BEFORE THE NATIONAL GREEN TRIBUNAL

(SOUTHERN ZONE) AT CHENNAI

(Under Section 16(h) read with Section 18(1) of the National Green Tribunal Act, 2010)

Appeal No. 30 OF 2025

Arjun Gopalaratnam ….Appellant

Vs.

State Environment Impact Assessment Authority

Rep by its Member Secretary and Anr. … Respondents

TYPED SET FILED BY APPELLANT

CONTENTS

Dated at Chennai on this the 29th day of April, 2025

Y (MS 1421/2011)

Yogeshwaran A
Counsel for Appellant

26th February 2025.
Jaipur.

From,
Aravindan. S
3A, Pushkar Nalanda Apartments,
350, 13th Main Road, Shanthi Colony,
Anna Nagar, Chennai - 600040.

To,
The Information Officer,
State Environment Impact Assessment Authority (SEIAA),
3rd Floor, Panagal Maaligai, No.1, Jeenis Road,
Saidapet, Chennai – 600015.

Respected Sir/Madam,

Sub: Requesting information through Right to Information (RTI) act of 2005.

I hereby request to send the following copies of documents in regards to - SIA/TN/MIN/441822/2023:

1.	Copy of the Application for a Rough stone & Gravel Quarry lease for environmental clearance by Thiru. R. Giridharan to SEIAA.
2.	Copy of letter of Approval from the Forest Department.
3.	Copy of the assessment for Groundwater in and around the site of the proposed quarry.

Thank you.

Yours truthfully,

From

The Public Information Officer,
STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY - TAMIL NADU
No.327, 'Metros" 9th Floor,
Anna Salai, Nandanam,
Chennai – 600 035.
Telephone No. : 044-2435 9970

To

Thiru. Aravindan, S.
3A. Pushkar Nalanda Apartments,
350, 13th Main Road,
Shanthi Colony,
Anna Nagar,
Chennai – 600 040.

Lr.No. SEIAA-TN/RTIA/E-796719/F.No.542/2025 dt. 28.03.2025

Sir,

Sub: SEIAA – TN – RTIA – Thiru. Aravindan, S., Chennai – Seeking Information under RTI Act – Xerox fees requested – Reg.

Ref: RTI Petition of Thiru. Aravindan, S., Chennai dt. 26.02.2025 received in this office on 05.03.2025

With reference to your petition cited above, you have sought certain information of the copy of documents related to SIA/TN/MIN/441822/2023 under the RTI Act 2005 In this connection it is informed that the available information is mentioned below:

Sl.No.	Petitioner's request	Reply
1.	Copy of the Application for a Rough Stone & Gravel Quarry lease for environmental clearance by Thiru.R.Giridharan to SEIAA.	Requested information runs 300 Pages.
2.	Copy of letter of Approval from the Forest Department	Requested information runs 1 Pages.
3.	Copy of the assessment for Groundwater in and around the site of the proposed quarry	Requested information runs 2 Pages.

As per the RTI act 7(3)(Fees) Rules 2005, you have to pay a sum of Rs.606/- (Rupees six hundred and six only) for 303 pages(300+1+2) at the rate of Rs. 2/- per page through a Demand Draft drawn in favour of State Level Environmental Impact

Assessment Authority-Tamil Nadu, Chennai. On receipt of payment by this office, the documents can be given.

3. In this regard, it is informed that the requested informations can also be downloaded from our website https://parivesh.nic.in under parivesh portal-1 online proposal no. 441822.

Public Information Officer
SEIAA-TN

A/C PAYEE ONLY

ICICI Bank

(4462)CHENNAI-ANNANAGAR 15TH MAIN RD
500556

VALID FOR THREE MONTHS ONLY

DATE 0 3 0 4 2 0 2 5
D D M M Y Y Y Y

DD No.

STATE LEVEL IMPACT ASSESMENT AUTHORITY-TAMILNADU**********

ON DEMAND PAY

OR ORDER

SIX HUNDRED SIX Only

RUPEES

₹ **********606.00

Purchaser Name: ARAVINDAN S
OT/6/3 Not Above 606.00

FOR VALUE RECEIVED

4462DDCENPAY
CHENNAI-ANNANAGAR 15TH MAIN RD

Issuing Branch

Authorised Signatory

Authorised Signatory
Please sign above

UTILITY FORMS PVT. LTD. / 018 - 2010

VOID

"500556" 000229000": 004462" 16

From

The Public Information Officer,
STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY - TAMIL NADU
No.327, 'Metros" 9th Floor,
Anna Salai, Nandanam,
Chennai – 600 035.
Telephone No. : 044-2435 9970

To

Thiru. Aravindan, S.
3A. Pushkar Nalanda Apartments,
350, 13th Main Road,
Shanthi Colony,
Anna Nagar,
Chennai – 600 040.

