilized Area	0.54.5
<b>Grand Total</b>	<b>1.81.5</b>

**11.3 Method of Mining:**

Open cast Mechanized Mining is being carried out with 5.0 meter vertical bench with a bench width is not less than the bench height for Rough Stone.

However, as far as the quarrying of Rough Stone is concerned, observance of the provisions of Regulation 106 (2) (b) as above is seldom possible due to various inherent petro genetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available with the Regulation 106 (2) (b) of MMR-1961, under Mine Act – 1952.

**11.4 Mineral Processing Operations:**

The quarried out Rough Stone will be transported by the 20tons capacity Tipper to the needy crushers. Splitting of rock mass of considerable volume from the parent rock mass by Jack hammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy crushers.

**11.5 Reasons for closure:**

As the mineral is not going to be exhausted during the proposed plan period no immediate closure is planned and sufficient reserves are available to carry on the activities. The reason for closure will be discussed in the ensuing mining plan.

**11.6 Statutory obligations:**

The applicant ensures to comply all the conditions were imposed while granting the precise area communication letter before the execution of lease deed and during the course of quarry operations.

**11.7 Progressive quarry closure plan preparation:**

Name and address of the Qualified Person who prepared the progressive closure plan and name and address of the executing agency who is involved in the preparation of progressive quarry closure plan.

Name	:	<b>P.Viswanathan, M.Sc.,</b> Qualified Person
Address	:	No.17, Advaita Ashram Road, Alagapuram, Salem District – 636 004.
Telephone	:	0427- 2431989 (Office)
Cell No	:	+91 94422 78601 & 94433 56539

Applicant will himself implement the closure plan; no outside agency will be involved.

**11.8 Review of Implementation of Mining Plan including Progressive Closure Plan upto the Final Closure Plan:**

There is no waste generated during entire life of quarry, hence backfilling is not possible in the quarried out pit. The entire quarry area is an active also no proposal given for Progressive quarry closure plan in the previous mining plan hence, the applicant has not taken any action for progressive quarry closure. Hence, review of implementation of progressive quarry closure does not arise at present. However, if any work done for progressive quarry closure plan during this plan period, it will be discussed in the ensuing Mining Plan.

**11.9 Closure Plan:****(i) Mined Out Land:**

At the end of mining plan period, about 1.43.0 Ha of area will be mined out. Land use at various stages is given in the table below.

**LAND USE TABLE-16**

Description	Present area (Ha)	Area at the end of this quarrying period (Ha)
Quarrying Pit	1.25.0	1.43.0
Infrastructure	Nil	0.01.0
Roads	0.02.0	0.02.0
Green Belt	Nil	0.11.0
Unutilized Area	0.54.5	0.24.5
<b>Grand Total</b>	<b>1.81.5</b>	<b>1.81.5</b>

The Greenbelt Development will be formed in the quarried out top benches and approach road of the lease applied area.

**(ii) Water quality management:**

Following control measures will be adopted for controlling water pollution:

- Construction of garland drains to divert surface run-off from virgin area away from mining area.
- Construction of check dams / gully plugs at strategic places to arrest silt wash off from broken up area.
- Collection of surface run-off from broken up area in mine pits for settling and only properly settled excess water from mine pit will be discharged to nearby users. The storm water/ mine water will be used for dust suppression, greenbelt development, etc.
- Periodic analysis of mine pit water and ground water quality in nearby villages.
- The quarried out pit will be allowed to collect rain and seepage water which will act as a reservoir for storage. This water storage will enhance the static level and ground water recharge of nearby wells and it will be used for agriculture purpose to the nearby agriculture land.
- Domestic sewage from site office & urinals/latrines provided in QL is discharged in septic tank followed by soak pits.



**(iii) Air Quality Management:**

The proposed mining method is not likely to produce much of dust and fugitive emissions to cause damage to ambient air quality of the area. Workers will be provided with personnel protective equipment like face-mask, earplug/ muffs.

For air pollution management at the progressive quarry closure plan, greenbelt will be developed to prevent and control air pollution.

**(iv) Top Soil and Waste Management:**

There is no topsoil or waste generated during the proposed plan period. The entire quarried out Rough Stone is utilized (100%). Hence, waste management does not arise.

**(v) Disposal of mining machinery:**

All the machineries will be engaged on rental basis. Hence, disposal or decommissioning of mining machinery does not arise.

**(vi) Safety & Security:**

Safety measures will be implemented to prevent access in the excavation area an unauthorized persons as per Mine Act 1952, MMR 1961.

- Safety measures will be implemented as per Mine Act 1952, MMR 1961, and Mines Rules 1955.
- Provisions of MMR 1961 shall be strictly followed and all roads shall be wider than the height of the bench or equal to the height of the bench and have a gradient of not more than 1 in 16.
- The bench height will be 5.0m.
- Width of working bench will be kept about 5.0m for ease of operations and provide sufficient room for the movement of equipments.
- Protective equipment like dust masks, ear-plugs/ muffs and other equipments shall be provided for use by the work persons.
- Notices giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.
- Danger signs shall be displayed near the excavations and proper signal by siren alarm will be provide before blasting time to prevent any accident.
- Security guards will be posted.
- In the event of temporary closer, approaches will be fenced off and notice displayed.



**(vii) Disaster Management and Risk Assessment:**

This should deal with action plan for high risk accidents like landslides, subsidence, flood, fire, seismic activities, tailing dam failures etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of applicant to meet such eventualities and the assistance to be required from the local authorities should be described.

- The mechanized mining activities in the area may involve any high risk accident due to side falls/collapse, flying stones due to blasting etc.
- The complete quarrying operation will be carried out under the Management and control of experienced and qualified Mines Manager having Certificate of Competency to manage the mines granted by DGMS.
- All the provisions of Mines Act 1952, MMR 1961 and Mines Rules 1955, TNMMCR 1959 and other laws applicable to mine will be strictly complied with.
- During heavy rainfall the mining activities will be suspended.
- All persons in supervisory capacity will be provided with proper communication facilities.
- Competent persons will be provided FIRST AID kits which they will always carry.
- The Greenbelt Development will be formed in the quarried out top benches and approach road of the lease applied area.

**(viii) Care and Maintenance during Temporary Discontinuance:**

In case of any temporary discontinuance due to court order or due to statutory requirement or any other unforeseen circumstance following measures shall be taken for care, maintenance and monitoring of conditions.

- Notice of temporary discontinuance of work in mine shall be given to the DGMS as per the MMR 1961.
- All the mining machinery shall be shifted to a safe place.
- Entrance to the mine or part of the mine, to be discontinued shall be fenced off. Fencing shall be as per the circular 11/1959 from DGMS.
- Security Guards shall be posted for the safety and to prevent any unauthorized entry to the area.
- Carry out regular maintenance of the facilities/area detailed below in such a way as would have been done as if the mines were operation:

Quarry roads and approach roads,  
Fencing on approach roads,  
Checking and maintenance of machines and equipment,  
Drinking water arrangements,  
Quarry office, first aid stations etc.



- Competent persons shall inspect the area regularly.
- Air, water and other environmental monitoring shall be carried out as per CPCB and IBM Guideline.
- Care and upkeep of plantation shall be carried out on regular basis.
- Status of the working and status monitoring for re-opening of the mines shall be discussed daily.

In case of discontinuance due to any natural calamities/abnormal conditions, quarrying operation will be restarted as early as possible after completing rescue work, restoring safety and security, repairs of roads etc.

**(ix) Economic Repercussion of Closure of Quarry and manpower Retrenchments:**

The Quarry Lease is granted for a period of maximum five years only. As per the production Programme envisaged, there will be no effect on the man power as the majority of persons belong to nearby villages and will have an option either to be available for employment for the next contract/ lease or do the agriculture in their fields.

**(x) Time Scheduling for Abandonment:**

The lease applied area has enormous potential for continuance of operations even after the expiry of the lease period. The details of time schedule of all abandonment will be given at the time of final closure plan.

**(xi) Abandonment Cost:**

As at present mining is not going to be closed so abandonment cost could not be assessed. However, based on the progressive quarry closure activities during the plan period, cost is assessed as given below:

LAND USE TABLE-17

ACTIVITY		YEAR					RATE	COST (Rs.)
		I	II	III	IV	V		
Plantation under safety zone	Nos.	30	30	30	30	30	@100 Rs	15,000/-
	Cost	3000	3000	3000	3000	3000		
Plantation in the quarried out top benches and approach road	Nos.	40	40	40	40	40	Per sapling	20,000/-
	Cost	4000	4000	4000	4000	4000		
Wire Fencing (In Mtrs) 530 Mtrs		1,59,000	-	-	-	-	@300 Rs Per Meter	1,59,000/-
Garland drain (In Mtrs) 480 Mtrs		1,44,000	-	-	-	-	@300 Rs Per Meter	1,44,000/-
<b>TOTAL</b>								<b>3,38,000/-</b>

**12.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT**

This Mining Plan for Rough Stone (Charnockite) and Gravel is under Rules 41 & 42 as per the Amended under Tamil Nadu Minor Mineral Concession Rules, 1959. The provisions of the Mines Act, Rules and Regulations and orders made there under shall be complied within the quarrying operation, so that the safety of the mine, machinery and person will be well protected. Permission, relaxation or exemption wherever required for the safe and scientific quarrying of the deposit will be obtained from the Department of Mines Safety. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Concerned Department.

Prepared by



P. Viswanathan, M.Sc.,  
Qualified person


Place: Salem

Date: 21.10.2022



**This Mining Plan is Approved**  
subject to the conditions / stipulation  
& indicated in the Mining Plan Approval  
Letter No: *Re. 350/Mines/2022 dt 21-10-22*  
office of the A.D, Geology & Mining Coimbatore

This Mining Plan is Approved based on the  
incorporation of the particulars specified  
in the letter of the commissioner of Geology  
and Mining, Chennai ref No: 3863/LC/2012  
Dated 19.11.2012 and subjected to further  
fulfillment of the condition laid down under  
Tamilnadu Minor Mineral Concession Rules 1959

  
**ASSISTANT DIRECTOR**  
DEPARTMENT OF GEOLOGY & MINING  
COIMBATORE DISTRICT.

*21/10/22*



உதவி இயக்குநர் அலுவலகம்,  
புவியியல் மற்றும் சுரங்கத்துறை,  
மாவட்ட ஆட்சியர் அலுவலக வளாகம்,  
கோயம்புத்தூர் - 18.

ந.க.எண்.350/கனிமம்/2022

நாள்: 18.10.2022

குறிப்பாணை

பொருள்: கனிமங்களும் குவாரிகளும் - கோயம்புத்தூர் மாவட்டம் - கோயம்புத்தூர் மாவட்டம் - மேட்டுப்பாளையம் வட்டம் - சிக்காரம்பாளையம் கிராமம் - புல எண்கள். 428/2-ல் 0.70.0 ஹெக்டேர், 429/1-ல் 0.64.50 ஹெக்டேர் மற்றும் 429/2-ல் 0.47.0 ஹெக்டேர் ஆக மொத்தம் 1.81.50 ஹெக்டேர் பரப்பளவுள்ள பட்டா பூமியில் சாதாரணகற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு.ப.சந்திரமோகன் என்பவருக்கு - குவாரி குத்தகை அனுமதி வழங்குவது - தொடர்பாக.

- பார்வை:
1. திரு.ப.சந்திரமோகன், த.பெ. பழனிசாமி, 9/1A, பொங்காளி முதலியார் வீதி, KNP ரோடு, காரமடை, கோயம்புத்தூர் மாவட்டம் என்பவரது விண்ணப்பம் நாள்: 08.04.2022.
  2. இவ்வலுவலக கடிதம் இதே எண். நாள்: 18.04.2022.
  3. வருவாய் கோட்டாட்சியர், கோயம்புத்தூர் வடக்கு அவர்களின் கடித ந.க.எண்.2167/2022/அ3 நாள்: 18.08.2022.
  4. உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கோயம்புத்தூர் தணிக்கை அறிக்கை நாள்: 07.10.2022.
  5. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை கடிதம் எண். 1870/எம்.எம்-1/2020 நாள்: 12.08.2020.
- \*\*\*\*\*

பார்வை 1-ல் கோயம்புத்தூர் மாவட்டம், 9/1A, பொங்காளி முதலியார் வீதி, KNP ரோடு, காரமடை என்ற முகவரியில் வசிக்கும் திரு.ப.சந்திரமோகன் என்பவரின் மகன் திரு.ப.சந்திரமோகன் என்பவர் கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் வட்டம், சிக்காரம்பாளையம் கிராமம், புல எண்கள். 428/2-ல் 0.70.0 ஹெக்டேர், 429/1-ல் 0.64.50 ஹெக்டேர் மற்றும் 429/2-ல் 0.47.0 ஹெக்டேர் ஆக மொத்தம் 1.81.50 ஹெக்டேர் பரப்பளவுள்ள பட்டா பூமியில் சாதாரணகற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் கோரி உரிய ஆவணங்களுடன் விண்ணப்பித்துள்ளார்.

மேற்படி மனு தொடர்பாக, வருவாய் கோட்டாட்சியர், கோயம்புத்தூர் வடக்கு மற்றும் கோயம்புத்தூர் புவியியல் மற்றும் சுரங்கத்துறை உதவி புவியியலாளர் ஆகியோர் புலத்தணிக்கை மேற்கொண்டு கோயம்புத்தூர் மாவட்டம், 9/1A, பொங்காளி முதலியார் வீதி, KNP ரோடு, காரமடை என்ற முகவரியில் வசிக்கும் திரு.ப.சந்திரமோகன் என்பவரின் மகன் திரு.ப.சந்திரமோகன் என்பவருக்கு கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் வட்டம்,



சிக்காரம்பாளையம் கிராமம், புல எண்கள். 428/2-ல் 0.70.0 ஹெக்டேர், 429/1-ல் 0.64.50 ஹெக்டேர் மற்றும் 429/2-ல் 0.47.0 ஹெக்டேர் ஆக மொத்தம் 1.81.50 ஹெக்டேர் பரப்பளவுள்ள பட்டா பூமியில் சாதாரணகற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க சில நிபந்தனைகளுடன் பரிந்துரை செய்துள்ளார்கள்.

அனுமதி கோரும் புல எண் 428/2 ஆனது பட்டா எண்.1534-ன் படி மனுதாரர் திரு.P.சந்திரமோகன் என்பவர் பெயரிலும் புல எண்கள்: 429/1 மற்றும் 429/2 ஆகியவை பட்டா எண் 1535-ன் படி திருமதி.பாக்கியவதி என்பவர் பெயரிலும் தனித்தனிப்பட்டவாக கிராம கணக்கில் தாக்கலாகியுள்ளது. மேற்படி பட்டாதாரர் திருமதி. பாக்கியவதி என்பவர் தனக்கு பாத்தியப்பட்ட புலத்தில் திரு.P.சந்திரமோகன் என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க அனுமதி அளிக்கும் நாளிலிருந்து 5 ஆண்டுகளுக்கு தனக்கு எவ்வித ஆட்சேபணையும் இல்லை என சம்மத கடிதம் அளித்துள்ளார். எனவே மேற்படி பூமியில் மனுதாரர் குவாரி குத்தகை உரிமம் பெற தகுதியுடையவர் ஆவார்.

எனவே, வருவாய் கோட்டாட்சியர், கோயம்புத்தூர் வடக்கு மற்றும் உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, கோயம்புத்தூர் ஆகியோரின் பரிந்துரைகளின் அடிப்படையில் கோயம்புத்தூர் மாவட்டம், 9/1A, பொங்காளி முதலியார் வீதி, KNP ரோடு, காரமடை என்ற முகவரியில் வசிக்கும் திரு.பழனிசாமி என்பவரின் மகன் திரு.P.சந்திரமோகன் என்பவருக்கு கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் வட்டம், சிக்காரம்பாளையம் கிராமம், புல எண்கள். 428/2-ல் 0.70.0 ஹெக்டேர், 429/1-ல் 0.64.50 ஹெக்டேர் மற்றும் 429/2-ல் 0.47.0 ஹெக்டேர் ஆக மொத்தம் 1.81.50 ஹெக்டேர் பரப்பளவுள்ள பட்டா பூமியில் 1959-ஆம் ஆண்டு தமிழ்நாடு சிறுகணிம சலுகை விதிகளில் விதி 19(1) மற்றும் 20-ன் படி குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றும் நாளிலிருந்து 5 (ஐந்து) ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க கீழ்க்கண்ட நிபந்தனைகளுக்குட்பட்டு குவாரி குத்தகை வழங்குவதற்குரிய நிலப்பரப்பாக (Precise Area Communication) கருதப்படுகிறது.

#### நிபந்தனைகள்

1. அருகிலுள்ள பட்டா நிலங்களுக்கும் மற்றும் பொது மக்களுக்கும், எவ்வித இடையூறும் இன்றி சாதாரண கல் மற்றும் கிராவல் குவாரிபணி மேற்கொள்ள வேண்டும்.
2. அருகில் உள்ள பட்டா நிலத்திற்கு 7.5 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரிப்பணி மேற்கொள்ள வேண்டும்.



3. அனுமதி கோரும் புலத்தினை அரசு அங்கீகாரம் பெற்ற நிறுவனத்தினரால் DGPS (Differential Global Positioning System)-ன் படி ஆய்வு செய்யப்பட்டு ஒவ்வொரு எல்லைத் தூண்களும் நடப்படவேண்டும்.
4. குழந்தை தொழிலாளர்களை வேலைக்கு அமர்த்தல் கூடாது.

மேலும், தமிழ்நாடு சிறுகனிம சலுகை விதிகள்-1959 விதி எண். 41 மற்றும் 42-ன் படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறும், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு அதிகார அமைப்பின் அனுமதியினை பெற்று சமர்ப்பிக்கவும் மனுதாரரை கேட்டுக் கொள்ளப்படுகிறது.

*[Handwritten Signature]*  
உதவி இயக்குநர்,  
புவியியல் மற்றும் சுரங்கத்துறை  
கோயம்புத்தூர்.

பெறுநர்:  
திரு. P. சந்திரமோகன்,  
த.பெ. பழனிசாமி,  
9/1A, பொங்காளி முதலியார் வீதி,  
KNP ரோடு, காரமடை,  
கோயம்புத்தூர்.

*[Handwritten Signature]*  
14/11/22



Dr. H. MALLESHAPPA, I.F.S  
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT  
ASSESSMENT AUTHORITY - TAMIL NADU  
3<sup>rd</sup> Floor, Panagal Maaligai,  
No.1 Jeenis Road, Saidapet, Chennai-15  
Phone No.044-24359973  
Fax No. 044-24359975

**ENVIRONMENTAL CLEARANCE**

Lr. No. SEIAA-TN/F.No.5642/1(a)/ EC.No: 3901/2016 dated: 14.06.2017

To  
Tmt. P. Bhagyavathi  
No.9/1A, Pongali Mudaliyar Street  
K.N.P. Road  
Karamadai  
Coimbatore District

Sir,

**Sub:** SEIAA-TN – Proposed Rough Stone & Gravel quarry located at S.F.No 428/2, 429/1 & 429/2, Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District- issue of Environmental Clearance – Reg.

**Ref:** 1. Your Application for Environmental Clearance dt: 12.08.2016  
2. Minutes of the 80th SEAC held on 01.09.2016 & 02.09.2016  
3. Minutes of the SEIAA meeting held on 14.06.2017

**Details of Minor Mineral Activity:-**

This has reference to your application first cited. The proposal is for obtaining environmental clearance for mining/quarrying of minor minerals based on the particulars furnished in your application as shown below.

1	Name of Project Proponent and address	Tmt. P. Bhagyavathi No.9/1A, Pongali Mudaliyar Street K.N.P. Road Karamadai Coimbatore District
2	Location of the Proposed Activity	
	Survey Number	428/2, 429/1 & 429/2
	Latitude and Longitude	11°14'57"N to 11°15'02"N 76°59'25"E to 76°59'31"E
	Village	Chikkarampalayam
	Taluk	Mettupalayam

MEMBER SECRETARY  
SEIAA-TN

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	District	Coimbatore
3	Proposed Activity	
	i. Minor mineral	Rough Stone & Gravel
	ii. Mining Lease Area	1.81.5 Ha
	iii. Approved quantity	22010 cu.m of Rough Stone & 10064 cu.m of Gravel
	iv. Depth of Mining	7 m
	v. Type of mining	Opencast Semi Mechanized Method
	vi. Category(B1/B2)	B2
	vii. Precise area communication	Rc.No. 756/Mines/2015 dated: 09.06.2016
	viii. Mining plan approval	Assistant Director Rc.No. 756/Mines/2015 dated: 15.07.2016
	ix. Mining lease period	5 Years
4	Whether Project area attracts any General conditions specified in the EIA notification, 2006 as amended:-	Not attracted. Affidavit furnished
5	Man Power requirement per day:	13 Employees
6	Utilities	
	i. Source of Water :	Water vendors/Existing Borehole
	ii. Quantity of Water Requirement in KLD:	
	a. Domestic	0.3KLD
	b. Industrial	} 0.7KLD
	c. Green Belt & Dust Suppression	
	iii. Power Requirement:	
	a. Domestic Purpose	TNEB
	b. Industrial Purpose	
7	Cost	
	i. Project Cost	Rs.27.26 Lakhs
	ii. EMP Cost	Rs.4.25 Lakhs
8	Public Consultation:-	Not required as per O.M. dated 24.12.2013 of MoEF, Gov.
9	Date of Appraisal by SEAC:- Agenda No:	01.09.2016 & 02.09.2016 80
10	Date of Review/Discussion by SEIAA and the Remarks:-	The proposal was placed before the SEIAA in its 219 <sup>th</sup> Meeting held on 14.06.2017 and the Authority after careful consideration, decided to grant environmental clearance to the said project Mining of Rough Stone & Gravel subject to terms and conditions stipulated under the provisions of Environment Impact Assessment Notification, 2006 as amended.
11	Validity:	This Environmental Clearance is granted to Mining of Rough Stone & Gravel for the production quantity of 22010 cu.m of Rough Stone & 10064 cu.m of Gravel for the period of 5 Years from the date of execution of the Mining Lease period.

MEMBER SECRETARY  
SEIAA-TN





**Conditions to be Complied before commencing mining operations:-**

1. The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
  - I. The project has been accorded Environmental Clearance.
  - II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
  - III. Environmental Clearance may also be seen on the website of the SEIAA.
  - IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.
2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. The applicant has to obtain land use classification as industrial use before issue/renewal of mining lease.
4. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
5. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
6. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
7. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
8. The proponent shall ensure that First Aid Box is available at site.
9. The excavation activity shall not alter the natural drainage pattern of the area.
10. The excavated pit shall be restored by the project proponent for useful purposes.
11. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
12. The quarrying operation shall be restricted between 7AM and 5 PM.
13. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
14. A minimum distance of 15 mts. From any civil structure shall be kept from the periphery of any excavation area.
15. Depth of quarrying shall be 2m above the ground water table /approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.

MEMBER SECRETARY  
SEIAA-TN

79 A



16. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
17. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
18. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
19. The explosives shall be stored at site as per the conditions stipulated in the permits issued by the licensing Authority.
20. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
21. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
22. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, GoI on 16.11.2009.
23. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
  - i. Roads shall be graded to mitigate the dust emission.
  - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
24. The following measures are to be implemented to reduce Noise Pollution
  - i. Proper and regular maintenance of vehicles and other equipment
  - ii. Limiting time exposure of workers to excessive noise.
  - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
  - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
25. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoE&F, GoI to control noise to the prescribed levels.
26. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
27. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
28. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
29. The following measures are to be adopted to control erosion of dumps:-
  - i. Retention/ toe walls shall be provided at the foot of the dumps.

MEMBER SECRETARY  
SEIAA-TN



- ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
30. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.
  31. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  32. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
  33. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
  34. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
  35. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
  36. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic institution.
  37. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the mining lease period of this application.
  38. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500m radius from the periphery of the quarry site
  39. Ground water quality monitoring should be conducted once in 3 Months
  40. Transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village road.
  41. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF , GOI.
  42. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF , GOI..
  43. Bunds to be provided at the boundary of the project site.
  44. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
  45. At least 10 Neem trees should be planted around the boundary of the quarry site.



- 46. Floor of excavated pit to be levelled and sides to be sloped with gentle-slope (Except for granite quarries) in the mine closure phase.
- 47. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
- 48. The CSR funds should be channelized for planting programme, nature conservation support, tribal development and activities that support forest and environment.
- 49. The Project Proponent shall provide solar lighting system to the nearby villages
- 50. The Project Proponent shall comply with the mining and other relevant rules and regulations where ever applicable.
- 51. Rainwater shall be pumped out Via Settling Tank only
- 52. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
- 53. As per MoEF&CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild Life angle including clearance from standing committee of the National Board for Wild life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10KM from National Park and Sanctuaries.
- 54. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be monitored by the District Authorities.
- 55. Safety equipments to be provided to all the employees.
- 56. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai
- 57. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
- 58. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
- 59. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
- 60. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
- 61. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
- 62. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
- 63. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
- 64. The Project Proponent is also directed to strictly adhere to the Sustainable Sand Mining Management Guidelines, 2016, wherever applicable.
- 65. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 1m height.
- 66. The quarrying activity in no way should disturb the Wildlife habitat, free migratory movement of the wildlife nor disturb the wildlife in any way.
- 67. The Project Proponent has to plant 500 trees along the road road/school premises is consultation with local body.

MEMBER SECRETARY  
SEIAA-TN



General Conditions:

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent for Establishment from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, Masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and Its Regional Office located at Chennai.

MEMBER SECRETARY  
SEIAA-TN



16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA,TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
20. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
21. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.
22. Any other conditions stipulated by other Statutory/Government authorities shall be complied
23. Any appeal against this environmental clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Deposit - 5000  
Area cost - 1000  
6000  
Copy to:

  
MEMBER SECRETARY  
SEIAA-TN

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary, Environment and Forests Department, Government of Tamil Nadu, Tamil Nadu.
3. The Additional Chief Secretary, Industries Department, Government of Tamil Nadu, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1<sup>st</sup> & 2<sup>nd</sup> 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 Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-32
7. The District Collector, Coimbatore District
8. The Commissioner of Geology and Mines, Guindy, Chennai-32
9. E1 Division, Ministry of Environment & Forests, Parvavaran Bhawan, New Delhi.
10. Spare.

145

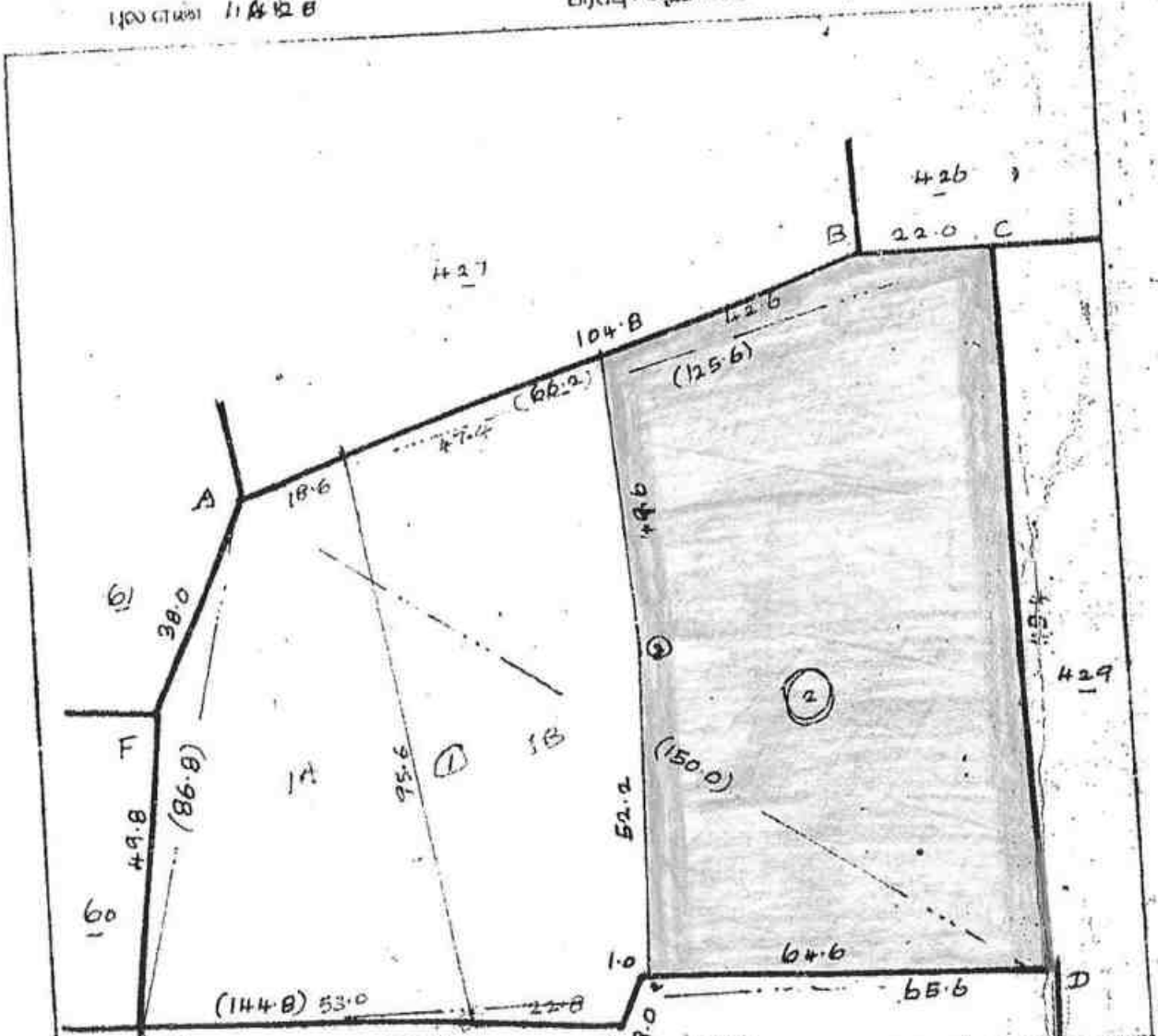
04 NOV 2022

மாவட்டம். வேளாங்குடி 4 ஏக்கர்

பெ.அ.பி. 11842 B

பிழைப்பு 19  
 வேளாங்குடி மாவட்டம்

பிழைப்பு: 11842 B 1 ஏ. 41.0



சென்னை சிவில்  
 1A, 1B, 1C, 1D, 1E, 1F  
 428 | 1A, 1B, 1C, 1D, 1E, 1F

True copy

*(Handwritten signature)*

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		E (86.8)	37.4	7.0	F
		A (125.6)	21.0	5.6	B
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சுவர்ச்சி. அளவு. 15.8. 1000 ப.பி. LEASE AREA

106



சென்னை 23 21 NOV 2022

வாங்குபவர்: சேனாத்தேவர்.

புள்ளி 19.

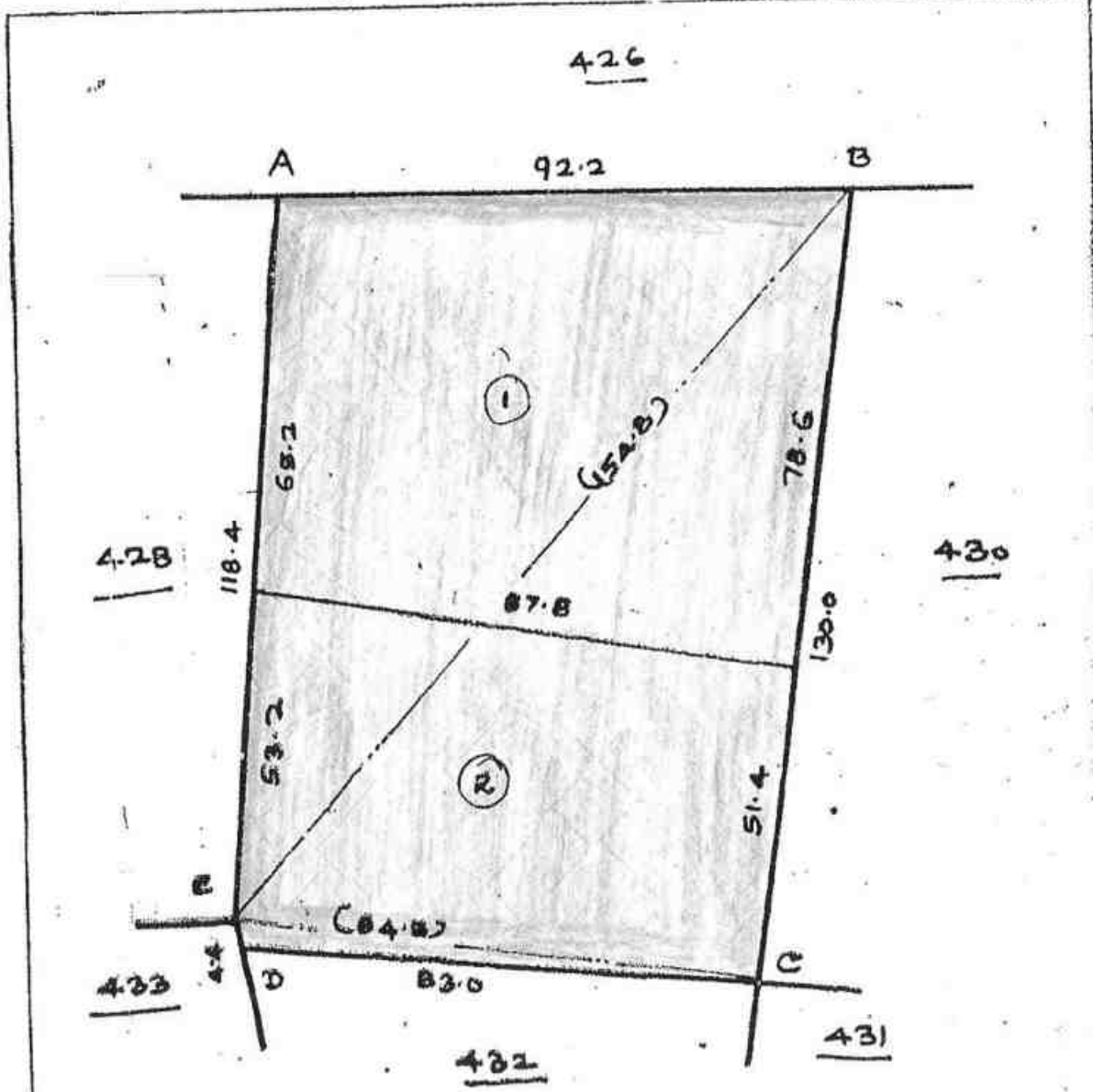
வட்டம்: மேல்புலாணையம்.

கிராமம்

பெயர்: சித்திரம் மாணிக்கம்.

புள்ளி: 429

புதிய பெயர்: 1 சா. 11.5



(true copy)

*[Signature]*

கிராம நிர்வாக அலுவலர்.  
 எண். 19, சித்தாரம்பாளையம் கிராமம்,  
 மேல்புலாணையம் வட்டம்  
 அளவு. 1:1000

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		60.0	70.0	A
		B		

சான்றிதழ் பெறல்.  
 சா. 19/8/2022  
 30/4/82 நி.ச.

LEASE AREA







தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : கோயம்புத்தூர்

வட்டம் : மேட்டுப்பாளையம்

வருவாய் கிராமம் : சிக்காரம்பாளையம்

பட்டா எண் : 1534

உரிமையாளர்கள் பெயர்

1. பழனிசாமி மகன் சந்திரமோகன்

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	
428	2	0 - 70.00	1.40	--	--	--	--	M04/3775--- -- 02-11-2004
433	1	0 - 7.00	0.14	--	--	--	--	M04/3775--- -- 02-11-2004
		0 - 77.00	1.54					

குறிப்பு 2 :



1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 12/04/019/01534/10983 என்ற குறிப்பு எண்ணை உள்நீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 26-07-2022 அன்று 01:22:15 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்



தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : கோயம்புத்தூர்

வட்டம் : மேட்டுப்பாளையம்

வருவாய் கிராமம் : சிக்காரம்பாளையம்

பட்டா எண் : 1535

உரிமையாளர்கள் பெயர்

1. பழனிசாமி

மனைவி

பாக்கியவதி

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
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429	1	0 - 64.50	1.30	--	--	--	--	M04/3774--- -- 02-11-2004
429	2	0 - 47.00	0.94	--	--	--	--	M04/3774--- -- 02-11-2004
		1 - 11.50	2.24					

குறிப்பு 2 :



1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 12/04/019/01535/10994 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 26-07-2022 அன்று 01:23:08 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்.





10/21/22, 10:50 AM

வட்டாட்சியர் அலுவலக இணைய சேவை - அ-பதிவேடு விவரங்களை பார்வையிட  
அ-பதிவேடு விவரங்கள்

மாவட்டம் : கோயம்புத்தூர்  
வட்டம் : மேட்டுப்பாளையம்  
கிராமம் : சிக்காரம்பாளையம்

1. புல எண்	428	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	2	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	-P	11. தீர்வை (ரூ - ஹெ)	2.00
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 70.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.40
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1534
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இலகு போகமா	-	16. பெயர்	1.சந்திரமோகன்

## குறிப்பு 1:



1.

மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 40983 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.



மாவட்டம் : கோயம்புத்தூர்  
வட்டம் : மேட்டுப்பாளையம்  
கிராமம் : சிக்காரம்பாளையம்

1. புல எண்	429	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	1	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	429-1	11. தீர்வை (ரூ - ஹெ)	2.00
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 64.50
5. அரக / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.30
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1535
7. பாசன ஆதாரம்	-	15. குறிப்பு	கிணறு-1, வடு-1
8. இரு போகமா	-	16. பெயர்	1.பாக்கியவதி

## குறிப்பு 1:



1.

மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 40994 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.



10/21/22, 10:51 AM

வட்டாட்சியர் அலுவலக இணைய சேவை - அ-பதிவேடு விவரங்களை பார்வையிட  
அ-பதிவேடு விவரங்கள்

மாவட்டம் : கோயம்புத்தூர்  
வட்டம் : மேட்டுப்பாளையம்  
கிராமம் : சிக்காரம்பாளையம்

1. புல எண்	429	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	2	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	-2	11. தீர்வை (ரூ - ஹெ)	2.00
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 47.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.94
6. நிலத்தின் வகை	புஞ்சை	14. பட்டா எண்	1535
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.பாக்கியவதி

குறிப்பு 1:



1.

மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. தீவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 40994 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.

27 APR 2022



தமிழ்நாடு தமிழ்நாடு TAMIL NADU டி.தாட்சாயினி 00AC 416184

1.04.2022 P. பாக்ஷயத்

கோவை

(S. DHATCHAYINI)

STAMP VENDOR

L. No: 928/ஆ/1/2021-4

10 C, SBI Road, Coimbatore - 18.

சம்மதக் கடிதம்

கோயம்புத்தூர் மாவட்டம் - 641104, மேட்டுப்பாளையம் வட்டம், காரமடை, K.N.P.ரோடு, பொங்காளி முதலியார் வீதி, கதவு எண். 9/1A என்ற விலாசத்தில் வசிக்கும் திரு. M. பழனிச்சாமி மனைவி திருமதி. P. பாக்ஷயத் ஆகிய நான் எழுதிக் கொடுக்கும் சம்மதக்கடிதம் என்னவென்றால்,

எனக்கு பாத்தியப்பட்ட கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் தாலூக்கா, சிக்காரம்பாளையம் கிராமம், பட்டா எண். 1535, புல எண் 429/1, மற்றும் 429/2 -ல் 1.11.50 ஹெக்டேரில் கோயம்புத்தூர் மாவட்டம் - 641104, மேட்டுப்பாளையம் வட்டம், காரமடை, K.N.P.ரோடு, பொங்காளி முதலியார் வீதி, கதவு எண். 9/1A -ல் வசிக்கும் எனது மகன் திரு. P. சந்திரமோகன் கல் உடைக்க மாவட்ட ஆட்சியருக்கு விண்ணப்பித்துள்ளார். மாவட்ட ஆட்சியர் அனுமதி வழங்கிய தேதியிலிருந்து ஐந்து வருட காலத்திற்கு மேற்காணும் பூமியில் கல் உடைக்க / கிராவல் வெட்டி எடுத்துக் கொள்ள எனக்கு எவ்வித ஆட்சேபமையும் இல்லை என உறுதியாகக் கூறுகிறேன்.



S.M. PRABHAKARAN P.A.S.L.  
ADVOCATE & NOTARY PUBLIC  
(GOVT OF INDIA) Enr No. 1349/92  
28 REVATHY BUILDING  
GOPALAPURAM 2ND STREET  
COIMBATORE - 641 018  
20/02/2021 15:17

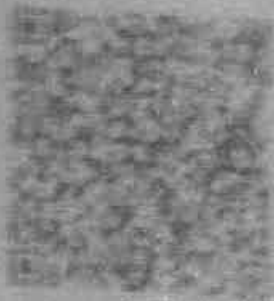
இப்படிக்கு

P. Bagyan



आयकर विभाग

INCOME TAX DEPARTMENT



भारत सरकार

GOVT. OF INDIA



परमार्थ खाते विवरण और  
Permanent Account Number

AIPPC4908A

नाम / Name

PALANISWAMY CHANDRAMOHAN

पिता या माता/ Father's Name

MARANNA GOWDER

PALANISWAMY

जन्म तिथि / Date of Birth

10/03/1978



परमार्थ / Signature








**இந்திய அரசாங்கம்**  
**Government of India**

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**இந்திய தனிமைப் அடையாள அமைப்பு அமைப்பு**  
**Unique Identification Authority of India**

**பதிவேட்டு எண் / Enrolment No.: 0636/02140/00188**

**தேவநகரம்**  
Tc  
சந்திரமோகன் பட்டாசாமி  
Chandramohan Patraswamy  
S/O: Patraswamy  
#9/ 1A  
Pongalimudilar Street  
Karamada  
KNP Road  
Metpalayam  
Karamada  
Coimbatore Tamil Nadu - 641104  
9616137577

**உங்கள் ஆதார் எண் / Your Aadhaar No. : 8787 7709 5761**  
VID : 9108 1968 9942 0936

**எனது ஆதார், எனது அடையாளம்**

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**இந்திய அரசாங்கம்**  
**Government of India**



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**சந்திரமோகன் பட்டாசாமி**  
Chandramohan Patraswamy  
பித்தா எண்/DOB: 10/03/1978  
ஆண்/ MALE

**8787 7709 5761**  
VID : 9108 1968 9942 0936

**எனது ஆதார், எனது அடையாளம்**

**தகவல்**

- ஆதார் அடையாளத்திற்கான சான்று ஆயத்திரமக்கு அல்ல
- பாதுகாப்புள்ள OR குறியீடு ஆய்வுகள் XML / ஆய்வுகள் அங்கீகரிக்கப்பட்ட பரிசீலனையின் மூலமாக சரிபார்க்கப்படும்
- இது எலக்ட்ரானிக் செயல்முறை மூலம் தயாரிக்கப்பட்ட கடிதமாகும்.



**INFORMATION**

- Aadhaar is a proof of identity, not of citizenship.
- Verify identity using Secure QR Code/ Offline XML/ Online Authentication.
- This is electronically generated letter.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்
- மிகவும் பாதுகாப்பு மற்றும் பாதுகாப்பு சேவைகளை எளிதில் பெற ஆதார் உதவுகிறது
- உங்கள் மொபைல் எண் மற்றும் மின்னஞ்சல் முகவரி ஆதாரில் புதுப்பிக்கவும்
- மல்டிபைல் செய்லிங்கை பயன்படுத்தி உங்கள் மொபைல் செய்லிங்கை ஆதாரை எடுத்துச் செல்லுங்கள்

- Aadhaar is valid throughout the country.
- Aadhaar helps you avail various Government and non-Government services easily.
- Keep your mobile number & email ID updated in Aadhaar.
- Carry Aadhaar in your smart phone – use mAadhaar App.

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**இந்திய அரசாங்கம்**  
**Unique Identification Authority of India**

**முகவரி:**  
S/O: Patraswamy, #9/ 1A, Pongalimudilar Street, KNP Road, Karamada, Metpalayam, Coimbatore, Tamil Nadu - 641104

**Address:**  
S/O: Patraswamy, #9/ 1A, Pongalimudilar Street, KNP Road, Karamada, Metpalayam, Coimbatore, Tamil Nadu - 641104

**8787 7709 5761**  
VID : 9108 1968 9942 0936

**எனது ஆதார், எனது அடையாளம்**



அறிவியல் புலம்  
FACULTY OF SCIENCE

பெரியார் பலகலைக்கழக ஆட்சிக்குழு 2010 ஆம் ஆண்டு ஏப்ரல் மாதம்  
நடந்த பயன்பாட்டுப்புவியமைப்பியல் தேர்வில்  
அரசு கலைக் கல்லூரி, சேலம் - 636 007 ( தன்னாட்சி ) பயின்ற  
P விஸ்வநாதன் என்பவர்

முதல் வகுப்பு A++ தரத்தில் தேர்ச்சி பெற்றார் என்று தக்க  
தேர்வாளர்கள் சான்றளித்தபடி அறிவியல் நிறைஞர் என்னும்  
பட்டத்தை அவருக்குப் பலகலைக்கழக இலச்சினையுடன் வழங்குகிறது.

*The Syndicate of the Periyar University hereby makes known*  
*that* VISWANATHAN P *has been*  
*admitted to the* DEGREE OF MASTER OF SCIENCE in  
APPLIED GEOLOGY

*he/she having been certified by duly appointed Examiners to be qualified*  
*to receive the same and was placed in the* FIRST CLASS  
WITH A++ GRADE *at the Examination held in* APR-2010 *through*  
GOVERNMENT ARTS COLLEGE, SALEM - 636 007 (AUTONOMOUS).



Given under the seal of this university



நாள்  
Dated 28-02-2011  
சேலம் 636011, தமிழ்நாடு, இந்தியா.  
Salem 636011, Tamil Nadu, India.

பதிவாளர்  
Registrar

துணைவேந்தர்  
Vice-Chancellor

TIN. No. : 3312 2703755  
C.S.T. No. : 880783 / 29.11.2005  
Area Code : 142



ANNEXURE 7

## SUDHARSHAAN MINING CORPORATION

Mfrs : Dead Burnt Magnesite, Lightly Calcined Magnesite, Dunite Chips & Powder.  
S.F. No. 77, Kuduvampatty Road, Vinayagampatti, SALEM - 636 008.

Date : 28.12.2015.....

### EXPERIENCE CERTIFICATE

This is to certify that **Shri.P.Viswanathan, S/o. P.Paramasivam, Geologist,** has worked in our Magnesite Mines from **13.09.2010 to 25.11.2015** as our company Geologist. During his service he used to maintain all records and returns submitted to Government Departments.


His nature of work in the mines was to show the plan of working and demarcate Magnesite reserve areas. He was looking after production of Magnesite and was maintaining quality of the Mineral as per the specifications given by the buyers.

During his tenor of his service he was very sincere and prompt in his duties.

I wish him the best of luck in all his future endeavours.

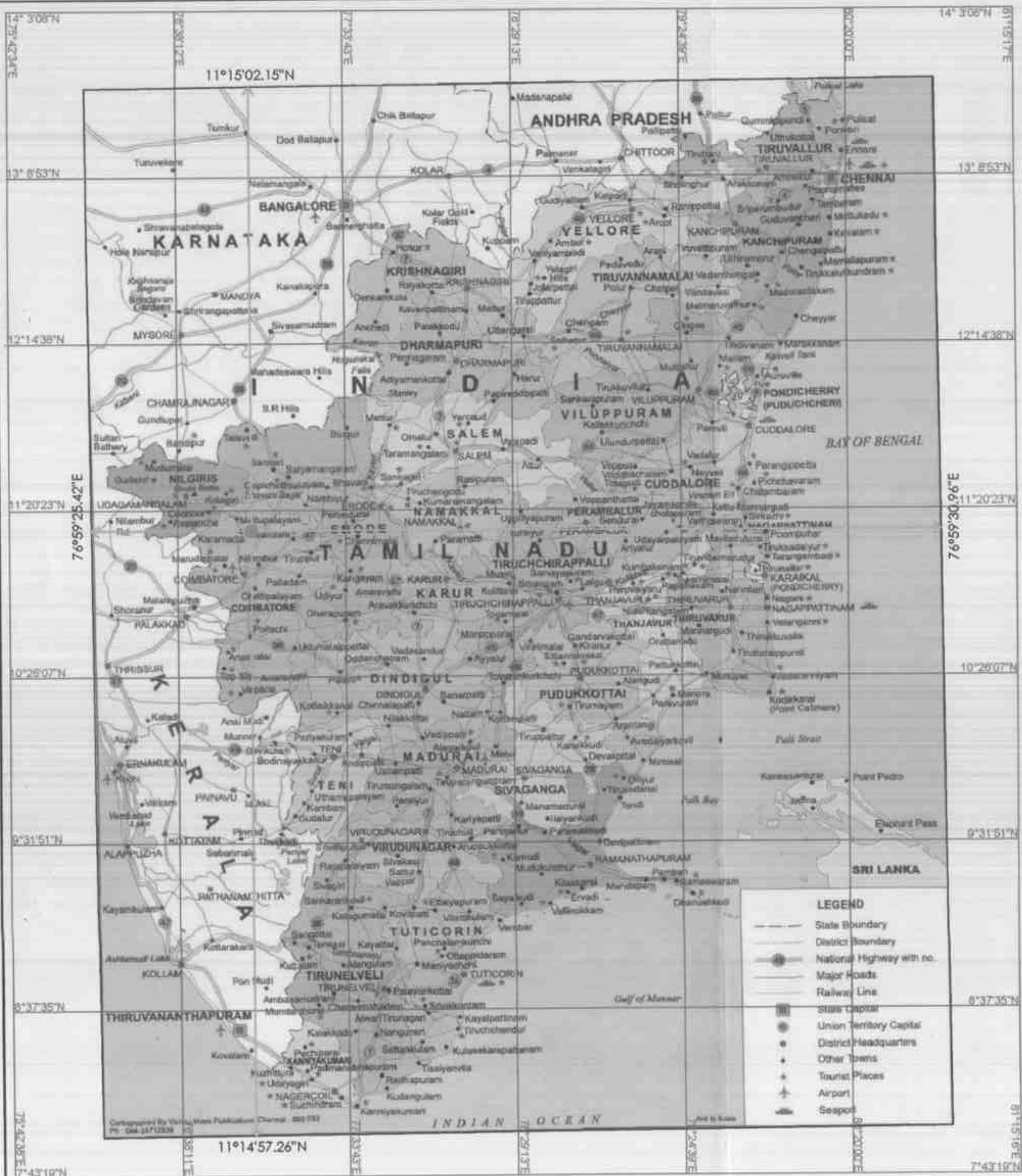
For M/s.SUDHARSHAAN MINING CORPORATION,

SUDHARSHAAN MINING CORPORATION  
SF-77, KUDUVAMPATTI ROAD,  
SALEM - 636 008, Tamilnadu.

  
G.PASUPATHY,  
Proprietor

28 Dec 2015

Resi : "Garuda" 14/315, Kaliyapillai Garden Ind Cross, Fairlands, Salem - 636 004, Tamilnadu.



**INDEX**

Q.L.APPLIED AREA : ●  
 TOPO SHEET NO. : 58 A/15&58 A/16  
 LATITUDE : 11°14'57.26"N to 11°15'02.15"N  
 LONGITUDE : 76°59'25.42"E to 76°59'30.96"E

**APPLICANT :**

Thiru.P. CHANDRAMOHAN,  
 S/o. PALANISAMY,  
 No. 9/ 1A, PONGALI MUDALIYAR STREET,  
 KNP ROAD, KARAMADAI,  
 COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**

S.F.No : 428/ 2, 429/1 & 429/ 2,  
 EXTENT : 1.81.5 Ha,  
 VILLAGE : CHIKKAMPALAYAM,  
 TALUK : METTUPALAYAM,  
 DISTRICT : COIMBATORE,  
 STATE : TAMIL NADU.

**PLATE NO - I**

DATE OF SURVEY : 20.10.2022

**LOCATION PLAN**

SCALE. 1:24,00,000

**PREPARED BY :**

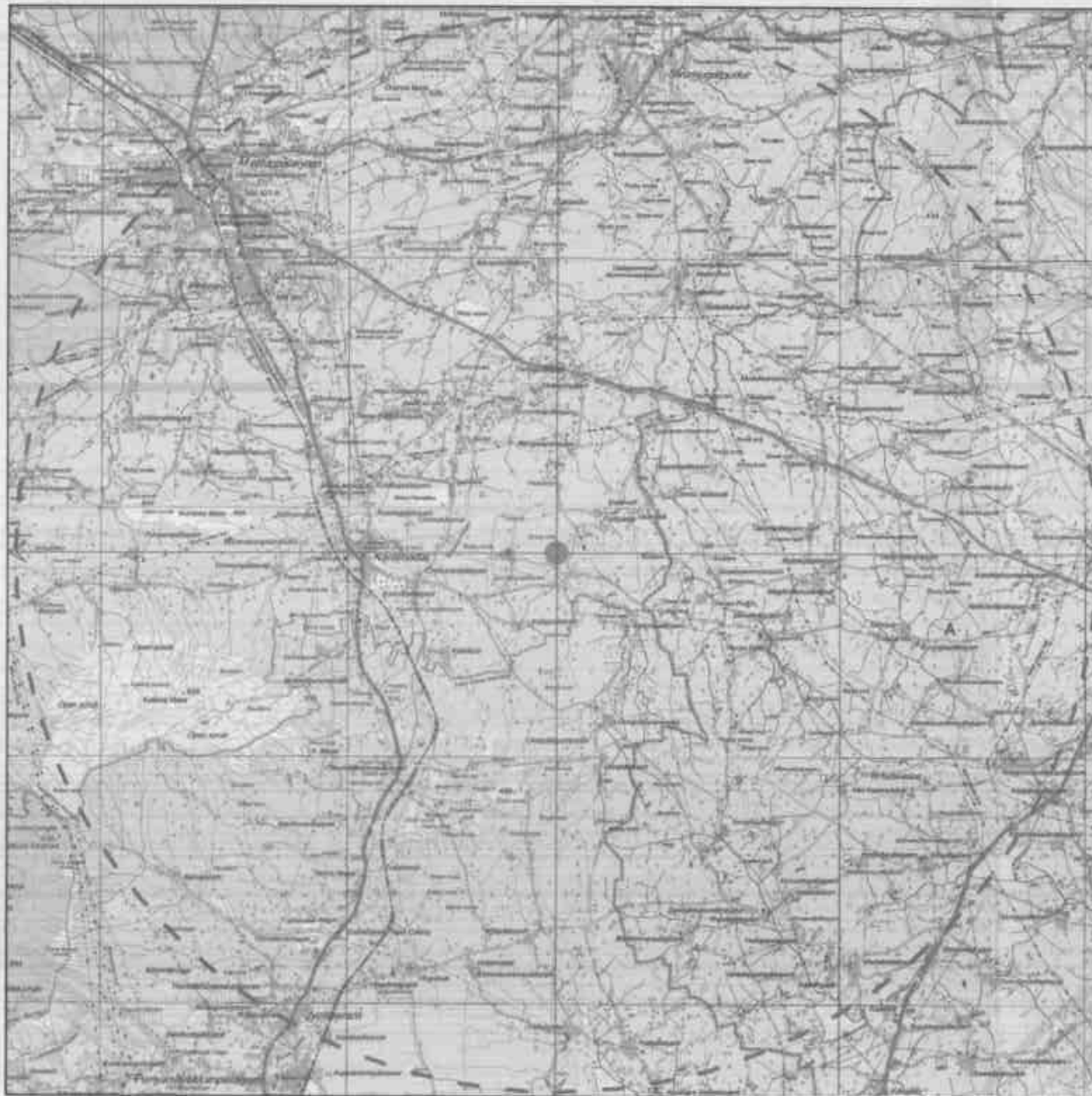
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS  
 PLATE IS TRUE AND CORRECT TO THE BEST OF MY  
 KNOWLEDGE BASED UPON THE LEASE MAP  
 AUTHENTICATED BY STATE GOVERNMENT

*P. Viswanathan*  
 P.VISWANATHAN, M.Sc.,  
 QUALIFIED PERSON

INDEX



11° 20' 27.53"N



76° 53' 55.77"E

77° 05' 00.56"E

11° 09' 31.87"N

Express highway: with toll; with bridge; with distance stone.....	
Roads metalled: according to importance.....	
Roads, double cartageway; according to importance.....	
Unmetalled road. Cart-track. Pack-track with pass. Foot-path.....	
Streams: with track in bed; undefined. Canal.....	
Dams: masonry or rock-filled; earthwork. Weir.....	
River; dry with water channel; with island & rocks. Tida/river.....	
Submerged rocks. Shoal. Swamp. Reeds.....	
Wells: lined; unlined. Tubewell. Spring. Tanks: perennial; dry.....	
Embankments: road or rail; tank. Broken ground.....	
Railways, broad gauge: double; single with station; under constm.....	
Railways, other gauges: double; single with distance stone; do.....	
Mineral line or tramway. Kin. Cutting with tunnel.....	
Contours with sub-features. Rocky slopes. Cliffs.....	
Sand features: (1)flat. (2)sand-hills(permanent). (3)dunes(shifting).....	
Towns or Villages: inhabited; deserted. Fort.....	
Huts: permanent; temporary. Tower. Antiquities.....	
Temple. Chhatri. Church. Mosque. Idgah. Tomb. Graves.....	
Lighthouse. Lightship. Buoys: lighted; unlighted. Anchorage.....	
Mine. Vine on trellis. Grass. Scrub.....	
Palms: palmyra; other. Plantain. Conifer. Bamboo. Other trees.....	
Areas: cultivated; Wooded. Surveyed trees.....	
Boundary, international.....	
Boundary, state: demarcated; undemarcated.....	
Boundary, district, subdivision; tahsil or taluk; forest.....	
Boundary pillars: surveyed; unlocated.....	
Heights, triangulated: station: point; approximate.....	
Bench-mark: geodetic; tertiary; canal.....	
Post office. Telegraph office. Overhead tank.....	
Rest house or inspection bungalow. Circuit house. Police station.....	
Camping Ground. Forest: reserved; protected.....	
Spaces names: administrative; locality or tribal.....	
Hospital. Dispensary. Veterinary: Hospital/Dispensary.....	
Aerodrome. Helipad. Tourist site.....	
Powerline: with pylons surveyed; with poles unsurveyed.....	

2-1 NOV 2022

**APPLICANT :**

Thiru.P. CHANDRAMOHAN,  
S/o. PALANISAMY,  
No. 9/ 1A, PONGALI MUDALIYAR STREET,  
KNP ROAD, KARAMADAI,  
COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**

S.F.No : 428/ 2, 429/1 & 429/ 2,  
EXTENT : 1.81.5 Ha,  
VILLAGE : CHIKKARAMPALAYAM,  
TALUK : METTUPALAYAM,  
DISTRICT : COIMBATORE,  
STATE : TAMIL NADU.

**PLATE NO - I-A**

DATE OF SURVEY : 20.10.2022

**TOPO SKETCH OF QUARRY LEASE  
APPLIED AREA FOR 10Km RADIUS**

SCALE: 1:1,00,000

**PREPARED BY :**

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

*P. Viswanathan*  
P. VISWANATHAN, M.Sc.,  
QUALIFIED PERSON

TOPO SHEET NO. : 58 - A/15&58 A/16

LATITUDE : 11°14'57.26"N to 11°15'02.15"N  
LONGITUDE : 76°59'25.42"E to 76°59'30.96"E

10km RADIUS :

Q.L. APPLIED AREA :

OCTOBER TO DECEMBER



76° 58' 52.46"E

11° 15' 34.89"N

11° 15' 18.42"N

11° 14' 40.99"N

11° 14' 24.72"N

77° 00' 03.92"E

Towards Vaadavalli

Towards Bellachi

Towards Senniveeranpalayam

Towards Mongampalayam

JULY TO SEPTEMBER



TOPO SHEET NO. : 58 - A/158.58 A/16  
 LATITUDE : 11°14'57.26"N to 11°15'02.16"N  
 LONGITUDE : 76°59'25.42"E to 76°59'30.96"E

**LAND USE PATTERN**

DESCRIPTION	PERCENTAGE	INDEX
QUARRY PIT&CRUSHER	(12%)	
TREES/COCO.FARM	(09%)	
SEASONAL AGRI LAND	(29%)	
ROADS	(04%)	
HABITATION	(08%)	
BARREN LAND	(38%)	
TOTAL	100%	

**INDEX**

- Q.L. APPLIED AREA
- 1 Km RADIUS
- 500m RADIUS
- SEASONAL AGRICULTURE LAND
- TREES & COCONUT FARM
- HABITATION
- QUARRY PIT & CRUSHER UNIT
- WIND DIRECTION
- PANCHAYAT ROAD
- APPROACH ROAD
- BARREN LAND
- CART TRACK



**APPLICANT :**

Thiru.P. CHANDRAMOHAN,  
 S/o. PALANISAMY,  
 No. 9/ 1A, PONGALI MUDALIYAR STREET,  
 KNP ROAD, KARAMADAI,  
 COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**

S.F.No : 428/ 2, 429/1 & 429/ 2,  
 EXTENT : 1.81.5 Hg,  
 VILLAGE : CHIKKARAMPALAYAM,  
 TALUK : METTUPALAYAM,  
 DISTRICT : COIMBATORE,  
 STATE : TAMIL NADU.

**PLATE NO - I-B**

DATE OF SURVEY : 20.10.2022

**ENVIRONMENTAL & LAND USE PLAN**

SCALE: 1:10,000

**PREPARED BY :**

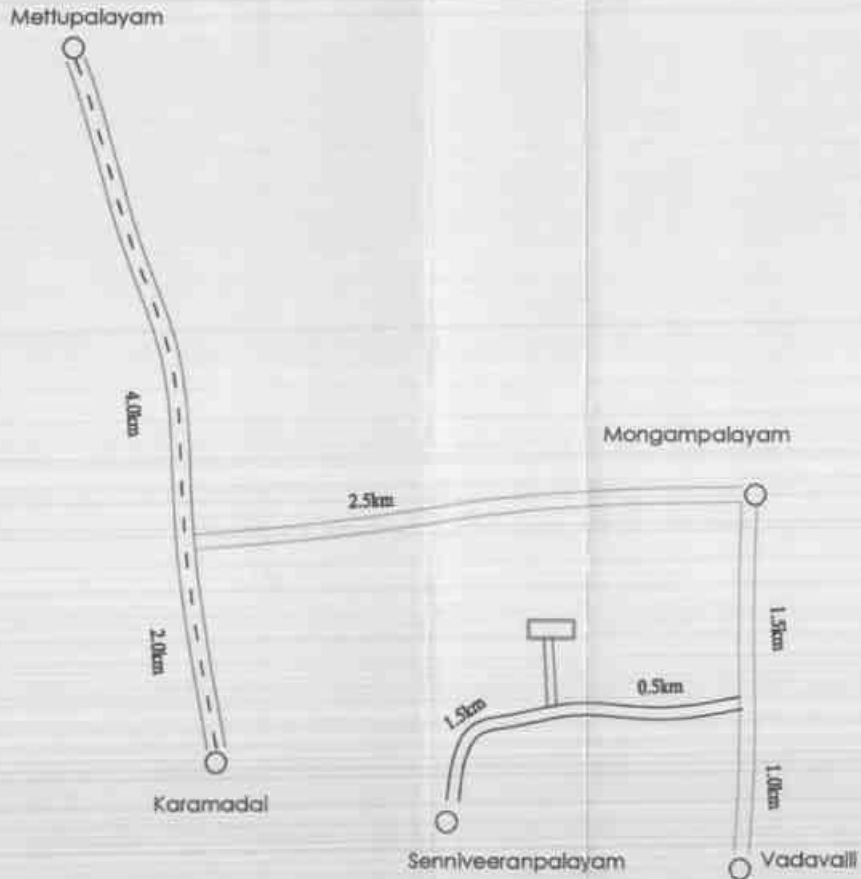
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

*P. Viswanathan*  
 P. VISWANATHAN  
 QUALIFIED SURVEYOR

10/A

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PLATE NO : I-C  
ROUTE MAP



INDEX

- LEASE APPLIED AREA
- NATIONAL HIGHWAY
- VILLAGE ROAD
- APPROACH ROAD
- CART TRACK

APPLICANT :

Thiru.P. CHANDRAMOHAN,  
S/o. PALANISAMY,  
No. 9/ 1A, PONGALI MUDALIYAR  
STREET, KNP ROAD, KARAMADAI,  
COIMBATORE DISTRICT.

LOCATION OF Q.L. A. AREA:

S.F.No : 428/ 2, 429/1 & 429/ 2,  
EXTENT : 1.81.5 Ha,  
VILLAGE : CHIKKARAMPALAYAM,  
TALUK : METTUPALAYAM,  
DISTRICT : COIMBATORE,  
STATE : TAMIL NADU.

SCALE :

NOT TO SCALE

PREPARED BY:

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AUTHENTICATED BY STATE GOVERNMENT

*P. Viswanathan*  
P. VISWANATHAN, M.Sc.,  
QUALIFIED PERSON

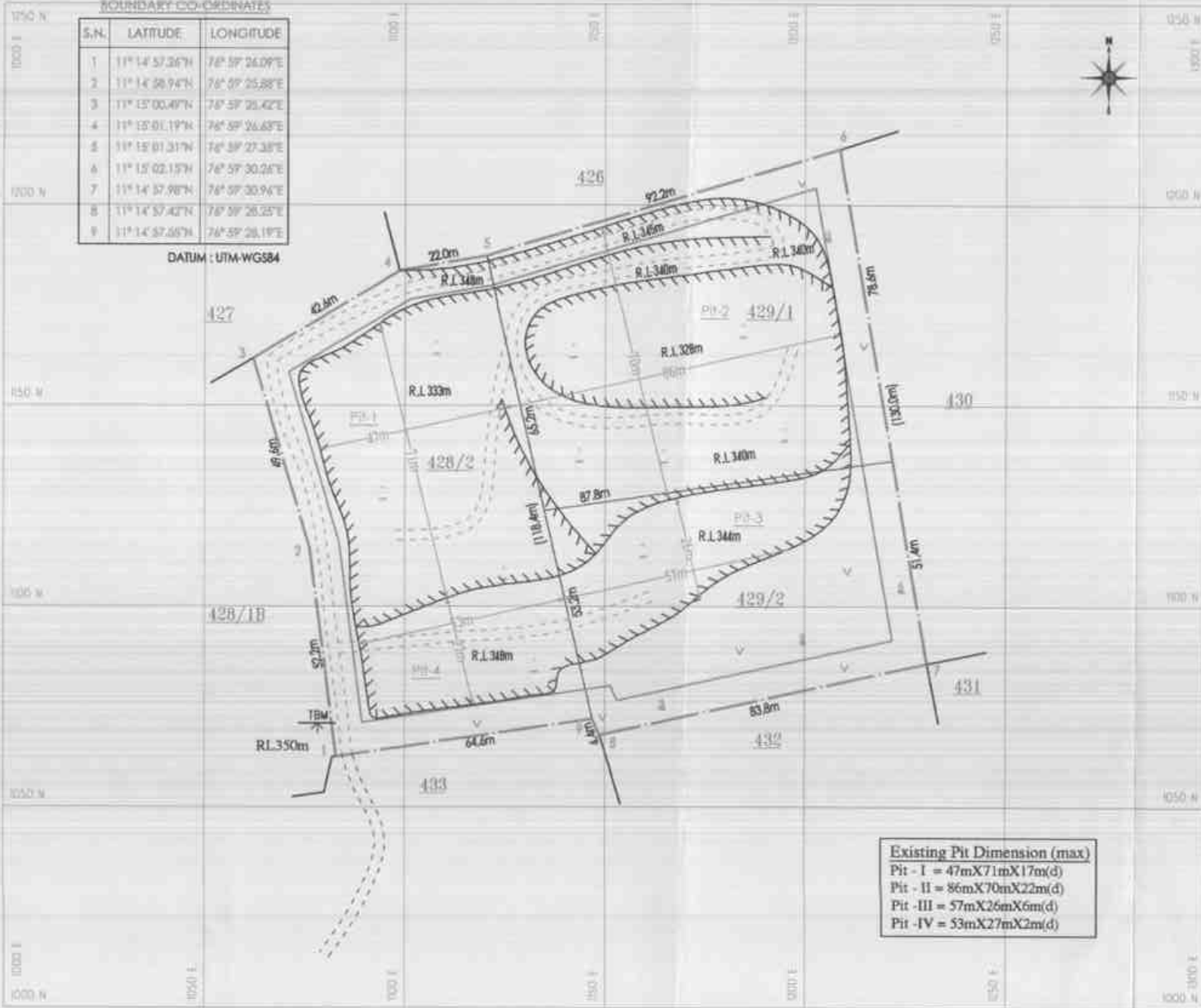
163



**BOUNDARY CO-ORDINATES**

S.N.	LATITUDE	LONGITUDE
1	11° 14' 57.36"N	76° 59' 26.09"E
2	11° 14' 58.94"N	76° 59' 25.88"E
3	11° 15' 00.49"N	76° 59' 25.42"E
4	11° 15' 01.19"N	76° 59' 26.63"E
5	11° 15' 01.31"N	76° 59' 27.38"E
6	11° 15' 02.15"N	76° 59' 30.26"E
7	11° 14' 57.98"N	76° 59' 30.94"E
8	11° 14' 57.42"N	76° 59' 28.25"E
9	11° 14' 57.05"N	76° 59' 28.19"E

DATUM : UTM-WGS84



**Existing Pit Dimension (max)**  
 Pit - I = 47mX71mX17m(d)  
 Pit - II = 86mX70mX22m(d)  
 Pit - III = 57mX26mX6m(d)  
 Pit - IV = 53mX27mX2m(d)



- Q.L. APPLIED AREA BOUNDARY
- 7.5m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- GRAVEL
- ROUGHSTONE
- QUARRY PIT
- SHRUBS
- QUARRY HAUL ROAD
- APPROACH ROAD

**APPLICANT :**  
 Thiru.P. CHANDRAMOHAN,  
 S/o. PALANISAMY,  
 No. 9/ 1A, PONGALI MUDALIYAR STREET,  
 KNP ROAD, KARAMADAI,  
 COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**  
 S.F.No : 428/ 2, 429/1 & 429/ 2,  
 EXTENT : 1.81.5 Ha,  
 VILLAGE : CHIKKAMPALAYAM,  
 TALUK : METTUPALAYAM,  
 DISTRICT : COIMBATORE,  
 STATE : TAMIL NADU.

**PLATE NO - II**  
 DATE OF SURVEY : 20.10.2022

**QUARRY LEASE PLAN & SURFACE PLAN**  
 SCALE: 1:1000

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

*P.V. View*  
 P.VIEW M.Sc.,  
 QUALIFIED PERSON

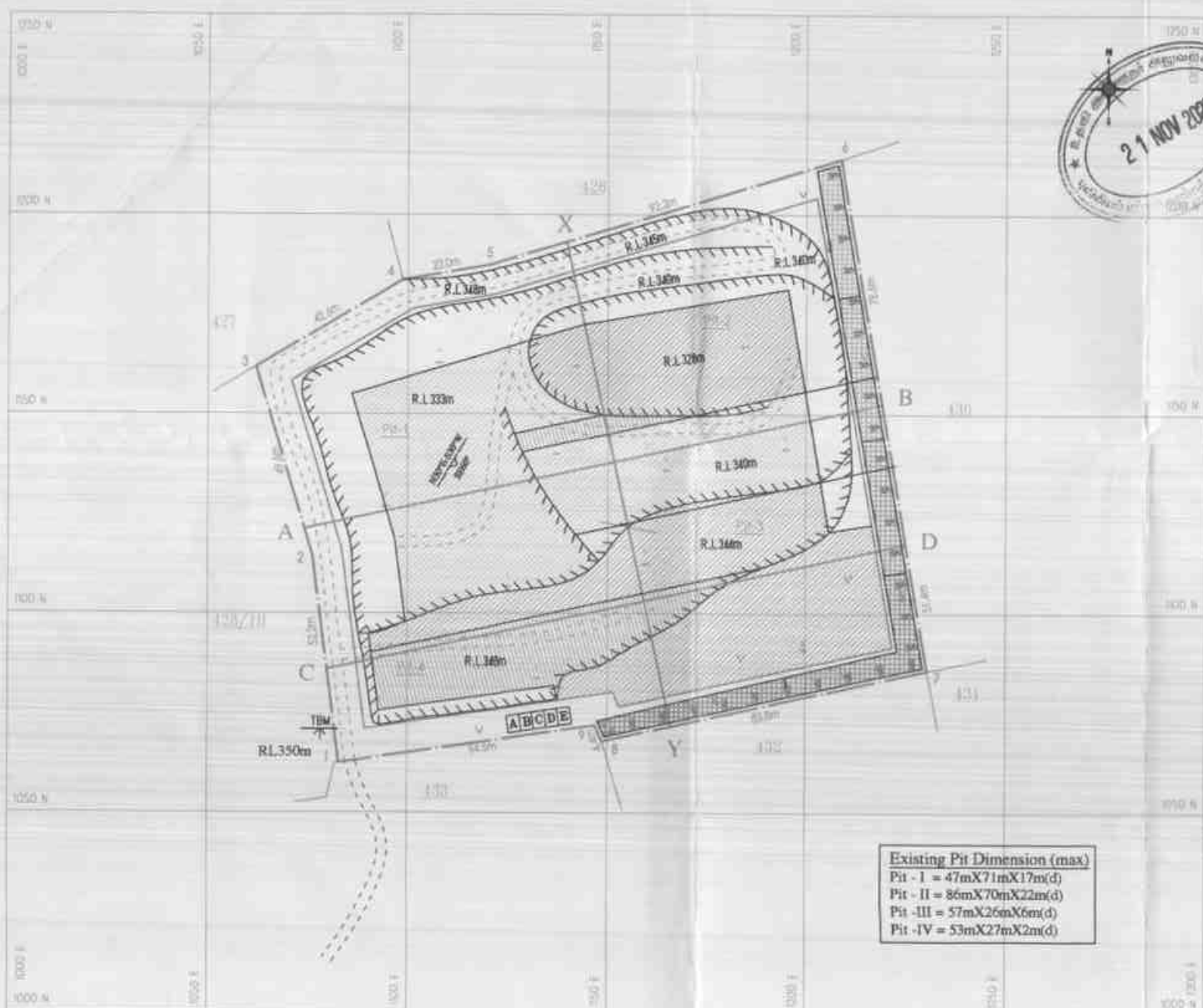
BOUNDARY CO-ORDINATES

S.N.	LATITUDE	LONGITUDE
1	11° 14' 57.25"N	76° 59' 26.09"E
2	11° 14' 58.94"N	76° 59' 25.88"E
3	11° 15' 00.47"N	76° 59' 25.42"E
4	11° 15' 01.19"N	76° 59' 26.62"E
5	11° 15' 01.31"N	76° 59' 27.35"E
6	11° 15' 02.15"N	76° 59' 28.38"E
7	11° 14' 57.95"N	76° 59' 30.58"E
8	11° 14' 57.42"N	76° 59' 28.25"E
9	11° 14' 57.55"N	76° 59' 28.19"E

DATUM : UTM-WGS84

**SITE SERVICES (Proposed)**

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



**Existing Pit Dimension (max)**  
 Pit - I = 47mX71mX17m(d)  
 Pit - II = 86mX70mX22m(d)  
 Pit - III = 57mX26mX6m(d)  
 Pit -IV = 53mX27mX2m(d)

INDEX

- Q.L. APPLIED AREA BOUNDARY
- 7.5m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- GRAVEL
- ROUGHSTONE
- STRIKE & DIP
- QUARRY PIT
- SHRUBS
- QUARRY HAUL ROAD
- APPROACH ROAD
- D.O.E DEPTH OF ESTIMATION

APPLICANT :

Thiru.P. CHANDRAMOHAN,  
 S/o. PALANISAMY,  
 No. 9/ 1A, PONGALI MUDALIYAR STREET,  
 KNP ROAD, KARAMADAI,  
 COIMBATORE DISTRICT.

LOCATION OF Q.L. APPLIED AREA:

S.F.No : 428/ 2, 429/1 & 429/ 2,  
 EXTENT : 1.81.5 Ha,  
 VILLAGE : CHIKKARAMPALAYAM,  
 TALUK : METTUPALAYAM,  
 DISTRICT : COIMBATORE,  
 STATE : TAMIL NADU.

PLATE NO - III

DATE OF SURVEY : 20.10.2022

TOPOGRAPHY, GEOLOGICAL PLAN,  
 YEARWISE DEVELOPMENT &  
 PRODUCTION PLAN & SECTIONS

SCALE. 1:1000

PREPARED BY :

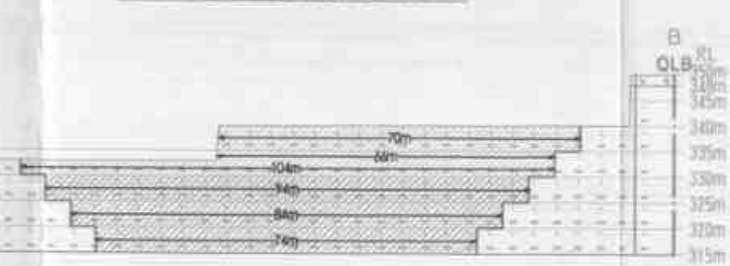
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 AUTHENTICATED BY STATE GOVERNMENT

*P.O. Murugan*  
 P. VISWANATHAN, M.Sc.,  
 QUALIFIED SURVEYOR

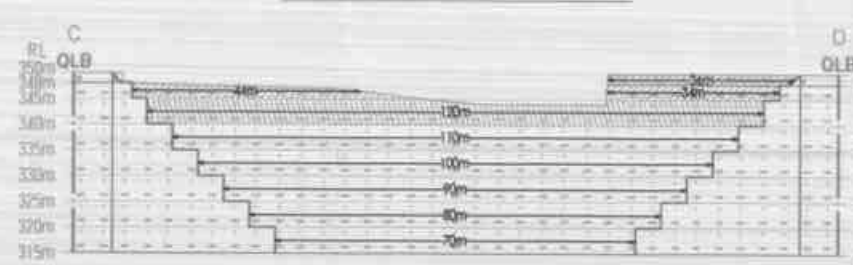
SECTION ALONG X-Y



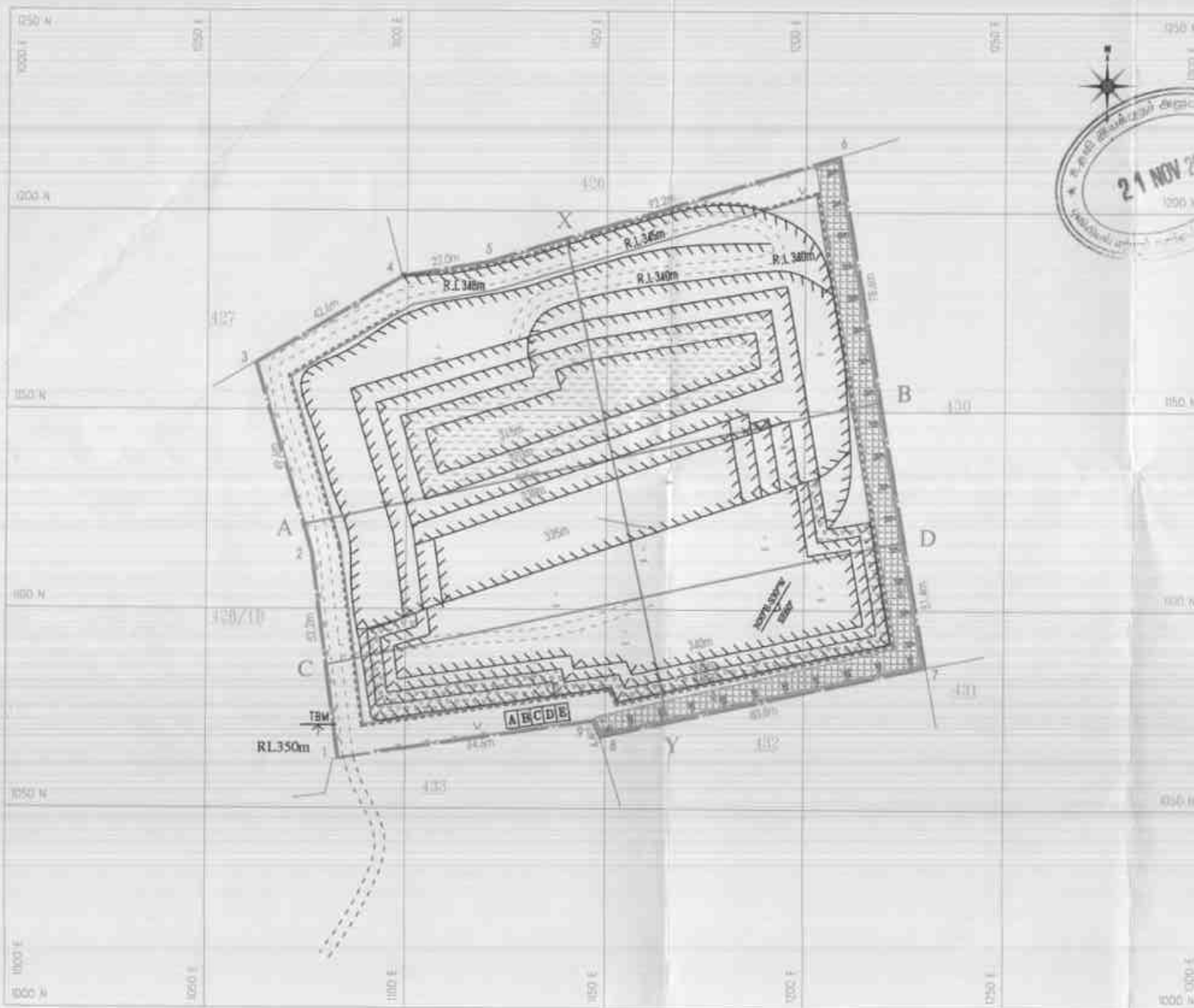
SECTION ALONG A-B



SECTION ALONG C-D



- I - yr Proposed area to be Planned
- II - yr Proposed area to be Planned
- III - yr Proposed area to be Planned
- IV - yr Proposed area to be Planned
- V - yr Proposed area to be Planned
- I - yr Proposed area to be Quarried
- II - yr Proposed area to be Quarried
- III - yr Proposed area to be Quarried
- IV - yr Proposed area to be Quarried
- V - yr Proposed area to be Quarried



**SITE SERVICES**

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

**INDEX**

- Q.L. APPLIED AREA BOUNDARY
- 7.5m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- GRAVEL
- ROUGHSTONE
- STRIKE & DIP
- QUARRY PIT
- SHRUBS
- QUARRY HAUL ROAD
- APPROACH ROAD
- 1-V Yr PLANTATION
- BARBED WIRE FENCING
- EXISTING LAND FORM
- SOIL LAYER
- REHABILITATED LAND FORM
- PROPOSED GARLAND DRAIN
- OLD SURFACE LEVEL
- FINISHED SURFACE LEVEL
- RAIN WATER STORAGE

**APPLICANT :**

Thiru.P. CHANDRAMOHAN,  
S/o. PALANISAMY,  
No. 9/ 1A, PONGALI MUDALIYAR STREET,  
KNP ROAD, KARAMADAL,  
COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**

S.F.No : 428/ 2, 429/1 & 429/ 2,  
EXTENT : 1.81.5 Ha,  
VILLAGE : CHIKKARAMPALAYAM,  
TALUK : METTUPALAYAM,  
DISTRICT : COIMBATORE,  
STATE : TAMIL NADU.