Lr.No. SEIAA-TN/RTIA/E-796719/F.No.542/2025 dt. 22.04.2025

Sir,

Sub: SEIAA – TN – RTIA – Thiru. Aravindan, S., Chennai – Seeking Information under RTI Act – Xerox fees requested – Reg.

Ref: 1.RTI Petition of Thiru. Aravindan, S., Chennai dt. 26.02.2025 received in this office on 05.03.2025

2.ICICI Bank, D.D.No.500556 dated 03.04.2025 for Rs.606/- received from Thiru. Aravindan, S., Chennai received on 07/04/2025

With reference 1st & 2nd cited above, you have sought certain information under the RTI Act 2005. In this connection it is informed, that the available information is annexed to this letter.

Encl: 303 pages.

Public Information Officer

Lr. No: SEIAA-TN/RTI/E/96719/R.No:542/2025/dt: 22.4.2025.

Regd - Parcel.

(12)

"C"
CT249993789IN

To, Thiru. Aravindan. S.
3A, Pushkar Nalanda Apartment,
350, 13th main Road,
Shanthi Colony
Anna Nagar,
Chennai - 600040.

Lr

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY - TAMIL NADU
No. 327, Metros, 6th Floor,
Anna Salai, Nandanam, Chennai-600 035.

CI249993789IN
Counter No:1,22/04/2025,11:59

Amt:0.00,Wt:830gms,Amt.Paid:0.00
SS:65.00,REG=17.0

From:NANDANAM S.O <600035>
From:ANNA ROAD 2 CRC Hub
To:ANNA ROAD 2 CRC Hub
Del PO:Anna Nagar S.O (Chennai)<600040>

Track Consignment

Quick help

* Indicates a required field.

* Consignment Number CT249993789IN Track More

Booked At	Booked On	Destination Pincode	Tariff	Article Type	Delivery Location	Delivery Confirmed On
Nandanam S.O	22/04/2025 11:56:20	600040	65.00	Registered Parcel	Anna Nagar S.O (Chennai)	23/04/2025 16:21:38

Event Details For : CT249993789IN

Current Status : Item Delivered(Addressee)

Date	Time	Office	Event
23/04/2025	16:21:38	Anna Nagar S.O (Chennai)	Item Delivered(Addressee)
23/04/2025	10:12:25	Anna Nagar S.O (Chennai)	Out for Delivery
23/04/2025	09:45:20	Anna Nagar S.O (Chennai)	Item Received
23/04/2025	04:43:21	EGMORE RS TMO 2	Item Dispatched
22/04/2025	22:48:54	EGMORE RS TMO 2	Item Received
22/04/2025	21:49:57	Chennai PH	Item Dispatched
22/04/2025	20:30:02	Chennai PH	Item Bagged
22/04/2025	18:26:21	Chennai PH	Item Received
22/04/2025	16:01:05	Nandanam S.O	Item Dispatched
22/04/2025	15:34:44	Nandanam S.O	Item Bagged
22/04/2025	11:56:20	Nandanam S.O	Item Booked

Q. no: 1

Thiru.R.Giridharan
S/o.Rajendran,
No.12/113, 1st Main road,
Moogambigai Nagar, Sikkarayapuram Extension,
Gerugambakkam, Kancheepuram – 600128
Mobile No 8056065165.

Date: 25.08.2023

To

The Member Secretary,
State Environment Impact Assessment Authority (SEIAA),
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road,
Saidapet, Chennai – 15.

Dear Sir,

Sub: Revised fresh Application for seeking Prior Environment Clearance of Category B_2 project – Rough stone and Gravel Quarry - over an Extent of 2.77.0 Hectares in S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5, Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu in view of NGT directions- Reg

Ref.: 1. Precise area communication letter Roc.No.47/Q3/2020 dated 20.10.2020.
2. Approval of Mining Plan Vide Rc.No.47/Q3/2020 dated 20.11.2020.
3. AD Cluster letter Rc.No.47/Q3/2020 dated 20.11.2020
4. Earlier online EC proposal no. SIA/TN/MIN/185288/2020 dated 28.11.2020
5. EC letter No.SEIAA-TN/F.No.8101/(a)/EC.No:4730/2021 dated 20.09.2021
5. NGT Order – Appeal No.15 of 2022(SZ)
6. New online EC proposal No.SIA/TN/MIN/441822/2023 dated 25.08.2023

The EC proposal for our Rough stone and Gravel quarry mentioned in above subject was submitted in PARIVESH portal vide SIA/TN/MIN/185288/2020 dated 28.11.2020. The proposal was placed in 223rd SEAC Meeting held on 30.07.2021 and 459th SEIAA Meeting held on 09.09.2021 and EC letter has been issued by SEIAA vide Lr.No. SEIAA-TN/F.No.8101/(a)/EC.No:4730/2021 dated 20.09.2021.

Arjun Gopalaratnam S/o R. Gopalaratnam residing at No.2, Nerundram Village, Slavallam Post, Via Anambakkam has filed case in National Green Tribunal (NGT), Southern Zone, Chennai against The Tamil Nadu State Environmental Impact Assessment Authority and Mr.R.Giridharan (Project Proponent). In the NGT order, it is stated that, the issued Environmental Clearance is set aside and remanded back to the SEIAA and the same should reconsidered and assessed afresh again without being influenced by this order and pass appropriate orders based on the merits within a period of 03 (three) months.

Based on the judgment given by NGT, the new EC application has been made to SEAC/SEIAA, TN vide online proposal No SIA/TN/MIN/441822/2023 dated 25.08.2023 for reconsideration and assessment of our file for grant of new environmental clearance. No quarry work has been done in mining lease area till date.

Since all the reports and documents are submitted, we request you to place our EC proposal in the forthcoming SEAC meeting and grant us environment clearance as early as possible.

Thanking You,

Yours faithfully,

Thiru.R.Giridharan
(Project Proponent)

FORM –I

I. Basic Information

S.No	Items	Details
1	Name of the Project	Edamachi Village Rough Stone and Gravel Quarry. Proponent Name : **THIRU.R.GIRIDHARAN**
2	S.No. in the Schedule	1 (a)
3	Proposed capacity area/length /tonnage to be handled/command area/lease area/number of wells to be drilled	Rough Stone (95%) – **52288m³** up to 40m Gravel – **6528m³** up to 2m
4	New/Expansion/Modernization	New lease rough stone and Gravel quarry in fresh area.
5	Existing Capacity/Area etc.,	2.77.0 Hectares
6	Category of project i.e. (A) or (B)	B2 Category
7	Does it attract the general condition? If yes, please specify	Not applicable
8	Does it attract the specific condition? If yes, please specify	Not applicable
9	Location	Latitude: 12°41'45.03"N to 12°41'51.39"N Longitude: 79°51'35.91"E to 79°51'44.47"E Toposheet No. 57 P/14
	Plot No/Survey No/Khasra No.	S.F. No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5
	Village	Edamachi
	Tehsil	Uthiramerur
	District	Kancheepuram
	State	Tamil Nadu
10	Nearest railway station/airport along with distance in km	Palur Railway station – 9.0km - NE Chennai International Airport – 44.0km – NE
11	Nearest Town ,City, District Headquarters along with distance in km.	Town: Chengalpattu – 12km - E City: Kancheepuram – 20km - NW District: Kancheepuram -20km - NW
12	Village Panchayats, Zilla Parishad, Municipal	Edamachi, Uthiramerur Taluk and Kancheepuram District.
13	Name of the applicant	**THIRU.R.GIRIDHARAN**
14	Registered Address	**THIRU.R.GIRIDHARAN** S/o.Rajendran, No.12/113, 1st main road, Moogambigai Nagar,

		Sikkarayapuram Extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Pin code – 600128. Mobile No 8056065165.
15	Address for correspondence	**THIRU.R.GIRIDHARAN** S/o.Rajendran, No.12/113, 1st main road, Moogambigai nagar, Sikkarayapuram extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Pin code – 600128. Mobile No 8056065165.
16	Details of Alternative Sites examined, if any.	No alternative sites are considered as the project is site specific.
17	Interlinked Projects	Does not arise
18	Whether separate application of Interlinked project has been submitted?	Does not arise
19	If Yes, date of submission	Does not arise
20	If no, reason	As the project involves quarrying Rough Stone and Gravel no interlinked project arose
21	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. a) The Forest (Conservation) Act, 1980? b)The Wildlife (Protection) Act 1972? c) The C.R.Z Notification, 1991?	Not applicable
22	Whether there is any Government order/ Policy relevant /relating to the site?	LOI: Roc.No.47/Q3/2019, dated 20.10.2020
23	Forest land involved(hectares)	No Forest is involved. This is recorded patta land
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up?(a) Name of the Court (b) Case No. (c) Orders/directions of the	No