**PLATE NO - IV**

DATE OF SURVEY : 20.10.2022

**PROGRESSIVE QUARRY  
CLOSURE PLAN & SECTIONS**

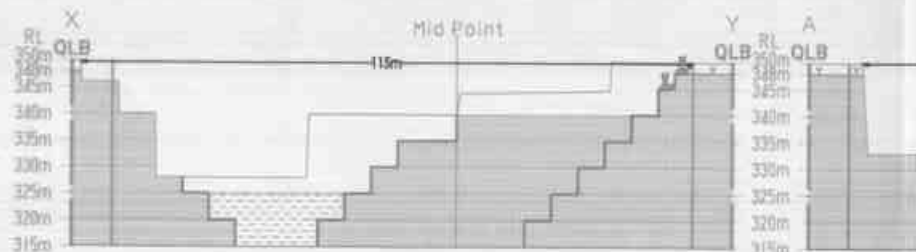
SCALE: 1:1000

**PREPARED BY :**

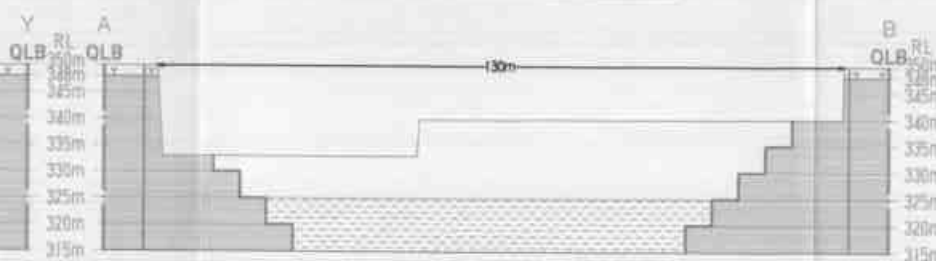
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AUTHENTICATED BY STATE GOVERNMENT

*P. Viswanath*  
P. VISWANATH,  
QUALIFIED PERSON

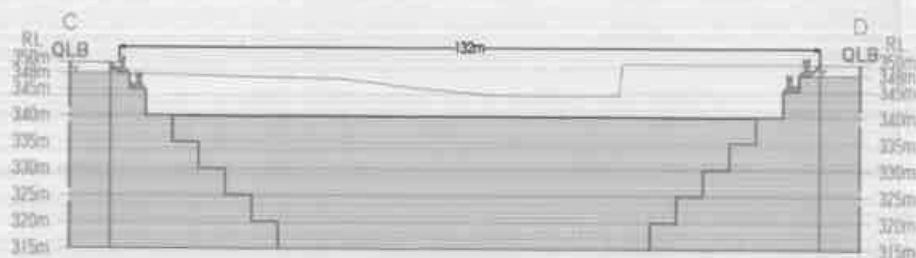
**SECTION ALONG X-Y**



**SECTION ALONG A-B**



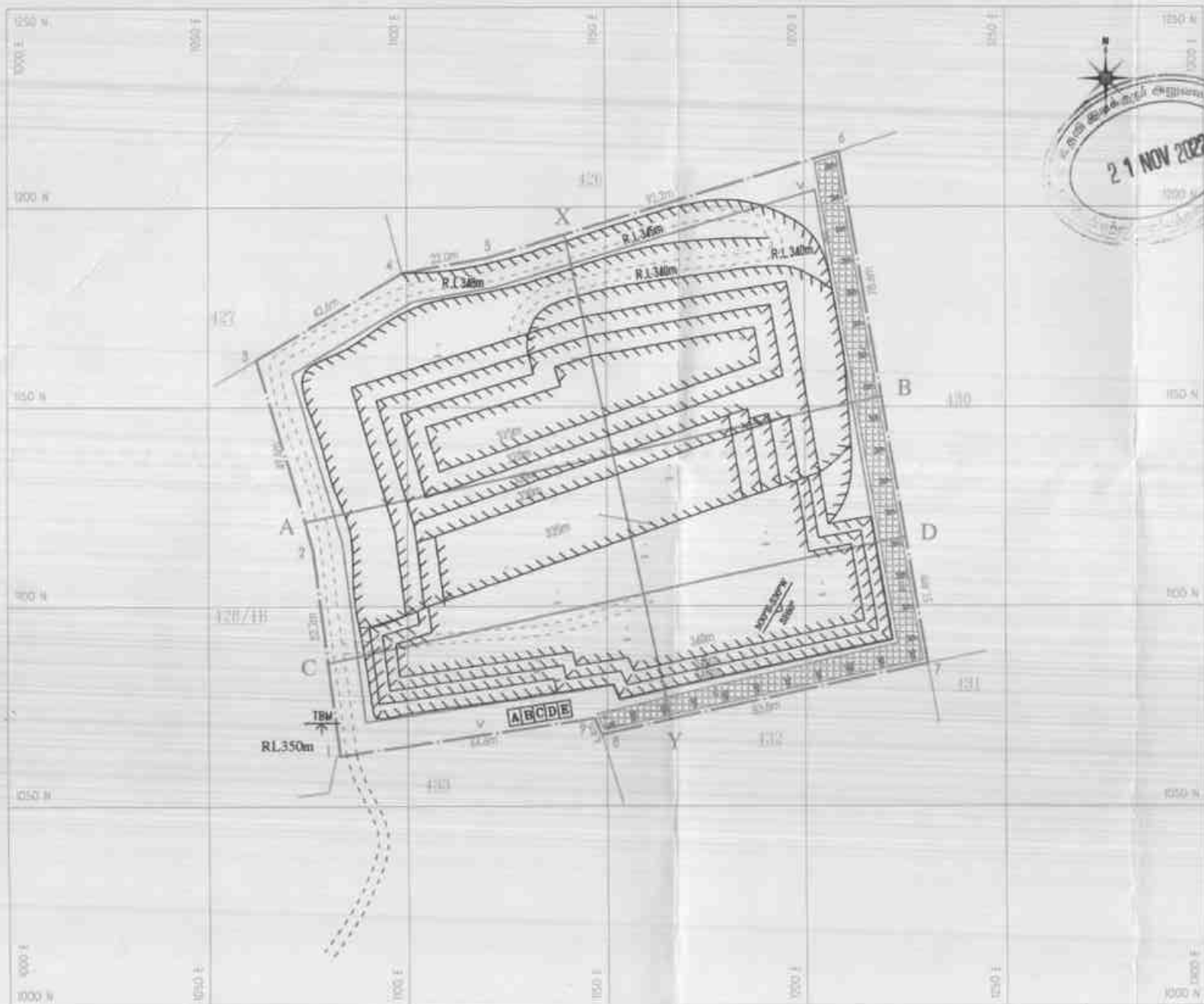
**SECTION ALONG C-D**



Proposed Pit Dimension (max)  
= 115mX132mX35m(d)

**LAND USE PATTERN**

DESCRIPTION	PRESENT AREA IN (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
QUARRYING PIT	1.250	1.430
INFRASTRUCTURE	Nil	0.010
ROADS	0.020	0.020
GREEN BELT	Nil	0.110
UN-UTILIZED AREA	0.545	0.245
<b>TOTAL</b>	<b>1.815</b>	<b>1.815</b>



**BOUNDARY CO-ORDINATES**

S.N.	LATITUDE	LONGITUDE
1	11° 14' 57.28"N	76° 57' 28.09"E
2	11° 14' 58.94"N	76° 57' 25.88"E
3	11° 15' 00.47"N	76° 57' 25.42"E
4	11° 15' 01.19"N	76° 57' 24.63"E
5	11° 15' 01.31"N	76° 57' 27.26"E
6	11° 15' 02.15"N	76° 57' 30.26"E
7	11° 14' 57.99"N	76° 57' 30.96"E
8	11° 14' 57.42"N	76° 57' 28.25"E
9	11° 14' 57.55"N	76° 57' 28.19"E

DATUM : UTM-WGS84

**SITE SERVICES**

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

**INDEX**

- Q.L. APPLIED AREA BOUNDARY
- 7.5m SAFETY DISTANCE
- ⊕ TEMPORARY BENCH MARK
- V V GRAVEL
- ROUGHSTONE
- STRIKE & DIP
- QUARRY PIT
- SHRUBS
- QUARRY HAUL ROAD
- APPROACH ROAD
- I-V Y PLANTATION

**APPLICANT :**

Thiru.P. CHANDRAMOHAN,  
S/o. PALANISAMY,  
No. 9/ 1A, PONGALI MUDALIYAR STREET,  
KNP ROAD, KARAMADAI,  
COIMBATORE DISTRICT.

**LOCATION OF Q.L. APPLIED AREA:**

S.F.No : 428/ 2, 429/1 & 429/ 2,  
EXTENT : 1.81.5 Ha,  
VILLAGE : CHIKKARAMPALAYAM,  
TALUK : METTUPALAYAM,  
DISTRICT : COIMBATORE,  
STATE : TAMIL NADU.

**PLATE NO - V**

DATE OF SURVEY : 20.10.2022

**CONCEPTUAL PLAN & SECTIONS**

SCALE : 1:1000

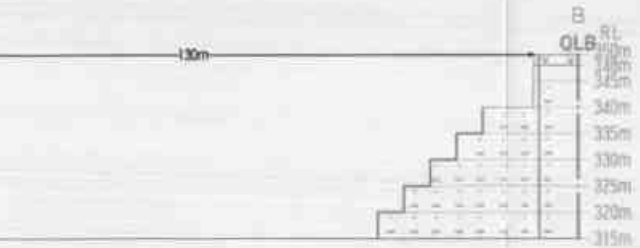
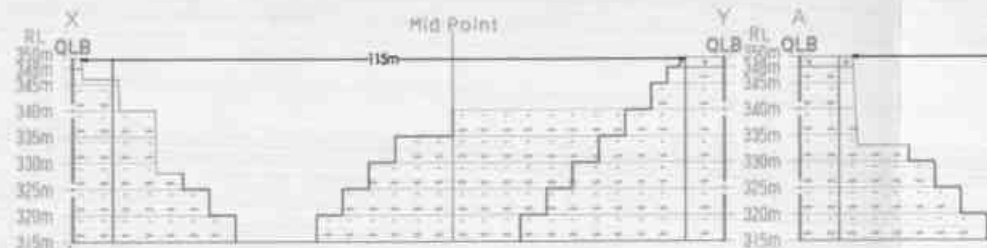
**PREPARED BY :**

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

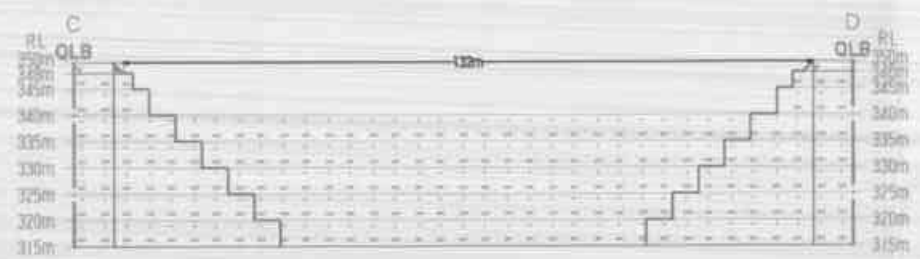
*P. Viswanathan*  
P.VISWANATHAN, M.Sc.  
QUALIFIED

**SECTION ALONG X-Y**

**SECTION ALONG A-B**



**SECTION ALONG C-D**



**Ultimate Pit Dimension (max)**  
= 115mX132mX35m(d)

To:

Dr.S.Lakshmi Prasad, M.Sc., Ph.D.  
The Assistant Director,  
Assistant Director,  
Dept. Geology and Mining  
Coimbatore

By:

Tel.technomax Building  
Sohraon Road, Coimbatore,  
represented by its Managing  
Director Thiru.P.Raja,  
17382, Muthupalayam Road,  
Muthupalayam, Press  
Coimbatore (Coimbatore).

Re.No.627/Mines/2017, Dated:12.10.2017

Sir,

Sub: Mines & Minerals - Miner Mineral - Reclamation and  
Control - Coimbatore District - Muthupalayam Taluk -  
Bellandi Village - over an extent of 1.154 hectares of  
patta and Survey No- 845/3 (Part) - Application  
proffered by Tel.technomax Building Sohraon Road  
Coimbatore, represented by its Managing Director  
Thiru.P.Raja - precise area communicated -  
Submitted for mining plan for approval - Approved.  
Regarding.

- Ref: 1. Quarry lease application dated 13.06.2017  
proffered by Tel.technomax Building Sohraon  
Road Coimbatore, represented by its Managing  
Director Thiru.P.Raja, 17382,  
Muthupalayam Road, Muthupalayam, Press  
Coimbatore.  
2. District Collector, Coimbatore letter  
No.No.627/Mines/2017 dated:09.09.2017.  
3. Mining Plan submitted by Tel.technomax Building,  
Sohraon Road Coimbatore dated: 18.09.2017  
- District Collector Proceedings No.No.231/  
Mines/2016 dt: 17.03.2017 consulted District  
Level Environment Impact Assessment Authority  
and District Level Expert Appraisal Committee for  
Coimbatore District.

Yours truly,

In response to the precise area communicated by the District  
Collector, Coimbatore, the applicant, Tel.technomax Building Sohraon  
Road Coimbatore, represented by its Managing Director Thiru.P.Raja with  
the areas submitted has submitted three copies of mining plan for the  
area applied for the grant of quarry lease for 10mgs/yr to be used over

an extent of 1,45.4 hectares out of 2,06.8 hectares of patta land in S.No. 36/3 (Part) of Bellaly Village, Metturpalayam Taluk, Coimbatore District.

2. The mining plan submitted for the grant of quarry lease for Roadstone & Co. over an extent of 1,45.4 hectares out of 2,06.8 hectares of patta land in S.No. 36/3 (Part) of Bellaly Village, Metturpalayam Taluk, Coimbatore District has been verified in detail.

3. As per the guidelines/ instructions issued by the Commissioner of Geology and Mining, Chennai vide letter No.0888/10/2012, dated 14.11.2013, the mining plan is hereby approved, subject to the following conditions:

- (i) The mining plan is approved without prejudice to any other Law applicable to the quarry lease from any 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 of any other provisions of the Mines and Minerals (Development and Regulation) Amendment Act, 2015, or any other concerned laws including Forest (Conservation) Act, 1980, Forest Conservation Rules, 1981, Environment Protection Act, 1986, Industries Act, 1984 (Mineral Act IV of 1984) and the Rules made there under and the Tamil Nadu Mineral Concession Rules, 1979.
- (iii) The mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
- (iv) As per the District Collector, Coimbatore letter No.46,627/Mines/2017 dated 09.09.2017, the following conditions have been also prepared in the Mining Plan:
  - a) A safety distance of 0.5 m. has to be provided all along the boundary of the area applied for lease.

- (ii) While carrying out quarry operation, no hindrance shall be caused to the adjoining patta lands.
- (iii) The applicant should fence the area with barbed wire before execution of lease deed.
- (iv) 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 and other such laws are made by the Central Government, State Government or any other authority.

Incl: Two copy of Approved Mining Plan.

  
 12/10/17  
 Assistant Director,  
 Dept. of Geology and Mining  
 Coimbatore

Copies to:

       
 12/10/17     12/10/17

The Director, Geology and Mining, Coimbatore-33



# MINING PLAN

FOR

**ROUGH STONE & GRAVEL QUARRY LEASE IN OWN PATTA LAND**

(Prepared under 41 & 42 Tamilnadu Minor Mineral Concession Rules, 1959  
And amended Minor Mineral Conservation and Development Rules, 2010)

PERIOD : (FIVE) 5 YEARS

**LOCATION OF THE APPLIED AREA**

EXTENT : 1.45.8Ha (Out of 2.06.5) Ha

S.F.No : 345/3 (Part)

VILLAGE : BELLATHI

TALUK : METTUPALAYAM

DISTRICT : COIMBATORE

STATE : TAMIL NADU

**APPLICANT**

TVL. TECHNOMAX BUILDING SOLUTION INDIA PVT.LTD,  
THIRU.R.RAJU, (Managing Director)  
No.1/382, METTUPALAYAM ROAD,  
MATHAMPALAYAM, PRESS COLONY (PO),  
COIMBATORE DISTRICT - 641 019

**PREPARED BY**

**R.RAJASEKAR.M.Sc.**

**Recognised Qualified Person**

**Reg.No.RQP/CNN/264/2015/A**

No.4A, Chozha Nagar, Pennadam Post,

Tittakudi Taluk, Cuddalore- 606105

Cell: 9486905579 / 8870110245.

Email: raja.parvathi @ gmail.com



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ANNEXURES



Sl. No.	Description	Annexure No.
1	Precise Area Communication Letter from the District Collector	I
2	FMB Sketch	II
3	Land Documents	III
4	ID Proof	IV
5	Copy of RQP Certificate	V

LIST OF PLATES



Sl. No.	Description	Plate No	Scale
1	Location Plan	I	Not to scale
2	Key Plan	II	Not to scale
3	Topo Sketch of Quarry Lease area for 10Km Radius.	III	1:100000
4	Satellite Imagery	IV	1:5000
5	Environmental Management Plan	V	1:5000
6	Quarry Lease and Surface Plan	VI	Plan-1:1000
7	Topography, Geological Plan & Section Year wise Development, Production Plan & Sections	VII VII-A & VII-B	Plan-1:1000 Sec Hor-1:1000; Ver-1:500
8	Conceptual Plan and Sections	VIII VIII-A	Plan-1:1000 Sec Hor-1:1000; Ver-1:500

**CONSENT LETTER FROM THE MINE OWNER**




The Mining Plan in respect of **Rough Stone & Gravel** quarry over extent of **1.45.8Ha** (Out of 2.06.5) Ha of **Own Patta** land in S.F.No. **345/3 (Part)** of **Bellathi** Village, **Mettupalayam** Taluk, **Coimbatore** District, Tamilnadu State has been prepared by R.Rajasekar, M.Sc., Reg.No. RQP/CNN/264/2015/A.

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

**R.RAJASEKAR.M.Sc.,**  
**Recognised Qualified Person**  
**Reg.No.RQP/CNN/264/2015/A**  
No.4A, Chozha Nagar, Pennadam Post,  
Tittakudi Taluk, Cuddalore- 606105.  
Cell - 9486905579/8870110245.  
Email: raja.parvathi@gmail.com

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

X   
Signature of the Applicant  
**(R.Raju)**

Place : Coimbatore

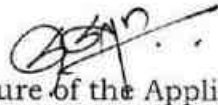
Date : 18.09.2017

Tvl.Technomax Building Solution India Pvt.Ltd,  
Thiru.R.Raju (Managing Director),  
No.1/382, Mettupalayam Road,  
Mathampalayam, Press Colony (Po),  
Coimbatore District - 641 019



**DECLARATION FROM MINE OWNER**

The Mining Plan in respect of **Rough Stone & Gravel** quarry over an extent of **1.45.8Ha** (Out of 2.06.5) Ha of **Own Patta land** in S.F.No. **345/3 (Part)** of **Bellathi** Village, **Mettupalayam** Taluk, **Coimbatore** District, and Tamil Nadu State has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

x   
Signature of the Applicant  
(R.Raju)

Place : Coimbatore

Date : 18.09.2017

R.RAJASEKAR.M.Sc.,  
Recognised Qualified Person,  
Reg.No. RQP/CNN/264/2015/A  
No.4A, Chozha Nagar, Pennadam Post,  
Tittakudi Taluk,  
Cuddalore- 606105.



**CERTIFICATE**

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone & Gravel** quarry lease over an extent of **1.45.8Ha** (Out of 2.06.5) Ha of **Own Patta land** in S.F.No. **345/3 (Part)** of **Bellathi** Village, **Mettupalayam** Taluk, **Coimbatore** District, Tamil Nadu State applied by **Thiru. R.Raju**

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

Certified

**Signature of Recognized Qualified Person**

R.RAJASEKAR.M.Sc.,  
Recognised Qualified Person  
Reg.No. RQP/CNN/264/2015/A

Place : Cuddalore

Date : 15.09.2017

R.RAJASEKAR.M.Sc.,  
Recognised Qualified Person,  
Reg.No.RQP/CNN/264/2015/A  
No.4A, Chozha Nagar, Pennadam Post,  
Tittakudi Taluk,  
Cuddalore- 606105.



**CERTIFICATE**

Certified that, in preparation of Mining Plan for **Rough Stone & Gravel** quarry over an extent of **1.45.8Ha** (Out of 2.06.5) Ha of **Own Patta land** in S.F.No.345/3 (**Part**) of **Bellathi** Village, **Mettupalayam** Taluk, **Coimbatore** District, Tamilnadu State

**Thiru.R.Raju** covers all the provisions of Mines Act, Rules, and Regulations etc made there under and whenever specific permission are required, the Applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified

**Signature of Recognized Qualified Person**

R.RAJASEKAR.M.Sc.,  
Recognised Qualified Person  
Reg.No. RQP/CNN/264/2015/A

Place : Cuddalore  
Date : 15.09.2017

  
OCT 2017

**MINING PLAN FOR MINOR MINERALS**  
**ROUGH STONE & GRAVEL QUARRY**

Over an extent of 1.45.8Ha (Out of 2.06.5) hectares of Own Patta land in  
S.F.No. 345/3(Part) of Bellathi Village, Mettupalayam Taluk,  
Coimbatore District, Tamil Nadu State

*(Prepared under 41 & 42 Tamilnadu Minor Mineral Concession Rules, 1959  
And amended Minor Mineral Conservation and Development Rules, 2010)*

**1.0 INTRODUCTION;**

1. The present Mining Plan and Environmental Management Plan are prepared for Tvl.Technomax Building Solution India Pvt.Ltd, **Thiru.R.Raju** (Managing Director), residing at No.1/382, Mettupalayam Road, Mathampalayam, Press Colony (Po), Coimbatore District – 641 019
2. The applicant proposed to quarry Rough stone & Gravel in Own Patta land, over an extent of 1.45.8Ha (Out of 2.06.5) Ha at S.F.No. 345/3 (Part) of Bellathi Village, Mettupalayam Taluk, Coimbatore District for a period of (Five) 5 Years only. The excavated Gravel is used for filling and leveling of low lying areas and Rough stone is used for buildings basement stones, road projects and other infrastructure development work in and around the district.
3. The application was meritoriously processed and precise area communication letter issued by the District Collector, Coimbatore District has passed an order vide R.c.No.627/Mines/2017, dated 06.09.2017. The applicant to submit Mining Plan and to get approval from the Assistant Director, Department of Geology & Mining, Coimbatore District and to obtain Environmental Clearance from the District Level Environment Impact Assessment Authority (DEIAA), Coimbatore District, Tamil Nadu State, as per EIA Notification 2006 and its amendments vide MOEF and Climate Change Notification. S.O.141 (E) dated 15.01.2016.
4. Geological Resources is estimated at 8,62,200m<sup>3</sup> of Rough stone and Gravel and Mineable Reserves is estimated at 19,060m<sup>3</sup> of Gravel & 1,06,085m<sup>3</sup> of Rough stone should be maintained safety distance from the lease boundary of the lease applied quarry area and relevant mining laws in force.
5. **Production Schedule** is proposed an average production of 19,060m<sup>3</sup> (3,368 Lorry Loads) of **Gravel** up to a depth of 2m and 1,06,085m<sup>3</sup> (18,743 Lorry Loads) of **Rough stone** up to a depth of 30m (2m to 32m) below ground level for the period of (Five) 5 Years only.



6. Safety measures under mechanized loading as per the provisions of Reg.106(2)(b) of Metalliferous Mines Regulation-1955, Labour welfare Amenities as per the Mines Rules -1955 and amended in G.O. dt. 12.10.2017 circular shall be taken care of in preparation of Mining Plan




7. General Conditions:

- (i) **Forest Conservation Act, 1980:** The Nellimalai Reserved Forest located at the distance of 8.0km on Northwestern side from the lease applied area.
- (ii) **Interstate Boundary:** There is no interstate boundary around 10Kms radius.
- (iii) **Wildlife (Protection) Act, 1972:** The area does not attract the wild life sanctuary around 10Kms radius.
- (iv) **The Coastal Regulation Zone (CRZ) Notification 2011:** The area does not attract the Coastal zone around 10kms radius.
- (v) Infrastructure around 500m radius

S.No	Description	Distance from boundary of Quarry site (m)	Direction
1	Approach Road	410m	N
2	Bore Well	340m	NW
3	Water Bodies (River, Urani, Pond, Odai etc...	---	---
4	Habitation	310m	NW
5	LT Line	100m	N

**8. Environmental measures to be adopted shall be,**

- 
- i) Dust Control at source while drilling and blasting.
  - ii) Dust suppression at loading point and transport haul roads.
  - iii) Noise Control in blasting, control of fly rock missiles and vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.
  - iv) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
  - v) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast mining.
  - vi) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.
  - vii) Emission test of vehicles should be in tack to maintain minimum Emission level of flue gases.
  - viii) Noise level should not exceed 80db and the vehicles should use only permitted Air Horn while on road near residential areas.
  - ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly at here to.
  - x) And any other conditions as stipulated by the concerned authorities should be followed to protect the environment.

## 2.0 EXECUTIVE SUMMARY:



a.	Name of the Village Panchayat	:	Bellathi
b.	Name of the Panchayat Union	:	Mettupalayam
c.	The proposed total Movable Reserves	:	1,06,085m <sup>3</sup> of Rough stone 19,060m <sup>3</sup> of Gravel
d.	The proposed quantity of reserves (level of production) for five years to be mined is (Recoverable reserves)	:	<b>1,06,085m<sup>3</sup> of Rough stone</b> <b>19,060m<sup>3</sup> of Gravel</b>
e.	Total extent of the area	:	1.45.8Ha (Out of 2.06.5) Ha
f.	Topography of the area	:	The area exhibits plain topography
g.	Proposed Period of mining	:	(Five) <b>5 years only</b>
h.	Existing depth	:	<b>5m</b> below ground level
i.	Proposed Depth of mining	:	<b>32m</b> below ground level (i.e.; 27m extending from the existing old pit)
j.	Water level of this quarry area	:	Water level in this quarry area is around <b>40m</b> to <b>45m</b> below ground level observation from nearby open well and borehole during the climatic condition the fluctuation the water level is 40m in rainy season and 45m in Summer season of this applied quarry area.
l.	Types of Machineries used in the quarry	:	Machineries like Tractor mounted compressor attached with Jack hammers, Excavators attached with rock breakers are proposed to deploy for quarrying operation.
m.	Cost of the Project	:	
	a. Project Cost	:	<b>Rs. 25,29,000/-</b>
	b. EMP Cost	:	<b>Rs. 4,29,000/-</b>



- n. No trees are uprooted due to this quarrying operation
- o. There is no Export of this Rough stone.
- p. The existing road from the main road to the quarry is in good condition and it is maintained and utilized for Transportation of quarrying Rough stone.
- q. Topo sketch covering the 500m and 10Km around the proposed quarry area with the Habitations, water bodies include streams, rivers, roads, major structure like bridges, wells, archaeological, historical importance, places of worships is marked and enclosed as Plate no- III & V
- s. The lease applied area is bounded by all corners and the coordinates are clearly marked in Plate no - VI
- t. There are no wastages anticipated during this quarrying operation, hence waste dump is not proposed in this quarry area.
- u. Around 14 employees are engaged in this quarry operation.

**3.0 GENERAL INFORMATION:**

12 OCT 2017

3.1	a.	Name of the Applicant	:	<b>Thiru. R.Raju (Managing Director),</b>
	b.	Address of the Applicant with phone No and e-mail id if any	:	Tvl.Technomax Building Solution India Pvt.Ltd, No.1/382, Mettupalayam Road, Mathampalayam, Press Colony (Po), Coimbatore District Cell No : 9952644444 Email : technomax.india@yahoo.com
	c.	Status of the Applicant	:	Individual
3.2	a.	Mineral Which the applicant intends to mine	:	Rough Stone and Gravel
	b.	Precise area communication letter No.	:	Precise area communication letter issued from the District Collector, Coimbatore vide R.C.No.627/Mines/2017 dated 06.09.2017
	c.	Period of permission / lease granted	:	The applicant has applied permission for five years. The District Collector consider grant for a lease period of (Five) <b>5 years</b> only
	d.	Name and Address of the RQP preparing Mining Plan	:	<b>R.RAJASEKAR.M.Sc.,</b> <b>Recognized Qualified Person</b> <b>RQP/CNN/264/2015/A</b> No.4A, Chozha Nagar, Pennadam Post, Tittakudi Taluk, Cuddalore - 606105. Cell : 9486905579/ 8870110245. Email : raja.parvathi @ gmail.com
	e.	RQP Registration. No.	:	RQP/CNN/264/2015/A Valid Til. 27.04.2025.

#### **4.0 Location:**



State	District	Taluk	Village	S.F.No	Extent in (Hectare)
Tamil Nadu	Coimbatore	Mettupalayam	Bellathi	345/3(Part)	1.45.8Ha (Out of 2.06.5)Ha

#### **Details of Existence Infrastructures nearby approximate distance**

S.No	Description	Place	Distance (Km)	Direction
1	Bus stand	Bellathi	1.0	NE
2	Post Office	Bellathi	1.0	NE
3	Police Station	Karamadai	3.0	SW
4	Fire service	Karamadai	3.0	SW
5	Railway Station	Karamadai	3.5	SW
6	Primary Health Centre	Bellathi	1.0	NE
7	Government School	Bellathi	1.0	NE
8	Airport	Coimbatore	25.0	SE
9	Seaport	Tuticorin	305.0	SE



Table no-1



Corners	Co- ordinates		Distance between the corners
	Latitude	Longitude	
1	11°15'07"N	76°59'14"E	1-2 = 185.0m
2	11°15'13"N	76°59'14"E	2-3 = 76.4m
3	11°15'13"N	76°56'16"E	3-4 = 108m
4	11°15'10"N	76°59'16"E	4-5 = 91.4m
5	11°15'07"N	76°59'17"E	5-1 = 84.6m

b.	Classification of the Area (Ryotwari / poramboke / others)	:	<b>Own Patta land</b> and non-agricultural land
c.	Ownership / Occupancy of the Applied area (Surface rights)	:	It is Patta land registered in the name of the applicant Thiru.R.Raju Patta No -337. The applicant has got surface rights to the quarry lease applied area. Please refer Annexure-III
d.	Toposheet No. with Latitude and Longitude	:	Topo Sheet No : 58 - A/16 Latitude : 11°15'07"N to 11°15'13"N Longitude : 76°59'14"E to 76°59'17"E





**Fig.4 Google image showing location of Quarry lease applied area**

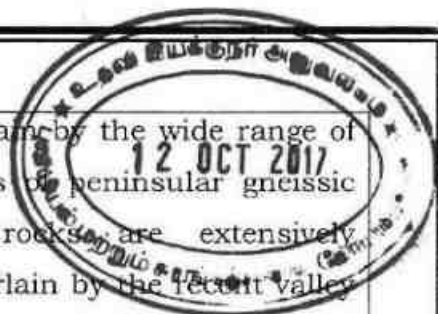
<b>Extent</b>	<b>:</b>	<b>1.45.8Ha (Out of 2.06.5) Ha S.F.No</b>	<b>:</b>	<b>345/3 (Part)</b>
<b>Village</b>	<b>:</b>	<b>Belladhi</b>	<b>Taluk</b>	<b>: Mettupalayam</b>
<b>District</b>	<b>:</b>	<b>Coimbatore</b>	<b>State</b>	<b>: Tamil Nadu</b>

**PART - A**



**5.0 GEOLOGY AND MINERAL RESERVES:**

5.1	a.	Topography	: 1. The lease applied area exhibits almost plain topography and the area has been quarrying operation earlier covered by Rough stone & Gravel formation. The massive Charnockite formation is clearly visible to existing pit followed by the 2m (Avg) Gravel and gentle sloping towards southeastern side of the area, the altitude of the area is above 355m (maximum) from MSL. 2. No major river is found nearby the lease applied area. 3. Water level is noticed as <b>40m to 45m</b> below ground level, 40m in Rainy seasons and 45m in summer seasons by monitoring nearby Open well and bore hole. 4. Temperature of the area is reported to be 18°C to a maximum of 42°C during summer. 5. Rainfall of this area is about 800mm to 900 mm during the both NE & SW monsoons.
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	<p>b. General Geology of the Area :</p>	<p>The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite.</p> <p>The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock.</p> <p>The strike of the Charnockite formation is N45°E-S45°W with dipping towards SE70°.</p> <p>The general geological succession of the area is given as under.</p> <table border="1" data-bbox="813 1254 1436 1590"> <thead> <tr> <th>S.No</th> <th>Age</th> <th>Rock Formation</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Recent to Sub recent</td> <td>Alluvium, Gravel</td> </tr> <tr> <td>2.</td> <td>Archaean</td> <td>Charnockite</td> </tr> <tr> <td>3.</td> <td>Archaean</td> <td>Peninsular Gneiss, and Calc Gneiss</td> </tr> </tbody> </table>	S.No	Age	Rock Formation	1.	Recent to Sub recent	Alluvium, Gravel	2.	Archaean	Charnockite	3.	Archaean	Peninsular Gneiss, and Calc Gneiss
S.No	Age	Rock Formation												
1.	Recent to Sub recent	Alluvium, Gravel												
2.	Archaean	Charnockite												
3.	Archaean	Peninsular Gneiss, and Calc Gneiss												
<p>5.2</p>	<p>Details of Exploration already carried out if any :</p>	<p>There is no exploration carried out to this quarry area because the Rough stone and Gravel formation is clearly visible from the adjacent existing pits.</p>												



**Fig.2 - Photograph shows general view of the lease applied area**



**Fig.3 - Close view of Charnockite indicate massive and compact rock**

சென்னை இயக்குநர் அலுவலகம்  
12 OCT 2017  
மாண்புமிகு மதுவிலக்கு மற்றும் சரக்குத் துறை, செயல்படுத்தும்



**Fig.4 – Photograph Showing GPS reading at Quarry Boundary Pillar.**



**Fig.5 – Photograph Showing GPS reading at Bore Hole Point.**

5.3	a. Estimation of Reserves	<p>: The Geological Resources and Recoverable Reserves are estimated by cross sectional method.</p> <p>Totally Three sections have been drawn, One sections drawn length wise as (X-Y) and Two sections drawn width wise as (A-B) &amp; (C-D) to cover maximum area considered for lease.</p> <p>The Plans Scale 1:1000 and Sections have been drawn with a scale of 1:1000 and 1:500 respectively. Please refer plate no. VII, VII-A &amp; VII-B</p>
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**a. Geological Resources**

The Geological resources are estimated as **8,62,200m<sup>3</sup>** for Rough stone & Gravel up to depth of 60m calculated by cross sectional method.

Table No-2

GEOLOGICAL RESOURCES					
Section	Length in (m)	Width in (m)	Depth in (m)	Volume m <sup>3</sup>	Geological Resources in m <sup>3</sup>
XY-AB	111	74	60	492840	492840
XY-CD	81	76	60	369360	369360
<b>TOTAL</b>					<b>862200</b>

**b. Already Excavated**

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

Pit No	Length (Max) in (m)	Width (Avg) in (m)	Depth in (m)
I	84	7.5	5



**c. Available Mineable Reserves**

The available Mineable Reserves are calculated by deducting 7.5m safety distance and bench loss.

Table No-3

MINEABLE RESERVES							
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m <sup>3</sup>	Gravel Formation in m <sup>3</sup>	Mineable Reserves of Rough stone in m <sup>3</sup>
XY-AB	I	103	50	2	10300	10300	
	II	100	43	5	21500		21500
	III	95	33	5	15675		15675
	IV	90	23	5	10350		10350
	V	85	13	5	5525		5525
	VI	80	3	5	1200		1200
<b>TOTAL</b>						<b>10300</b>	<b>54250</b>
XY-CD	I	73	60	2	8760	8760	
	II	69	53	5	18285		18285
	III	64	43	5	13760		13760
	IV	59	33	5	9735		9735
	V	54	23	5	6210		6210
	VI	49	13	5	3185		3185
	VII	44	3	5	660		660
<b>TOTAL</b>						<b>8760</b>	<b>51835</b>
<b>GRAND TOTAL</b>						<b>19060</b>	<b>106085</b>

The available Mineable Reserves is computed as **1,06,085m<sup>3</sup>** of Rough Stone and **19,060m<sup>3</sup>** of Gravel formation at the rate of 100% recovery upto a depth of **32m** below ground level.

**d. Recoverable Reserves**



The Year wise Recoverable Reserves are calculated by deducting 7.5m safety distance and bench loss.

Table No-4

YEARWISE DEVELOPMENT & PRODUCTION RESERVES								
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m <sup>3</sup>	Earth Formation in m <sup>3</sup>	Recoverable Reserves of Rough stone in m <sup>3</sup>
I	XY-AB	I	103	50	2	10300	10300	
		II	100	43	5	21500		21500
<b>TOTAL</b>							<b>10300</b>	<b>21500</b>
II	XY-CD	I	73	60	2	8760	8760	
		II	69	53	5	18285		18285
		III	15	43	5	3225		3225
<b>TOTAL</b>							<b>8760</b>	<b>21510</b>
III	XY-CD	III	49	43	5	10535		10535
	XY-AB	III	65	33	5	10725		10725
<b>TOTAL</b>								<b>21260</b>
IV	XY-AB	III	30	33	5	4950		4950
		IV	90	23	5	10350		10350
	XY-CD	IV	36	33	5	5940		5940
<b>TOTAL</b>								<b>21240</b>
V	XY-CD	IV	23	33	5	3795		3795
		V	54	23	5	6210		6210
	XY-AB	V	85	13	5	5525		5525
		VI	80	3	5	1200		1200
	XY-CD	VI	49	13	5	3185		3185
		VII	44	3	5	660		660
<b>TOTAL</b>								<b>20575</b>
<b>GRAND TOTAL</b>							<b>19060</b>	<b>106085</b>

The Mineral of Rough stone & Gravel Production is proposed to the lease period of (Five) 5 Years only. Recoverable Reserves are estimated **1,06,085m<sup>3</sup>** of Rough stone and Gravel as **19,060m<sup>3</sup>** up to depth of **32m** below ground level for a period of (Five) **5 Years** only.

  
**ASSISTANT DIRECTOR**  
**DEPARTMENT OF GEOLOGY & MINING**  
**COIMBATORE DISTRICT**





**6.0 MINING:**

6.1	Method of Mining	: 1. Opencast method of semi mechanized mining with 5.0m vertical bench and width 5m of the bench is not less than bench height. 2. However, as far as the quarrying of Rough Stone & Gravel is concerned, observance of the provisions of Regulation 106 (2) (b) as above is seldom [possible due to various inherent petro genetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of mines safety for which necessary provision is available with the regulation 106 (2) (b) of MMR-1961, under Mine Act-1952.
6.2	Mode of Working	: The Rough Stone is proposed to quarry 5m bench height and 5m bench width with conventional opencast semi-Mechanized method.  The quarrying of Gravel is specifically used for filling and leveling for low lying areas and Rough stone is used for Basement stones and also crushing industries.  The quarry operation involves Manual jackhammer Drilling, slurry explosives Blasting, Excavation, Loading and Transportation of Rough building stone to the needy Residential & Industrial customers.  The removed mass is manually dressed into small building stones for foundation purpose and then loaded manually into tippers for transportation to the needy customers.
6.3	Proposed bench Height and Width	: Quarrying of Rough Stone is proposed to the bench height of 5m and bench width of 5m.



6.4	Details of Overburden/Mineral Production proposed for the first 5 years.	The overburden in the form of Gravel is 19,060m <sup>3</sup> anticipated during the quarrying operation. The excavated Gravel used for filling and leveling of low lying areas and Rough stone will be directly loaded into Tipper to the Customer/other buyers for road project and construction works.												
6.5	Machineries to be used													
	a. Mining	It is proposed to use following machineries for quarrying Rough stone Tractor mounted compressor attached with jack hammer-1No,Excavators attached with rock breakers-1No												
	b. Loading	: Manual loading (considerable Rough Stone & Gravel accumulates the same will be loaded by Hired front end loader like JCB)Excavator of 0.90m <sup>3</sup> bucket capacity (with Rock breaker attachment)												
	c. Transportation	: Tipper 2Nos. 10/Tons capacity(from the quarry to destination (Customer/other buyers)												
6.6	Disposal of Overburden	: The over burden in the form of Gravel is 19,060m <sup>3</sup> anticipated during the quarrying operation. The excavated Gravel used for filling and leveling of low lying areas												
6.7	Brief Note on Conceptual Mining Plan for the entire lease period	<p>Conceptual Mining Plan is prepared with an object of five years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc.</p> <p>Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc.</p> <p>Ultimate Pit dimension is given as under, Table No-5</p> <table border="1" data-bbox="715 1861 1345 2040"> <thead> <tr> <th colspan="4">Ultimate Pit dimension (M)</th> </tr> <tr> <th>Pit No</th> <th>Length in Max (m)</th> <th>Width in Avg (m)</th> <th>Depth in Max (m)</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>177</td> <td>61</td> <td>32</td> </tr> </tbody> </table>	Ultimate Pit dimension (M)				Pit No	Length in Max (m)	Width in Avg (m)	Depth in Max (m)	I	177	61	32
Ultimate Pit dimension (M)														
Pit No	Length in Max (m)	Width in Avg (m)	Depth in Max (m)											
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Afforestation has been proposed on all along the safety barrier by planting native species of trees

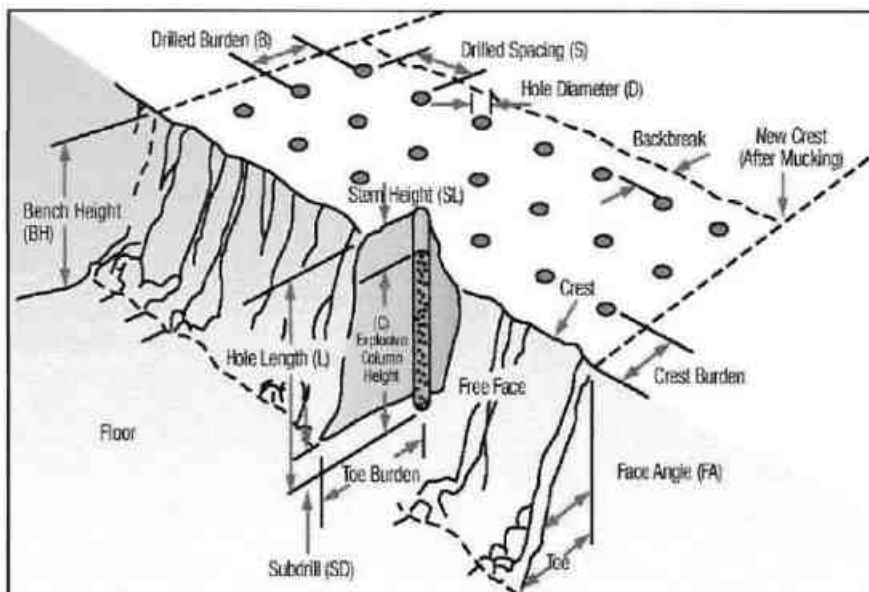
All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.

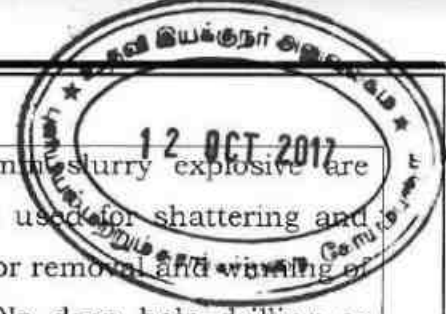
**7.0 BLASTING:**

**7.1 Blasting Pattern :**

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

Diameter of the hole	:	30-32 mm
Spacing	:	60 Cms
Depth of Each Hole	:	1 to 1.5m
Spacing between the holes	:	0.5m
Burden for hole	:	0.5m
Pattern of hole	:	Zig Zag
Inclination of hole	:	80° from the horizontal
Use of delay detonators	:	25 milli second delays
Detonating Fuse	:	"Detonating" cord
Hole pattern	:	Staggered in Two to Three rows





7.2	Types of Explosives	: Small dia, 25mm slurry explosive are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed.
7.3	Measures proposed to minimize ground vibration due to blasting	: Controlled blasting measures will be adopted for minimizing ground vibration and fly of rocks. Shallow depth drilling and smooth blasting is proposed to carry out with minimum usage of explosive mainly to give shattering effect in Rough stone for easy excavation and control of fly rocks. The following steps shall be adopted to control ground vibration due to blasting. 1. The minimum recommended delay time of 8ms was introduced to minimize ground vibration. 2. In case of electronic detonators, which are inherently much more accurate delays (+/- 0.2 milliseconds delay) to minimizes the ground vibration. 3. Use of Ammonium nitrate, fuel oil mixture for shot holes may be avoided because which cause for high fly of rocks in view critical diameter problem. Only high strength explosives like slurry will be used in the form of cartridge.
7.4	Storage of Explosives and safety measures to be taken while blasting.	: 1. The Applicant is advised to engage an authorized explosive agency to carry out small amount of blasting and it will be supervised by the competent statutory Mining Mate/Foreman/Manager. 2. The blasting time at a day is proposed to be 12 PM to 2 PM. 3. First Aid Box will be keeping ready at



	<p>all the time in Mines Office room.</p> <p>4. Necessary precautionary announcement will be carried out before the blasting operation.</p>
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**8.0 MINE DRAINAGE:**

8.1	Depth of Water level	:	<p>The ground water level is noticed at the depth of <b>40m</b> to <b>45m</b> below the ground level by monitoring nearby Open well and Bore hole, during the climatic conditions, the fluctuations of water level is 40m in Rainy seasons and 45m in summer seasons of this quarry area. The quarry operation proposed upto a depth of <b>32m</b> below ground level. Hence the quarrying operation may not affect the ground water.</p>								
			<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>S.No</th> <th>Type</th> <th>Distance &amp; Direction</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Bore Well</td> <td>340m &amp; North Western side</td> <td>11°15'23.95"N 76° 59'14.69"E</td> </tr> </tbody> </table>	S.No	Type	Distance & Direction	Location	1	Bore Well	340m & North Western side	11°15'23.95"N 76° 59'14.69"E
S.No	Type	Distance & Direction	Location								
1	Bore Well	340m & North Western side	11°15'23.95"N 76° 59'14.69"E								
8.2	Arrangement and Places where the mine water is finally proposed to be discharged	:	<p>The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of from seepage shall be less than 300 LPM and it will be pumped out periodically by a stand by diesel powered Centrifugal pump with 5HP Motor.</p> <p>The quality of water is potable and no contamination with any hazardous things. Hence, the water stored in quarrying pit will be pumped out the adjacent agricultural fields and further stored in old pit the water is used for plantation purposes.</p>								



### 9.0 OTHER PERMANENT STRUCTURES:

9.1	Habitations / Village	:	There is Bellathi village located at the distance of 1.7km Northern side from the lease applied area.
9.2	Power lines (HT/LT)	:	There is a LT power line is located at the distance of 100m on the Northern side of the Lease applied area.
9.3	Water bodies (River, Pond, Lake, Odai, Channel etc)	:	There are no water bodies within the radius of 300m.
9.4	Archeological / Historical Monuments	:	There are no Archeological / Historical Monuments within a radius of 500m.
9.5	Existence of public road / (SH,NH others),Railway line if any	:	<ul style="list-style-type: none"><li>❖ There is an existing road from the area leads Bellathi road at the Northwestern side of the area.</li><li>❖ SH-168 Kariyampalayam to Karamadai road is located which is about 2.0Km on the Southern side of the area.</li><li>❖ NH-67 Coimbatore to Ooty road is located which is about 3.5Km on the Eastern side of the area.</li><li>❖ The Nearest Railway line is Karamadai station line which is about 3.5km on the Southwestern side of the area.</li></ul>
9.6	Places of Worship (Temples, Church,Mosque etc)	:	There is no Places of Worship within a radius of 500m.
9.7	Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,	:	The Nellimalai Reserved Forest located at the distance of 8.0km on Northwestern side from the lease applied area.
9.8	Any Other Structures	:	Nil

**10.0 EMPLOYMENT POTENTIAL & WELFARE MEASURES**

12 OCT 2017

10.1	Employment Potential : (Management & Supervisory personal)	<p>The following man power proposed for the quarrying to carry out the quarrying activities, aimed at the proposed production target and also to comply with the statutory provisions of the government norms.</p> <table border="1" data-bbox="798 548 1428 1288"> <tr> <td>1.</td> <td>Management/Supervisory Staff</td> <td>1 No</td> </tr> <tr> <td rowspan="2">2.</td> <td>Mines manager/ Mate</td> <td>1 No</td> </tr> <tr> <td>Mechanic</td> <td>1 No</td> </tr> <tr> <td rowspan="2">3.</td> <td>Semi - skilled</td> <td>Excavator Operator</td> <td>1 No</td> </tr> <tr> <td></td> <td>Co-Operator</td> <td>1 No</td> </tr> <tr> <td rowspan="3">4.</td> <td rowspan="3">Unskilled</td> <td>Musdoor / Labours For quarrying and loading</td> <td>6 No's</td> </tr> <tr> <td>Watchman</td> <td>1 No</td> </tr> <tr> <td>Unskilled -helpers</td> <td>2 No</td> </tr> <tr> <td colspan="3" style="text-align: right;">Total =</td> <td><b>14Nos</b></td> </tr> </table> <p>Allowing 10% absenteeism, the no. of men of roll will be around 12.</p> <p>The above man power is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply the statutory provisions of Mines Safety Regulations.</p> <p><b><i>It is been ensured that, child labours under 18 years of age will not be engaged for quarrying operation.</i></b></p> <p>Necessary life insurance policies will be taken by the applicant to all the employees up to the end of the lease period.</p>	1.	Management/Supervisory Staff	1 No	2.	Mines manager/ Mate	1 No	Mechanic	1 No	3.	Semi - skilled	Excavator Operator	1 No		Co-Operator	1 No	4.	Unskilled	Musdoor / Labours For quarrying and loading	6 No's	Watchman	1 No	Unskilled -helpers	2 No	Total =			<b>14Nos</b>
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10.2	Welfare Measures		
a.	Drinking Water	:	Packaged drinking water is available from the nearby approved vendors in Bellathi village which is about 1.7km on Northwestern side of the area.
b.	Sanitary facilities	:	Semi permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities shall also be arranged as per rule (36) of the Mines Rules, 1960.
c.	First Aid Facility	:	Being a small mine First Aid station as per provisions under Rule (44) of the Mines Rules 1960 will be provided with facilities as per the third schedule as prescribed. Qualified First Aid personnel should be appointed or nominated to attend emergency first aid treatment.
d.	Labour Health	:	As per Mines Rule, Periodic medical examination has to be arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45 (A), MMDR, 1960.
e.	Precautionary safety measures to the Labourers	:	Safety provisions include such as safety Helmet, Goggles, Ear muffs, Ear Plugs, Dust mask, Sand respirator (avoid silica dusts forms-Silicosis), Reflector jackets, safety Thick shoes, etc., have to be provided as per the circulars and amendments made for Mine labours under the guidance of DGMS.