	court, if any and its relevance with the proposed project	

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S. No	Information/Check list confirmation	Yes /No	Details thereof (with approximate quantities /rates, wherever possible)with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	There will be permanent change in quarry area. At the end of the mining period, the excavated pit will be used as water storage pond which will enhance the agricultural activity in the buffer area.
1.2	Clearance of existing land, vegetation and buildings?	No	No, only few shrubs are identified in the quarry area of project site. It will be removed before the commencement of mining activity. To compensate, 30 tree saplings per annum will be planted around mining lease boundary. Also, tree sapling will be along village roads and within Govt. School premises.
1.3	Creation of new land uses?	Yes	The mining will be restricted within the lease area only. The excavated pit shall be used for storage of rain water.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Not applicable. Since no major construction activity involved in the mine area.
1.5	Construction works?	No	Not applicable

Head	Present Area (Ha)	Area in use during the quarrying period
Mining area	Nil	0.31.3
Road	Nil	0.02.7
Green belt & Dump	Nil	2.42.2
Labour Shed	Nil	0.00.80
Total	**2.77.0**	**2.77.0**

1.6	Demolition works?	No	Not applicable
1.7	Temporary sites used for construction Works or housing of construction workers?	No	No housing facility will be provided for the labors as people from the nearby villages are proposed to be employed.
1.8	Above ground buildings, structures or earth works including linear structures, cut and fill or excavations	No	The project does not involve any construction process.
1.9	Underground works including mining or tunneling?	No	It is an open cast, mechanized mine. No tunneling work required.
1.10	Reclamation works?	Yes	The pit will be used for miscellaneous purposes like fish Pond, Water storage pond etc., after completion of mining. The greenbelt will be developed around the lease area and fencing will be made as per DGMS norms.
1.11	Dredging?	No	No Dredging work will be involved.
1.12	Offshore structures?	No	No offshore structures.
1.13	Production and manufacturing processes?	Yes	Mining would be carried out by opencast mechanized method by using Hydraulic excavator and tippers. The production of rough stone shall be 52288m^3 for five years or 10457.6m^3 per annum
1.14	Facilities for storage of goods or materials?	No	The recovered material will be directly transported to crusher units or the consumer points. No storage of goods or materials within the lease area.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	There are no rejects anticipated from the proposed quarry project and also no trade effluent will be generated.
1.16	Facilities for long term housing of operational workers?	No	No housing facility is required, as labors from the nearby villages are proposed to be employed.
1.17	New road, rail or sea traffic during construction or operation?	No	Existing village road will be used for transportation of mined minerals. Traffic congestion will not occur.

1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, air ports, etc?	No	The existing transport facilities in the area will be utilized. There will be no interlinked rail, air, waterborne or any other transport facilities required.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	The project will not cause any changes in the existing traffic movements.
1.20	New or diverted transmission lines or pipelines?	Yes	LT is passing in S.F.No 376/1 from southwest to northeast side. . The LT line shall be shifted more than 50m before execution of mining lease deed.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	The quarried area can be used for storage of rainwater which may support ground water recharge
1.22	Storm water crossings?	No	There is no major river found around 5km radius.
1.23	Abstraction or transfers of water from ground or surface waters?	No	The ground water table is observed at a depth of 43.5 to 45m bgl whereas mining operation is proposed for a depth of 42m at higher levels. So the mining activity will not disturb the ground water table.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	There will be no changes in the water bodies or the land surface affecting drainage or run-off. The safety distance of 50m has been left for Edamachi lake as per Letter of Intent. Refer Lease plan in approved mining plan.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	The quarry personnel will be using their own conveyance to the quarry. As no construction or decommissioning works involved, the necessity of transport of personnel or materials is not required.
1.26	Long-term dismantling or decommissioning or restoration works?	No	No Long-term dismantling or decommissioning is involved in this project.
1.27	Ongoing activity during decommissioning which could have an impact on the	No	There will be no such activity.

	environment?		
1.28	Influx of people to an area in either Temporarily or permanently?	No	Only authorized persons are allowed to work and the working is restricted to the general shift in day time only.
1.29	Introduction of alien species?	No	There is no introduction of alien species.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity by the proposed project.
1.31	Any other actions?	No	NIL

2. Use of Natural resources for Construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply)

S.No.	Information/checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	It is Patta land and non-agricultural land. Total land area : 2.77.0 Ha It is punjai land. Refer Patta No 970.
2.2	Water (expected source &competing users) unit: KLD	Yes	**Total water requirement – 3.5KLD** Drinking - 0.3KLD, Domestic Purposes – 0.7KLD, Green belt water - 1.5KLD, Dust Suppression - 0.5KLD Wet drilling operation - 0.5KLD **Source**: Drinking water is obtained by Mineral water industries by water canes. Dust suppression, Green belt and other uses is obtained from water tank.
2.3	Minerals (MT)	No	No Minerals are used for construction/operational purposes.
2.4	Construction material – stone, aggregates, and/soil (expected source – MT)	No	Proposed project does not require usage of any construction materials.
2.5	Forests and timber (source – MT)	No	Nil.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Fuel is required for hydraulic excavator, trucks/ tippers. 250 lit/day will be utilized for this purpose.
2.7	Any other natural resources (use appropriate standard units)	No	Nil

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S.NO	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible)
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	Hazardous materials such as Low explosives like Gun powder, Ordinary Detonator, class- 6, safety fuse, class -6 will be used for blasting activity in this project.
3.2	Changes in occurrence of disease or affect disease vectors	No	There are no changes in occurrence of disease or affect the disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	The project will provide direct and indirect employment to the people surrounding the villages and thereby improvement of the economic standard shall be ensured.
3.4	Vulnerable groups of people who could be affected by the project e.g. Hospital patients, children, the elderly etc.,	No	The nearest village, Nerkunram is located at distance of 786m from the lease area. So the children or elderly people will not be affected by the proposed project.
3.5	Any other causes	No	Nil

4. Production of solid wastes during operation or decommissioning (MT/month)

S.No	Information/Checklist confirmation	Yes /No	Details there of(with approximate quantities/rates, wherever possible) with source of information data
4.1	Soil, overburden or mine wastes	Yes	The overburden such as gravel, quantity of 6528 cum shall be excavated and it will be sold to needy customers
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Latrine waste will be stored in the septic tank. It will be cleared periodically once the septic tank attains its capacity.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	The proposed excavation of Rough Stone and Gravel will not produce any hazardous waste Materials.
4.4	Other industrial process wastes	No	None
4.5	Surplus Product	No	None

4.6	Sewage sludge or other sludge from effluent treatment	No	There will not be any generation of sewage sludge or trade effluent from the quarrying activity.
4.7	Construction or demolition wastes	No	There will be no construction or demolition waste.
4.8	Redundant machinery or equipment	No	No machinery or equipment storage will be left in the project site.
4.9	Contaminated soils or other materials	No	Only excavator will be used to load the materials into the vehicles. The repair and service work of the machinery will be done locally. There will be no possibility of oil spillage in the quarry area. If emergency, the repair work will be done by using tray to carry the spillages.
4.10	Agricultural waste	No	NA
4.11	Other Solid Wastes	No	Nil

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S.No	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	The emissions of SO_2 (Sulfur dioxide) & NO_2 (Nitrogen dioxide) may be due to use of diesel operated quarry machinery and vehicles. Better maintenance of equipment in good condition as per RTO norms will help to reduce such emissions.
5.2	Emissions from production processes	Yes	Emission will be generated during loading, drilling and blasting. The wet drilling and water spraying at the blasted heaps, along the haul road will maintain the emission within limits. Tarpaulin covers will be used to cover the loaded minerals during transportation.
5.3	Emissions from materials handling including storage or transport.	Yes	The Rough Stone and Gravel will not be stored within the lease area as it is directly transported to crushing unit or the needy customer's site. Emission will

			take place during transportation in haul road within the lease area. It will be reduced by sprinkling of water along the haul road.
5.4	Emissions from Construction activities including plant and equipment.	No	Not Applicable
5.5	Dust or odors from handling of materials including mining materials, sewage and waste	No	The proposed project will not produce any odour, since it is removal of Rough Stone and Gravel. There will be no dust emission during handling and transport of rough stone and Gravel as the Rough stone and Gravel will be covered by tarpaulins while transporting.
5.6	Emissions from incineration of waste.	No	There will be no incineration of waste.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Nil
5.8	Emissions from any other sources	No	Nil
6. Generation of Noise and Vibration, and Emissions of Light and Heat			
S.No.	**Information/Checklist confirmation**	**Yes /No**	**Details of (with approximate quantities/rates, wherever possible) with source of information data with source of information data**
6.1	From operation of equipment e.g. Engines, ventilation plant, crushers	Yes	Mining would be carried out by opencast method by mechanized means using Excavator and tippers. The noise produced from the excavator and tipper will be reduced by proper maintenance. The tipper driver will also be instructed to drive the empty vehicle within 15km/hr speed.
6.2	From industrial or similar processes	Yes	Noise arises during drilling and blasting which will not pose any threat to the worker. If found excess necessary protective devices like ear plug, mask will be provided to the employees exposed to