**PART - B**  
**11.0 ENVIRONMENTAL MANAGEMENT PLAN:**

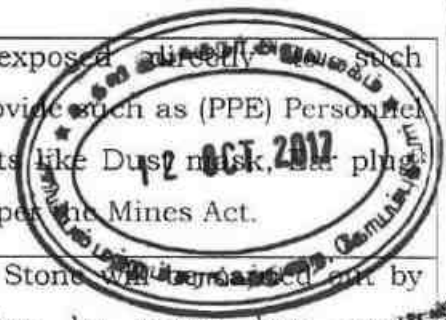


11.1	Existing Land Use Pattern	:	<p>1. The area is almost plain topography covered with Gravel formation.</p> <p>2. Rough stone (Charnockite) is clearly visible to old existing pit.</p> <p>3. The area is dry barren land and no agriculture &amp; habitations and the applied quarry are not used for cultivation purpose of Vegetation.</p> <p>4. Water level in this quarry area is fluctuations 40m to 45m below ground level during a year.</p> <p>5. The region received the average annual rainfall of 800m to 900m and the surrounding area is practiced by the seasonal cultivation.</p> <p>The existing Land use pattern is given as under.</p> <p style="text-align: center;">Table No-6</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">S. No.</th> <th style="width: 30%;">Land Use</th> <th style="width: 15%;">Present Area (Hect)</th> <th style="width: 50%;">Area in use during the quarrying period (Hect)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Area under quarrying</td> <td style="text-align: center;">0.06.0</td> <td style="text-align: center;">0.98.0</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Infrastructure</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">0.01.0</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Roads</td> <td style="text-align: center;">0.01.0</td> <td style="text-align: center;">0.01.0</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Green Belt</td> <td style="text-align: center;">Nil</td> <td style="text-align: center;">0.10.0</td> </tr> <tr> <td style="text-align: center;">5.</td> <td>Unutilized</td> <td style="text-align: center;">1.38.8</td> <td style="text-align: center;">0.35.8</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Total</b></td> <td style="text-align: center;"><b>1.45.8</b></td> <td style="text-align: center;"><b>1.45.8</b></td> </tr> </tbody> </table>	S. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)	1.	Area under quarrying	0.06.0	0.98.0	2.	Infrastructure	Nil	0.01.0	3.	Roads	0.01.0	0.01.0	4.	Green Belt	Nil	0.10.0	5.	Unutilized	1.38.8	0.35.8	<b>Total</b>		<b>1.45.8</b>	<b>1.45.8</b>
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11.2	Water Regime	:	<p>Water level in this quarry area is noticed at a depth of <b>40m to 45m</b> below ground level, during climatic conditions, Water level is 40m in Rainy seasons and 45m in Summer seasons by monitoring nearby Open well and Bore hole, the quarrying of Rough Stone &amp; Gravel quarry is proposed up to a depth of <b>32m</b> below ground level. Hence, it will not affect the ground water depletion of this area.</p>																												

11.3	Flora and Fauna	: There is no other valuable trees are noticed in the lease applied area. The thorny bushes, near palm trees are found in and around the quarry area. Further, No flora of botanical interest and No fauna of zoological interest are noticed in this area. There is no cultivation, plantation of agriculture is found within nearby quarry area.																				
11.4	Climatic conditions	: Generally subtropical climatic condition prevails throughout the year and there is no sharp variation in climate. This District receives rain both in south west and north east monsoon. The average rainfall is about 800mm to 900mm and the temperature ranges from 18°C during winter and to a maximum of 42°C during the summer.																				
11.5	Human Settlement	: The nearest habitations with the population is given within 5Km Radius from the proposed quarry site as under  <b>Table No-7</b> <table border="1" data-bbox="750 1232 1500 1657"> <thead> <tr> <th>S. No</th> <th>Name of the Village</th> <th>Approximate distance &amp; Direction from lease applied area</th> <th>Approximate population</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Mongampalayam</td> <td>1.5Km - NE</td> <td>350</td> </tr> <tr> <td>2.</td> <td>Karamadai</td> <td>3.0Km - SW</td> <td>280</td> </tr> <tr> <td>3.</td> <td>Chikkarampalayam</td> <td>2.4Km - SE</td> <td>420</td> </tr> <tr> <td>4.</td> <td>Bellathi</td> <td>1.7Km - NW</td> <td>150</td> </tr> </tbody> </table>	S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population	1.	Mongampalayam	1.5Km - NE	350	2.	Karamadai	3.0Km - SW	280	3.	Chikkarampalayam	2.4Km - SE	420	4.	Bellathi	1.7Km - NW	150
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11.6	Plan for Air, Dust Suppression	: Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., will be suppressed by periodical wetting of land by water spraying.  Wet drilling and dust extractor arrangements will be provided to drilling units so as to control raise of dust from the site of drilling.																				



		Operators, those exposed directly to such conditions will be provided such as (PPE) Personal Protective Equipments like Dust mask, ear plug, Helmet, Gloze etc as per the Mines Act.
11.7	Plan for Noise Control	: Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, hence the noise will be very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.
11.8	Environmental Impact Assessment Statement Describing Impact on mining on the next five years	: The mining plan proposed is for a small production of Rough Stone & Gravel without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 Category mine.
11.9	Proposal for Waste Management	: There is no waste anticipated in this Rough Stone & Gravel quarry operation.
11.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	: In the proposed mining plan only a maximum depth of <b>32m</b> below ground level has been envisaged as workable depth for safe & economic mining during the lease period. Hence, after quarry reaches ultimate pit limit (for this lease period) of <b>32m</b> depth, fencing will be constructed around the quarried pits to prevent inherent entry of the public and cattle.



11.11 Program for Afforestation

The 7.5m safety barrier has been identified to be utilized for afforestation. Appropriate native species of neem, pungam, teak, casuarinas trees will be planted in a phased manner as described below.

Table - 2

Year	No. of trees proposed to be planted	Survival %	Area to be covered Sq.m	Name of the species	No. of trees expected to be grown
I	40	80%	200	Neem	32
II	40	80%	200	Neem	32
III	40	80%	200	Neem	32
IV	40	80%	200	Neem	32
V	40	80%	200	Neem	32

Nearly 1000Sq.m area is proposed to use under afforestation at every 5sqm by planting 40nos. of neem trees etc., during lease period with an anticipated survival rate of 80%.

Wherever, the native species of more trees will be planted nearby places like villages, village roads and government school after consultation with the competent panchayat authorities

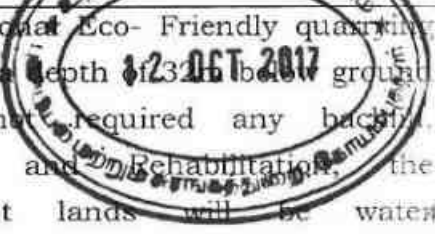
The Quarry landuse, layout and afforestation plan is shown Plate No. VII

11.12	Proposed Financial Estimate / Budget for (EMP) Environment Management	
	<b>Fixed Asset Cost :-</b>	
i)	Land cost	: It is Patta land, the approximate present land cost is about Rs.5,00,000/- per Hectare hence the land cost is calculated as <b>Rs. 7,29,000/-</b>
ii)	Machineries to be used	The Machineries like Tractor mounted compressor attached with Jack hammers, excavators attached with rock breakers are proposed to deploy for quarrying operation and Tippers of 10Tons capacity will be used for the quarrying transportation the cost would be around <b>Rs. 15,00,000/-</b>
iii)	Refilling/ Fencing	: There is no proposal for Refilling, after the excavation of Rough Stone and Gravel the quarried out land will be fenced with barbed wire fencing the cost would be around <b>Rs. 1,00,000/-</b>
iv)	Laborers shed	: Labours are proposed for quarrying Rough Stone and Gravel. The machine operators and workers are from nearby local villages, hence no cost is involved. Rest shelter will be constructed as semi-permanent structure at the cost of <b>Rs.1,00,000/-</b>
v)	Sanitary facility	: Sanitary facility will be constructed as semi-permanent structure, the cost will be around <b>Rs.1,00,000/-</b>
		<b>Fixed Asset Cost :-</b> Land cost = Rs. 7,29,000/- Rest shelter = Rs. 1,00,000/- Sanitary Facility = Rs. 1,00,000/- <b>Operational Cost :-</b> Machinery Cost = Rs. 15,00,000/- Fencing cost = Rs. 1,00,000/- <b>Total Project Cost = Rs. 25,29,000/-</b>

i) Drinking water facility and other utilities for the laborers	: 14 Labours at the rate of Rs. 2000/- month for a period of (Five) 5 Years. The cost will be around <b>Rs.1,20,000/-</b>																											
ii) Sanitary arrangement	: Sanitary maintenance at the cost of Rs. 1500/- per month the cost will be around <b>Rs. 60,000/-</b> for a period of (Five) 5 Years.																											
iii) Safety kits,	: <b>Rs.50,000</b> will be spent for the safety kits such as Helmet, Mine Goggles, Ear plugs, Ear muff, Dust Mask, Reflector jackets and safety Shoes.																											
iv) Water sprinkling (if necessary)	: Rs 1500/ month will be spent for sprinkling the water on haul roads for Dust suppression; the cost will be around <b>Rs. 90,000/-</b> for a period of (Five) 5 Years.																											
v) Afforestation etc.	: Afforestation is proposed within safety barrier of the lease applied area and plantation will be carried out on the nearby villages and village roads, government school after consultation with the panchayat authorities. The cost estimate is around <b>Rs.45,000/-</b>																											
vi) Cost towards Charity (CSR)	: The applicant should ensure to provide Corporate Social Responsibilities (CSR) like Note books and stationary items to nearby government school and water facilities, health camp, etc., to provide nearby villages at around 2.5% from the total project cost. The cost estimate is around <b>Rs.64,000/-</b>																											
	<p><b>EMP Cost</b></p> <table border="0"> <tr> <td>i. Drinking water</td> <td>=Rs.</td> <td>1,20,000/-</td> </tr> <tr> <td>ii. Sanitary Arrangements</td> <td>=Rs.</td> <td>60,000/-</td> </tr> <tr> <td>iii. Safety kits</td> <td>=Rs.</td> <td>50,000/-</td> </tr> <tr> <td>iv. Water Sprinkling</td> <td>=Rs.</td> <td>90,000/-</td> </tr> <tr> <td>v. Afforestation cost</td> <td>=Rs.</td> <td>45,000/-</td> </tr> <tr> <td>vi. Cost toward charity (CSR)</td> <td>=Rs.</td> <td>64,000/-</td> </tr> <tr> <td><b>Total</b></td> <td><b>= Rs.</b></td> <td><b>4,29,000/-</b></td> </tr> <tr> <td><b>Total Project Cost</b></td> <td><b>= Rs.</b></td> <td><b>25,29,000/-</b></td> </tr> <tr> <td><b>EMP Cost</b></td> <td><b>= Rs.</b></td> <td><b>4,29,000/-</b></td> </tr> </table>	i. Drinking water	=Rs.	1,20,000/-	ii. Sanitary Arrangements	=Rs.	60,000/-	iii. Safety kits	=Rs.	50,000/-	iv. Water Sprinkling	=Rs.	90,000/-	v. Afforestation cost	=Rs.	45,000/-	vi. Cost toward charity (CSR)	=Rs.	64,000/-	<b>Total</b>	<b>= Rs.</b>	<b>4,29,000/-</b>	<b>Total Project Cost</b>	<b>= Rs.</b>	<b>25,29,000/-</b>	<b>EMP Cost</b>	<b>= Rs.</b>	<b>4,29,000/-</b>
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**12.0 MINE CLOSURE PLAN:**

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	 <p>: This conventional Eco- Friendly quarrying operation for a depth of 32m below ground level and not required any backfill. Reclamation and Rehabilitation of the quarried out lands will be water storage/recharge purpose.</p> <p>The mined out area will be fenced on top of open cast working with S1 fencing to arrest the entry of cattle's and public in to the quarry site.</p>
12.2	Measures to be under taken on mine closure as per Act & Rules	<p>: Measure will be taken as per Act &amp; Rules. The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.</p>
12.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	<p>: Mitigation measures: Drilling will be carried out by wet drilling mode to control the dust propagation into the air.</p> <p>Blasting will be carried out on limited scale. Mist Water spraying on haul roads is proposed to prevent the dust propagation into the air.</p>

**13.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT**

- (i) Permission will be obtained from the District Mines Office to extract the Rough Stone from the Boundary barriers and for slopes.
- (ii) Care and precautionary measures will be taken for the safety of work as per Rules and Acts.
- (iii) The Applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.
- (iv) The Mining Plan is prepared by incorporating the conditions stipulated in the precise area communication issued and also prepared by incorporating the details mentioned in the letter SEIAA/TN/Minor and Minerals/2012 dated 17.04.2013.
- (v) Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department
- (vi) The average proposed Production of Rough stone & Gravel are estimated as **1,06,085m<sup>3</sup>** of **Rough stone** and **19,060m<sup>3</sup>** of **Gravel** up to a depth of **32m** below ground surface level for a period of (Five) **5 Years** only.

Prepared by

*R. Rajasekar*

**Signature of Recognized Qualified Person**

R.RAJASEKAR.M.Sc.,

Recognised Qualified Person

Reg.No.RQP/CNN/264/2015/A

Place : Cuddalore

Date : 15.09.2017

*L. Raju*  
12/10/17

**ASSISTANT DIRECTOR**  
**DEPARTMENT OF GEOLOGY & MINING**  
**COIMBATORE DISTRICT**





From

Thiru. T.N.Hariharan, I.A.S.,  
District Collector,  
Coimbatore District,  
Coimbatore - 18.

To

Tvl.Technomax Building Solution India  
Pvt.Ltd.,  
represented by its Managing Director  
Thiru.R.Raju,  
1/382, Mettupalayam Road,  
Mathampalayam, Press colony (Po),  
Coimbatore.

R.C. 627/ Mines/2017 Dated 06.09.2017

Sir,

Sub Mines & Minerals - Minor Mineral - Roughstone and Gravel - Coimbatore District - Mettupalayam Taluk - Bellathi Village - over an extent of 1.45.8 hectares out of 2.06.5 hectares of patta land - Survey No. 345/3 (Part) - Application preferred by Tvl.Technomax Building Solution India Pvt.Ltd., represented by its Managing Director Thiru.R.Raju - precise area communicated - Mining Plan called for - Reg.

- Ref
1. Quarry lease application dated 12.06.2017 preferred by Tvl.Technomax Building Solution India Pvt.Ltd., represented by its Managing Director Thiru.R.Raju, S/o.Raju, 1/382, Mettupalayam Road, Mathampalayam, Press colony (Po), Coimbatore.
  2. This office letter even number dated 12.06.2017 addressed to the Revenue Divisional Officer, Coimbatore North
  3. The Revenue Divisional Officer, Coimbatore North Letter RC.No.2208/2017/A3 dated 26.06.2017.
  4. Applicant company letter dated 10.07.2017.
  5. Inspection report of the Assistant Director, Geology and Mining, Coimbatore dated 10.07.2017.

\*\*\*\*\*

The quarry lease application preferred by Tvl.Technomax Building Solution India Pvt.Ltd, represented by its Managing Director Thiru.R.Raju, 1/382, Mettupalayam Road, Mathampalayam, Press colony (Po), Coimbatore for the grant of quarry lease for quarrying rough stone and gravel over an extent of 1.45.8 hectares out of 2.06.5 hectares of patta land in SF.No. 345/3 in Bellathi Village, Mettupalayam Taluk,

Coimbatore District has been taken up for consideration under rule 19 of Tamilnadu Minor Mineral Concession Rules, 1959 and the following precise area is considered for the grant of quarry lease for a period of 5 years with the conditions stipulated below.

Taluk	Village	SF.No	Total Extent (in hect.)	Extent applied for (in Hect.)
Mettupalayam	Bellathi	345/3 (Part)	2.06.5	1.45.8
		Total	2.06.5	1.45.8

1. A safety distance of 7.5 meters should be provided all along the boundary of the area applied for lease.
2. While carry out quarry operation, no hindrance shall be caused to the adjoining patta land.
3. The applicant should fence the area with barbed wire before execution of lease deed.
4. Environmental clearance should be obtained from the District Level Environmental Impact Assessment Authority in respect of the subject area as per the District Collector, Coimbatore Gazette notification No.1 dated 13.06.2017.

In this regard you are directed to prepare a mining plan for the above mentioned area through the help of Recognized Qualified Person (RQP) and to submit the same before the Assistant Director for getting approval within in a period of 90 days from the date of receipt of this letter as required under rule 41 of Tamilnadu Minor Mineral Concession Rules, 1959.

Sd./xxx  
District Collector,  
Coimbatore.

//True Copy/By Order//

*L. Suresh*  
7/19/17.  
For District Collector,  
Coimbatore.

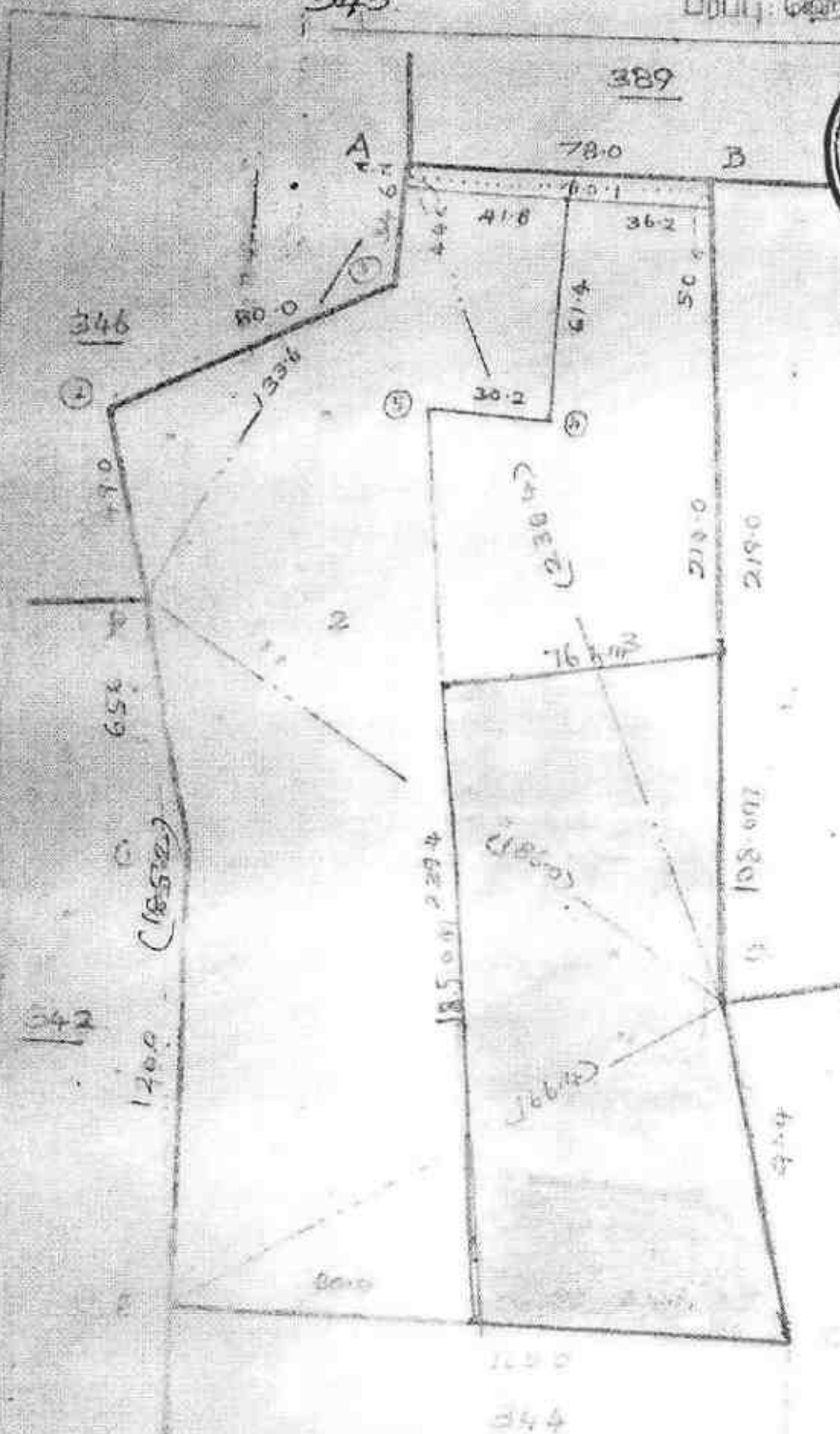
*R.*  
7/19/17

*R. Rajasekar*  
**R. RAJASEKAR M.Sc.,**  
Recognised Qualified Person  
RQP / CNN / 264 / 2015 / A

ANNEXURE No: II

345

389



390

391	5	17.0	216.0
			176.0
			16.0
	5	71.0	31.0
			133.4
			62.0
	2	32.0	31.0
			18.5
			62.0
			62.0

பொருளாதார அமைச்சு

G. Purnima  
**R. RAJASEKAR M.Sc.,**  
 Recognised Qualified Person  
 RQP / CNN / 26472015 / A

சென்னை  
 30.10.2017  
 செ. இ. பொருளாதார அமைச்சு  
 சென்னை  
 பொருளாதார அமைச்சு



சென்னை நகரம்

I G. K. J.  
சுயம் சுவாமிநாதன்  
நா. 18 சென்னை  
சென்னை நகராட்சி

No  
CHIKKARA

Prepared by Thiru K. M. S. S.  
Director of Survey and Maps  
Thiru S. V. S. S. S.  
Additional Director of Survey  
on behalf of the Government of Tamil Nadu

வட்டாட்சியர் அலுவலக இணைய சேவை - நில உர...

<http://eservices.tn.gov.in/eservices/ta/ta.html>

தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : கோயம்புத்தூர்

வட்டம் : மேட்டுப்பாளையம்

வருவாய் கிராமம் : பெள்ளாதி

பட்டா எண் : 337

## உரிமையாளர்கள் பெயர்

- |                              |      |                                 |
|------------------------------|------|---------------------------------|
| 1. இந்தியா பிரைவேட் லிமிடெட் | ...  | டெக்னோமேக்ஸ் பில்டிங் சொல்யூசன் |
| 2. ரங்கசாமி நாயுடு           | மகன் | ராஜூ                            |

நன்செய்		புன்செய்		மற்றவை			
பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை		
புல எண்	உட்பிரிவு	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை
345	3	--	--	2 - 6.50	4.13	--	--
				2 - 6.50	4.13		

## குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 12/04/018/00337/30813 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.
- இத் தகவல்கள் 23-05-2017 அன்று 02:12:51 PM நேரத்தில் அச்சடிக்கப்பட்டது.
- கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்





தினம் 18. 10. 2017

2	3	4	5	6	7	8	9		
								கு. ஸப. தொ. ஏர்ஸ் கு. ஸப.	
342	ச	4	...	8-3	5	2 00	2 17.5	4 36	958 ச. கல்பைய கவுடர் (1), ச. பழனிச்சாமி கவுடர் (2).
343	ச	4	...	8-3	5	2 00	2 38.5	4 78	1236 ந. குமார் மற்றும் முன்று பேர்களுக்கும்.
344	ச	4	...	8-3	5	2 00	2 17.5	4 36	1156 ந. நஞ்சையன் (1), க. பழனிச்சாமி (2), க. ரெங்கசாமி (3).
345-1	ச	4	...	8-3	5	2 10	0 17.5	0 08	959 தி. தாசப்ப கவுண்டர் (1), ஆ. மாதைய கவுண்டர் (2).
-2	ச	4	...	8-3	5	2 00	2 13.5	4 26	572 ஆ. மாதைய கவுண்டர்.
	ச	4	...	8-3	5	2 00	2 06.5	4 13	337 தி. தாசப்ப கவுண்டர்.
							4 23.5	8 47	
346-1A	ச	4	...	8-3	5	2 00	0 36.5	0 70	960 ச. சாமசாமி கவுடர் (1), ச. கல்வெரன் (2).
-1B	ச	4	...	8-3	5	2 00	0 50.5	1 01	149 ச. குஞ்சாமி.
-1B	ச	4	...	8-3	5	2 00	0 32.0	0 64	745 தி. சங்கைய கவுடர்.
-1C	ச	4	...	8-3	5	2 00	1 93.5	3 88	38 சி. கல்வெரன்.
-1C	ச	4	...	8-3	5	2 00	1 81.0	3 62	745 தி. சங்கைய கவுடர்.
-1D	ச	4	...	8-3	5	2 00	0 44.5	0 89	38 சி. கல்வெரன்.
-1E	ச	4	...	8-3	5	2 00	0 53.5	1 06	38 சி. கல்வெரன்.
-1F	ச	4	...	8-3	5	2 00	0 95.0	1 90	38 சி. கல்வெரன்.
-1G	ச	4	...	8-3	5	2 00	0 03.0	0 07	38 சி. கல்வெரன்.
-1H	ச	4	...	8-3	5	2 00	0 52.5	1 05	38 சி. கல்வெரன்.

2-11-17  
விவரம் பட்டியலைப் பார்க்கவும்.





प्रारूप 1  
पंजीकरण प्रमाण-पत्र

कॉर्पोरेट पहचान संख्या : U45203TZ2008PTC014324

2007 - 2008

मैं इसद्वारा सत्यापित करता हूँ कि मैसर्स

TECHNOMAX BUILDING SOLUTION INDIA PRIVATE LIMITED

का पंजीकरण, कम्पनी अधिनियम 1956 (1956 का 1) के अंतर्गत आज किया जाता है और यह कम्पनी प्राइवेट लिमिटेड है।

यह निगमन-पत्र आज दिनांक चौबीस मार्च दो हजार आठ को मेरे हस्ताक्षर से कोयंबतूर में जारी किया जाता है।

Form 1  
Certificate of Incorporation

Corporate Identity Number : U45203TZ2008PTC014324

2007 - 2008

I hereby certify that TECHNOMAX BUILDING SOLUTION INDIA PRIVATE LIMITED is this day incorporated under the Companies Act, 1956 (No. 1 of 1956) and that the company is private limited.

Given under my hand at Coimbatore this Twenty Fourth day of March Two Thousand Eight.



P. Rajagopalan P  
(RAJAGOPALAN P)

कम्पनी रजिस्ट्रार / Registrar of Companies  
तमिलनाडु, कोयंबतूर  
Tamil Nadu, Coimbatore

कम्पनी रजिस्ट्रार के कार्यालय अधिलेख में उपलब्ध पत्राचार का पता :

Mailing Address as per record available in Registrar of Companies office:  
TECHNOMAX BUILDING SOLUTION INDIA PRIVATE LIMITED  
1082 METTUPALAYAM ROAD, MADDAMPALAYAM PRESS COLONY,  
COIMBATORE - 641019,  
Tamil Nadu, INDIA





भारत-संकार  
GOVERNMENT OF INDIA



ர. ராஜு  
R-Reju  
பிறந்தாண்டு / Year of Birth: 1953  
ஆண்பால் / Male




8887 9229 3319


ஆ. தார் - சாதாரண மனிதனின் அதிகாரம்


இந்தியத் தனிப்பட்ட மக்களையளவு ஆளையமைப்பு  
UNIQUE IDENTIFICATION AUTHORITY OF INDIA


முகவரி:  
S/O ரங்கசுவாமிநாயுடு,  
எண் 108, தபாலயா, வள்ளுவர்  
ஸ்தி, சிவானந்தா காலனி,  
கோயம்புத்தூர், டாடாபாத்,  
தமிழ்நாடு, 641012

Address:  
S/O Ranganaswamy Naidu, NO  
108 DEEBALAYA,  
VALLUVAR STREET,  
SIVANANDA COLONY,  
Coimbatore, Talabad, Tamil  
Nadu, 641012

  
1947  
1800 180 1947

  
info@uidai.gov.in

  
www.uidai.gov.in

  
P.O. Box No. 1947  
Bangalore-560 001

*(Handwritten signature)*

*(Handwritten signature)*  
**R. RAJASEKAR M.Sc.,**  
Recognised Qualified Person  
RQP / CNN / 264 / 2016 / A

भारत सरकार / GOVERNMENT OF INDIA  
खान मंत्रालय / MINISTRY OF MINES  
भारतीय खान ब्यूरो / INDIAN BUREAU OF MINES



R. Rajan

अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रमाण पत्र  
(खनिज रियायत नियमावली, 1960 के नियम 22सी के तहत)  
**CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON**  
(Under Rule 22C of Mineral Concession Rules, 1960)

श्री आर. राजशेकर, पिता राजमानिकम वी, नं.4ए, चोया नगर, पेन्नाडम पी.वो., तीतकूडी तालूक, कडलूर डिस्टीक्ट - 606 105, जिनका फोटो और हस्ताक्षर ऊपर दिया हुआ है, तथा जिनहोंने अपनी अर्हता और अनुभव का संतोषजनक साक्ष्य दिया है, को खनन योजना तैयार करने हेतु खनिज रियायत नियमावली 1960 के नियम 22सी के तहत अर्हताप्राप्त व्यक्ति के रूप में मान्यता प्रदान की जाती है।

Shri R. Rajasekar, S/o, Rajamanickam V, No.4A, Chozha Nagar, Pennadam P.O., Thittakudi Taluk, Cuddalore - 606 105, whose **Photograph and signature** is affixed herein above, having given satisfactory evidence of his qualifications & experience hereby **RECOGNISED** under Rule 22C of the Mineral Concession Rule, 1960 as a Qualified Person to prepare Mining Plans.

उनकी पंजीयन संख्या है

His registration number is

RQP /CNN/264/2015/A

यह मान्यता 10 वर्षों की अवधि के लिए मान्यता है जो दिनांक 23.04.2025 को समाप्त होगी।  
This recognition is valid for a period of 10 years ending on 27.04.2025.

उनके द्वारा प्रस्तुत खनन योजना में गलत जानकारी / दस्तावेज पाए जाने की स्थिति में यह प्रमाण पत्र वापस लिया जाएगा / निरस्त किया जाएगा।

This certificate will liable to be withdrawn / cancelled in the event of furnishing the wrong information / documents in the Mining Plan submitted by him.

स्थान/ Place : Chennai

दिनांक/ Date : 28.04.2015

*[Signature]*

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines  
भारतीय खान ब्यूरो / Indian Bureau of Mines  
चेन्नई क्षेत्र / Chennai Region

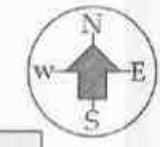


PLATE NO I



APPLICANT  
 TVL TECHNOMAPPING SOLUTIONS INDIA  
 PVT LTD.,  
 THIRU. R.RAJU, (Managing Director),  
 No.1/382, METTUPALAYAM ROAD,  
 MATHAMPALAYAM, PRESS COLONY (PO)  
 COIMBATORE DISTRICT- 641 019

QUARRY LEASE AREA:  
 S.F.No : 345/3 (PART)  
 EXTENT : 1.45.8 Ha (out of 2.06.5 Ha)  
 VILLAGE : BELLATHI  
 TALUK : METTUPALAYAM  
 DISTRICT : COIMBATORE

INDEX

Q. L. A. AREA : ●  
 TOPO SHEET NO: 58 - A / 16  
 LATITUDE : 11°15'07"N to 11°15'13"N  
 LONGITUDE : 76°59'14"E to 76°59'17"E

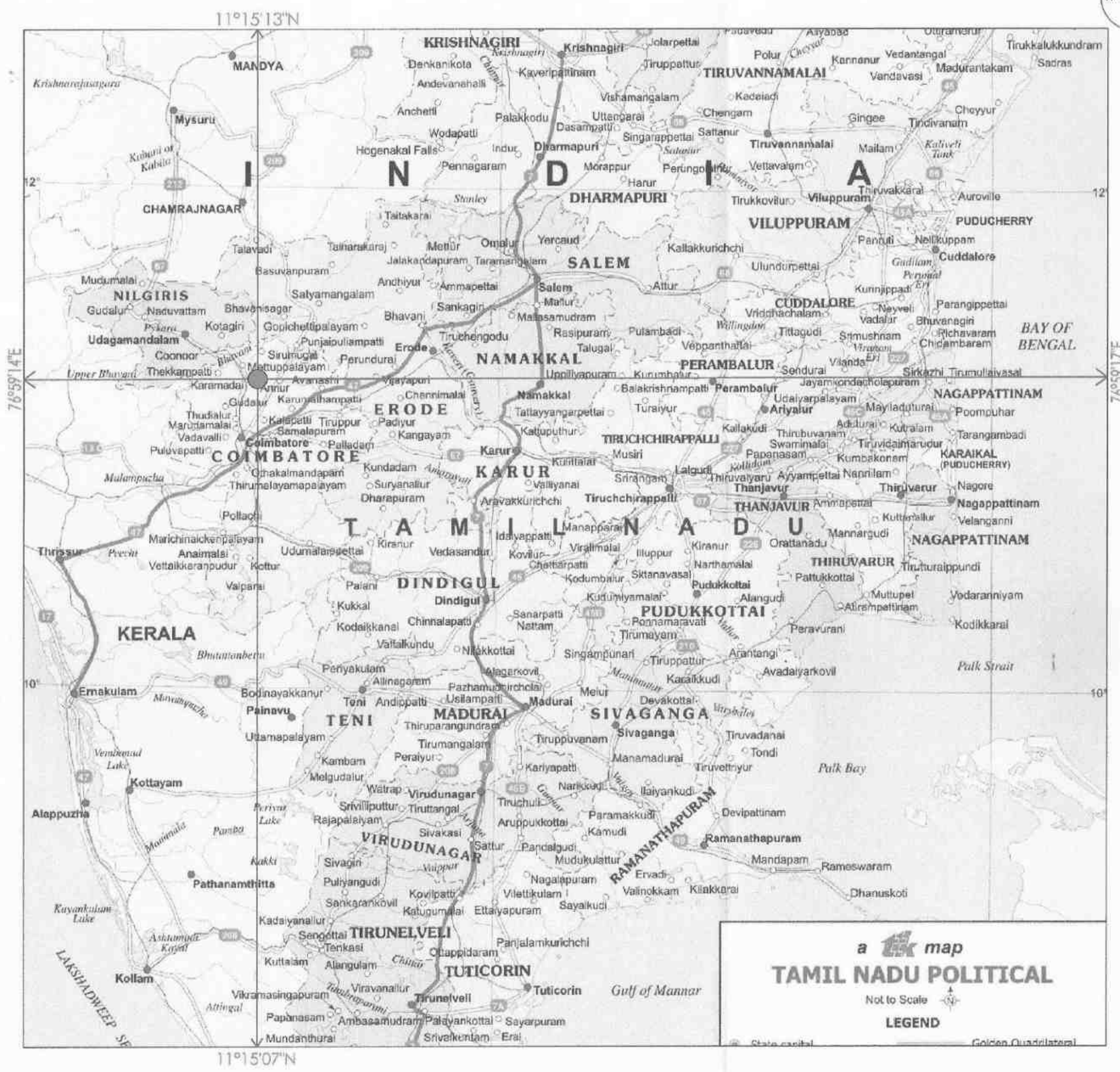
LOCATION PLAN

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

*R. Rajasekar*  
 R. RAJASEKAR & Co.,  
 RECOGNISED QUALIFIED PERSON  
 RQP/CHN/254/2015/A



a map  
**TAMIL NADU POLITICAL**  
 Not to Scale  
**LEGEND**  
 State capital  
 Golden Quadrilateral

PLATE NO II



APPLICANT:

TVL. TECHNOMAX BUILDING SOLUTION INDIA PVT LTD.,  
THIRU. R. RAJU, (Managing Director),  
No.1/382, METTUPALAYAM ROAD,  
MATHAMPALAYAM, PRESS COLONY (PO),  
COIMBATORE DISTRICT- 641 019

QUARRY LEASE AREA:

S.F.No : 345/3 (PART)  
EXTENT : 1.45.8 Ha (out of 2.06.5 Ha)  
VILLAGE : BELLATHI  
TALUK : METTUPALAYAM  
DISTRICT : COIMBATORE

INDEX

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

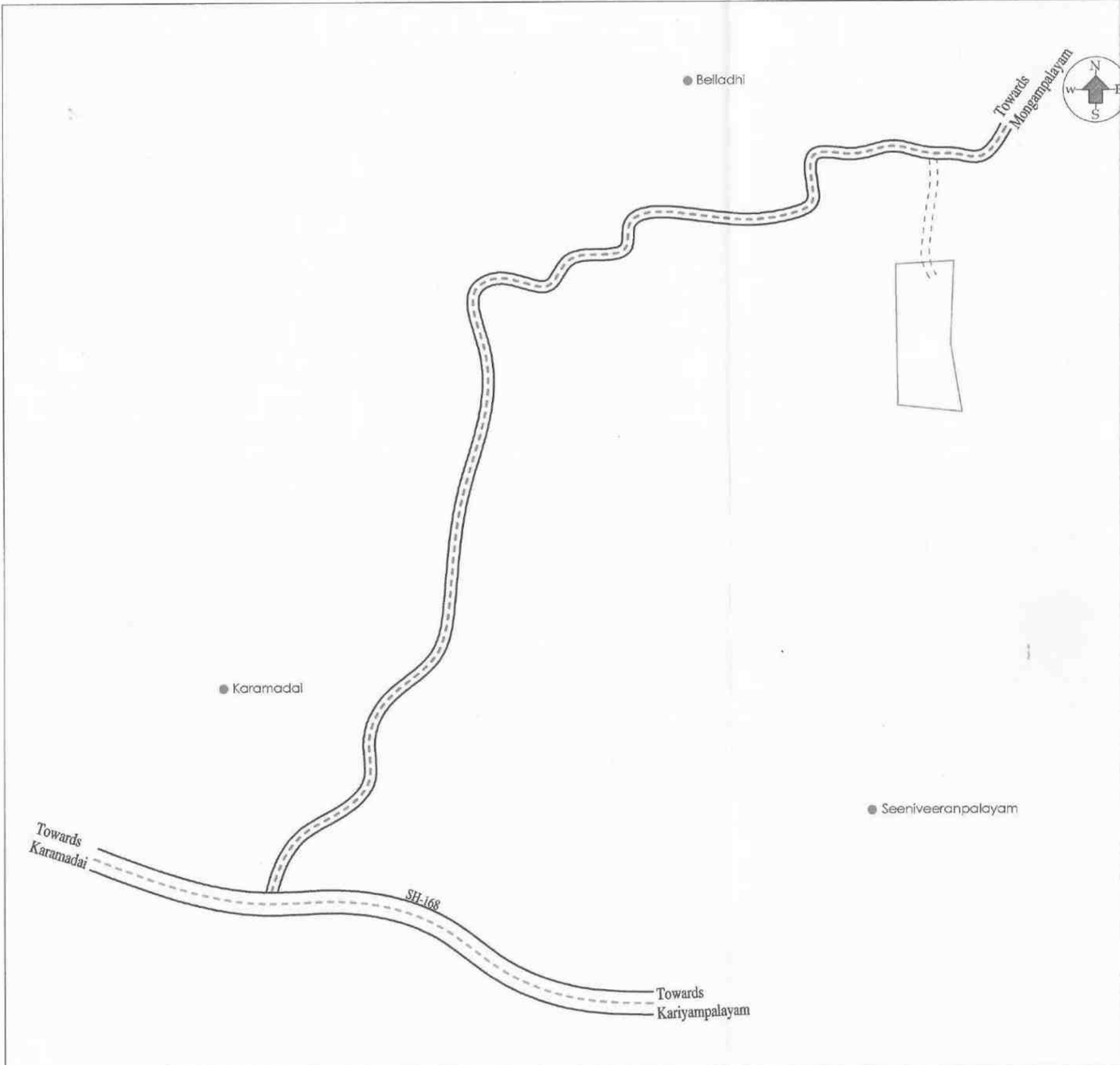
KEY PLAN

Not To Scale

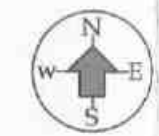
PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