			such noisy and dusty conditions.
6.3	From construction or demolition	No	No construction and demolition activities involved.
6.4	From blasting or piling	Yes	Generation of noise from blasting shall be controlled by delay arrangements in blasting and use of proper quantity of explosives and strength. Vibration may be negligible due to absence of heavy deep hole blasting.
6.5	From construction or operational traffic	Yes	Noise will be generated during movement of vehicles and it will be maintained at the standard level as prescribed by DGMS and CPCB.
6.6	From lighting or cooling systems	No	There is no lighting or cooling systems.
6.7	From any other sources	No	No other sources

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes /No	Details thereof (with approximate quantities/rates, wherever possible) quantities/rates, wherever possible)with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	There will be no usage of hazardous materials except explosives. The changing of oil and applying of grease for tipper and excavator will take place only in mechanic shed. In case of emergency, the tray will be used during repair work for carry over the spillage of oil and greece.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Since it is a Rough stone and Gravel quarry, effluents will not be expected. The sewage waste will be properly stored and treated using septic tank and disposed periodically.
7.3	By deposition of pollutants emitted to air or into the land or into water	No	The emissions of SO_2 (Sulfur dioxide) & NO_2 (Nitrogen dioxide) may be due to use of diesel operated vehicles such as

			JCB excavator and Tipper. Better maintenance of equipment in good condition will help to reduce such emissions. The dust emission will be suppressed by source itself by sprinkling of water
7.4	From any other sources	No	No other sources
7.5	Is there a risk of long term buildup of pollutants in the environment from these sources?	No	Nil

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S.No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	The blasting and drillings are involved in the project for liberation and splitting of Rough stone. Blasting using explosives will be carried out under the supervision of the qualified mines manager to achieve a correct blasting geometry. The minimum explosive materials will be brought from explosive vendors during blasting. The blasting will be carried out under the supervision of experienced blaster.
8.2	From any other causes	No	Mines safety preventive measures will be followed during operation of the machinery. No person shall be allowed within the swing area of the excavator and tippers during loading operation.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. Floods, earthquakes, landslides,	No	There is no Earth quake, floods, Landslides, cloud burst recorded in the area. The proposed project will not be affected by above mentioned

	cloudburst etc)?		natural disaster.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S.No	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting, Utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g. Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) housing development, extractive industries, supply industries and other	No	Living standard will be improved of the nearby villagers. This short span of project does not require any supporting infrastructures like roads, power supply, waste treatment, etc., The workers are available from the nearby villages, hence the project will not attract housing Development. Extractive industry and supply industries will not be required as it is Rough stone and Gravel quarry.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The excavated area will be used as water storage tank.
9.3	Set a precedent for later development	No	Does not arise.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	No

(I) Environmental Sensitivity			
S.No.	**Areas**	**Name/ Identity**	**Aerial distance (within 15 km.) Proposed project location boundary**
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Karikili Birds Sanctuary – 5.4km – S Vedanthangal Bird Sanctuary – 16.3km - S Edamachi Kaniamman Temple – 960m Nerkundram Amman Temple – 922m
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forest	Yes	**Forest:** 1. Edamachi R.F is located in east side adjacent to lease area 2. Kaveripakkam R.F - 945m – E 3. Marudam R.F – 5.6km – SW 4. Mayur R.F – 9.0km – E The lease area is not a forest land. So this project does not attract The Forest (Conservation) Act, 1980. **Water bodies** Lakes and ponds within 5km radius and river within 10 radius are given below 1. Edamachi lake – 130m – N, 170m -W 2. A small pond in Nerkundram village – 674m - SW 3. Lake near Sinnalambadi village - 1.6km – SW 4. Lake adjacent to Edamachi R.F – 1.7km – S 5. Lake near Anambakkam village – 1.7km – W 6. Sirudamur lake – 1.9km – NW 7. Porpandal lake – 2.4km – ENE 8. Mampudhur lake – 2.7km - S 9. Salavakkam village lake – 3.0km – SE 10. Sittakakkavanur lake – 3.2km –