R. RAJASEKAR, Esq.,  
RECOGNISED QUALIFIED PERSON  
RQP/CNN/264/2015/A







**PLATE NO-IV**



**APPLICANT:**

TVL. TECHNOMAX BUILDING SOLUTION INDIA PVT LTD.,  
 THIRU.R.RAJU, (Managing Director),  
 No.1/382, METTUPALAYAM ROAD,  
 MATHAMPALAYAM, PRESS COLONY (PO),  
 COIMBATORE DISTRICT- 641 019

**QUARRY LEASE AREA:**

S.F.No : 345/3 (PART)  
 EXTENT : 1.45.8 Ha ( out of 2.06.5 Ha)  
 VILLAGE : BELLATHI  
 TALUK : METTUPALAYAM  
 DISTRICT : COIMBATORE

**INDEX**

TOPO SHEET NO : 58 - A / 16  
 LATITUDE : 11°15'07"N to 11°15'13"N  
 LONGITUDE : 76°59'14"E to 76°59'17"E

Q.LEASE AREA	
300m RADIUS	
500m RADIUS	
APPROACH ROAD	
PANCHAYAT ROAD	

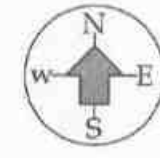
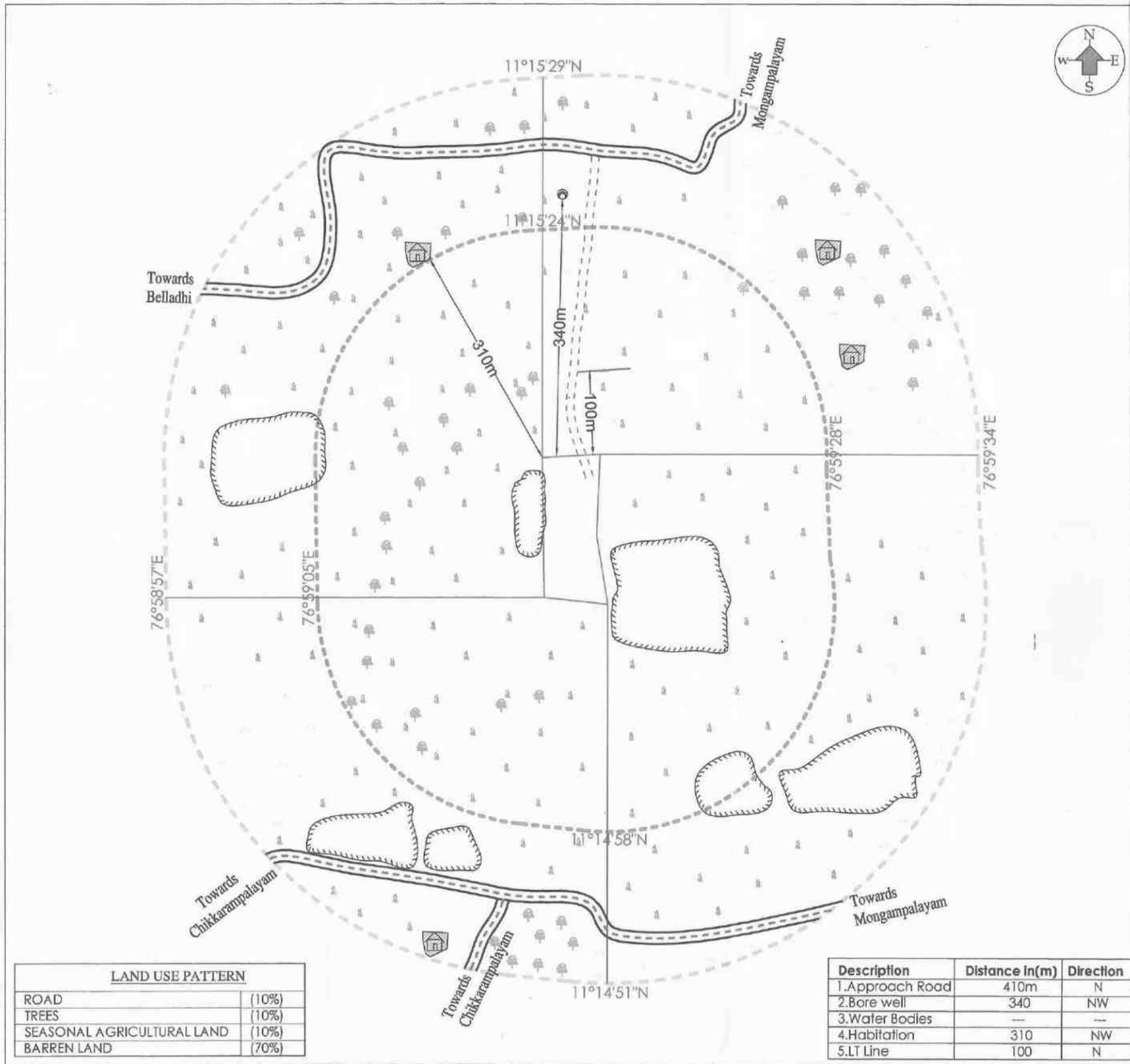
**SATELLITE IMAGERY**

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

*R. RAJASEKAR*  
 R. RAJASEKAR, M.Sc.,  
 RECOGNISED QUALIFIED PERSON  
 ROP/CNN/264/2015/A



**PLATE NO.**  
**12 OCT 2017**  
**APPLICANT:**  
 TVL TECHNOMAX BUILDING SOLUTION INDIA  
 PVT LTD.,  
 THIRU.R.RAJU, (Managing Director)  
 No.1/382, METTUPALAYAM PRESS COLONY (PO),  
 MATHAMPALAYAM, PRESS COLONY (PO),  
 COIMBATORE DISTRICT- 641 019

**QUARRY LEASE AREA:**  
 S.F.No : 345/3 (PART)  
 EXTENT : 1.45.8 Ha (out of 2.06.5 Ha)  
 VILLAGE : BELLATHI  
 TALUK : METTUPALAYAM  
 DISTRICT : COIMBATORE

**INDEX**  
 TOPO SHEET NO: 58 - A / 16  
 LATITUDE : 11°15'07"N to 11°15'13"N  
 LONGITUDE : 76°59'14"E to 76°59'17"E

Q.L.APPLIED AREA	
300m RADIUS	
500m RADIUS	
APPROACH ROAD	
PANCHAYAT ROAD	
BARREN LAND	
TREES	
AGRICULTURAL LAND	
QUARRY PIT	
HABITATION	
BORE WELL	
LT LINE	

**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  
  
 R. RAJASEKAR, M.Sc.,  
 RECOGNISED QUALIFIED PERSON  
 RQP/CNN/264/2015/A

LAND USE PATTERN	
ROAD	(10%)
TREES	(10%)
SEASONAL AGRICULTURAL LAND	(10%)
BARREN LAND	(70%)

Description	Distance in(m)	Direction
1.Approach Road	410m	N
2.Bore well	340	NW
3.Water Bodies	---	---
4.Habitation	310	NW
5.LT Line	100	N



APPLICANT  
 TVL. TECHNOMAX BUILDING SOLUTIONS  
 PVT LTD.,  
 THIRU.R.RAJU, (Managing Director),  
 No.1/382, METTUPALAYAM ROAD,  
 MATHAMPALAYAM, PRESS COLONY (PO),  
 COIMBATORE DISTRICT- 641 019

QUARRY LEASE AREA:  
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Q.L.APPLIED BOUNDARY	
7.5m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
APPROACH ROAD	
CONTOUR	
QUARRY PIT	

QUARRY LEASE & SURFACE PLAN

SCALE 1 : 1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE  
 HAS BEEN CHECKED BY ME AND IS  
 CORRECT TO THE BEST OF MY KNOWLEDGE

*R. Rajasekar*  
 R. RAJASEKAR, M.Sc.,  
 RECOGNISED QUALIFIED PERSON  
 RQP/GNN/264/2015/A

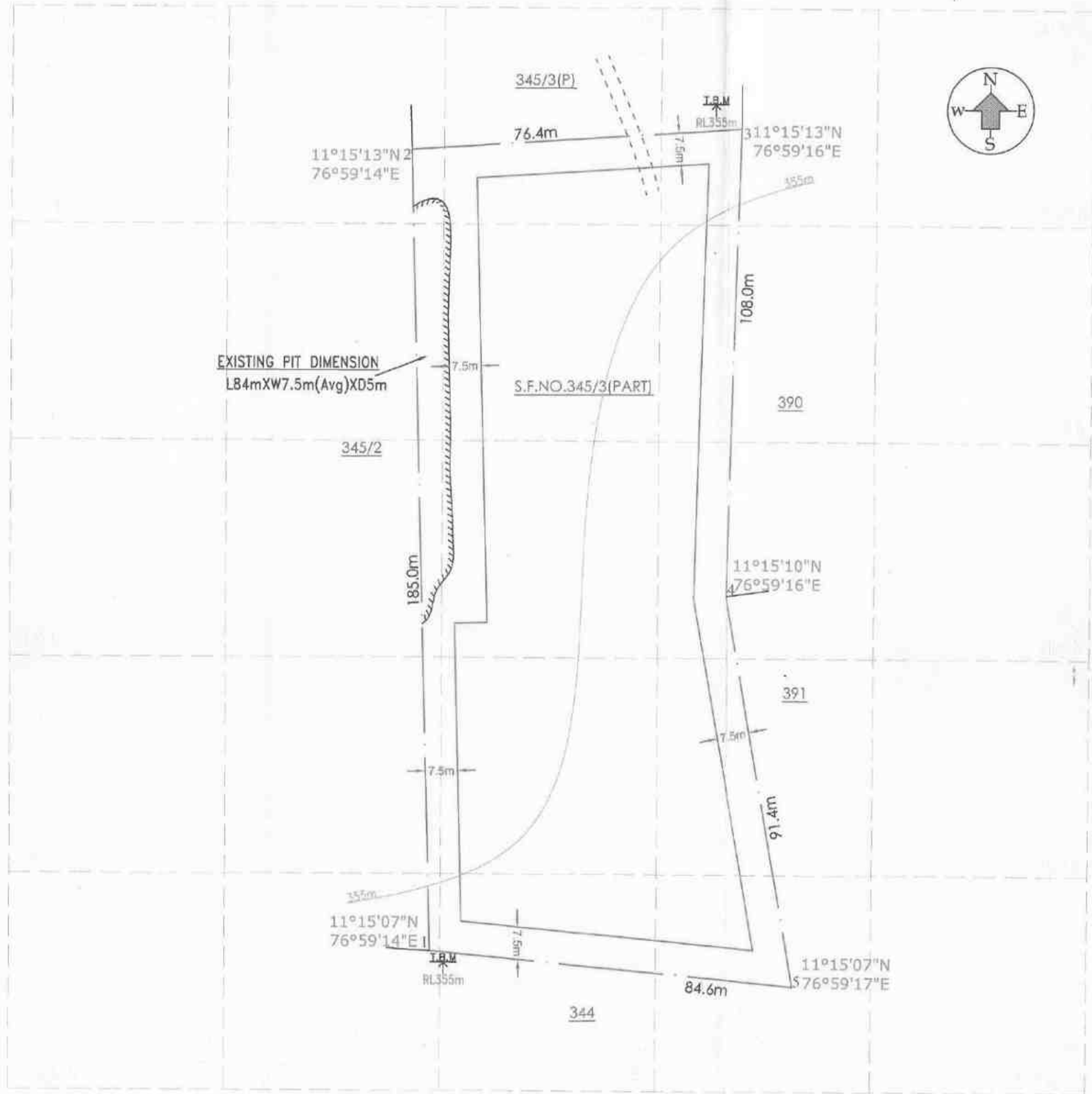




PLATE NO. VII  
 12 OCT 2017  
 Director, Geological Survey of India  
 Coimbatore District

APPLICANT :  
 TVL TECHNOMAX BUILDING SOLUTION INDIA  
 PVT LTD,  
 THIRU.R.RAJU, (Managing Director),  
 No.1/382, METTUPALAYAM ROAD,  
 MATHAMPALAYAM, PRESS COLONY (PO),  
 COIMBATORE DISTRICT- 641 019

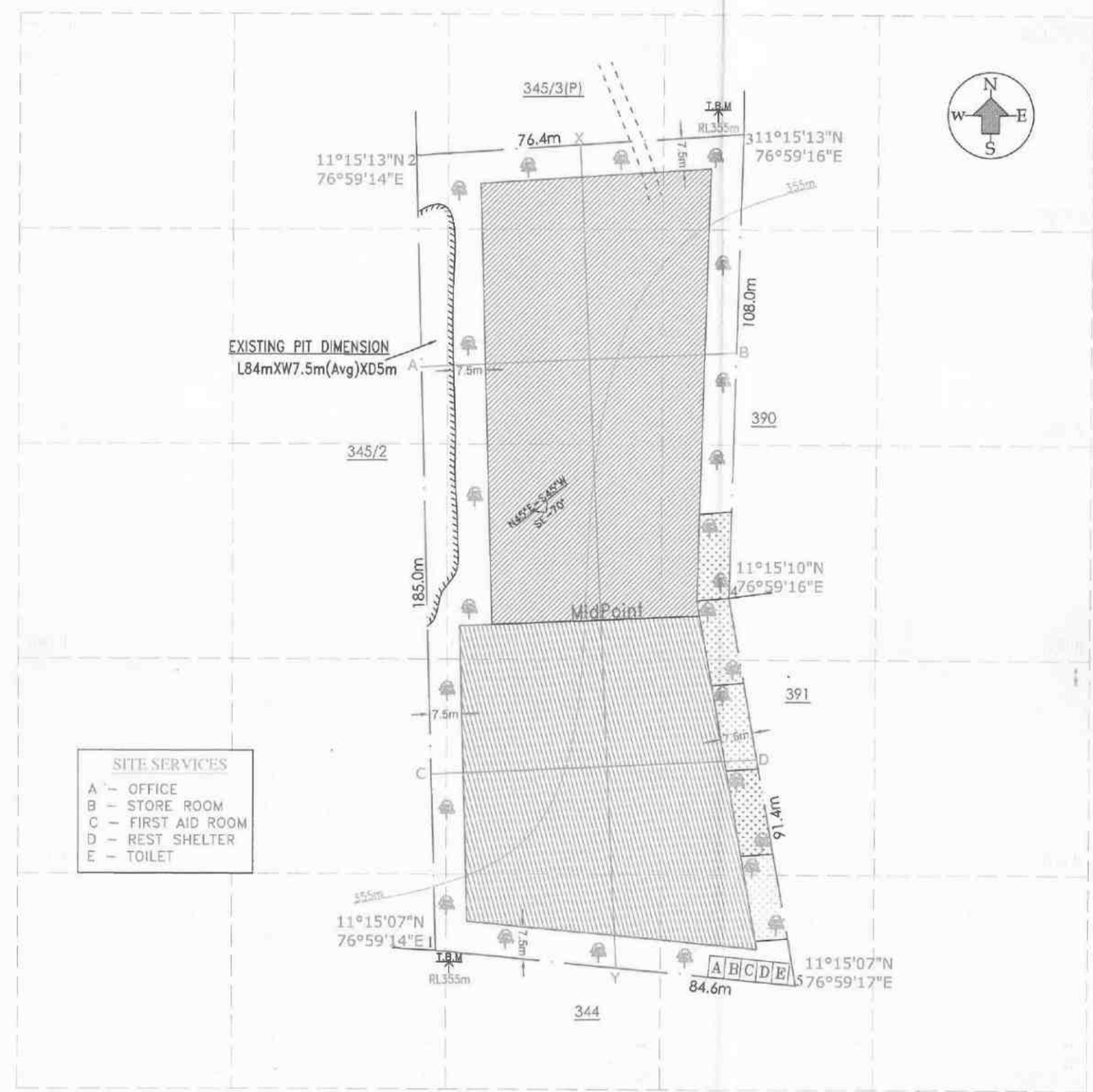
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 S.F.No : 345/3 (PART)  
 EXTENT : 1.45.8 Ha (out of 2.06.5 Ha)  
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CONTOUR	
QUARRY PIT	
GRAVEL	
ROUGH STONE	
STRIKE & DIP	

TOPOGRAPHY, GEOLOGICAL,  
 YEAR WISE DEVELOPMENT &  
 PRODUCTION PLAN & SECTION  
 SCALE 1 : 1000  
 SECTION HOR 1 : 1000, VER 1 : 500

PREPARED BY:  
 I DO HEREBY CERTIFY THAT THE PLATE  
 HAS BEEN CHECKED BY ME AND IS  
 CORRECT TO THE BEST OF MY KNOWLEDGE  
  
 R. RAJASEKAR, M. Sc.,  
 RECOGNISED QUALIFIED PERSON  
 RQP/CNN/284/2015/A



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

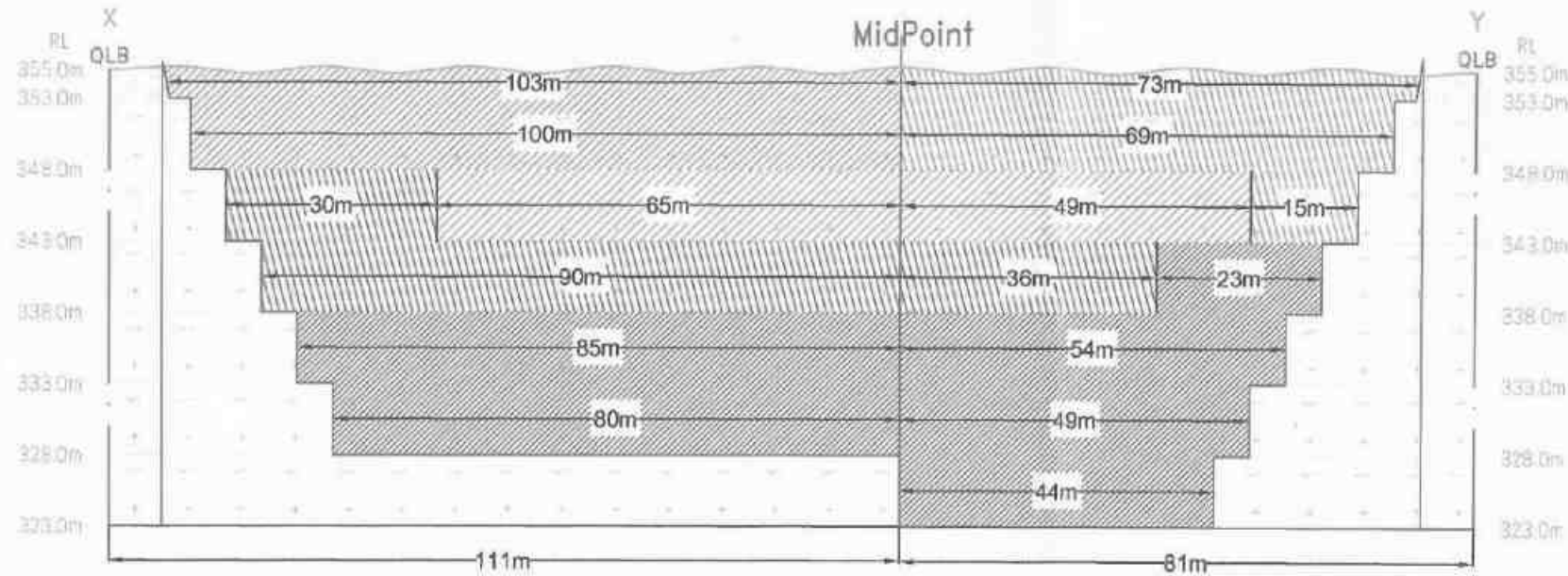
# PLATE NO-VII-A

SCALE: SECTION:  
HOR-1:1000  
VER-1:500

## TOPOGRAPHY, GEOLOGICAL, YEAR WISE DEVELOPMENT & PRODUCTION PLAN & SECTION

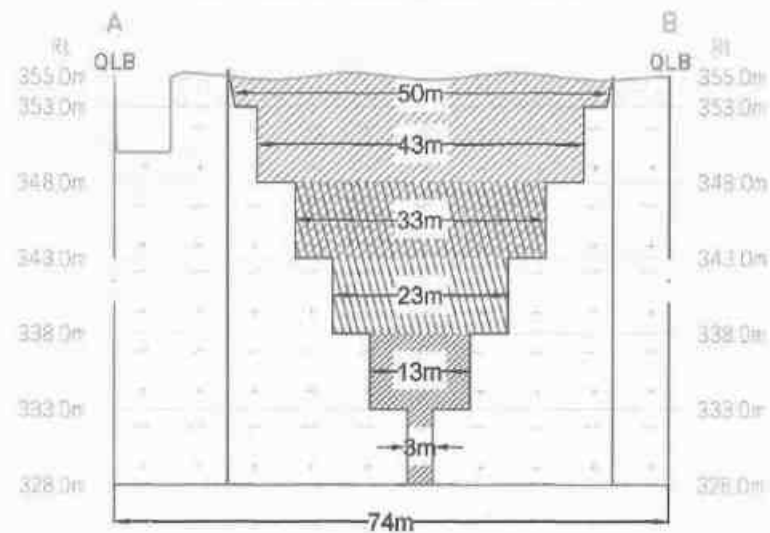


SECTION ALONG X-Y

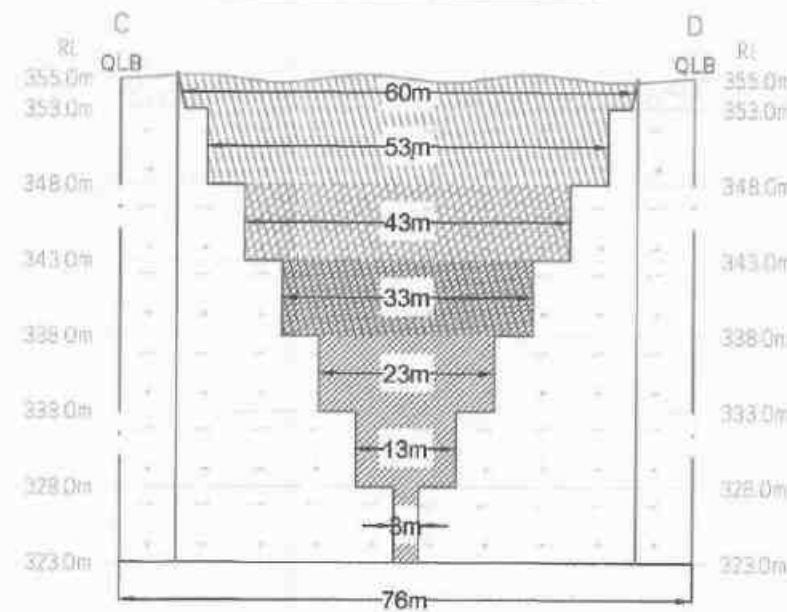


- I year Proposed area to be Quarried
- II year Proposed area to be Quarried
- III year Proposed area to be Quarried
- IV year Proposed area to be Quarried
- V year Proposed area to be Quarried

SECTION ALONG A-B



SECTION ALONG C-D



PRESENT & POST LAND USE PATTERN

DESCRIPTION	PRESENT AREA (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
AREA UNDER QUARRYING	0.06.0	0.98.0
INFRASTRUCTURE	NII	0.01.0
ROADS	NII	0.01.0
GREEN BELT	0.01.0	0.10.0
UN-UTILIZED AREA	1.38.8	0.35.8
<b>GRAND TOTAL</b>	<b>1.45.8</b>	<b>1.45.8</b>

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

R. RAJASEKAR, M.Sc.,  
RECOGNISED QUALIFIED PERSON  
RQP/CHN/264/2015/A

**PLATE NO-VII-B**

**TOPOGRAPHY, GEOLOGICAL, YEAR WISE DEVELOPMENT & PRODUCTION PLAN & SECTION**

SCALE:- SECTION:  
HOR-1:1000  
VER-1:500



GEOLOGICAL RESOURCES					
Section	Length in (m)	Width in (m)	Depth in (m)	Volume m <sup>3</sup>	Geological Resources in m <sup>3</sup>
XY-AB	111	74	60	492840	492840
XY-CD	81	76	60	369360	369360
<b>TOTAL</b>					<b>862200</b>

YEARWISE DEVELOPMENT & PRODUCTION RESERVES								
Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m <sup>3</sup>	Gravel Formation in m <sup>3</sup>	Reserves of Rough stone in m <sup>3</sup>
I	XY-AB	I	103	50	2	10300	10300	
		II	100	43	5	21500		21500
<b>TOTAL</b>							<b>10300</b>	<b>21500</b>
II	XY-CD	I	73	60	2	8760	8760	
		II	69	53	5	18285		18285
		III	15	43	5	3225		3225
<b>TOTAL</b>							<b>8760</b>	<b>21510</b>
III	XY-CD	III	49	43	5	10535		10535
	XY-AB	III	65	33	5	10725		10725
<b>TOTAL</b>								<b>21260</b>
IV	XY-AB	III	30	33	5	4950		4950
		IV	90	23	5	10350		10350
	XY-CD	IV	36	33	5	5940		5940
<b>TOTAL</b>								<b>21240</b>
V	XY-CD	IV	23	33	5	3795		3795
		V	54	23	5	6210		6210
	XY-AB	V	85	13	5	5525		5525
		VI	80	3	5	1200		1200
XY-CD	VI	49	13	5	3185		3185	
	VII	44	3	5	660		660	
<b>TOTAL</b>								<b>20575</b>
<b>GRAND TOTAL</b>							<b>19060</b>	<b>106085</b>

MINEABLE RESERVES							
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m <sup>3</sup>	Gravel Formation in m <sup>3</sup>	Mineable Reserves of Rough stone in m <sup>3</sup>
XY-AB	I	103	50	2	10300	10300	
	II	100	43	5	21500		21500
	III	95	33	5	15675		15675
	IV	90	23	5	10350		10350
	V	85	13	5	5525		5525
	VI	80	3	5	1200		1200
<b>TOTAL</b>						<b>10300</b>	<b>54250</b>
XY-CD	I	73	60	2	8760	8760	
	II	69	53	5	18285		18285
	III	64	43	5	13760		13760
	IV	59	33	5	9735		9735
	V	54	23	5	6210		6210
	VI	49	13	5	3185		3185
	VII	44	3	5	660		660
<b>TOTAL</b>						<b>8760</b>	<b>51835</b>
<b>GRAND TOTAL</b>						<b>19060</b>	<b>106085</b>

PREPARED BY:

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 R. RAJASEKAR, M.Sc.,  
 RECOGNISED QUANTIFIED PERSON  
 RQP/CNN/264/2015/A

12 OCT 2017

**APPLICANT:**

TVL. TECHNOMAX BUILDING SOLUTION INDIA PVT LTD,  
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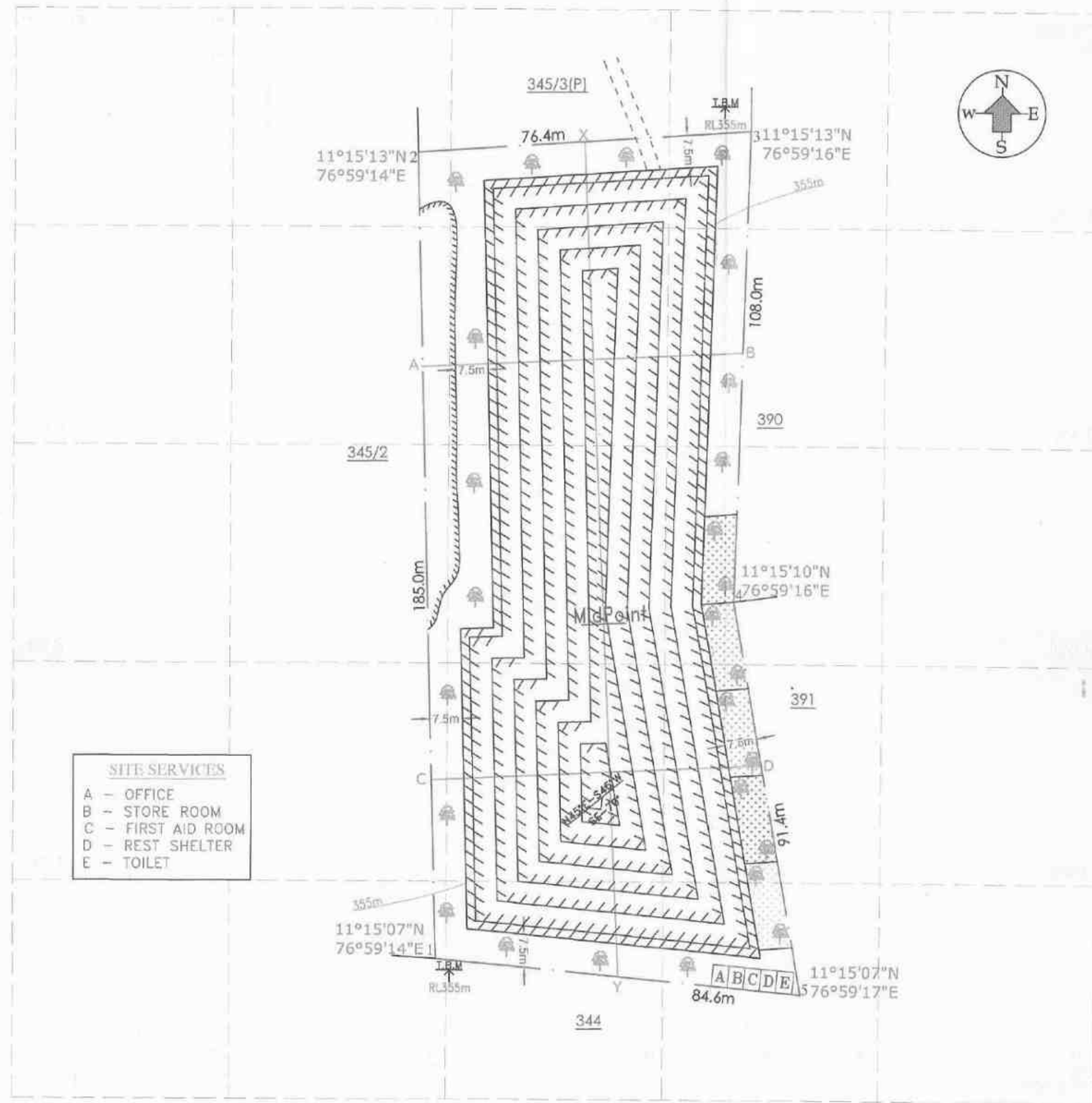
**CONCEPTUAL PLAN & SECTION**

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

**PREPARED BY:**

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R. RAJASEKAR, M.Sc.,  
 RECOGNISED QUALIFIED PERSON  
 RQP/CNN/264/2015/A



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

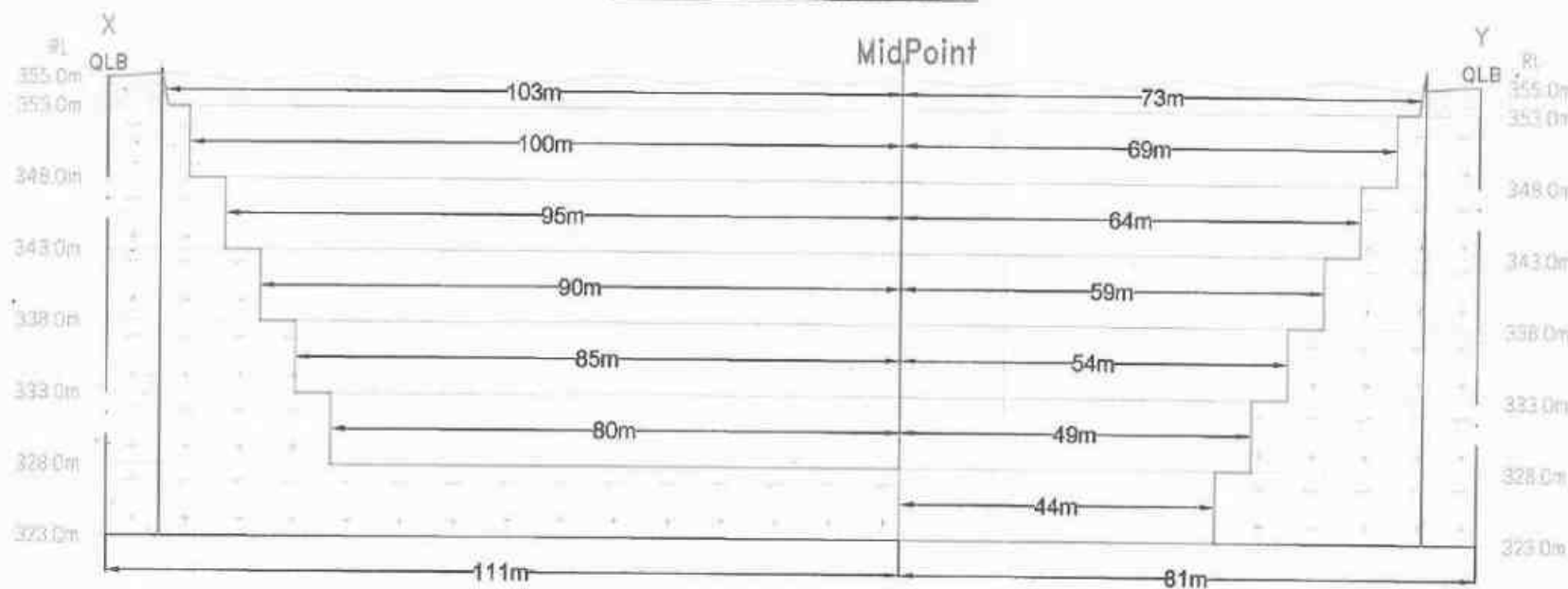
PLATE NO-VIII-A

CONCEPTUAL PLAN & SECTION

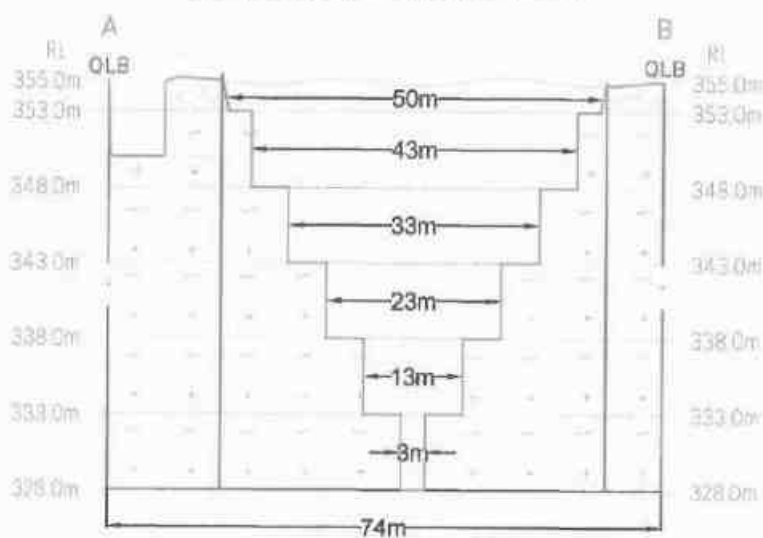
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HOR-1:1000  
VER-1:500



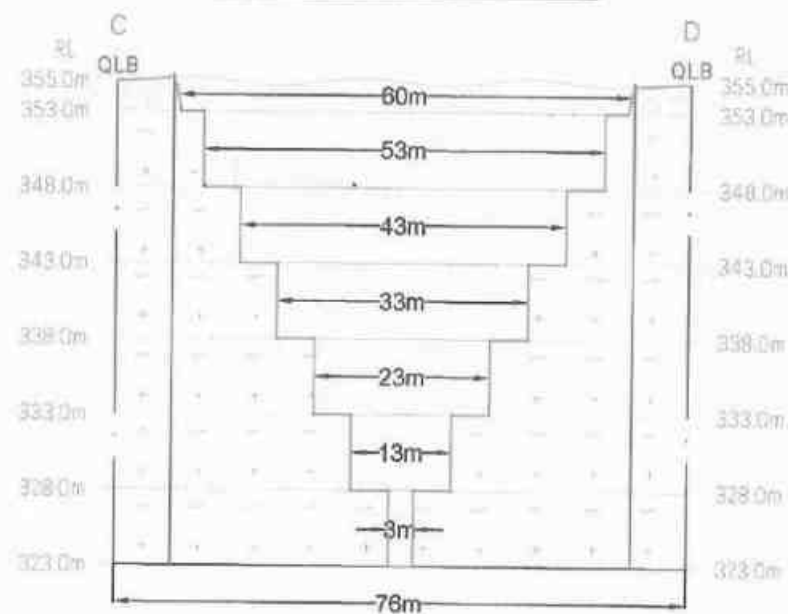
SECTION ALONG X-Y



SECTION ALONG A-B



SECTION ALONG C-D



ULTIMATE PIT DIMENSION  
L177m(Max)XW61(Avg)mXD32m(Max)

PREPARED BY:

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*R. Rajasekar*  
R. RAJASEKAR, M.Sc.,  
RECOGNISED QUALIFIED PERSON  
RQP/CNN/264/2015/A

## சான்று

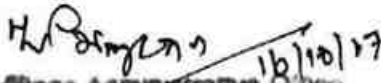
கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் வட்டம், பெள்ளாதி கிராம நிர்வாக அலுவலர் அளிக்கும் சான்று.

கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் வட்டம், பிரஸ்காலனி அஞ்சல், கதவு எண் 1/382 என்ற முகவரியில் வசிக்கும் திரு. ரங்கசாமி நாயுடு என்பவரின் மகன் திரு. ராஜு என்பவர், கோயம்புத்தூர் மாவட்டம், மேட்டுப்பாளையம் பெள்ளாதி கிராமம் சர்வே எண் 345/3 (Part) 4/9 337 ல்

பட்டா நிலத்தில் மொத்த பரப்பு 1.45.8 ஹெக்டேர் பரப்பளவில் சாதாரண கல்/மண் வெட்டியெடுக்க குவாரி குத்தகை அனுமதி கோரியுள்ளார்.

மேற்கண்ட குவாரி குத்தகை அனுமதி கோரியுள்ள இடத்தைச் சுற்றி சுமார் 300 மீட்டர் சுற்றளவில் அங்கீகரிக்கப்பட்ட வீட்டு மனைகள், குடியிருப்பு பகுதிகள், கோயில்கள், புராதான வரலாற்று சின்னங்கள்

மற்றும் மின் மயானங்கள் எதுவும் இல்லை, குவாரி அனுமதி கோரி விண்ணப்பித்துள்ள புலத்திற்கு வண்டிகள் சென்று வரும் கிராம சாலைகளும் இடையூறு எதுவும் இல்லை, மேலும் பொது மக்களுக்கோ, அருகில் உள்ள அரசு புறம்போக்கு மற்றும் பட்டாதாரர்களுக்கோ எந்தவித இடையூறும் இல்லை என தெரிவித்துக் கொள்கிறேன்.

  
Village Administrative Office  
No. 18, Bellandi Village

கிராம நிர்வாக அலுவலர் அனுமதி பெறப்பட்டுள்ளது.



GOVERNMENT OF INDIA  
MINISTRY OF COMMERCE & INDUSTRY  
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESAO)  
(Formerly Department of Explosives)  
A & D Wing, Block 1-S, 1st Floor, Shastri Bhawan  
No. Haddous Road, Nungambakkam Chennai 600006  
Tele: 28281023 Fax: 28284848  
Email: peso@chemindia.explosives.gov.in

No E/SC/IN/22/22(E9620)

Date: 16/04/2015

To,  
PARTHIBAN EXPLOSIVES  
7, KAMARALAR ROAD KARAMADAL COIMBATORE DIST-641104  
Town Village - Coimbatore  
Dist. COIMBATORE, State Tamil Nadu, Pincode-641104

Subject: Possession for Use of Explosives from magazine at Survey No(s):809, Village Town,  
KARAMADAL Dist. COIMBATORE, State Tamil Nadu Licence No.: E/SC/IN/22/22(E9620)  
granted in Form LE-3 of Explosives Rules, 2008 - Renewal regarding

Sir(s),

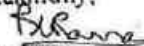
Reference to your letter No. x dated: 27/02/2015, the subject licence duly renewed upto 31/3/2020 and issued in Form LE-3 of Explosives Rules, 2008 is forwarded herewith.

For further renewal of licence, please submit the following documents so as to reach this office on or before 31/3/2020.

- Application in Form RL-1 duly filled in and signed.
- Licence fees for one to five years in the form of demand draft drawn on any Nationalized Bank in favour of Jt. Chief Controller of Explosives, Chennai payable at Chennai.
- Original licence with approved plan.
- In this connection, please also refer to Rule 112 of Explosives Rules, 2008.
- Indent for purchase of explosives shall be placed in RE-11 with the supplier and copy of the same shall be sent to this office.(Not applicable for fireworks store house)
- Please submit quarterly returns of explosives in RE-7 at the end of every quarter so as to reach this office by 10th of the succeeding quarter.(Not applicable for fireworks store house)
- All blasting operations shall be carried out by a competent person holding a valid shot fire's permit granted under above rules. However, blasting operations in mines coming under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

An amount of Rs. 1000/- balance is in your credit, which may be utilized for future transaction by quoting this reference.

Enclosures :

Yours faithfully,  
  
(Dr. P. K. Rana)  
Controller of Explosives  
For Joint Chief Controller of Explosives

<http://10.0.1.13/IntExp/RNCoveringLetter.asp>

4/16/2015

Copy Forwarded to

1. District Magistrate, CHIMBAIDORE (Tamil Nadu) for information

Enclosure to Controller of Explosives  
South Circle, Chennai

(For more information regarding stamp fees and other details, please visit our website: [www.ice.gov.in](http://www.ice.gov.in))



Transferred from PARTHIBAN EXPLOSIVES

## LICENCE FORM LE-3

(See article 3(a) to (d) of Part I of Schedule IV of Explosives Rules, 2008)

Licence to possess : (c) for use, explosives of class 1, 2,3,4,5,6 or 7 in a magazine

Licence No : E/SC/TN/22/22(E9620)

Annual Fee : Rs 5000



1. Licence is hereby granted to : **PARTHIBAN EXPLOSIVES (Occupier)**  
**P.CHANDRASEKARAN)**  
**7, KAMARAJAR ROAD KARAMADAI, COIMBATORE**  
**DIST-641104, Town/Village - Coimbatore**  
**District-COIMBATORE, State-Tamil Nadu, Pincode -**  
**641104**

2. Status of licensee : **Partnership Firm**  
 3. Licence is valid only for the following purpose : possess for use of **Nitrate Mixture, Detonators, Safety Fuse,**  
 4. (a) Licence is valid for the following kinds and quantity of explosives:

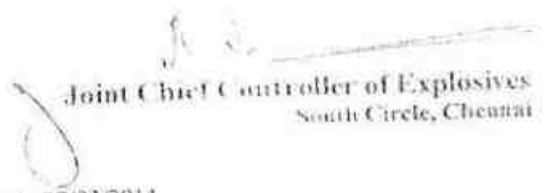
Sr. No.	Name and Description	Class & Division	Sub-division (If any)	Quantity at any one time
1.	Nitrate Mixture	2,0	:0	300 Kg.
2.	Detonators	6,3	:0	44000 Nos.
3.	Safety Fuse	6,1	:0	30000 Mtrs

(b) Quantity of explosives to be purchased in a calendar month [applicable for licence under article 3(b) and (c)] : **20 times as above.**

5. The licensed premises shall conform to the following drawing(s):  
 Drawing No : **E/SC/TN/22/22(E9620) dated : 04/03/1991**
6. The licensed premises are situated at following address:  
**Survey No(s). 809 , Town/Village : KARAMADAI**  
**Police Station : KARAMADAI**      **District : COIMBATORE**      **State : Tamil Nadu**  
**PinCode :**      **Phone :**      **E-Mail :**      **Fax :**
7. The licensed premises consist of following facilities : **constructed magazine/lobby/explosives magazine of internal dimension 2.44MX2.4M explosives and detonators and lobby 1.60MX2.44M initially 1000kg granted due to encroachment later on it was reduced to 300kg**
8. The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 framed there under and the conditions, additional conditions and the following Annexures.  
 (1) Drawings (showing site, constructional and other details) as stated in serial No. 5 above.  
 (2) Conditions and Additional Conditions of this licence signed by the licensing authority.  
 (3) Distance Form DE-2
9. This licence shall remain valid till **31st day of March 1992**

This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

The Date: 04/03/1991

  
Joint Chief Controller of Explosives  
South Circle, Chennai

**Transfers :**

- Change in Authorized Signatory/Occupier/Partners/Directors dated : 27/03/2014
- Change in Authorized Signatory/Occupier/Partners/Directors dated : 21/11/2014

**Endorsement for renewal of licence:**

Date of Renewal	Date of Expiry	Signature of licensing authority
21/04/2011	31/03/2015	Sd/- Jt. Chief Controller of Explosives, South Circle, Chennai

**Statutory Warning :** Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

*Renewed upto 31/3. 2020*





GOVERNMENT OF INDIA  
 MINISTRY OF COMMERCE & INDUSTRY  
 PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)  
 (Formerly Department of Explosives)  
 No.140, Rukmin Luxmpati Road,  
 Marshall's Road, Egmore, Chennai-600008  
 Tele: 28514848 Fax: 28514848  
 Email: jtccechenna@explosives.gov.in

PE/SC/TN/30/1442(E81010)

Dated: 29/04/2014

To: P. Chandrasekaran S/o K. Palaniappan,  
 No. 14, Kamarajar Road, Karamadai

Subject: Shotfirer's Certificate No. E/SC/TN/30/1442(E81010) issued to P.Chandrasekaran S/o.K.Palaniappan, No:14, Kamarajar Road, Karamadai, granted in Form LE-10 of Explosives Rules, 2008 - Issue of Certificate regarding.

Reference to your letter No. X dated 26/03/2014 and the subsequent examination held on 27/03/2014. Please find enclosed herewith Shotfirer's Certificate No. E/SC/TN/30/1442(E81010) valid upto 29/04/2015 for the purpose of **General Above Ground (All phases of above ground blasting operations)** in **Agricultural**.  
 The provisions of Rule 107 of Explosives Rules, 2008.  
 (Allotting work in connection with well Sinking/Road Construction/Agricultural work etc.)

It may please be noted that no explosives should be purchased on the strength of the above certificate. You are advised to strictly follow Rules 89 to 98 of Explosives Rules, 2008 while undertaking blasting operations.

If you wish the validity of the certificate to be extended, application with following documents shall be submitted:

- Application in Form AE-10.
- Original Shot firer's Certificate in Form LE-10.
- Scrutiny fee of revitaliation Rs. 300/-, DD shall be drawn in favour of **Jt. Chief Controller of Explosives, Chennai** payable at Chennai.
- Five copies of holder's colour passport size photographs duly signed 'in front' by black color indelible ink.
- A physical fitness certificate from Registered medical practitioner.
- A consent letter from the present employer holding Licence in Form LE-3 and intending to hire the services of Certificate holder.
- The shot firer certificate holder has to present himself physically before reviewing/revitaliating Authority.
- This certificate is liable to be cancelled/withdrawn on contravention of provisions of Explosive Rules, 2008 committed during blasting operations, resulting in loss of human life.

An amount of Rs. 100/- balance is in your credit, which may be utilized for future transaction by quoting this reference.

Enclosures :

Copy Forwarded to:

- Police Station, Karamadai, COIMBATORE, Tamil Nadu with reference to his Noc No: NIL Dated: 12/09/2013

For Joint Chief Controller of Explosives  
 South Circle, Chennai

[For more information regarding status, fees and other details, please visit our web site <http://peso.gov.in>]

<http://10.0.1.11/IntExp/SPCoveringLetter.asp>

4/29/20

Form LE-10  
Shot Firer's Certificate  
(See article 10 of Part I of Schedule IV)  
(see rule 107(5) of Explosives Rules, 2008)

(Certificate of competency to carry out blasting of explosives in area not coming under the Mi



No.: E-SC/EN/30/1442/E81010

This is to certify that **Shri P. Chandrasekaran S/o. K. Palan appan**, born on 02/05/1964, resident of No:114, Kamarajar Road, Karamadai., COIMBATORE, Tamil Nadu passed the **shotfirer's examination** held on 27/03/2014 conducted by **Controller of Explosives, Chennai** and is authorised to conduct blasting operations as mentioned below using explosives in areas other than mines coming under the purview of the Mines Act 1952, subject to the provisions of the Explosives Act, 1884 and the rules framed thereunder.

Authorised class, category and type of blasting :

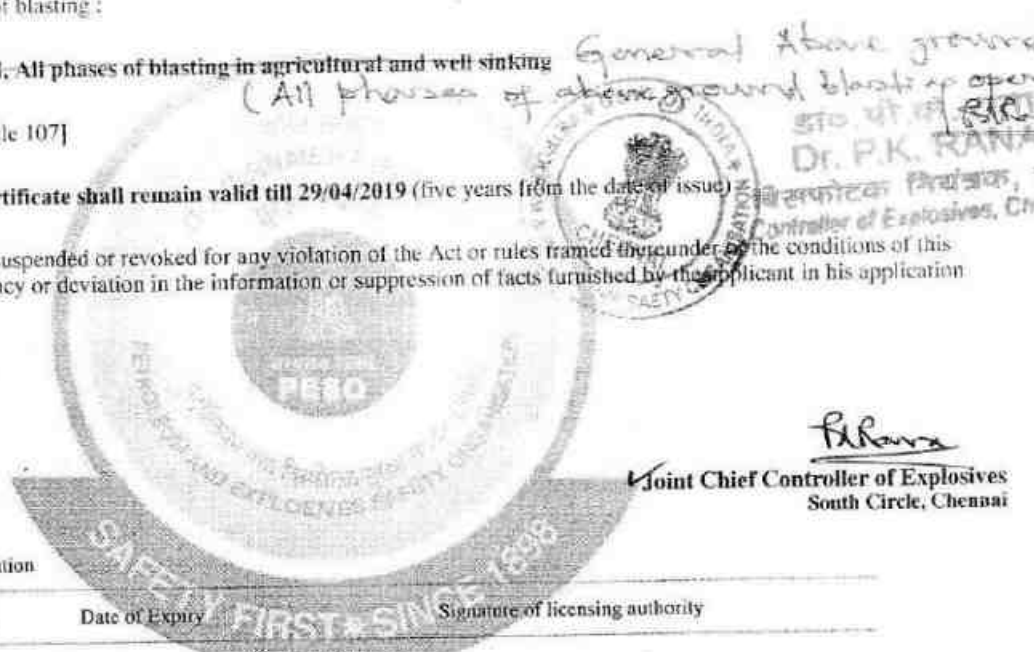
Class : (B), Category : Agricultural, All phases of blasting in agricultural and well sinking

[See explanation of sub-rule (5) of rule 107]

This certificate shall remain valid till 29/04/2019 (five years from the date of issue)

This certificate is liable to be suspended or revoked for any violation of the Act or rules framed thereunder or the conditions of this certificate or if there is any discrepancy or deviation in the information or suppression of facts furnished by the applicant in his application form.

Place: Chennai  
Date: 29/04/2014



Endorsement for revalidation

Date of Revalidation

Date of Expiry

Signature of licensing authority

**Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.**

## CONDITIONS

1. This permit authorizes the permit holder to conduct blasting so long as he is working under the employment contract of PARTHI, AN EXPLOSIVES holding valid licence (Licence No. E/SC/TN/22/E9620) in Form LE-3 of Explosives Rules, 2008.
2. All safety laws and regulations applicable for obtaining, owning, transporting, storing, handling and using explosive materials shall be followed.
3. Explosive materials shall be protected from unauthorised possession and shall not be abandoned.
4. Explosive materials shall be used only by experienced persons who are familiar with the hazards involved and who hold all required permits.
5. Loading and firing shall be performed or supervised only by a person possessing an appropriate shot firer certificate and permit to blast.
6. Trainees helpers and other persons who do not hold the required shot firer certificate or permits shall work only under the supervision of persons holding such permits.
7. No explosive materials shall be located or stored where they may be exposed to flame excessive heat sparks or impact.
8. No smoking shall be permitted within 15 metre of any location where explosive are being handled or used.
9. No person within 15 metres of any location where explosive are being handled or used shall carry any matches open light or other fire or flame. However, suitable devices for lighting safety fuse are exempted from this requirement.
10. No person under the influence of intoxicating liquors narcotics or other dangerous drugs shall be allowed to handle explosive materials.
11. Explosive materials shall be kept in close approved containers or packages while being transported between the storage magazine and the blasting site.
12. A holder of a shot firer certificate and Permit to Blast shall keep a daily record of all explosive materials received and fired or otherwise disposed of by the permit holder. Such records shall be retained for five years.
13. The shot firer and the employee shall be conversant with procedure to be taken during the emergency.
14. The holder of the shot firer certificate shall comply with all or any of the directions as may be given by the Controller from time to time in the interest of safety.
15. Accidents by fire or explosion and losses, shortage or theft of explosives shall be immediately reported to the nearest police station and the Controller of Explosives having jurisdiction over the area.

  
J. K. Ramesh  
Joint Chief Controller of Explosives  
South Circle, Chennai

भारतीय गैर न्यायिक



INDIA NON JUDICIAL

தமிழ்நாடு தமில்நாடு TAMIL NADU

Rs.20/-

K. BALAJI

38AB 417880

STAMP VENDOR LICENCE NO: 12126/B/2015  
PERIYANAIKENPALAYAM COIMBATORE-20  
TAMILNADU

14084  
12-10-2017

சிகிச்சிடு சிசுகரணம்  
காரமடல்



**BLASTING WORK CONTRACT AGREEMENT**

M/S. PARTHIBAN EXPLOSIVES. NO.7 KAMARAJAR ROAD, KARAMADAI, COIMBATORE 641 104 having Explosives Licence No.E/SC/TN/22/22/E9620 and Magazine situated at Karamadai Village hereinafter referred as Party 1 entered into a blasting contract agreement with

TECHNOMAX BUILDING SOLUTION INDIA PVT LIMITED, 1/382 METTUPALAYAM ROAD, PRESS COLONY POST, COIMBATORE 641 019 having his Blue Metal Quarry at S.F.No.345/3 with District Collector, Coimbatore Distirct Mettupalayam Taluk, Bellathi Vilage, Proceeding R.C. No.

Dated valid upto hereinafter referred as

Party 2, on both the parties agreed for the followings:

For PARTHIBAN EXPLOSIVES

*[Handwritten signature]*

MANAGER

*[Handwritten signature]*

- a) **Party 2** has to place his order by oral or written for requirement of explosives to **Party 1, and Party 1** has to transport the Explosives as per the order, from his Explosive magazine to work site of the **Party 2**.
- b) **Party 1** has to use his explosives and he has to do Blasting work in the Blue Metal Quarry with authorized mines mates, which is issued by the Govt. Of India, Department of Explosives, or authorized permit holder to carry out the blasting work in mines issued under the mines Act.
- c) **Party 2** has to pay the Blasting Charges (including the cost of the Explosive and other expenses incidental to Blasting) to **Party 1** as agreed by the both **Parties 1 & 2**.
- d) **Party 2** has to make his own arrangement to remove all the broken materials in the work site at his own cost and risk.
- e) This agreement is valid from the date of signing by both the parties till the completion of blasting contract work from **Party 2** by giving in writing for clearing the agreement with the acknowledgement by the **Party 1**.

**PARTY 1**

**PARTHIBAN EXPLOSIVES**

LICENCE NO.E/SC/TN/22/22 (E9620)

7. KAMARAJAR ROAD,  
KARAMADAI,  
COIMBATORE 641 104

SIGNATURE

For PARTHIBAN EXPLOSIVES

*Thiruvananthapuram*  
Proprietor.

**PARTY 2**

**TECHNOMAX BUILDING SOLUTION INDIA PVT LTD.,**

1/382, METTUPALAYAM ROAD

PRESSCOLONY POST,  
COIMBATORE 641 019.

SIGNATURE

*G. S. Srinivasan*

**WITNESS:**

1. *M. S. Srinivasan*  
S/o. C. Mani  
Site no 63, Pansurathinagar  
Ertu, P. A. Aruntes Road
2. *CBC. 6.*



தமிழ்நாடு தமிழ்நாடு TAMIL NADU

Rs.20/-

K. Balaji

K. BALAJI 38AB 417940

STAMP VENDOR LICENCE NO-12/2015/1/2015  
PERIYARACKENPALAYAM, COIMBATORE-20  
TAMIL NADU

1420A  
17.10.2017

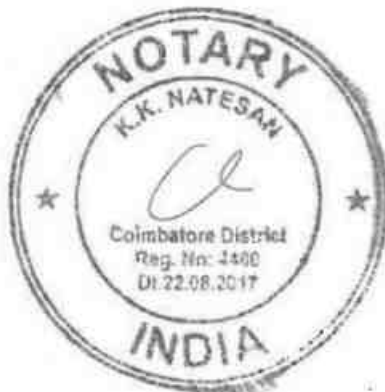
Raju Techno Max  
Karamadai.

**Affidavit for obtaining EC from DEIAA**

I, Tvl. Technomax Building Solution India Pvt.Ltd, Thiru.R.Raju (Managing Director), residing at No.1/382, Mettupalayam Road, Mathampalayam, Press Colony (Po), Coimbatore District – 641 019

1. Our Rough Stone & Gravel quarry over an extent of 1.45.8Ha (Out of 2.06.5) Ha of Own Patta land in S.F.No.345/3 (Part) of Bellathi Village, Mettupalayam Taluk, Coimbatore District, Tamilnadu State

For Technomax  
Building Solution India Pvt. Ltd.  
Managing Director







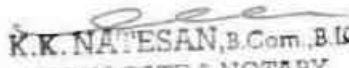
operation and while transporting the mined out material to our manufacturing unit/needed Customers/project sites.

11. We declare that we shall execute all social (CSR) and environmental commitment without fail.
12. We declare that we will deploy RTO certified excavators and trucks for our quarry operation/transportation of mined out material to our manufacturing unit/needed Customers/project sites in order to control the emission.
13. We declare that we will load minimum quantity of quarried material in the trucks and will not cause any damage to the roads and will maintain the Village road during quarry operation.
14. We declare that we will control the spillage of material on transportation by covering the truck with tarpaulin and will sprinkle water to suppress the dust arise out of quarrying and transportation.
15. We declare that we will operate only in the area where mining lease/EC is granted and will not deviate from the conditions stipulated there in the ML/EC.

Notary Sign & Seal

For Technomax  
Quarry Owner Sign  
Building Solutions Pvt. Ltd.  
  
(R. Raju)  
Director



  
K.K. NATESAN, B.Com., B.L.  
ADVOCATE & NOTARY  
Coimbatore District  
7, Jawans Bhavan, Ground Floor,  
Coimbatore - 641 018.  
Cell. 94437 10112



Government of India  
Ministry of Environment, Forest and Climate Change  
(Issued by the State Environment Impact Assessment  
Authority(SEIAA), Tamil Nadu)

To,

The Proprietor  
THIRU S GNANASEKARAN  
Chikkarampalayam Village -641697

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/TN/MIN/52151/2020 dated 30 Jun 2022. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC22B001TN166408
2. File No.	7029
3. Project Type	New
4. Category	B1
5. Project/Activity including Schedule No.	1(a) Mining of minerals
6. Name of Project	S.Palanisamy, Rough stone and Gravel quarry over an Extent of 1.55.0 Ha
7. Name of Company/Organization	THIRU S GNANASEKARAN
8. Location of Project	Tamil Nadu
9. TOR Date	06 Oct 2020

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 17/08/2022

(e-signed)  
Thiru.Deepak S.Bilgi  
Member Secretary  
SEIAA - (Tamil Nadu)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,  
and Virtuous Environmental Single-Window Hub)





THIRU.DEEPAK S.BILGI, I.F.S.,  
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT  
ASSESSMENT AUTHORITY – TAMIL NADU

3rd Floor, Panagal Maaligai,  
No.1, Jeenis Road, Saidapet,  
Chennai-15.

Phone No. 044-24359973

Fax No. 044-24359975

**ENVIRONMENTAL CLEARANCE**

**Lr.No.SEIAA-TN/F.No.7029/1(a)/EC.No:5171/2021 dated: 26.07.2022**

**Sub:** SEIAA, TN – Proposed Rough stone & Gravel quarry lease over an extent of 1.55.0Ha in S.F.No.435/2B2, 435/2C, 435/2D, 435/2B1 & 435/2E Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu by Thiru.S.Palanisamy – under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006 issue of Environmental Clearance – Regarding.

- Ref:**
1. Your application submitted Terms of Reference dated: 09.08.2019.
  2. TOR Issued vide letter No.SEIAA.TN/F.No.7029/SEAC/ToR-782/2020 dated 06.10.2020
  3. Public Hearing conducted on 31.08.2021
  4. Online Proposal No. SIA/TN/MIN/52151/2022 Dt. 22.10.2021
  5. Project proponent submitted EIA Report to SEIAA-TN on 25.10.2021
  6. Minutes of the 291<sup>st</sup> SEAC meeting held on 01.07.2022.
  7. Minutes of the 536<sup>th</sup> SEIAA meeting held on 26.07.2022

**Details of Minor Mineral Activity:-**

This has reference to your application 4<sup>th</sup> & 5<sup>th</sup> cited. The proposal is for obtaining Environmental Clearance for mining / quarrying of minor minerals based on the particulars furnished in your application as shown below.

  
MEMBER SECRETARY  
SEIAA-TN

Sl. No.	Details of the proposal	Data furnished
1.	Name of the Owner/Firm	Thiru.S.Palanisamy S/o. Samappagowder No. 2/246, Kannarpalayam Karamadi Coimbatore
2.	Type of quarrying (Savudu/Rough Stone/Sand/Granite)	Rough Stone and Gravel
3.	S.F No. Of the quarry site with area break-up	435/2B2, 435/2C, 435/2D, 435/2B1 & 435/2E
4.	Village in which situated	Chikkarampalayam
5.	Taluk in which situated	Mettupalayam
6.	District in which situated	Coimbatore
7.	Extent of quarry (in ha.)	1.55.0Ha
8.	Latitude & Longitude of all corners of the quarry site	11°14'59.12"N to 11°15'04.96"N 76°59'35.03"E to 76°59'41.20"E
9.	Topo Sheet No.	58 - A/15
10.	Type of mining	Opencast Mechanized Mining
11.	Period of quarrying proposed	5 years
12.	Production (Quantity in m <sup>3</sup> )	81738m <sup>3</sup> Rough stone and 11496m <sup>3</sup> of Gravel
13.	Depth of quarrying	27 m BGL
14.	Depth of water table	55m – 60m BGL
15.	Man Power requirement per day:	18 Nos.
16.	Source of Water Requirement	water vendors & Bore well
17.	Water requirement:	3.5KLD
	1. Drinking & domestic purposes (in KLD)	1.2KLD
	2. Dust suppression , Green Belt &Wet Drilling (in KLD)	1.5 KLD 0.8 KLD
18.	Power requirement	

MEMBER SECRETARY  
SEIAA TN

	a. Domestic purpose b. Industrial Purpose	TNEB 500Liters of HSD
19.	Whether any habitation within 300m distance	No
20.	Precise area communication approved by the, District Collector, with date	Rc.No.329/Kanimam/2018, dated 11.01.2019
21.	Mining Plan approved by Assistant Director, Department of Geology and Mining with date	Rc.No.329/Mines/2018, dated 04.02.2019
22.	Assistant Director, Department of Geology and Mining 500m cluster letter	Rc.No.329/Mines/2018, dated 08.04.2019
23.	VAO certificate regarding 300m radius cluster	Letter dt: 25.04.2019
24.	Project Cost (excluding EMP cost)	Rs.27.07 Lakh
25.	EMP cost	Capital Cost - Rs.11.30Lakhs Recurring Cost - Rs.18.92 Lakhs
26.	CER cost	Rs.5 Lakhs
27.	ToR Issued details	<b>For Issued</b> letter No. SEIAA-TN/F. No. 7029/SEAC/ToR-782/2020 dated 06.10.2020.
28.	Public Hearing Details	<b>Public hearing</b> conducted on: 31.08.2021
29.	EIA Report Received	EIA received on : <b>25.10.2021</b>
30.	<b>Validity:</b> <b>This Environmental Clearance is granted for the production in 81738m<sup>3</sup> Rough stone and 11496m<sup>3</sup> of Gravel for the period of 5 Years from the date of execution of the mining lease and ultimate depth of mining 27m BGL.</b>	

The Proponent has furnished affidavit in (dt: 14.05.2019) Hundred Rupees stamp paper attested by the Notary stating that

  
**MEMBER SECRETARY**  
**SEIAA-TN**  


I, Thiru.S.Palanisamy, S/o. Samappagowder, No. 2/246, Kannarpalayam, Karamadi, Coimbatore, solemnly declare and sincerely affirm that:

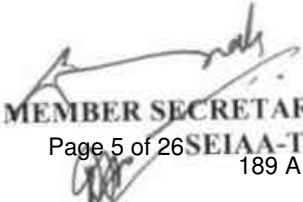
We have applied for getting Environment Clearance to SEIAA, Tamil Nadu for quarry lease for Proposed Rough stone & Gravel quarry lease over an extent of 1.55.0Ha in S.F.No.435/2B2, 435/2C, 435/2D, 435/2B1 & 435/2E Chikkampalayam Village, Mettupalayam Taluk, Coimbatore District District, Tamil Nadu.

1. I swear to state and confirm that within 10km radius of the quarry site, we have applied for environmental clearance, none of the following is situated
  - a. Protected areas notified under the wild life (Protection) Act, 1972
  - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and Control of Pollution) Act 1974.
  - c. Eco-Sensitive areas as notified
  - d. Interstate boundaries and international boundaries within 5km radius from the boundary of the proposed site.
2. I will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities.

CER Activity	Project Cost (Rs. In Lakhs)	CER Cost 2.0% of the project cost (Rs. In Lakhs)
Developing the library/furniture facilities in Government school	27.07	0.54
Total Cost Allocation	27.07	0.54

3. I solemnly declare & affirm that there is few following quarries within 500m radius from the periphery of my quarry site details as shown below.

S. No	Name of the Owner	S.F.Nos	Extent (in Hect)	Lease Status
1	Thiru.S.palanisamy	435/2B2, 2C, 2D, 2B1 & 2E	1.55.0	Applied
2	Thiru.P.Bagiyavathy	428/2, 429/1 & 2	1.81.5	Existing
3	Thiru.R.K.Palanisamy	341/3	4.02.0	Existing
4	Thiru.R.Ganesan	462/2A, 2B,	1.91.5	Existing

  
**MEMBER SECRETARY**  
 SEIAA-TN  
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		463/1, 2, 466/2B		
5	Thiru.Jeevarathinam	460/1B	0.61.5	Lease Period Expired
		<b>Total</b>	<b>9.91.5</b>	

4. There will not be hindrance or disturbance to the public during transportation. No villages are enrooted during transportation.
5. There are no habitations within 300m radius from the periphery of my quarry.
6. I swear that Greenbelt will be carried out during the course of quarrying operation and maintained.
7. The required insurance will be taken in the name of the laborers working in my quarry site.
8. Approach road from the main road to quarry will be constructed and maintained in a good condition for the haulage of quarry materials and machineries.
9. I will not engage any child labor in our quarry site and I aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided to all the laborers working in my quarry.
11. No permanent structures, temples etc., are located within 500m radius from the periphery of my quarry,

I ensure to do all the social and Environment commitment as mentioned in the Mining Plan to the best of my knowledge.

**Details of Quarries located within 500M radius from the proposed quarry:**

The Project Proponent has submitted a copy of the letter obtained from the Assistant Director Department of Geology & Mining, Coimbatore District in his letter Rc.No.329/Mines/2018, dated 08.04.2019 has stated that the details of other quarries within a radius 500m from the boundary of the proposed quarry site as follows:

Sl. No	Name and Address of the lessee	R.C.No & date	S.F.No.	Extent in Hect	Lease Period	Status
1	Tmt.P.Bagiyava thy	756/Mines/2015 Dated 17.10.2017	428/2, 429/1, 429/2	1.81.5	17.10.2017 to 16.10.2022	Existing quarry lease
2	Thiru.R.K.Palanisa my	219/Mines/2015 dated:01.06.2016	341/3	4.02.0	01.06.2016 to	Existing quarry

  
**MEMBER SECRETARY**  
**SEIAA-TN**



					31.05.2021	lease
3	Thiru. R. Ganesan	794/Mines/2011 dated:08.06.2016 2B,	462/2A, 2B, 463/1, 463/2, 466/2B	1.91.5	17.09.2016 to 16.09.202	Existing quarry lease
4	Jeevarathinam	522/09/MM1 dated 10.12.2009	460/1B	0.61.5	10.12.2009 to 09.12.2014	Existing quarry lease
			<b>Total</b>	<b>8.36.5</b>		

**Appraisal by SEAC:-**

**Proposed Rough stone & Gravel quarry lease over an extent of 1.55.0Ha in S.F.No.435/2B2, 435/2C, 435/2D, 435/2B1 & 435/2E Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu by Thiru.S.Palanisamy - For Environmental Clearance. (SIA/TN/MIN/52151/2022 Dt. 22.10.2021)**

The proposal was placed for appraisal in this 291<sup>st</sup> meeting of SEAC held on 1.7.2022. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The project proponent, Thiru.S.Palanisamy has applied for Environmental Clearance for the proposed Rough stone & Gravel quarry lease over an extent of 1.55.0 Ha in S.F.No 435/2B2, 435/2C, 435/2D, 435/2B1 & 435/2E Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
3. ToR issued vide Lr No. TN/F.No.7029/SEAC/TOR-782/2020 Dt. 06.10.2020.
4. Public hearing conducted on 30.8.2021.
5. As per the mining plan, the lease period is for 5 years. The mining plan is for the period of 5 years. The total production for 5 years not to exceed 81738 m<sup>3</sup> Rough stone and 11496 m<sup>3</sup> of Gravel. The annual peak production 19250 m<sup>3</sup> Rough stone (3<sup>rd</sup> year) and 5376 m<sup>3</sup> of Gravel (3<sup>rd</sup> year) with ultimate depth of 27 m BGL.

The proposal has placed in 291<sup>st</sup> SEAC meeting held on 1.7.2022. Based on the presentation and documents furnished by the project proponent, **SEAC decided to recommend the proposal for**


  
**MEMBER SECRETARY**  
**SEIAA-TN**  
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**the grant of Environmental Clearance** subject to the condition in Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

1. **The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier.**
2. Tree plantation & fencing around the mine lease area shall be completed before starting the production.
3. The mine manager and other statutory competent persons such as blaster (or) mine mate shall be appointed before the commencement of mining operation.
4. The PP shall ensure that only controlled blasting operation involving line drilling and muffle blasting is carried out in the quarry such that no fly rock travel beyond 30 m from the blast site.
5. The PP shall carry out maximum of two rounds of controlled blast only per day, restricted to the maximum of 50 Nos of holes per round with maintaining maximum charge per delay of not exceeding 0.375 kg/round using jack hammer drilled holes (32-34 mm dia & 1.5 m length) to ensure the environmentally acceptable blasting operation. The PP shall also ensure an interval of atleast 30 minutes is maintained between these rounds of blast.
6. 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 adhere EMP furnished.
7. As accepted by the Project proponent the CER cost is Rs. 10 lakhs and the amount shall be spent for the Panchayat Union Primary School, Chikkarampalayam, as committed, before obtaining CTO from TNPCB.

#### **ANNEXURE - I**

1. The proponent shall mandatorily appoint the required number of statutory officials and the competent persons in relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferrous Mines Regulations, 1961.
2. The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
3. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.


  
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4. The Project proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.
5. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
6. The proponent shall ensure that the slope of dumps is suitably vegetated in scientific manner with the native species to maintain the slope stability, prevent erosion and surface run off. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps.
7. Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
8. The Project proponent shall carry out slope stability study by a reputed academic/research institution such as NIRM, IIT, Anna University for evaluating the safe slope angle if the proposed dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Chennai as well as SEIAA, Tamil Nadu .
9. The Proponent shall ensure that the Noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures undertaken accordingly. The report on the periodic monitoring shall be submitted to TNPCB once in 6 months.
10. Proper barriers to reduce noise level and dust pollution should be established by providing

  
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greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.

11. The PP shall carryout the plantation as committed within one year after commencement of operation.
12. 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 in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
13. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted with proper spacing 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
14. **Noise and Vibration Related:** (i) The Proponent shall carry out only the Controlled Blasting operation using NONEL shock tube initiation system during daytime. Usage of other initiation systems such as detonating cord/fuse, safety fuse, ordinary detonators, cord relays, should be avoided in the blasting operation. The mitigation measures for control of ground vibrations and to arrest fly rocks should be implemented meticulously under the supervision of statutory competent persons possessing the I / II Class Mines Manager / Foreman / Blaster certificate issued by the DGMS under MMR 1961, appointed in the quarry. No secondary blasting of boulders shall be carried out in any occasions and only the Rock Breakers (or) other suitable non-explosive techniques shall be adopted if such secondary breakage is required. The Project proponent shall provide required number of the security sentries for guarding the danger zone of 500 m radius from the site of blasting to ensure that no human/animal is present within this danger zone and also no person is allowed to enter into (or) stay in the danger zone during the blasting. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.

  
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15. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
16. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
17. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
18. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project proponent shall ensure that the road may not be damaged due to transportation of the quarried rough stones; and transport of rough stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
19. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
20. After mining operations are completed, the mine closure activities as indicated in the mine closure plan shall be strictly carried out by the Proponent fulfilling the necessary actions as assured in the Environmental Management Plan.
21. The Project proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition that is fit for the growth of fodder, flora, fauna etc.
22. The Project proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
23. The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamil Nadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.

  
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24. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD(Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
25. The Project proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project proponent liable for legal action in accordance with Environment and Mining Laws.
26. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance, as per the existing law from time to time.
27. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
28. The Project proponent shall install a Display Board at the entrance of the mining lease area/abutting the public Road if applicable, about the project as per Appendix –II of this Minutes.

**Appendix -I**  
**List of Native Trees Suggested for Planting**


No	Scientific Name	Tamil Name	Tamil Name
1	<i>Acacia marmosia</i>	Vilvam	விவம்
2	<i>Adenanthura pavonina</i>	Marjadi	மரஜாடி
3	<i>Albizia lebbekii</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Urali	உரலி
5	<i>Bauhinia purpurina</i>	Manturani	மதுரை
6	<i>Bauhinia racemosa</i>	Aathu	ஆது
7	<i>Bauhinia tomentosa</i>	Iruvattu	இருவாது
8	<i>Buchanania assiatica</i>	Kattuna	கட்டுநா
9	<i>Borassus flabellifer</i>	Parai	பரை
10	<i>Butea monosperma</i>	Marakkamaram	மரக்காமம்
11	<i>Bobax caba</i>	Bavu, Sevvelavu	பீலி
12	<i>Calophyllum inophyllum</i>	Pannai	பன்னை
13	<i>Cassia fistula</i>	Sarakondrai	சரகண்டரை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கண்டரை
15	<i>Chloroxylon swietenia</i>	Purnamaram	புர்ணமரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Marjallavu	கொங்கு, மரஜாடி
17	<i>Cordia alliodora</i>	Narundi	நாருண்டி
18	<i>Creticus adansonii</i>	Maivalingum	மாலைவிலங்கம்
19	<i>Dillenia indica</i>	Uva, Usha	உவா
20	<i>Dillenia pentagyna</i>	SuruUva, Sitravatha	சூறு உவா
21	<i>Diospyros sebenaia</i>	Karungali	கரங்கலி
22	<i>Diospyros chloroxylon</i>	Vaganai	வகனா
23	<i>Ficus amplissima</i>	Kallechi	கல்லைச்சி
24	<i>Hibiscus tiliaceus</i>	Aatrupovarasu	ஆத்ரபுவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயிலி
27	<i>Lantana camara/indica</i>	Othman	ஓதமன்
28	<i>Lagerstromia speciosa</i>	Poo Marudhu	பூ மரூது
29	<i>Laportea tetraphylla</i>	Neikottamaram	நைகொட்டமரம்
30	<i>Limonia acidissima</i>	Vila maram	வில்லி மரம்
31	<i>Litsea glutinosa</i>	Pinnappattai	பின்னப்பாட்டை
32	<i>Madhuca longifolia</i>	Iluppai	இலுப்பை
33	<i>Marsdenia tomentosa</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimosaops elengi</i>	Magathamaram	மாத்தாமரம்
35	<i>Mitrasena parvifolia</i>	Kadambai	கடம்பை
36	<i>Morinda pubescens</i>	Nura	நூர்
37	<i>Morinda citrifolia</i>	Vellai Nura	வலை நூர்
38	<i>Phoraria sylvestris</i>	Eechai	ஏச்சை
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

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Environmental Clearance for a period of 5 years confining to the depth upto 27m BGL and the quantity upto 81738 m<sup>3</sup> Rough stone and 11496 m<sup>3</sup> of Gravel as per approved mining plan issued by the Department of Geology & Mining subject to the standard conditions as per Annexure - (I) of SEAC minutes, other normal conditions stipulated by MOEF&CC & all other specific conditions as recommended by SEAC in addition to the following conditions.

1. As accepted by the Project proponent the revised CER cost is Rs. **10 Lakhs** and the amount shall be spent for the following committed activities in for the Panchayat Union Primary School, Chikkarampalayam, before obtaining CTO from TNPCB.
2. The proponent shall shift (or) shall leave safety distance for the low/high tension line in the proposed mining area accordingly as recommended in precise area communication & Mine plan approval before executing mine lease and obtaining CTO from the TNPCB.
3. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission slope stability study for the ultimate depth as per approved mining plan conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc.
4. The AD/DD, Dept. of Geology & Mining & Director General of Mine safety shall ensure strict compliance and implementation of bench wise recommendations/action plans as recommended in the scientific slope stability study of the reputed research & Academic Institutions as a safety precautionary measure to avoid untoward accidents during mining operation.
5. No trees in the area should be removed and all the trees numbered and protected. In case trees fall within the proposed quarry site the trees may be transplanted in the Greenbelt zone.
6. The proponent shall ensure that the activities should in no way result in disturbance to forest and trees in vicinity.
7. The proponent shall ensure that the operations shall not result in loss of soil biological properties and nutrients.
8. The activity should not result in CO<sub>2</sub> release and temperature rise and add to micro climate alternations.
9. The mining closure plan should be strictly adhered with appropriate soil rehabilitation measures to ensure ecological stability of the area.

  
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10. Reclamation/Restoration of the mine site should ensure that the Geotechnical, physical, chemical properties are sustainable that the soil structure composition is buildup, during the process of restoration.
11. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife.
12. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem.
13. The proponent shall ensure that the activity does not disturb the water bodies and natural flow of surface and ground water, nor cause any pollution, to water sources in the area.
14. The proponent shall ensure that the activities undertaken should not result in carbon emission, and temperature rise, in the area.
15. The proponent shall ensure that the mine closure plan are followed as per mining plan and the mine restoration should be done with native species, and site restored to near original status.
16. The proponent shall ensure that Monitoring be carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads.
17. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services.
18. The proponent shall ensure that the activities shall not disturb the agro biodiversity and agro farms.
19. The proponent shall ensure that the activity shall not result in invasion by invasive alien species.
20. Actions to be taken to promote agro forestry, mixed plants to support biodiversity conservation in the mine restoration effort.
21. The proponent shall ensure that activity shall not deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community nor result in eutrophication of soils and water.
22. The activities should not disturb the soil properties and seed and plant growth. Soil amendments as required to be carried out, to improve soil health
23. Bio remediation using an microorganisms should be carried out to restore the soil environment to enable carbon sequestration.

  
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24. The proponent shall ensure that all mitigation measures listed in the EIA/EMP are taken to protect the biodiversity and natural resources in the area.
25. The proponent shall ensure that the activities should not impact the water bodies/wells in the neighbouring open wells and bore wells.
26. The proponent shall ensure that the activities should not in any way affect the water quantity and quality in the open wells and bore wells in the vicinity, nor impact the water table and levels.
27. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) to be planted.
28. The proponent shall ensure that the activities should not disturb the resident and migratory birds.
29. The proponent shall ensure the area should be restored and rehabilitated with native trees as recommended SEAC Minutes (in Appendix).
30. The proponent shall ensure that the mine restoration should be done using mycorrhizal VAM, vermicasting, Biofertilizers to ensure soil health and, biodiversity conservation.
31. The proponent shall ensure that the topsoil should be protected and used in planting activities in the area.
32. The proponent shall ensure that the activities should not disturb the river flow, nor affect the Odai, Water bodies, Dams in the vicinity.
33. The proponent shall ensure that the activities should not disturb the vegetation and wildlife in the adjoin reserve forests and areas around.
34. The proponent should ensure that there is no disturbance to the agriculture plantations, social forestry plantations, waste lands, forests, sanctuary or national parks. There should be no impact on the land, water, soil and biological environment and other natural resources due to the mining activities.
35. The proponent shall ensure that topsoil to be utilized for site restoration and Green belt alone within the proposed area.
36. The proponent shall ensure that activities should not impact greenlands/grazing fields of all types surrounding the mine lease area which are food source for the grazing cattles.

**Part-A: Conditions to be Complied before commencing mining operations:-**

1. The project proponent shall advertise in at least two local newspapers widely

  
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circulated in the region, one of which shall be in the vernacular language informing the public that

- I. The project has been accorded Environmental Clearance.
- II. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
- III. Environmental Clearance may also be seen on the website of the SEIAA.
- IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.

2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.

  
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13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
15. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
16. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
17. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
18. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
19. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, Gol on 16.11.2009.
20. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
  - i. Roads shall be graded to mitigate the dust emission.
  - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
21. The following measures are to be implemented to reduce Noise Pollution
  - i. Proper and regular maintenance of vehicles and other equipment
  - ii. Limiting time exposure of workers to excessive noise.
  - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
  - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
  - v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.

  
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22. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
23. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.
24. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
25. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
26. The following measures are to be adopted to control erosion of dumps:-
  - i. Retention/ toe walls shall be provided at the foot of the dumps.
  - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
27. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous& other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCB.
28. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
29. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
30. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
31. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out

  
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- around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
32. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
  33. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
  34. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
  35. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
  36. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
  37. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
  38. Bunds to be provided at the boundary of the project site.
  39. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
  40. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
  41. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
  42. The Project Proponent shall provide solar lighting system to the nearby villages.
  43. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
  44. Safety equipments to be provided to all the employees.
  45. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai

  
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46. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
47. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.
48. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
49. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
50. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
51. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
52. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
53. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
54. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
55. All the commitment made by the project proponent in the proposal shall be strictly followed.
56. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
57. The Project proponent has to strictly comply the outcome/direction of the Hon'ble NGT, Principle Bench, New Delhi in the O.A No.186 of 2016 (M.A.No.350/2016), O.A. No.200/2016, O.A.No.580/2016 (M.A.No.1182/2016), O.A.No.102/2017, O.A.No.404/ 2016 ( M.A.No. 758/2016, M.A. No. 920 /2016, M.A.No.1122/2016, M.A.No. 12/2017 &

  
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M.A.No.843/2017), O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).

58. All required sanitary and hygienic measures should be in place before starting construction activities and they have to be maintained throughout the construction phase.
59. The company shall stress upon the preventive aspects of occupational health.
60. A separate environment and safety management cell with qualified staff shall be set up before commissioning of construction activities and shall be retained throughout the lifetime of the industry, for implementation of the stipulated environmental safeguards.
61. A scientific site/ ecological rehabilitation and restoration plan on long term basis should be drawn to carryout restoration with native species and Bio diversity.
62. The Green/Blue plan should guide the restoration of the site. The rehabilitation/restoration plan should be submitted to SEIAA-TN within one month. If applicable.
63. The existing water bodies should not be disturbed to ensure sustainable environment for aquatic life forms.
64. The proponent should completely implement all environmental pollution control measures as detailed in the EIA report and in the additional report.
65. Avenue plantation wherever needed has to be carried out along the route for dust suppression.
66. The green belt developed for the prevention of dust pollution should not form a part of the larger green belt development envisaged in the EIA report.
67. Regular monitoring and check up for pulmonary and carcinogenic diseases to be carried out regularly, not only for the workers involved in the mines but also to the people in the villages adjoining the mines. Interaction with the Primary Health Centre & district medical officer should be on regular basis to monitor the incidence of the diseases if any and to provide suitable medical facility for the patients.
68. Monitoring of well water levels and water quality of the wells in the locations furnished in the EIA report shall be done during pre-monsoon and post monsoon period and results submitted to the Regional Office of MoEF, Chennai and SEIAA.
69. Monitoring of water quality and air quality in and around the project site in the selected monitoring points as mentioned in the EIA report shall be continued regularly involving Academic Institutions.
70. Hydro geological study including infiltration test shall be conducted by any reputed agency to estimate leachate quantity.

  
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71. Regular medical check-up for mine workers and nearby residents around the project site involving community medical centre/NIMH shall be conducted.
72. As per norms, the health study should be conducted through competent/approved health organization and report submitted for one year.
73. The effective safe guard measures shall be provided to control particulate dust level in critical areas, transfer points and haul road within the mine area.
74. NOC from the State GWA for drawing ground water shall be obtained, if ground water table is intersected.
75. Green belt shall be provided as per norms of MoEF & CC, GOI, in consultation with local DFO.
76. All the recommendations made in the EIA report of the project shall be effectively implemented.
77. A booklet containing the Dos and Don'ts shall be prepared in vernacular languages for the use of the mine engineers/ managers and the workers to ensure that all necessary environmental, safety and health measures are undertaken.
78. All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.
79. Hydro geological study of the area shall be reviewed annually and report submitted to the Authority. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the operation of the Mining activity.
80. A separate Environmental Management Cell equipped with full fledged laboratory facilities to carry out the various Environmental Management and Monitoring functions shall be set up under the control of a Senior Executive.
81. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF at Chennai, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO<sub>2</sub>, NO<sub>x</sub> or critical sector parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

  
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**Part B: General Conditions:**

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.
3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be


  
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- drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.
  14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
  15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.
  16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
  17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
  18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
  19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining tphe Environmental Clearance.
  20. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
  21. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules,

  
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2006, Wildlife Protection Act, 1972, Forest Conservation Act, 1980, Biodiversity Conservation Act, 2016, the Biological Diversity Act, 2002 and Biological diversity Rules, 2004 and Rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.

22. Any other conditions stipulated by other Statutory/Government authorities shall be complied
23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
24. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.

  
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**Copy to:**

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Principal Secretary to Government, Industries Department, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1<sup>st</sup> & 2<sup>nd</sup> 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 Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai - 32.
7. The District Collector, Coimbatore District.
8. The Commissioner of Geology and Mines, Guindy, Chennai - 32.
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Spare.



Government of India  
Ministry of Environment, Forest and Climate Change  
(Issued by the State Environment Impact Assessment  
Authority(SEIAA), Tamil Nadu)

To,

The owner  
TVL PALANIVEL BLUE METALS INDIA PVT LTD  
chikkarampalayam Mettupalayam -641004

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/TN/MIN/57772/2020 dated 06 Jul 2022. The particulars of the environmental clearance granted to the project are as below.