			ENE 11. Edayampudur lake – 3.2km – SE 12. Arunkunram lake – 3.5km - N 13. Padur lake – 3.5km – WNW 14. Peranakkavur lake – 3.6km – NE 15. Kavanipakkam Lake – 3.6km – NE 16. Amaravatipattanam – 3.6km – W 17. Sittalampakkam lake – 3.9km – NW 18. Edayampudur lake – 3.9km – S 19. A lake - 4.2km – NNE 20. Annadhur lake – 4.3km – ESE 21. Madhur lake – 4.4km – NW 22. Thandarai lake – 4.5km – ENE 23. Cheyyar River – 6.0km – NW 24. Palar River – 7.3km – N **Wild life sanctuaries:** 1. Karikili Birds Sanctuary – 5.4km – S 2. Vedanthangal Bird Sanctuary – 16.3km - S So this project does not attract The Wildlife (Protection) Act 1972. **Coastal Zone:** Bay of Bengal – 37.6km – E So this project does not attract The C.R.Z Notification, 2018.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	There is no area used by protected, important or sensitive species of flora or fauna for breeding, nesting, Foraging, resting, over wintering and migration within 10km radius.
4	Inland, coastal, marine or underground waters	No	Bay of Bengal – 37.6km – E
5	State, National boundaries	No	Tamil Nadu – Andhra Pradesh Interstate Boundary – 57.4km - N
6.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	There are no routes or facilities used by the public for access to recreation or other tourist in the proposed

			project site.
7	Defense installations	No	None
8	Densely populated or built-up area	Yes	Salavakkam – 4.0km – SE Chengalpattu – 12km - E
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Salavakkam – 4.0km - SE Chengalpattu – 12km - E
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	There is no high quality or scarce resources such as ground water resources, surface resources, forestry, agriculture, fisheries, tourism, and rare minerals near the site.
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	The project area is not already subjected to any existing pollution or environmental damage.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	It is not an earth quake prone area or any other natural disasters. Adequate measures will be adopted to prevent flooding in the project site during rainy seasons.

"I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Signature of Project Proponent Along with name and address

Signature of the qualified person

THIRU.R.GIRIDHARAN,
S/o.Rajendran, No.12/113,
1st main road, Moogambigai nagar,
Sikkarayapuram extension, Gerugambakkam
Kancheepuram, Tamil Nadu.
Mobile No 8056065165

Mr.S.Suriyakumar
M.Sc., M.Phil, F.C.C. (Min)
PGDBA, DIPC
EIA Co-ordinator (Mining)
Contact No : +919842729655
Email: suriyakumarsemban@gmail.com

Date : 25.8.2023
Place : Salem

FORM 1M

Modified Draft Form 1M

Application for mining of minor minerals under category 'B_2' for less than and equal to 5 Ha

Basic Information		
1	Name of the mining lease site	Edamachi Village Rough Stone and Gravel Quarry. Proponent Name : **THIRU.R.GIRIDHARAN**
2	Location / site	S.F. No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5
3	Land Use classification of the site	Patta Land(Consent)
4	GPS Co-ordinates	Latitude: 12°41'45.03"N to 12°41'51.39"N Longitude: 79°51'35.91"E to 79°51'44.47"E Toposheet No. 57 P/14
5	Size of the Mining Lease (Hectare)	2.77.0 Hectares
6	Capacity of Mining Lease (m^3/annum)	Rough Stone (95%) – **52288m^3** up to 40m Gravel – **6528m^3** up to 2m
7	Period of Mining Lease	Ten Years
8	New or existing quarry	New quarry
9	If in case of existing Rough Stone/ Blue Metal/ Granite Quarry, etc., the length, width and depth to which quarrying has already been done (below the ground level)	New lease Rough stone and gravel quarry in fresh area.
10	If quarrying had been below the ground level/above the ground level, the height of quarrying already done	New lease Rough stone and gravel quarry in fresh area.
11	Ground water table in meter	43.5 to 45m bgl
12	Depth of mining	42m bgl
13	Name of the owner who had earlier undertaken the quarrying & a copy of mining lease issued with date, if he is different from the present applicant	Not applicable
14	Proof of ownership: a) If owned patta copy b) If not own patta land agreement/ lease copy entered with the owner (to be enclosed details)	Land document is enclosed in approved mining plan
15	Expected cost of the Project	Rs. 23,00,000
16	Environment Management Plan cost:	RS. 3,50,000
17	Contact Information	**THIRU.R.GIRIDHARAN** S/o.Rajendran,