- |  |   |
|--|---|
| 1. EC Identification No.                   | EC22B001TN155183  |
| 2. File No.                                | 8000  |
| 3. Project Type                            | New   |
| 4. Category                                | B1  |
| 5. Project/Activity including Schedule No. | 1(a) Mining of minerals   |
| 6. Name of Project                         | Tvl. Palanivelsri Blue Metals India Private Limited, Environmental Clearance for our Rough stone and Gravel Quarry project over an Extent of 1.75.5Ha |
| 7. Name of Company/Organization            | TVL PALANIVEL BLUE METALS INDIA PVT LTD   |
| 8. Location of Project                     | Tamil Nadu  |
| 9. TOR Date                                | 18 Feb 2021   |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 24/08/2022

(e-signed)  
Thiru.Deepak S.Bilgi  
Member Secretary  
SEIAA - (Tamil Nadu)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive,  
and Virtuous Environmental Single-Window Hub)





THIRU.DEEPAK S.BILGI, I.F.S.  
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT  
ASSESSMENT AUTHORITY-TAMILNADU  
3<sup>rd</sup> Floor, Panagal Maaligai,  
No.1, Jeenis Road, Saidapet,  
Chennai - 600 015.  
Phone No. 044-24359973  
Fax No. 044-24359975

**ENVIRONMENTAL CLEARANCE**

**Lr.No.SEIAA-TN/F.No.8000/1(a)/EC.No:5176/2022 dated: 29.07.2022**

**Sub:** SEIAA, TN – Proposed Rough Stone and Gravel quarry lease over an extent of 1.75.5 Ha at S.F. No. 428/1A, 60/1B & 61 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu by Tvl. Palanivelsri Blue Metalls India Private Limited – under Category "B1" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006 issue of Environmental Clearance – Regarding.

- Ref:**
1. Your application submitted Terms of Reference dated: 06.11.2020.
  2. TOR Issued vide letter No.SEIAA-TN/F.No.8000/SEAC/ToR-851/2020 Dated:18.02.2021.
  3. Public Hearing conducted on 30.08.2021.
  4. Online Proposal No. SIA/TN/MIN/57772/2020 Dt. 20.10.2021.
  5. Project proponent submitted EIA Report to SEIAA-TN on 22.10.2021.
  6. Minutes of the 292<sup>nd</sup> SEAC meeting held on 07.07.2022.
  7. Minutes of the 538<sup>th</sup> SEIAA meeting held on 29.07.2022.

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for 

**Details of Minor Mineral Activity:-**


This has reference to your application 4<sup>th</sup> & 5<sup>th</sup> cited. The proposal is for obtaining Environmental Clearance for mining / quarrying of minor minerals based on the particulars furnished in your application as shown below.

Sl. No.	Details of the proposal	Data furnished
1.	Name of the Owner/Firm	Tvl.Palanivelsri Blue Metals India Pvt Ltd V.K.Village, Thaneerpandal Coimbatore District - 641004
2.	Type of quarrying (Savudu/Rough Stone/Sand/Granite)	Rough Stone & Gravel
3.	S.F No. Of the quarry site with area break-up	428/1A, 60/1B & 61,
4.	Village in which situated	Chikkarampalayam
5.	Taluk in which situated	Mettupalayam
6.	District in which situated	Coimbatore
7.	Extent of quarry (in ha.)	1.75.5 Ha
8.	Period of quarrying proposed	5 Years
9.	Type of mining	Opencast Mechanized Mining Method
10.	Production (Quantity in m <sup>3</sup> )	Rough stone: 121194m <sup>3</sup> and Gravel: 7038m <sup>3</sup>
11.	Latitude & Longitude of all corners of the quarry site	11°14'56.57"N to 11°15'01.71"N 76°59'18.29"E to 76°59'25.17"E
12.	Topo Sheet No.	58 A/ 16 & A/15
13.	Man Power requirement per day:	21 Employees
14.	Precise area communication approved by the District Collector director with date	Rc. No.634/2018/Kanimam dt: 11.01.2019

  
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15.	Mining Plan approved by the Joint Director of Geology and Mining with date	Rc. No.634/2018/Mines dt: 05.02.2019
16.	Water requirement: 1. Drinking & domestic purposes (in KLD) Dust suppression & Green Belt (in KLD)	3.86 KLD 0.62 KLD Water Vendors 2.7 KLD & 0.54 KLD Existing Bore well
17.	Power requirement: a. Domestic Purpose b. Machinery purpose	- 1,04,914 Liters of HSD (diesel)
18.	Depth of quarrying	30m Below ground level (2m gravel +28m Rough stone )
19.	Depth of water table	60-55m
20.	Whether any habitation within 300m distance	No
21.	Project Cost (excluding EMP cost)	29.13 Lakhs
22.	EMP cost	3.80 Lakhs
23.	CER cost	5 Lakhs
24.	AD mines 500m cluster letter	Rc. No.634/2018/Mines dt: 24.09.2020
25.	VAO certificate regarding 300m radius cluster	VAO letter dt: 12.09.2020
26.	ToR issued	LrNo.SEIAA- TN/F.No.8000/SEAC/ToR-851/2020, Dated: 18.02.2021
27.	Public hearing	30.08.2021
28.	EIA Report Received	EIA received on : 22.10.2021
29.	<b><u>Validity:</u></b>	

  
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for 



	This Environmental Clearance is granted for the production in 1,21,194 m <sup>3</sup> Rough stone and 7,038 m <sup>3</sup> of Gravel for the period of 5 Years from the date of execution of the mining lease and ultimate depth of mining 30m (2m Gravel + 28m Rough Stone) BGL.
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The Proponent has furnished affidavit in stamp paper attested by the Notary stating that

We, Tvl. Palanivelsri Blue Metals India Private Limited, No.19, Gowthamapuri Nagar, V.K. Village, Thaneerpandal, Coimbatore District, solemnly declare and sincerely affirm that:

We have apply for getting Environment Clearance to Appropriate Authorities, Tamil Nadu for quarry lease for quarrying of Rough stone and Gravel Quarry over an extent 1.75.5ha in S.F. No's.428/1A, 60/1B & 61, Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.

1. I swear to state and confirm that within 10km area of the quarry site, I have applied for environment clearance, none of the following is situated.
  - a. Protected areas notified under the wild life (Protection) Act, 1972,
  - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and Control of Pollution) Act, 1974,
  - c. Eco-Sensitive areas as notified,
  - d. Interstate boundaries within 10km radius from the boundary of the proposed site.
2. I will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities. The Company Tvl. Palanivel Sri Blue Metals India Pvt Ltd agrees to spend the below amount towards CER for Panchayat Union Primary School, Vadavalli Village.

Sl.No.	Description	CER Cost INR
1	Renovation of Existing toilet for Boys and Girls	Rs. 5,00,000/-
2	Providing Environment related books	
3	Plantation along the School Boundary @ 200 Nos Trees	

3. The following quarries are located within the radius of 500m from the periphery of my quarry.

  
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a) Existing Quarry

S. No.	Name of the owner	Village & Taluk	S.F. No.	Extent in Ha	Lease Period
1.	Tmt.P.Bagiyavathy	Chikkarampalayam	428/2, 429/1, 429/2	1.81.5	17.10.2017 To 16.10.2022
2.	Technomax building solutions india pvt ltd	Bellathi	345/3	2.65.0	26.10.2018 To 25.10.2023

b) Expired Quarry

S. No.	Name of the owner	Village & Taluk	S.F. Nos.	Extent in Ha)	Lease Period
1	R.Raju	Bellathi	391	2.93.0	22.02.2010 To 21.02.2015
2	R.Venkidusamy	Chikarampalaym	67/2	0.61.0	25.05.2009 To 24.05.2014
3	N.Kandasamy And N.Shanmugam	Chikarampalaym	65/1	0.77.0	24.12.2007 To 23.12.2012
4	M.Krishnasamy	Chikarampalaym	428/1	0.71.0	06.11.2007 To 05.11.2012

c) Abandoned Quarry

S. No.	Name of the owner	Village & Taluk	S.F. Nos.	Extent in Ha)	Lease Period
1	R.Velmani	Chikarampalaym	67/1B	0.63.0	20.04.2005 To 19.04.2010
2	C.N.R.Rajendran	Chikarampalaym	50/1B	0.35.0	22.10.2004 To 21.10.2009
3	K.Murugesan	Chikarampalaym	68/2	0.84.0	12.06.2004 To 11.06.2009
4	T.Rajendiran	Chikarampalaym	67/1A	0.85.0	26.01.2004 To 25.01.2009

  
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d) Proposed Quarry

S. No.	Name of the owner	Village & Taluk	S.F. Nos.	Extent in Ha)	Classification Of land
1	Tvl.Palanivel Sri Blue Metals india Private limited	Chikarampalaym, Village Mettupalayam Taluk	428/1A, 60/1B & 61	1.75.5	Patta land

e) Future Proposed Quarry

S. No.	Name of the owner	Village & Taluk	S.F. Nos.	Extent in Ha)	Classification Of land
--- Nil ---					

4. There will not be hindrance or disturbance to the people living during quarrying and transportation.
5. There is no approved habitation within 300m radius from the periphery of my quarry.
6. I swear that afforestation will be carried out during the course of quarrying operation and maintained.
7. The required insurance will be taken in the name of the laborers working in my quarry site.
8. The approach road from the main road to quarry is already exists and same will be maintained in a good condition for the haulage of quarry materials and machineries.
9. I will not engage any child labor in my quarry site and I aware that engaging child labor is punishable under the law.
10. All types of safety/ protective equipment will be provided to all the laborers working in my quarry.
11. No permanent structures, temples etc., are located within 300m radius from the periphery of my quarry.

I ensure to do all the social and Environment commitment as mentioned in the Mining Plan to the best of my knowledge.

**Details of Quarries located within 500M radius from the proposed quarry:**

The Project Proponent has submitted a copy of the letter obtained from the Assistant Director Department of Geology & Mining, Coimbatore District in his letter Rc.No.634/Mines/2018, dated 24.09.2020 has stated that the details of other quarries within a radius 500m from the boundary of the proposed quarry site as follows:

  
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i. Existing Quarry

Sl. No.	Name of the owner	Village & S.F. Nos.	Extent in Hect.	Lease period	Remarks
1.	Tmt.P.Bagiyavathy	Chikkarampalayam 428/2, 429/1, 429/2	1.81.5	17.10.2017 To 16.10.2022	
2.	Technomax building solutions india pvt ltd	Bellathi 345/3	2.65.0	26.10.2018 To 25.10.2023	

ii. Expired Quarry

Sl. No.	Name of the owner	Village & S.F. Nos.	Extent in Hect.	Lease period	Remarks
1	R.Raju	Bellathi 391	2.93.0	22.02.2010 To 21.02.2015	
2	R.Venkidusamy	Chikarampalayam 67/2	0.61.0	25.05.2009 To 24.05.2014	
3	N.Kandasamy And N.Shanmugam	Chikarampalayam 65/1	0.77.0	24.12.2007 To 23.12.2012	
4	M.Krishnasamy	Chikarampalayam 428/1	0.71.0	06.11.2007 To 05.11.2012	

iii. Abandoned Quarry

Sl. No.	Name of the owner	Village & S.F. Nos.	Extent in Hect.	Lease period	Remarks
1.	R.Velmani	Chikarampalayam 67/1B	0.63.0	20.04.2005 To 19.04.2010	
2.	C.N.R.Rajendran	Chikarampalayam 50/1B	0.35.0	22.10.2004 To 21.10.2009	
3.	K.Murugesan	Chikarampalayam 68/2	0.84.0	12.06.2004 To 11.06.2009	

  
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for  


4	T.Rajendiran	Chikarampalayam 67/1A	0.85.0	26.01.2004 To 25.01.2009	
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iv. Proposed Quarry

Sl. No.	Name of the owner	Village & S.F. Nos.	Extent in Hect.	Lease period	Remarks
1	Tvl.Palanivel Sri Blue Metals india Private limited	Chikarampalayam, 428/1A, 60/1B & 61	1.75.5	-	Subject Area

v. Future Proposed Quarry

Sl. No.	Name of the owner	Village & S.F. Nos.	Extent in Hect.	Lease period	Remarks
--- Nil ---					

Appraisal by SEAC:-

Proposed Rough Stone and Gravel quarry lease over an extent of 1.75.5 Ha at S.F. No. 428/1A, 60/1B & 61 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu by Tvl. Palanivelsri Blue Metalls India Private Limited- For Environmental Clearance. (SIA/TN/MIN/57772/2020 dated 20.10.2021)

The proposal was placed in this 292<sup>nd</sup> Meeting of SEAC held on 07.07.2022. The details of the project furnished by the proponent are available in the website (www.parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, Tvl. Palanivelsri Blue Metalls India Private Limited has applied for Environmental Clearance for the proposed Rough stone and Gravel quarry lease over an extent of 1.75.5 Ha at S.F. No. 428/1A, 60/1B & 61 of Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.

  
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3. The quarry was operated earlier with prior EC during the period of 2014-2019 for a depth of 15 m against the permitted depth of 17 m.
4. The lease period is for 5 years. As per mining plan, the total quantity of recoverable should not exceed 1,21,194 cu.m of Rough Stone and 7,038 cu.m of Gravel with an ultimate depth of mining is 30m (2m Gravel + 28m Rough Stone) below ground level as per approved ToR. The annual peak production as per mining plan is 34,085 of rough stone & 7038cu.m of gravel .
5. ToR was issued in LrNo.SEIAA-TN/F.No.8000/SEAC/ToR-851/2020, Dated: 18.02.2021.
6. Public hearing was conducted on 30.08.2021.

Based on the presentation and documents furnished by the project proponent, SEAC decided to **recommend the proposal for the grant of Environmental Clearance for an annual peak production of 34,085 cu.m of rough stone & 7038 cu.m of gravel**, subject to the standard conditions as per the Annexure of this minutes & normal conditions stipulated by MOEF&CC, in addition to the following specific conditions:

1. The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier, vide MoEF&CC notification No. S.O. 1807(E) Dt12.4.2022.
2. **The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier.**
3. The mine manager and other statutory competent persons such as blaster (or) mine mate shall be appointed before the commencement of mining operation as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961.
4. **The Project Proponent (PP) shall submit an 'Action Plan' for carrying out the realignment of the benches in the existing quarry pits and shall also furnish a 'Slope stability action plan' incorporating the haul road ramp keeping the benches intact for the proposed quarrying operation to the office of concerned AD (Mines) before obtaining CTO from TNPCB.**
5. **The PP shall ensure that only controlled blasting technique using NONEL initiation system involving line drilling / muffle blasting is carried out in the quarry such that no fly**

  
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rock travel beyond 20 m from the blast site and the blast-induced ground vibration (PPV) measured in the structures not belonging to the owner, located at a distance of 670 m shall not exceed 2 mm/s.

6. 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 adhere to the EMP as committed.
7. As accepted by the Project Proponent the CER cost is Rs. 5 lakhs and the amount shall be spent to the committed activities for Panchayath Union Primary School, Vadavalli Village before obtaining CTO from TNPCB.

#### ANNEXURE - I

1. The proponent shall mandatorily appoint the required number of statutory officials and the competent persons in relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferrous Mines Regulations, 1961.
2. The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
3. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
4. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short Term Permit (STP), Query license or any other name.
5. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued

  
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- by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
6. The proponent shall ensure that the slope of dumps is suitably vegetated in scientific manner with the native species to maintain the slope stability, prevent erosion and surface run off. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps.
  7. Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.
  8. The Project Proponent shall carry out slope stability study by a reputed academic/research institution such as NIRM, IIT, Anna University for evaluating the safe slope angle if the proposed dump height is more than 30 meters. The slope stability report shall be submitted to concerned Regional office of MoEF&CC, Govt. of India, Chennai as well as SEIAA, Tamilnadu.
  9. The Proponent shall ensure that the Noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures undertaken accordingly. The report on the periodic monitoring shall be submitted to TNPCB once in 6 months.
  10. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
  11. 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 in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
  12. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted in proper escapements 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.

  
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13. **Noise and Vibration Related:** (i) The Proponent shall carry out only the Controlled Blasting operation using NONEL shock tube initiation system during daytime. Usage of other initiation systems such as detonating cord/fuse, safety fuse, ordinary detonators, cord relays, should be avoided in the blasting operation. The mitigation measures for control of ground vibrations and to arrest fly rocks should be implemented meticulously under the supervision of statutory competent persons possessing the I / II Class Mines Manager / Foreman / Blaster certificate issued by the DGMS under MMR 1961, appointed in the quarry. No secondary blasting of boulders shall be carried out in any occasions and only the Rock Breakers (or) other suitable non-explosive techniques shall be adopted if such secondary breakage is required. The Project Proponent shall provide required number of the security sentries for guarding the danger zone of 500 m radius from the site of blasting to ensure that no human/animal is present within this danger zone and also no person is allowed to enter into (or) stay in the danger zone during the blasting. (ii) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
14. Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
15. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
16. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
17. The proponent shall ensure that the transportation of the quarried materials shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried rough stones; and transport of rough stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.

  
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18. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
19. After mining operations are completed, the mine closure activities as indicated in the mine closure plan shall be strictly carried out by the Proponent fulfilling the necessary actions as assured in the Environmental Management Plan.
20. The Project proponent shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition that is fit for the growth of fodder, flora, fauna etc.
21. The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitans.
22. The project proponent shall ensure that the provisions of the MMRD, 1956, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
23. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.
24. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
25. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance, as per the existing law from time to time.
26. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.

  
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27. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
28. The Project proponent shall install a Display Board at the entrance of the mining lease area/abutting the public Road, about the project information as shown in the **Appendix –II** of this minute.
29. The recommendation for the issue of environmental clearance is subject to the outcome of the Hon'ble NGT, Principal Bench, New Delhi in O.A.No.186 of 2016 (M.A.No.350/2016) and O.A.No.200/2016 and O.A.No.580/2016 (M.A.No.1182/2016) and O.A.No.102/2017 and O.A.No.404/2016 (M.A.No. 758/2016, M.A.No.920/2016, M.A.No.1122/2016, M.A.No.12/2017 & M.A.No.843/2017) and O.A.No.405/2016 and O.A.No.520 of 2016(M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).

**Appendix - I**  
**List of Native Trees Suggested for Planting**

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Apple intermelos</i>	Vilvam	விவம்
2	<i>Adenanthera pavonina</i>	Marjadi	மரஜாடி
3	<i>Albizia lebbek</i>	Vaagai	வாளை
4	<i>Albizia amara</i>	Usal	உசல்
5	<i>Bauhinia purpurata</i>	Mantharai	மந்தரை
6	<i>Bauhinia racemosa</i>	Aathi	அதி
7	<i>Bauhinia tomentosa</i>	Iruvathi	இருவதி
8	<i>Buchanania axillaris</i>	Kattuma	கட்டமா
9	<i>Borassus flabellifer</i>	Panai	பனை
10	<i>Butea monosperma</i>	Murukkannaram	முருக்கனாரம்
11	<i>Bobax ceba</i>	Pavu, Sevvilavu	பூவா
12	<i>Calophyllum inophyllum</i>	Putrai	புரை
13	<i>Cassia fistula</i>	Sarakondrai	சரகண்டரை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கண்டரை
15	<i>Chloroxylon swietenia</i>	Purasamaram	புரசாமரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கொங்கு, மஞ்சள்
17	<i>Cordia dichotoma</i>	Nuvvudi	நுவ்வுடி
18	<i>Crotalaria adansonii</i>	Mavalingum	மாவலிங்கம்
19	<i>Dillenia indica</i>	Uva, Usha	உவா
20	<i>Dillenia pentagyna</i>	Sirulva, Setrutha	சீரல்வா, செத்ருதா
21	<i>Diospyro sebennum</i>	Karungali	கரங்கலி
22	<i>Diospyro echloroxylon</i>	Vaganai	வகளை
23	<i>Ficus amplicarpa</i>	Kallchi	கல்ச்சி
24	<i>Hibiscus tiliaceus</i>	Aatrupoovaram	அத்ரூபூவரம்
25	<i>Hardwickia binata</i>	Acha	அச்சா
26	<i>Holoptelia integrifolia</i>	Aayila	அயிலா
27	<i>Limna coromandelica</i>	Othum	ஒதம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மரூது
29	<i>Lepanostylis tetraphylla</i>	Neikottainaram	நைகோட்டைநாரம்
30	<i>Linnaea acidissima</i>	Vila mararam	வில்லா மரம்
31	<i>Litsea glutinosa</i>	Pisarpattai	பிசர்பட்டை
32	<i>Madhuca longifolia</i>	Iluppai	இலுப்பை
33	<i>Mamillaria hexandra</i>	UlakkasPaalai	உலக்காசுபாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழாமரம்
35	<i>Mitragyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுனா
37	<i>Merinda citrifolia</i>	Vellai Nuna	வெள்ளை நுனா
38	<i>Phoenix sylvestris</i>	Eachai	ஏச்சா
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

  
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**Discussion by SEIAA and the Remarks:-**


The proposal was placed in the 538<sup>th</sup> Authority meeting held on 29.07.2022. SEAC has furnished its recommendations to the Authority for **granting Environmental Clearance to the Project** subject to the conditions stated therein. After detailed discussion, SEIAA decided to grant Environmental Clearance for the quantity as per the mine plan for a period of 5 years approved by the Department of Geology & Mining subject to the conditions as recommended by SEAC in addition to the following conditions:

1. As accepted by the Project proponent the revised CER cost is Rs. 5 Lakhs and the amount shall be spent to the committed activities for Panchayat Union Primary School, Vadavalli Village as committed, before obtaining CTO from TNPCB.
2. The proponent shall shift (or) shall leave safety distance for the low/high tension line in the proposed mining area accordingly as recommended in precise area communication & Mine plan approval before executing mine lease and obtaining CTO from the TNPCB.
3. No trees in the area should be removed and all the trees should be numbered and protected. In case trees fall within the proposed quarry site the trees may be transplanted in the Greenbelt zone.
4. The proponent shall ensure that the activities should in no way result in disturbance to forest and trees in vicinity.
5. The proponent shall ensure that the operations shall not result in loss of soil biological properties and nutrients.
6. The activity should not result in CO<sub>2</sub> release and temperature rise and add to micro climate alternations.
7. The mining closure plan should be strictly adhered with appropriate soil rehabilitation measures to ensure ecological stability of the area.
8. Reclamation/Restoration of the mine site should ensure that the Geotechnical, physical, chemical properties are sustainable that the soil structure composition is build-up, during the process of restoration.
9. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife.
10. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem.

  
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11. The proponent shall ensure that the activity does not disturb the water bodies and natural flow of surface and ground water, nor cause any pollution, to water sources in the area.
12. The proponent shall ensure that the activities undertaken should not result in carbon emission, and temperature rise, in the area.
13. The proponent shall ensure that the mine closure plan are followed as per mining plan and the mine restoration should be done with native species, and site restored to near original status.
14. The proponent shall ensure that Monitoring be carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads.
15. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services.
16. The proponent shall ensure that the activities shall not disturb the agro biodiversity and agro farms.
17. The proponent shall ensure that the activity shall not result in invasion by invasive alien species.
18. Actions to be taken to promote agro forestry, mixed plants to support biodiversity conservation in the mine restoration effort.
19. The proponent shall ensure that activity shall not deplete the indigenous soil seed bank and disturb the mycorrhizal fungi, soil organism, soil community nor result in eutrophication of soils and water.
20. The activities should not disturb the soil properties and seed and plant growth. Soil amendments as required to be carried out, to improve soil health
21. Bio remediation using a microorganisms should be carried out to restore the soil environment to enable carbon sequestration.
22. The proponent shall ensure that all mitigation measures listed in the EIA/EMP are taken to protect the biodiversity and natural resources in the area.
23. The proponent shall ensure that the activities should not impact the water bodies/wells in the neighbouring open wells and bore wells.
24. The proponent shall ensure that the activities should not in any way affect the water quantity and quality in the open wells and bore wells in the vicinity, nor impact the water table and levels.

  
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25. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) to be planted.
26. The proponent shall ensure that the activities should not disturb the resident and migratory birds.
27. The proponent shall ensure the area should be restored and rehabilitated with native trees as recommended SEAC Minutes (in Appendix).
28. The proponent shall ensure that the mine restoration should be done using mycorrhizal VAM, vermicasting, Biofertilizers to ensure soil health and, biodiversity conservation.
29. The proponent shall ensure that the topsoil should be protected and used in planting activities in the area.
30. The proponent shall ensure that the activities should not disturb the river flow, nor affect the Odai, Water bodies, Dams in the vicinity.
31. The proponent shall ensure that the activities should not disturb the vegetation and wildlife in the adjoin reserve forests and areas around.
32. The proponent should ensure that there is no disturbance to the agriculture plantations, social forestry plantations, waste lands, forests, sanctuary or national parks. There should be no impact on the land, water, soil and biological environment and other natural resources due to the mining activities.
33. The proponent shall ensure that topsoil to be utilized for site restoration and Green belt alone within the proposed area.
34. The proponent shall ensure that activities should not impact greenlands/grazing fields of all types surrounding the mine lease area which are food source for the grazing cattles.

**Part-A: Conditions to be Complied before commencing mining operations:-**


1. **The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that**
  - I. **The project has been accorded Environmental Clearance.**
  - II. **Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.**
  - III. **Environmental Clearance may also be seen on the website of the SEIAA.**

  
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**IV. The advertisement should be made within 7 days from the date of receipt of the clearance letter and a copy of the same shall be forwarded to the SEIAA.**

2. Mining activity should be reviewed by the District Collector after three years and decide for further extension.
3. NOC from the Standing committee of the NBWL shall be obtained, if protected areas are located within 10 Km from the proposed project site.
4. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.
5. **A copy of the Environment Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat union/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.**
6. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
7. The proponent shall ensure that First Aid Box is available at site.
8. The excavation activity shall not alter the natural drainage pattern of the area.
9. The excavated pit shall be restored by the project proponent for useful purposes.
10. The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan details.
11. The quarrying operation shall be restricted between 7AM and 5 PM.
12. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.
13. A minimum distance of 50mts. from any civil structure shall be kept from the periphery of any excavation area.
14. The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.

  
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15. Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
16. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
17. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
18. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.
19. The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF& CC, GoI on 16.11.2009.
20. The following measures are to be implemented to reduce Air Pollution during transportation of mineral
  - i. Roads shall be graded to mitigate the dust emission.
  - ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust
21. The following measures are to be implemented to reduce Noise Pollution
  - i. Proper and regular maintenance of vehicles and other equipment
  - ii. Limiting time exposure of workers to excessive noise.
  - iii. The workers employed shall be provided with protection equipment and earmuffs etc.
  - iv. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
  - v. All noise generating machinery the compressor, generator to be enclosed in acoustic enclosure so as to reduce noise in working area.
22. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoEF& CC, GoI to control noise to the prescribed levels.
23. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.


  
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24. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
25. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
26. The following measures are to be adopted to control erosion of dumps:-
  - i. Retention/ toe walls shall be provided at the foot of the dumps.
  - ii. Worked out slopes are to be stabilized by planting appropriate shrub/ grass species on the slopes.
27. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous & other wastes (Management, and Trans Boundary Movement) Rules, 2016 and its amendments thereof to the recyclers authorized by TNPCB.
28. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
29. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
30. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
31. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
32. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.

  
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33. To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed and method of disposal, involving a reputed academic Institution.
34. It shall be ensured that the total extent of nearby quarries(existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 5 hectares within the mining lease period of this application.
35. It shall be ensured that there is no habitation is located within 300 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 300m radius from the periphery of the quarry site.
36. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
37. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
38. Bunds to be provided at the boundary of the project site.
39. The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
40. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
41. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
42. The Project Proponent shall provide solar lighting system to the nearby villages.
43. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
44. Safety equipments to be provided to all the employees.
45. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai
46. The Assistant/Deputy Director, Department of Geology & mining shall ensure that the proponent has engaged the blaster with valid Blasting license/certificate obtained from the competent authority before execution of mining lease.
47. The proponent shall furnish the Baseline data covering the Air, Water, Noise and land environment quality for the proposed quarry site before execution of mining lease.

  
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48. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically before execution of mining.
49. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
50. The proponent has to display the name board at the quarry site showing the details of Proponent, lease period, extent, etc., with respect to the existing activity before execution of mining.
51. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
52. The Proponent shall ensure that the project activity including blasting, mining transportation etc should in no way have adverse impact to the other forests, such as reserve forests and social forests, tree plantation and bio diversity, surrounding water bodies etc.
53. The proponent shall provide Green Belt development at the rate of not less than 400 trees/Hectare. The tree saplings shall be not less than 3m height.
54. The fugitive emissions should be monitored during the mining activity and should be reported to TNPCB once in a month and the operation of the quarry should no way impact the agriculture activity & water bodies near the project site.
55. All the commitment made by the project proponent in the proposal shall be strictly followed.
56. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
57. The Project proponent has to strictly comply the outcome/direction of the Hon'ble NGT, Principle Bench, New Delhi in the O.A No.186 of 2016 (M.A.No.350/2016), O.A. No.200/2016, O.A.No.580/2016 (M.A.No.1182/2016), O.A.No.102/2017, O.A.No.404/ 2016 ( M.A.No. 758/2016, M.A. No. 920 /2016, M.A.No.1122/2016, M.A.No. 12/2017 & M.A.No.843/2017), O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No.981/2016, M.A.No.982/2016 & M.A.No.384/2017).
58. All required sanitary and hygienic measures should be in place before starting construction activities and they have to be maintained throughout the construction phase.
59. The company shall stress upon the preventive aspects of occupational health.

  
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60. A separate environment and safety management cell with qualified staff shall be set up before commissioning of construction activities and shall be retained throughout the lifetime of the industry, for implementation of the stipulated environmental safeguards.
61. A scientific site/ ecological rehabilitation and restoration plan on long term basis should be drawn to carryout restoration with native species and Bio diversity.
62. The Green/Blue plan should guide the restoration of the site. The rehabilitation/restoration plan should be submitted to SEIAA-TN within one month. If applicable.
63. The existing water bodies should not be disturbed to ensure sustainable environment for aquatic life forms.
64. The proponent should completely implement all environmental pollution control measures as detailed in the EIA report and in the additional report.
65. Avenue plantation wherever needed has to be carried out along the route for dust suppression.
66. The green belt developed for the prevention of dust pollution should not form a part of the larger green belt development envisaged in the EIA report.
67. Regular monitoring and check up for pulmonary and carcinogenic diseases to be carried out regularly, not only for the workers involved in the mines but also to the people in the villages adjoining the mines. Interaction with the Primary Health Centre & district medical officer should be on regular basis to monitor the incidence of the diseases if any and to provide suitable medical facility for the patients.
68. Monitoring of well water levels and water quality of the wells in the locations furnished in the EIA report shall be done during pre-monsoon and post monsoon period and results submitted to the Regional Office of MoEF, Chennai and SEIAA.
69. Monitoring of water quality and air quality in and around the project site in the selected monitoring points as mentioned in the EIA report shall be continued regularly involving Academic Institutions.
70. Hydro geological study including infiltration test shall be conducted by any reputed agency to estimate leachate quantity.
71. Regular medical check-up for mine workers and nearby residents around the project site involving community medical centre/NIMH shall be conducted.
72. As per norms, the health study should be conducted through competent/approved health organization and report submitted for one year.

  
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73. The effective safe guard measures shall be provided to control particulate dust level in critical areas, transfer points and haul road within the mine area.
74. NOC from the State GWA for drawing ground water shall be obtained, if ground water table is intersected.
75. Green belt shall be provided as per norms of MoEF & CC, GOI, in consultation with local DFO.
76. All the recommendations made in the EIA report of the project shall be effectively implemented.
77. A booklet containing the Dos and Don'ts shall be prepared in vernacular languages for the use of the mine engineers/ managers and the workers to ensure that all necessary environmental, safety and health measures are undertaken.
78. All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.
79. Hydro geological study of the area shall be reviewed annually and report submitted to the Authority. No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the operation of the Mining activity.
80. A separate Environmental Management Cell equipped with full fledged laboratory facilities to carry out the various Environmental Management and Monitoring functions shall be set up under the control of a Senior Executive.
81. The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF at Chennai, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO<sub>2</sub>, NO<sub>x</sub> or critical sector parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

**Part B: General Conditions:**

1. EC is given only on the factual records, documents and the commitment furnished in non judicial stamp paper by the proponent.
2. The Proponent shall obtain the Consent from the TNPC Board before commencing the activity.

  
MEMBER SECRETARY  
SEIAA-TN


for 

3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Tamil Nadu.
4. No change in the calendar plan including excavation, quantum of mineral (minor mineral) should be made.
5. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
6. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
7. A berm shall be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
8. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
9. Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
10. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
11. All Personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
12. Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.
13. Workers/labourers shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.

  
**MEMBER SECRETARY**  
**SEIAA-TN**

14. The project proponent shall ensure that child labour is not employed in the project as per the sworn affidavit furnished.
15. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Chennai.
16. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
17. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance
18. The SEIAA, Tamil Nadu may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.
19. The SEIAA, Tamil Nadu may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining tpe Environmental Clearance.
20. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
21. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006, Wildlife Protection Act, 1972, Forest Conservation Act, 1980, Biodiversity Conservation Act, 2016, the Biological Diversity Act, 2002 and Biological diversity Rules, 2004 and Rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.
22. Any other conditions stipulated by other Statutory/Government authorities shall be complied.

  
**MEMBER SECRETARY**  
**SEIAA-TN**

for 



23. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
24. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.

  
MEMBER SECRETARY  
SEIAA-TN

**Copy to:**

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Principal Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Principal Secretary to Government, Industries Department, Tamil Nadu.
4. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building, 1<sup>st</sup> & 2<sup>nd</sup> 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 Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai - 32.
7. The District Collector, Coimbatore District.
8. The Commissioner of Geology and Mines, Guindy, Chennai - 32.
9. El Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Spare.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/001	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/001
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ1 Project Area		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	44.2	19.9	7.1	19.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	44.5	19.7	6.9	18.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	43.2	19.6	6.2	19.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	43.8	19.4	6.4	19.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	43.5	19.3	6.5	18.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	43.2	19.9	6.9	19.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	43.8	19.5	6.7	18.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	43.5	19.2	6.0	19.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	43.2	18.7	7.2	18.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	42.9	18.3	7.6	18.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	42.2	20.2	6.6	18.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	43.2	19.5	7.5	19.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	42.8	18.9	6.5	19.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	43.5	19.1	6.1	19.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	43.1	19.6	6.5	19.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	44.8	19.7	6.3	20.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	43.2	19.9	6.5	18.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	45.6	19.5	6.9	19.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	45.5	19.6	6.7	20.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	45.1	19.3	6.4	18.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	44.5	19.2	6.1	19.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	44.0	19.3	6.5	19.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	44.3	19.4	6.6	18.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	43.6	19.6	6.2	19.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

Note: BDL: Below Detection Limit ;DL: Detection Limit

Remarks: The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/001	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/001
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ1 Project Area		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	62.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	62.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	62.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	64.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	65.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	64.0	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	64.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	64.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	65.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	64.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	62.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	65.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	66.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	64.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	64.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by

*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/002	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/002
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ 2 – Near Existing Quarry (East)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	39.3	19.8	7.3	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	41.5	20.1	7.1	21.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	39.6	20.3	7.6	21.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	40.7	18.5	7.2	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	41.3	18.8	7.5	22.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	39.8	18.7	7.6	21.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	38.9	18.2	7.3	21.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	40.4	20.7	7.5	21.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	42.6	20.0	7.6	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	41.2	20.3	7.4	22.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	40.2	19.9	7.8	21.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	41.5	19.3	7.3	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	42.2	19.5	7.2	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	41.9	20.6	7.2	21.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	41.3	20.5	7.4	22.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	40.2	20.7	7.6	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	40.5	19.2	7.7	21.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	41.7	20.3	7.3	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	41.3	21.9	7.5	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	41.5	20.1	7.6	21.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	41.5	20.7	7.9	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	40.2	21.2	8.2	20.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	40.3	20.3	7.7	20.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	40.7	19.9	7.6	20.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by




Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/002	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/002
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	<b>AAQ 2 – Near Existing Quarry (East)</b>		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	57.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	58.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	58.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	58.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	58.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	57.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	57.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	57.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	58.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	58.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	58.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	59.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	56.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	56.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	56.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	56.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	56.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	55.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	55.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	56.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	56.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	56.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/003	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/003
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ – 3 Therampalayam (NE)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
	7:00-7:00	43.2	19.7	5.3	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	41.8	19.6	5.7	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	42.6	18.4	5.9	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	43.5	21.6	6.3	23.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	40.9	19.6	6.8	22.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	41.6	20.4	6.4	22.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	40.1	21.6	6.9	22.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	41.7	18.6	6.8	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	42.5	18.5	6.7	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	41.8	19.7	6.2	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	41.9	20.5	7.3	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	42.4	21.6	7.5	22.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	40.6	21.8	7.6	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	40.3	19.6	7.9	24.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	40.7	19.7	7.1	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	41.8	21.5	6.6	23.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	42.2	20.4	6.8	22.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	42.4	18.8	6.9	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	41.6	19.7	6.1	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	41.8	21.5	6.7	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	40.7	20.9	5.9	22.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	43.3	22.1	6.8	23.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	42.7	21.7	7.3	24.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	40.8	20.8	7.5	24.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/003	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/003
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	<b>AAQ – 3 Therampalayam (NE)</b>		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	65.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	65.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	65.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	65.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	66.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	66.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	67.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	66.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	66.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	65.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	64.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	65.0	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	63.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	64.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	64.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	65.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	66.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	66.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	66.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by

*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/004	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/004
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ4 – Karamadai (SW)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	40.5	19.6	5.3	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	39.2	18.9	5.5	21.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	40.6	18.5	5.6	21.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	41.0	18.2	5.8	21.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	40.8	18.1	5.1	22.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	41.5	18.9	5.9	22.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	40.1	19.1	5.3	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	41.7	19.5	5.2	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	40.0	19.8	5.2	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	40.1	19.5	5.8	22.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	40.9	18.3	5.2	21.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	40.4	18.8	5.4	21.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	40.6	19.6	5.6	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	40.9	18.1	5.4	20.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	40.2	19.9	5.3	20.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	41.7	18.5	5.1	20.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	40.1	18.3	5.8	22.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	41.6	18.8	5.6	22.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	41.5	19.2	5.1	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	40.8	18.5	5.5	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	41.1	19.8	5.6	21.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	41.5	19.6	5.4	23.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	40.3	19.2	5.2	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	40.9	18.6	5.7	24.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/004	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/004
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ4 – Karamadai (SW)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	62.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	62.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	62.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	62.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	62.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	63.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	63.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	63.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	63.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	62.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	62.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	62.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	62.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	61.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	61.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	61.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	64.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	64.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	63.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	63.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	63.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/005	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/005
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ5 – Onnipalayam (SE)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	41.3	20.7	8.3	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	42.4	20.4	8.5	22.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	41.8	21.5	8.7	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	42.4	20.9	8.1	24.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	44.3	20.5	8.6	24.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	43.7	21.9	8.7	22.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	40.6	21.7	7.3	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	42.5	21.5	8.5	24.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	43.6	20.6	7.2	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	42.7	20.8	7.1	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	41.6	20.4	7.6	23.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	42.9	21.3	7.8	22.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	43.8	20.8	7.1	24.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	42.5	21.7	7.8	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	41.9	21.6	6.6	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	41.3	22.8	6.3	25.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	42.7	21.2	6.1	23.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	41.3	21.3	6.5	24.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	43.6	20.5	6.8	23.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	42.5	20.3	6.5	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	44.8	21.7	7.6	23.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	42.5	21.3	7.1	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	41.3	20.8	7.8	22.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	42.7	21.5	7.1	24.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/005	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/005
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ5 – Onnipalayam (SE)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	66.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	66.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	63.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	64.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	64.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	64.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	63.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	63.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	64.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	64.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	63.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	63.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	64.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	63.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	65.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by

*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/006	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/006
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ 6 – Bellaipalayam (NE)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	39.5	18.3	6.2	22.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	39.2	18.8	6.5	23.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	38.5	19.4	6.4	22.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	38.8	18.9	6.8	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	38.6	18.3	6.8	24.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	38.7	19.7	7.2	21.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	39.6	19.7	7.5	21.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	39.8	18.2	7.4	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	38.6	19.8	7.5	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	38.1	20.3	7.7	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	38.5	19.3	7.4	22.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	38.4	20.1	7.1	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	39.2	20.2	6.8	21.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	39.3	20.4	6.5	22.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	39.2	20.9	6.6	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	39.6	20.3	7.2	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	39.7	19.5	7.6	23.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	38.2	19.7	7.9	22.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	39.5	19.4	7.2	23.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	38.3	19.5	7.1	22.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	38.5	20.3	6.2	23.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	39.5	20.7	6.5	22.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	39.3	20.2	6.5	21.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	40.5	18.3	6.8	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by




Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/006	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/006
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ 6 – Bellaipalayam (NE)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	65.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	65.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	65.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	65.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	66.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	66.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	66.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	66.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	65.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	65.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	66.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	66.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	67.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	67.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	67.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	66.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	66.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	67.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	67.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	67.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	67.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/007	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/007
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ7 – Bodithimmampalayam (S)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	41.7	20.4	6.9	20.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	40.9	20.9	6.4	20.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	40.3	20.3	6.3	20.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	41.7	20.5	6.8	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	42.3	20.7	6.6	21.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	41.7	20.6	7.2	21.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	40.2	21.3	7.7	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	42.6	21.4	7.5	21.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	40.5	21.8	7.8	21.0	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	41.3	21.5	7.5	20.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	41.7	21.9	7.8	20.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	42.3	21.3	6.3	20.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	41.3	20.9	6.8	20.0	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	42.7	20.1	6.7	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	42.9	22.5	6.9	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	41.6	21.9	7.9	21.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	43.5	23.3	7.3	21.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	42.3	24.6	7.2	21.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	41.9	22.8	6.8	20.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	43.3	21.8	7.5	21.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	42.5	25.3	7.6	20.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	44.7	23.9	7.7	21.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	43.6	23.4	7.8	20.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	42.8	21.6	7.9	21.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/007	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/007
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ7 – Bodithimmampalayam (S)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	60.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	60.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	61.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	61.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	61.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	61.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	60.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	68.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	69.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	69.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	69.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	69.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	69.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	60.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	60.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	61.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	61.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	61.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	61.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	62.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	62.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	62.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	62.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	61.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/008	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/008
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ8 – Bettadapuram (SW)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	40.3	18.7	6.3	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	39.6	19.6	6.4	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	39.7	19.7	6.5	25.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	39.5	19.5	6.1	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	38.3	19.2	6.7	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	38.4	19.3	6.8	25.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	38.2	19.1	6.7	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	38.1	18.6	5.3	26.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	40.6	18.7	5.8	26.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	40.5	18.3	5.9	26.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	40.7	20.7	5.7	26.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	40.5	20.7	5.6	26.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	40.6	19.3	5.1	26.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	40.8	19.7	6.2	26.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	39.7	19.6	6.7	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	39.5	19.8	6.8	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	39.1	20.3	6.5	24.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	40.2	20.4	6.6	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	40.3	20.9	6.1	24.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	40.7	19.6	5.7	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	40.5	19.8	5.3	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	41.6	18.3	5.8	25.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	41.7	18.2	5.9	25.6	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	41.3	18.7	5.1	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.



**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/008	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/008
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ8 – Bettadapuram (SW)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	59.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	58.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	57.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	57.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	57.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	57.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	57.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	58.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	58.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	56.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	56.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	56.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	56.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	58.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	58.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	57.3	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	57.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	57.1	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	56.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	56.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	56.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

Note: BDL: Below Detection Limit ;DL: Detection Limit

Remarks: The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Authorised Signatory

 Name: Santhosh Kumar A  
 Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/009	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/009
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ9 – Bargur (NE)		

Date	Period. hrs	PM10(µg/m3)	PM2.5(µg/m3)	SO2 (µg/m3)	NO2 (µg/m3)	O3 (µg/m3)	NH3 (µg/m3)	CO (mg/ m3)
05.12.2022	7:00-7:00	48.2	23.8	7.6	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.12.2022	7:15-7:15	47.6	24.6	7.4	24.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
12.12.2022	7:00-7:00	45.7	25.7	7.5	25.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.12.2022	7:15-7:15	45.5	23.6	6.8	25.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
19.12.2022	7:00-7:00	42.8	23.1	7.2	23.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.12.2022	7:15-7:15	44.9	24.7	7.1	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
26.12.2022	7:00-7:00	46.5	25.9	8.2	24.5	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
27.12.2022	7:15-7:15	44.4	23.9	8.8	24.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
02.01.2023	7:00-7:00	45.7	24.3	7.6	23.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
03.01.2023	7:15-7:15	43.6	25.1	7.7	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
09.01.2023	7:00-7:00	42.8	25.3	7.2	23.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
10.01.2023	7:15-7:15	45.4	24.7	7.1	22.4	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
16.01.2023	7:00-7:00	46.7	23.2	7.9	24.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
17.01.2023	7:15-7:15	46.9	25.8	6.6	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
23.01.2023	7:00-7:00	45.7	23.6	6.4	24.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
24.01.2023	7:15-7:15	45.9	24.9	6.2	25.1	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
30.01.2023	7:00-7:00	42.7	22.8	6.3	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
31.01.2023	7:15-7:15	43.6	23.7	6.9	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
06.02.2023	7:00-7:00	43.5	21.6	6.6	25.3	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
07.02.2023	7:15-7:15	43.6	22.5	7.7	24.7	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
13.02.2023	7:00-7:00	42.5	23.6	6.6	25.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
25.02.2023	7:15-7:15	44.6	25.4	7.1	23.9	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
20.02.2023	7:00-7:00	46.8	25.8	7.0	25.8	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
21.02.2023	7:15-7:15	46.7	22.9	7.5	24.2	BDL(DL:5.0)	BDL(DL:1.0)	BDL(DL:1.14)
NAAQ* Standard		<100	<60	<80	<80	<100	<400	<4

**Note:** BDL: Below Detection Limit ;DL: Detection Limit

**Remarks:** The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/009	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 5182	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Air	<b>Sample Code</b>	EHS360/009
<b>Sample Description</b>	Ambient Air Quality Monitoring	<b>Sample Condition</b>	Good
<b>Sampling Location</b>	AAQ9 – Bargur (NE)		

Date	Period. hrs	SPM ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )	C6H6 ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )
05.12.2022	7:00-7:00	65.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.12.2022	7:15-7:15	66.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
12.12.2022	7:00-7:00	62.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.12.2022	7:15-7:15	62.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
19.12.2022	7:00-7:00	63.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.12.2022	7:15-7:15	63.6	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
26.12.2022	7:00-7:00	62.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
27.12.2022	7:15-7:15	63.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
02.01.2023	7:00-7:00	66.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
03.01.2023	7:15-7:15	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
09.01.2023	7:00-7:00	65.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
10.01.2023	7:15-7:15	64.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
16.01.2023	7:00-7:00	63.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
17.01.2023	7:15-7:15	64.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
23.01.2023	7:00-7:00	62.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
24.01.2023	7:15-7:15	63.5	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
30.01.2023	7:00-7:00	64.7	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
31.01.2023	7:15-7:15	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
06.02.2023	7:00-7:00	65.9	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
07.02.2023	7:15-7:15	64.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
13.02.2023	7:00-7:00	63.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
25.02.2023	7:15-7:15	65.8	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
20.02.2023	7:00-7:00	65.2	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
21.02.2023	7:15-7:15	63.4	BDL (DL:0.1)	BDL (DL:1.0)	BDL (DL:1.0)	BDL (DL:0.1)	BDL (DL:0.1)
NAAQ* Standard		<200	6	5	1	1	20

Note: BDL: Below Detection Limit ;DL: Detection Limit

Remarks: The values observed for the pollutants given above are within the CPCB standards.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by

*[Signature]*



Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 010	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 9989	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Noise Level Monitoring	<b>Sample Code</b>	EHS360/ 010
<b>Sample Description</b>	Ambient Noise	<b>Sample Collected Date</b>	21.02.2023

Location	N1 – Near Project Area			N2 – Near Project Area (NE)		
Parameter	Min	Max	Result	Min	Max	Result
Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
06:00-07:00	37.9	41.6	40.1	31.5	38.1	35.9
07:00-08:00	38.9	42.8	41.3	32.6	40.7	38.3
08:00-09:00	39.6	42.6	41.4	33.9	41.4	39.1
09:00-10:00	38.9	45.5	43.3	31.4	39.5	37.1
10:00-11:00	38.5	47.3	44.8	32.5	40.2	37.9
11:00-12:00	38.1	48.7	46.1	33.8	41.4	39.1
12:00-13:00	37.6	43.1	41.2	35.6	43.6	41.2
13:00-14:00	37.6	39.2	38.5	31.8	38.4	36.2
14:00-15:00	37.2	45.2	42.8	33.9	41.7	39.4
15:00-16:00	38.5	49.5	46.8	32.5	40.9	38.5
16:00-17:00	39.2	46.3	44.1	34.8	43.6	41.1
17:00-18:00	41.6	41.7	41.7	32.6	40.4	38.1
18:00-19:00	41.8	39.1	40.7	35.1	43.1	40.7
19:00-20:00	42.5	40.7	41.7	36.1	40.2	38.6
20:00-21:00	33.7	41.3	39.0	34.2	43.6	41.1
21:00-22:00	38.2	44.7	42.6	36.5	47.1	44.5
22:00-23:00	34.4	36.2	35.4	33.8	41.2	38.9
23:00-00:00	34.6	36.1	35.4	33.9	42.1	39.7
00:00-01:00	35.8	37.8	36.9	31.5	39.4	37.0
01:00-02:00	36.2	39.9	38.4	32.9	40.2	37.9
02:00-03:00	35.6	39.4	37.9	33.4	41.7	39.3
03:00-04:00	34.8	38.5	37.0	31.7	38.5	36.3
04:00-05:00	35.5	36.9	36.3	32.6	40.8	38.4
05:00-06:00	36.4	38.4	37.5	31.3	38.6	36.3
Result	Day Means		41.8	Day Means		39.2
	Night Means		37.1	Night Means		37.9

Note: CPCB Norms Industrial Area Day Time:75 dB(A); Night Time:70 dB(A)  
The Noise level in the above location exists within the permissible limits of CPCB.

\*\*\*\*\*End of Report\*\*\*\*\*



Verified by

Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 011	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 9989	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Noise Level Monitoring	<b>Sample Code</b>	EHS360/ 011
<b>Sample Description</b>	Ambient Noise	<b>Sample Collected Date</b>	21.02.2023

Location	N3 - Near Existing Quarry (E)			N4 – Therampalayam (NE)		
Parameter	Min	Max	Result	Min	Max	Result
Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
06:00-07:00	31.9	38.4	<b>36.3</b>	34.5	38.6	<b>37.0</b>
07:00-08:00	33.5	31.6	<b>32.7</b>	35.6	38.6	<b>37.4</b>
08:00-09:00	31.6	38.4	<b>36.2</b>	34.2	40.5	<b>38.4</b>
09:00-10:00	32.7	41.2	<b>38.8</b>	35.5	41.5	<b>39.5</b>
10:00-11:00	34.9	43.4	<b>41.0</b>	31.5	41.5	<b>38.9</b>
11:00-12:00	36.2	45.7	<b>43.2</b>	32.2	35.5	<b>34.2</b>
12:00-13:00	34.1	43.9	<b>41.3</b>	34.5	38.5	<b>36.9</b>
13:00-14:00	32.9	40.4	<b>38.1</b>	33.9	38.1	<b>36.5</b>
14:00-15:00	38.4	46.1	<b>43.8</b>	31.4	32.2	<b>31.8</b>
15:00-16:00	34.6	43.3	<b>40.8</b>	36.8	40.2	<b>38.8</b>
16:00-17:00	32.9	40.8	<b>38.4</b>	35.7	40.4	<b>38.7</b>
17:00-18:00	34.1	43.4	<b>40.9</b>	32.3	38.2	<b>36.2</b>
18:00-19:00	33.6	41.6	<b>39.2</b>	33.4	40.5	<b>38.3</b>
19:00-20:00	32.8	40.8	<b>38.4</b>	31.9	42.2	<b>39.6</b>
20:00-21:00	34.1	43.4	<b>40.9</b>	35.7	40.3	<b>38.6</b>
21:00-22:00	36.9	45.5	<b>43.1</b>	33.4	42.5	<b>40.0</b>
22:00-23:00	32.7	41.9	<b>39.4</b>	38.4	40.2	<b>39.4</b>
23:00-00:00	34.2	39.7	<b>37.8</b>	32.9	37.8	<b>36.0</b>
00:00-01:00	32.6	35.1	<b>34.0</b>	34.6	39.8	<b>37.9</b>
01:00-02:00	31.3	35.5	<b>33.9</b>	35.5	36.7	<b>36.1</b>
02:00-03:00	32.3	38.7	<b>36.6</b>	31.5	35.6	<b>34.0</b>
03:00-04:00	33.4	36.9	<b>35.5</b>	32.2	35.8	<b>34.4</b>
04:00-05:00	31.2	36.7	<b>34.8</b>	35.5	36.8	<b>36.2</b>
05:00-06:00	32.6	35.8	<b>34.5</b>	34.5	35.5	<b>35.0</b>
Result	Day Means		<b>39.5</b>	Day Means		<b>37.6</b>
	Night Means		<b>35.3</b>	Night Means		<b>35.7</b>
Note: CPCB Norms Industrial Area Day Time:75 dB(A); Night Time:70 dB(A) The Noise level in the above location exists within the permissible limits of CPCB.						

\*\*\*\*\*End of Report\*\*\*\*\*



Verified by

Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

- Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 012	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 9989	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Noise Level Monitoring	<b>Sample Code</b>	EHS360/ 012
<b>Sample Description</b>	Ambient Noise	<b>Sample Collected Date</b>	21.02.2023

Location	N5 – Bellaipalayam (NE)			N6 – Karamadai (SW)		
	Min	Max	Result	Min	Max	Result
Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
06:00-07:00	32.6	38.8	<b>36.7</b>	31.5	38.1	<b>35.9</b>
07:00-08:00	34.9	37.6	<b>36.5</b>	32.6	40.7	<b>38.3</b>
08:00-09:00	32.6	34.5	<b>33.7</b>	33.9	41.4	<b>39.1</b>
09:00-10:00	33.6	36.8	<b>35.5</b>	31.4	39.5	<b>37.1</b>
10:00-11:00	32.8	40.2	<b>37.9</b>	32.5	40.2	<b>37.9</b>
11:00-12:00	31.2	41.5	<b>38.9</b>	33.8	41.4	<b>39.1</b>
12:00-13:00	36.4	43.5	<b>41.3</b>	35.6	43.6	<b>41.2</b>
13:00-14:00	33.9	41.4	<b>39.1</b>	31.8	38.4	<b>36.2</b>
14:00-15:00	32.7	43.9	<b>41.2</b>	33.9	41.7	<b>39.4</b>
15:00-16:00	36.5	42.2	<b>40.2</b>	32.5	40.9	<b>38.5</b>
16:00-17:00	32.3	40.9	<b>38.5</b>	34.8	43.6	<b>41.1</b>
17:00-18:00	34.2	43.2	<b>40.7</b>	32.6	40.4	<b>38.1</b>
18:00-19:00	34.7	44.9	<b>42.3</b>	35.1	43.1	<b>40.7</b>
19:00-20:00	31.6	40.7	<b>38.2</b>	36.1	40.2	<b>38.6</b>
20:00-21:00	32.8	40.3	<b>38.0</b>	34.2	43.6	<b>41.1</b>
21:00-22:00	33.6	41.4	<b>39.1</b>	36.5	47.1	<b>44.5</b>
22:00-23:00	32.5	40.3	<b>38.0</b>	33.8	41.2	<b>38.9</b>
23:00-00:00	36.4	45.2	<b>42.7</b>	33.9	42.1	<b>39.7</b>
00:00-01:00	33.6	35	<b>34.4</b>	31.5	39.4	<b>37.0</b>
01:00-02:00	34.9	35.8	<b>35.4</b>	32.9	40.2	<b>37.9</b>
02:00-03:00	31.5	34.2	<b>33.1</b>	33.4	41.7	<b>39.3</b>
03:00-04:00	32.3	35.5	<b>34.2</b>	31.7	38.5	<b>36.3</b>
04:00-05:00	31.7	34.8	<b>33.5</b>	32.6	40.8	<b>38.4</b>
05:00-06:00	32.2	34.5	<b>33.5</b>	31.3	38.6	<b>36.3</b>
Result	Day Means		<b>38.6</b>	Day Means		<b>39.4</b>
	Night Means		<b>35.2</b>	Night Means		<b>39.2</b>

Note: CPCB Norms Industrial Area Day Time:75 dB(A); Night Time:70 dB(A)  
The Noise level in the above location exists within the permissible limits of CPCB.

\*\*\*\*\*End of Report\*\*\*\*\*



Verified by

Authorised Signatory

Name: Santhosh Kumar A  
Designation : Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 013	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	IS 9989	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Noise Level Monitoring	<b>Sample Code</b>	EHS360/ 013
<b>Sample Description</b>	Ambient Noise	<b>Sample Collected Date</b>	21.02.2023

Location	N7 – Onnipalayam (SE)		
Parameter	Min	Max	Result
Time	dB(A)	dB(A)	dB(A)
06:00-07:00	32.6	36.6	35.0
07:00-08:00	34.5	40.2	38.2
08:00-09:00	35.2	39.5	37.9
09:00-10:00	36.8	38.4	37.7
10:00-11:00	36.9	37.6	37.3
11:00-12:00	38.1	45.5	43.2
12:00-13:00	34.9	40.5	38.5
13:00-14:00	37.2	41.3	39.7
14:00-15:00	36.2	43.6	41.3
15:00-16:00	35.9	44.8	42.3
16:00-17:00	36.5	38.4	37.6
17:00-18:00	32.5	40.9	38.5
18:00-19:00	34.4	43.4	40.9
19:00-20:00	31.2	39.7	37.3
20:00-21:00	36.9	46.5	43.9
21:00-22:00	32.5	40.8	38.4
22:00-23:00	36.1	44.3	41.9
23:00-00:00	34.1	39.9	37.9
00:00-01:00	32.9	37.8	36.0
01:00-02:00	33.5	36.9	35.5
02:00-03:00	33.7	35.8	34.9
03:00-04:00	32.5	34.5	33.6
04:00-05:00	33.4	36.6	35.3
05:00-06:00	33.5	35.5	34.6
Result	Day Means		39.4
	Night Means		35.4

**Note:** CPCB Norms Industrial Area Day Time:75 dB(A); Night Time:70 dB(A)  
The Noise level in the above location exists within the permissible limits of CPCB.

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by




Authorised Signatory

Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 014	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 014
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 1 – Near Project Area		

S. No	Test Parameters	Protocols	Results
1.	pH @ 25°C	IS 2720 Part 26 - 1987 (Reaff:2019)	8.10
2.	Conductivity @ 25°C	IS 14767 - 2000 (Reaff : 2019)	547 µmhos/cm
3.	Water Holding Capacity	By Gravimetric Method	38.5 %
4.	Bulk Density	By Cylindrical Method	1.02 g/cm3
5.	Porosity	By Gravimetric Method	21.3 %
6.	Calcium as Ca	Food and Agriculture organization of the united Nation Rome 2007 : 2018	144.1 mg/kg
7.	Magnesium as Mg		20.5 mg/kg
8.	Chloride as Cl		142 mg/kg
9.	Soluble Sulphate as SO4		124.1 %
10.	Total Phosphorus as P		42.5 mg/kg
11.	Available Nitrogen as N	IS 14684 : 1999 (Reaff:2019)	188 mg/kg
12.	Organic Matter	IS : 2720 Part 22: 1972 (Reaff: 2015)	1.27 %
13.	Organic Carbon	IS : 2720 Part 22: 1972 (Reaff: 2015)	0.74 %

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by




Authorised Signatory

Name: Santhosh Kumar A  
Designation : Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.



## TEST REPORT

<b>Report No</b>	EHS360/TR/2022-23/ 014	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 014
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 1 – Near Project Area		

S. No	Test Parameters	Protocols	Results
14	<b>Texture :</b>		
	Clay	Gravimetric Method	42.4 %
	Sand		42.1 %
	Silt		15.5 %
15	Manganese as Mn	USEPA 3050 B – 1996 & USEPA 6010 C - 2000	27.3 mg/kg
16	Zinc as Zn		0.30 mg/kg
17	Boron as B		0.51 mg/kg
18	Potassium as K		40.1 mg/kg
19	Cadmium as Cd		BDL (DL : 0.003 mg/kg)
20	Total Chromium as Cr		BDL (DL : 0.05 mg/kg)
21	Copper as Cu		BDL (DL : 0.05 mg/kg)
22	Lead as Pb		0.56 mg/kg
23	Iron as Fe		1.99 mg/kg
24	Cation Exchange Capacity	USEPA 9080 – 1986	40.1 meq/100g of soil

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

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Authorised Signatory

A-S7

Name : Santhosh Kumar A  
Designation : Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 015	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 015
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 2 – Bettadapuram		

S. No	Test Parameters	Protocols	Results
01	pH @ 25°C	IS 2720 Part 26 - 1987 (Reaff:2019)	7.46
02	Conductivity @ 25°C	IS 14767 - 2000 (Reaff : 2019)	410 µmhos/cm
03	Water Holding Capacity	By Gravimetric Method	38.5 %
04	Bulk Density	By Cylindrical Method	1.02 g/cm <sup>3</sup>
05	Porosity	By Gravimetric Method	21.3 %
06	Calcium as Ca	Food and Agriculture organization of the united Nation Rome 2007 : 2018	144.1 mg/kg
07	Magnesium as Mg		20.5 mg/kg
08	Chloride as Cl		142 mg/kg
09	Soluble Sulphate as SO <sub>4</sub>		124.1 %
10	Total Phosphorus as P		42.5 mg/kg
11	Available Nitrogen as N	IS 14684 : 1999 (Reaff:2019)	188 mg/kg
12	Organic Matter	IS : 2720 Part 22: 1972 (Reaff: 2015)	1.27 %
13	Organic Carbon	IS : 2720 Part 22: 1972 (Reaff: 2015)	0.74 %

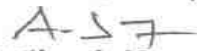
\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by




Authorised Signatory



Name: Santhosh Kumar A  
Designation : Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 015	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 015
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 2 – Bettadapuram		

S. No	Test Parameters	Protocols	Results
14	<b>Texture :</b>		
	Clay	Gravimetric Method	37.7 %
	Sand		43.5 %
	Silt		18.8 %
15	Manganese as Mn	USEPA 3050 B – 1996 & USEPA 6010 C - 2000	25.5 mg/kg
16	Zinc as Zn		0.31 mg/kg
17	Boron as B		0.73 mg/kg
18	Potassium as K		28.8 mg/kg
19	Cadmium as Cd		BDL (DL : 0.003 mg/kg)
20	Total Chromium as Cr		BDL (DL : 0.05mg/kg)
21	Copper as Cu		BDL (DL : 0.05 mg/kg)
22	Lead as Pb		0.33 mg/kg
23	Iron as Fe		1.59mg/kg
24	Cation Exchange Capacity	USEPA 9080 – 1986	34.7 meq/100g of soil

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

Verified by



Authorised Signatory

  
Name : Santhosh Kumar A  
Designation : Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 019	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 019
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 3 – Therampalayam		

S. No	Test Parameters	Protocols	Results
01	pH @ 25°C	IS 2720 Part 26 - 1987 (Reaff:2019)	7.10
02	Conductivity @ 25°C	IS 14767 - 2000 (Reaff : 2019)	488 µmhos/cm
03	Water Holding Capacity	By Gravimetric Method	47.4 %
04	Bulk Density	By Cylindrical Method	1.37 g/cm <sup>3</sup>
05	Porosity	By Gravimetric Method	26.9 %
06	Calcium as Ca	Food and Agriculture organization of the united Nation Rome 2007 : 2018	108.3 mg/kg
07	Magnesium as Mg		25.5 mg/kg
08	Chloride as Cl		154 mg/kg
09	Soluble Sulphate as SO <sub>4</sub>		111 %
10	Total Phosphorus as P		37.7 mg/kg
11	Available Nitrogen as N	IS 14684 : 1999 (Reaff:2019)	350.1 mg/kg
12	Organic Matter	IS : 2720 Part 22: 1972 (Reaff: 2015)	2.10 %
13	Organic Carbon	IS : 2720 Part 22: 1972 (Reaff: 2015)	1.22 %

\*\*\*\*\*End of Report\*\*\*\*\*

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Name: Santhosh Kumar A  
Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 019	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 019
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 3 – Therampalayam		

S. No	Test Parameters	Protocols	Results
14	<b>Texture :</b>		
	Clay	Gravimetric Method	54.8 %
	Sand		37.7%
	Silt		7.5 %
15	Manganese as Mn	USEPA 3050 B – 1996 & USEPA 6010 C - 2000	31.9 mg/kg
16	Zinc as Zn		0.52 mg/kg
17	Boron as B		0.64 mg/kg
18	Potassium as K		30.0 mg/kg
19	Cadmium as Cd		BDL (DL : 0.003 mg/kg)
20	Total Chromium as Cr		BDL (DL : 0.05 mg/kg)
21	Copper as Cu		BDL (DL : 0.05 mg/kg)
22	Lead as Pb		0.67 mg/kg
23	Iron as Fe		2.64 mg/kg
24	Cation Exchange Capacity		USEPA 9080 – 1986

\*\*\*\*\*End of Report\*\*\*\*\*

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**Name : Santhosh Kumar A**  
 Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 017	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 017
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 4 – Onnipalayam		

S. No	Test Parameters	Protocols	Results
01	pH @ 25°C	IS 2720 Part 26 - 1987 (Reaff:2019)	8.27
02	Conductivity @ 25°C	IS 14767 - 2000 (Reaff : 2019)	607 µmhos/cm
03	Water Holding Capacity	By Gravimetric Method	47.2 %
04	Bulk Density	By Cylindrical Method	1.26 g/cm3
05	Porosity	By Gravimetric Method	28.9 %
06	Calcium as Ca	Food and Agriculture organization of the united Nation Rome 2007 : 2018	138 mg/kg
07	Magnesium as Mg		28.8 mg/kg
08	Chloride as Cl		146 mg/kg
09	Soluble Sulphate as SO <sub>4</sub>		117 %
10	Total Phosphorus as P		41.4 mg/kg
11	Available Nitrogen as N	IS 14684 : 1999 (Reaff:2019)	366.7 mg/kg
12	Organic Matter	IS : 2720 Part 22: 1972 (Reaff: 2015)	2.74 %
13	Organic Carbon	IS : 2720 Part 22: 1972 (Reaff: 2015)	1.59 %

\*\*\*\*\*End of Report\*\*\*\*\*

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Name: Santhosh Kumar A  
Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 017	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 017
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil - 4 - Onnipalayam		

S. No	Test Parameters	Protocols	Results
14	<b>Texture :</b>		
	Clay	Gravimetric Method	53.5 %
	Sand		37.7 %
	Silt		8.8 %
15	Manganese as Mn	USEPA 3050 B - 1996 & USEPA 6010 C - 2000	41.1 mg/kg
16	Zinc as Zn		0.43 mg/kg
17	Boron as B		0.80 mg/kg
18	Potassium as K		41.3 mg/kg
19	Cadmium as Cd		BDL (DL : 0.003 mg/kg)
20	Total Chromium as Cr		BDL (DL : 0.05 mg/kg)
21	Copper as Cu		BDL (DL : 0.05mg/kg)
22	Lead as Pb		0.51 mg/kg
23	Iron as Fe		2.84 mg/kg
24	Cation Exchange Capacity	USEPA 9080 - 1986	42.2 meq/100g of soil

\*\*\*\*\*End of Report\*\*\*\*\*

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Name: Santhosh Kumar A  
Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 018	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 018
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 5 –Bargur		

S. No	Test Parameters	Protocols	Results
01	pH @ 25°C	IS 2720 Part 26 - 1987 (Reaff:2019)	7.89
02	Conductivity @ 25°C	IS 14767 - 2000 (Reaff : 2019)	710 µmhos/cm
03	Water Holding Capacity	By Gravimetric Method	40.2 %
04	Bulk Density	By Cylindrical Method	1.02 g/cm <sup>3</sup>
05	Porosity	By Gravimetric Method	26.6 %
06	Calcium as Ca	Food and Agriculture organization of the united Nation Rome 2007 : 2018	121.4 mg/kg
07	Magnesium as Mg		27 mg/kg
08	Chloride as Cl		161.2 mg/kg
09	Soluble Sulphate as SO <sub>4</sub>		102 %
10	Total Phosphorus as P		37.5 mg/kg
11	Available Nitrogen as N	IS 14684 : 1999 (Reaff:2019)	250.8 mg/kg
12	Organic Matter	IS : 2720 Part 22: 1972 (Reaff: 2015)	1.05 %
13	Organic Carbon	IS : 2720 Part 22: 1972 (Reaff: 2015)	0.61 %

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Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/ 018	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Soil	<b>Sample Code</b>	EHS360/ 018
<b>Sample Description</b>	Soil 2	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 KG	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Good	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Soil – 5 –Bargur		

S. No	Test Parameters	Protocols	Results
14	<b>Texture :</b>		
	Clay	Gravimetric Method	18.5 %
	Sand		68.8 %
	Silt		12.7 %
15	Manganese as Mn	USEPA 3050 B – 1996 & USEPA 6010 C - 2000	38.7 mg/kg
16	Zinc as Zn		0.31 mg/kg
17	Boron as B		0.66 mg/kg
18	Potassium as K		37.6 mg/kg
19	Cadmium as Cd		BDL (DL : 0.003 mg/kg)
20	Total Chromium as Cr		BDL (DL : 0.05 mg/kg)
21	Copper as Cu		BDL (DL : 0.05 mg/kg)
22	Lead as Pb		0.47 mg/kg
23	Iron as Fe		1.66 mg/kg
24	Cation Exchange Capacity		USEPA 9080 – 1986

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Name : Santhosh Kumar A  
Designation : Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/019	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/019
<b>Sample Description</b>	Surface Water (SW-1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Near Project Area		

S.No.	Parameters	Test Method	RESULTS
	<b>Discipline: Chemical</b>		
1	Colour	IS 3025 Part 4:1983	10 Hazen
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983	7.40
4	Conductivity @ 25°C	IS 3025 Part 14:2013	539 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984	5.1 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984	318 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009	197 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991	33.2 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994	27.9 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986	163 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988	69.5 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986	24.1 mg/l
13	Iron as Fe	IS 3025 Part 53:2003	0.27 mg/l
14	Residual Free Chlorine	IS 3025 Part 26:1986	BDL (DL:2.0 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.34 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988	12 mg/l

\*\*\*\*\*End of Report\*\*\*\*\*

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Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/019	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/019
<b>Sample Description</b>	Surface Water (SW-1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Near Project Area		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39-1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019)( Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	BOD @ 27°C for 3 days	IS 3025 Part 44:1993 (Reaff:2019)	6.2 mg/l
32	Chemical Oxygen Demand	IS 3025 Part 58:2006 (Reaff:2017)	24 mg/l
33	Dissolved Oxygen	IS 3025 Part 38:1989 (Reaff:2019)	7.5 mg/l
34	Barium as Ba	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL:0.05 mg/l)
35	Ammonia (as total ammonia-N)	IS 3025 Part 34-1988 (Reaff. 2019)	BDL (DL:0.1 mg/l)
36	Sulphide as H <sub>2</sub> S	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:0.01 mg/l)
37	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
38	Total Arsenic as As	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
39	Total Suspended Solids	IS 3025 Part 17 -1984 (Reaff:2017)	5.7 mg/l
	Discipline: Biological	Group: Water	
40	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	100 MPN/100ml
41	Escherichia coli	APHA 23 <sup>rd</sup> Edn. 2017:9221F	20 MPN/100ml

\*\*\*\*\*End of Report\*\*\*\*\*

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 Name: Santhosh Kumar A  
 Designation: Quality Manager

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**TEST REPORT**



TC-9583

<b>Report No</b>	EHS360/TR/2022-23/020	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/020
<b>Sample Description</b>	Surface Water (SW-2)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Belladhi Lake		

S.No.	Parameters	Test Method	RESULTS
<b>Discipline: Chemical</b>			
1	Colour	IS 3025 Part 4:1983	5 Hazen
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983	7.83
4	Conductivity @ 25°C	IS 3025 Part 14:2013	758 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984	5.8 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984	440 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009	145.9 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991	30 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994	17.3 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986	161.2 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988	101.2 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986	32.2 mg/l
13	Iron as Fe	IS 3025 Part 53:2003	0.19 mg/l
14	Residual Free Chlorine	IS 3025 Part 26:1986	BDL (DL:2.0 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.12 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988	5.1 mg/l

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

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Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/020	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/020
<b>Sample Description</b>	Surface Water (SW-2)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Belladhi Lake		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39-1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019)( Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	BOD @ 27°C for 3 days	IS 3025 Part 44:1993 (Reaff:2019)	7.2 mg/l
32	Chemical Oxygen Demand	IS 3025 Part 58:2006 (Reaff:2017)	32 mg/l
33	Dissolved Oxygen	IS 3025 Part 38:1989 (Reaff:2019)	6.1 mg/l
34	Barium as Ba	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL:0.05 mg/l)
35	Ammonia (as total ammonia-N)	IS 3025 Part 34-1988 (Reaff. 2019)	2.3 mg/l
36	Sulphide as H <sub>2</sub> S	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:0.01 mg/l)
37	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
38	Total Arsenic as As	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
39	Total Suspended Solids	IS 3025 Part 17 -1984 (Reaff:2017)	6.6 mg/l
	<b>Discipline:</b> Biological	<b>Group:</b> Water	
40	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	Present
41	Escherichia coli	APHA 23 <sup>rd</sup> Edn. 2017:9221F	Present

\*\*\*\*\*End of Report\*\*\*\*\*



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Authorised Signatory

  
Name: Santhosh Kumar A  
Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/021	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/021
<b>Sample Description</b>	Ground Water (WW-1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Therampalayam		

S.No.	Parameters	Test Method	RESULTS
	<b>Discipline:</b> Chemical	<b>Group:</b> Water	
1	Colour	IS 3025 Part 4:1983 (Reaff:2017)	<5
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983 (Reaff:2017)	7.44
4	Conductivity @ 25°C	IS 3025 Part 14:2013 (Reaff:2019)	568 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984 (Reaff:2017)	<1 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984 (Reaff:2017)	335 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009 (Reaff:2019)	192.88 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991 (Reaff:2019)	33.8 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994 (Reaff:2019)	26.4 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986 (Reaff:2019)	135 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988 (Reaff:2019)	72.7 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986 (Reaff:2019)	25.7 mg/l
13	Iron as Fe	IS 3025 Part 53:2003 (Reaff:2019)	BDL (DL:0.1 mg/l)
14	Residual Free Chlorine	IS 3025 Part 26:1986 (Reaff:2019)	BDL (DL:0.1 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.20 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988 (Reaff:2019)	8.3 mg/l

\*\*\*\*\*End of Report\*\*\*\*\*

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Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/021	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/021
<b>Sample Description</b>	Ground Water (WW-1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Therampalayam		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39:1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019) (Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	Barium as Ba	IS 3025 Part 44:1993 (Reaff:2019)	BDL(DL:0.05 mg/l)
32	Ammonia (as total ammonia-N)	IS 3025 Part 58:2006 (Reaff:2017)	BDL (DL:0.01 mg/l)
33	Sulphide as H <sub>2</sub> S	IS 3025 Part 38:1989 (Reaff:2019)	BDL (DL:0.01 mg/l)
34	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
35	Total Arsenic as As	IS 3025 Part 34-1988 (Reaff. 2019)	BDL (DL:0.005 mg/l)
36	Total Suspended Solids	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:1.0 mg/l)
	<b>Discipline:</b> Biological	<b>Group:</b> Water	
37	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	<2 MPN/100ml
38	<i>Escherichia coli</i>	APHA 23 <sup>rd</sup> Edn. 2017:9221F	< 2MPN/100ml

\*\*\*\*\*End of Report\*\*\*\*\*

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 Name: Santhosh Kumar A  
 Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/022	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/022
<b>Sample Description</b>	Ground Water (WW-2)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Bellaipalayam		

S.No.	Parameters	Test Method	RESULTS
	<b>Discipline:</b> Chemical	<b>Group:</b> Water	
1	Colour	IS 3025 Part 4:1983 (Reaff:2017)	<5 Hazen
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983 (Reaff:2017)	7.54
4	Conductivity @ 25°C	IS 3025 Part 14:2013 (Reaff:2019)	613 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984 (Reaff:2017)	<1 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984 (Reaff:2017)	362 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009 (Reaff:2019)	172.59 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991 (Reaff:2019)	31.6 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994 (Reaff:2019)	22.8 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986 (Reaff:2019)	142 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988 (Reaff:2019)	75.8 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986 (Reaff:2019)	26.7 mg/l
13	Iron as Fe	IS 3025 Part 53:2003 (Reaff:2019)	BDL (DL:0.1 mg/l)
14	Residual Free Chlorine	IS 3025 Part 26:1986 (Reaff:2019)	BDL (DL:0.1 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.25 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988 (Reaff:2019)	7.6 mg/l

\*\*\*\*\*End of Report\*\*\*\*\*

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Name: Santhosh Kumar A  
Designation: Quality Manager

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## TEST REPORT

Report No	EHS360/TR/2022-23/022	Report Date	25.02.2023
Site Location	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
Sampling Method	SOP Method	Sample Drawn by	Laboratory
Sample Name	Water	Sample Code	EHS360/022
Sample Description	Ground Water (WW-2)	Sample Collected Date	21.02.2023
Qty. of Sample Received	2 Litres	Sample Received On	22.02.2023
Sample Condition	Fit for Analysis	Test Commenced On	22.02.2023
Sampling Location	Bellaipalayam		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39-1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019) (Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	Barium as Ba	IS 3025 Part 44:1993 (Reaff:2019)	BDL(DL:0.05 mg/l)
32	Ammonia (as total ammonia-N)	IS 3025 Part 58:2006 (Reaff:2017)	BDL (DL:0.01 mg/l)
33	Sulphide as H <sub>2</sub> S	IS 3025 Part 38:1989 (Reaff:2019)	BDL (DL:0.01 mg/l)
34	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
35	Total Arsenic as As	IS 3025 Part 34-1988 (Reaff. 2019)	BDL (DL:0.005 mg/l)
36	Total Suspended Solids	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:1.0 mg/l)
	<b>Discipline:</b> Biological	<b>Group:</b> Water	
37	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	<2 MPN/100ml
38	<i>Escherichia coli</i>	APHA 23 <sup>rd</sup> Edn. 2017:9221F	< 2MPN/100ml

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

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Authorised Signatory

 Name: Santhosh Kumar A  
 Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/023	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/023
<b>Sample Description</b>	Ground Water (BW -1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Onnipalayam		

S.No.	Parameters	Test Method	RESULTS
	<b>Discipline:</b> Chemical	<b>Group:</b> Water	
1	Colour	IS 3025 Part 4:1983 (Reaff:2017)	<5 Hazen
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983 (Reaff:2017)	7.59
4	Conductivity @ 25°C	IS 3025 Part 14:2013 (Reaff:2019)	725 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984 (Reaff:2017)	<1 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984 (Reaff:2017)	428 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009 (Reaff:2019)	213.62 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991 (Reaff:2019)	37.5 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994 (Reaff:2019)	29.2 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986 (Reaff:2019)	164 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988 (Reaff:2019)	90.1 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986 (Reaff:2019)	29.2 mg/l
13	Iron as Fe	IS 3025 Part 53:2003 (Reaff:2019)	0.22 mg/l
14	Residual Free Chlorine	IS 3025 Part 26:1986 (Reaff:2019)	BDL (DL:0.1 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.46 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988 (Reaff:2019)	11.9 mg/l

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Name: Santhosh Kumar A  
Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/023	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/023
<b>Sample Description</b>	Ground Water (BW -1)	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Onnipalayam		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39-1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019) (Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	Barium as Ba	IS 3025 Part 44:1993 (Reaff:2019)	BDL(DL:0.05 mg/l)
32	Ammonia (as total ammonia-N)	IS 3025 Part 58:2006 (Reaff:2017)	BDL (DL:0.01 mg/l)
33	Sulphide as H <sub>2</sub> S	IS 3025 Part 38:1989 (Reaff:2019)	BDL (DL:0.01 mg/l)
34	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
35	Total Arsenic as As	IS 3025 Part 34-1988 (Reaff. 2019)	BDL (DL:0.005 mg/l)
36	Total Suspended Solids	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:1.0 mg/l)
	<b>Discipline:</b> Biological	<b>Group:</b> Water	
37	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	<2 MPN/100ml
38	<i>Escherichia coli</i>	APHA 23 <sup>rd</sup> Edn. 2017:9221F	< 2MPN/100ml

\*\*\*\*\*End of Report\*\*\*\*\*

Page 1 of 1

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Authorised Signatory

  
 Name: Santhosh Kumar A  
 Designation: Quality Manager

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**TEST REPORT**

<b>Report No</b>	EHS360/TR/2022-23/024	<b>Report Date</b>	25.02.2023
<b>Site Location</b>	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
<b>Sampling Method</b>	SOP Method	<b>Sample Drawn by</b>	Laboratory
<b>Sample Name</b>	Water	<b>Sample Code</b>	EHS360/024
<b>Sample Description</b>	Ground Water (BW -2 )	<b>Sample Collected Date</b>	21.02.2023
<b>Qty. of Sample Received</b>	2 Litres	<b>Sample Received On</b>	22.02.2023
<b>Sample Condition</b>	Fit for Analysis	<b>Test Commenced On</b>	22.02.2023
<b>Sampling Location</b>	Suravilandur		

S.No.	Parameters	Test Method	RESULTS
	<b>Discipline:</b> Chemical	<b>Group:</b> Water	
1	Colour	IS 3025 Part 4:1983 (Reaff:2017)	<5 Hazen
2	Odour	IS 3025 Part 5:2018	Agreeable
3	pH at 25°C	IS 3025 Part 11:1983 (Reaff:2017)	7.10
4	Conductivity @ 25°C	IS 3025 Part 14:2013 (Reaff:2019)	682 µmhos/cm
5	Turbidity	IS 3025 Part 10:1984 (Reaff:2017)	<1 NTU
6	Total Dissolved Solids	IS 3025 Part 16:1984 (Reaff:2017)	402 mg/l
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 Part 21:2009 (Reaff:2019)	259.14 mg/l
8	Calcium as Ca	IS 3025 Part 40:1991 (Reaff:2019)	41.9 mg/l
9	Magnesium as Mg	IS 3025 Part 46:1994 (Reaff:2019)	37.6 mg/l
10	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 Part 23:1986 (Reaff:2019)	177 mg/l
11	Chloride as Cl	IS 3025 Part 32:1988 (Reaff:2019)	85.3 mg/l
12	Sulphate as SO <sub>4</sub>	IS 3025 Part 24:1986 (Reaff:2019)	28.3 mg/l
13	Iron as Fe	IS 3025 Part 53:2003 (Reaff:2019)	0.17 mg/l
14	Residual Free Chlorine	IS 3025 Part 26:1986 (Reaff:2019)	BDL (DL:0.1 mg/l)
15	Fluoride as F	APHA 23 <sup>rd</sup> Edn. 2017:4500 F,D	0.39 mg/l
16	Nitrate as NO <sub>3</sub>	IS 3025 Part 34:1988 (Reaff:2019)	9.5 mg/l

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Name: Santhosh Kumar A  
Designation: Quality Manager

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## TEST REPORT

Report No	EHS360/TR/2022-23/024	Report Date	25.02.2023
Site Location	M/s. Belladhi & Chikkarampalayam Rough Stone & Gravel Quarries, Belladhi & Chikkarampalayam Village, Mettupalayam Taluk, Coimbatore District.		
Sampling Method	SOP Method	Sample Drawn by	Laboratory
Sample Name	Water	Sample Code	EHS360/024
Sample Description	Ground Water (BW -2)	Sample Collected Date	21.02.2023
Qty. of Sample Received	2 Litres	Sample Received On	22.02.2023
Sample Condition	Fit for Analysis	Test Commenced On	22.02.2023
Sampling Location	Suravilandur		

S.No.	Parameters	Test Method	RESULTS
17	Copper as Cu	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.01 mg/l)
18	Manganese as Mn	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
19	Mercury as Hg	USEPA 200.8	BDL (DL:0.0005 mg/l)
20	Cadmium as Cd	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.001 mg/l)
21	Selenium as Se	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
22	Aluminium as Al	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
23	Lead as Pb	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.005 mg/l)
24	Zinc as Zn	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
25	Total Chromium as Cr	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.02 mg/l)
26	Boron as B	IS 3025 Part 65:2014 (Reaff:2019)	BDL(DL : 0.05 mg/l)
27	Mineral Oil	IS 3025 Part 39-1991 (Reaff. 2019)	BDL(DL : 0.01 mg/l)
28	Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	IS 3025 Part 43-1992(Reaff: 2019)	BDL (DL:0.0005 mg/l)
29	Anionic Detergents (as MBAS)	IS 13428 – 2005 (Reaff:2019) (Annex K)	BDL (DL:0.01 mg/l)
30	Cyanide as CN	IS 3025 Part 27-1986 (Reaff. 2019)	BDL (DL:0.01 mg/l)
31	Barium as Ba	IS 3025 Part 44:1993 (Reaff:2019)	BDL(DL:0.05 mg/l)
32	Ammonia (as total ammonia-N)	IS 3025 Part 58:2006 (Reaff:2017)	BDL (DL:0.01 mg/l)
33	Sulphide as H <sub>2</sub> S	IS 3025 Part 38:1989 (Reaff:2019)	BDL (DL:0.01 mg/l)
34	Molybdenum as Mo	IS 3025 Part 65:2014 (Reaff:2019)	BDL (DL:0.02 mg/l)
35	Total Arsenic as As	IS 3025 Part 34-1988 (Reaff. 2019)	BDL (DL:0.005 mg/l)
36	Total Suspended Solids	IS 3025 Part 29-1986 (Reaff: 2019)	BDL (DL:1.0 mg/l)
	<b>Discipline:</b> Biological	<b>Group:</b> Water	
37	Total Coliform	APHA 23 <sup>rd</sup> Edn. 2017:9221B	<2 MPN/100ml
38	<i>Escherichia coli</i>	APHA 23 <sup>rd</sup> Edn. 2017:9221F	< 2MPN/100ml

\*\*\*\*\*End of Report\*\*\*\*\*

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Verified by




Authorised Signatory

 Name: Santhosh Kumar A  
 Designation: Quality Manager

Note: 1. The test results are only to the sample submitted for test. 2. Any correction of the test report in full or part shall invalidate the report. 3. Sample will be retained for 15 days from the date of reporting except in case of regulatory samples or specifically instructed by client. 4. Perishable samples will be discarded immediately after reporting. 5. Under no circumstance's lab accepts any liability or loss/damage caused by use or misuse of test report after invoicing or issued of test report.

## National Accreditation Board for Education and Training

# Certificate of Accreditation

### Geo Exploration & Mining Solutions, Salem

95/1, Brindavan Road, 4th Cross East, Fairlands, Salem – 636 016 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 opencast only	1	1 (a) (i)	A
2	Industrial estates/ parks/ complexes/areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	31	7 (c)	B
3	Building and construction projects	38	8(a)	B

**Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated Jan 06, 2023 and 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/23/2684 dated Feb 20, 2023. The accreditation needs to be renewed before the expiry date by Geo Exploration & Mining Solutions, Salem following due process of assessment.



Sr. Director, NABET  
Dated: Feb 20, 2023

Certificate No.  
NABET/EIA/2225/RA 0276

Valid up to  
August 06, 2025

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