R. Giri

		No.12/113, 1st main road, Moogambigai Nagar, Sikkarayapuram Extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Mobile No 8056065165.
18	Approved Mining Plan/Scheme approval detail	**Rc.No.47/Q3/2020 dated 20.11.2020**
19	District Survey Report (DSR) is provided (applicable in case of minor minerals only)	Attached
20	CER plan with proposed expenditure	2% of total project cost which is Rs. 46,000
21	Precise area communication approved by the Competent Authority	Precise area communication letter No. **Roc.No.47/Q3/2020 dated 20.10.2020**
22	Mining plan approved by the Competent Authority	Mining Plan approved by AD Vide **Rc.No.47/Q3/2020 dated 20.11.2020**
23	Green Belt area	Green belt shall be developed around the boundaries of lease area, 2.42.2Ha
24	VAO Certificate 300m Habitation	In Pouch
25	AD/DD Letter to 500m Radius List of quarry Details (Existing/ Abounded/ Proposed)	In Pouch
	Method of working	
26	**Category type:** (a) Mechanized (b) Semi – Mechanized (c) Manual	Open cast, Mechanized Open cast, mechanized mining will be adopted to extract Rough stone and Gravel of required size from the area for which lease applied for. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, formation of faces, lying of approach road to various benches for movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc. Top soil, weathered materials if any shall be removed prior to development of working benches.
27	**Construction and design of haul roads:** a) Dimension as per the statutory requirements which were followed or otherwise	a) The approach road will be formed to connect existing nearest approach road for

		transport of minerals by tippers. Internal road is formed in 1: 10 gradient. Road gradient is designed as 1: 10 for short ramp and 1:16 for haul roads.
	b) Number of vehicles plying on the main haul roods inside the mine and the approach road to the pit located outside the mine, if any.	b) Tipper – 2No's Hydraulic excavator – 1No's
	c) Are any measures taken to minimize fugitive dust generated form mine haul roods? Does it comply with the CPCB/PCB Guidelines?	c) Yes, the dust generated from hauling roads will be suppressed by periodical wetting of land by spraying water. The air pollutants emitted from the project area will comply with air quality standards as per CPCB/PCB.
	d) Is there a possibility that air pollutants emitted from the project area that do not comply with air quality standards as per CPCB/PCB?	d) No. The air pollutants emitted from the project area will comply with air quality standards as per CPCB/PCB by adopting effective EMP.
28	**Mechanized / Semi - Mechanized Method of Mining:**	
	i) Number of loading / excavating equipments as per approved mining plan and capacity.	i) One Hydraulic excavator – 1.20m^3
	ii) Number of loading / excavating equipments actually being deployed and capacity.	ii) Excavating equipment shall be deployed as per approved mining plan
	iii) Type and number of transporting equipments.	iii) Tipper – 2 No's
	iv) Capacity and Number of trucks used as per approved mining plan	iv) 15 M.T capacity of Tipper used for transport. Tipper – 2 No's
	v) Capacity and Number of trucks used actually in the mine.	v) Same as approved mining plan
	vi) Does the deployment of loading equipments (excavators) and trucks fulfill the statutory requirements as	vi) Yes, the deployment of loading equipments (excavators) and trucks fulfill the statutory requirements as per MMR

	per MMR 1961, with respect to the site conditions?	1961.
	vii) Number and capacity of loading equipments and trucks used not in line with approved mining plan.	vii) Nil
	viii) Impact of excess deployment of loading equipment (excavators) and transporting equipment on environment. (a) Air pollutants (b) Water Quality (c) Land Quality (d) Noise level	viii) There is no excess deployment of equipment.
	ix) Type of transporting system used - (a) trucks (b) Any other mode	ix) (a) Trucks (2 No's) – 15 Tonners (b) Nil
29	**Method of Rock Breaking/Material preparation for the excavation:**	
	a) Methodology adopted : i. Drilling and blasting	i) Drilling and blasting is proposed
	ii. Rock breakers	ii. Nil.
	iii. Rippers	iii. No rippers.
	iv. Surface miners	iv. Nil
	v. Direct mucking by excavators	v.The boulder will be loaded by excavators
	vi. Manual means	vi. Cleaning debris and shrubs.
	vii. Any other methods or combination of above.	vii. Conventional methods shall be adopted for quarrying operation.
	b) In case of drilling and blasting method: i. Type of blasting: short hole or deep hole	i) Drilling of shot-holes will be carried out by using a portable compressor with Jack Hammers. Depth of holes shall be 1-2m bench height. The spacing shall be 0.75m and the burden shall be 0.60m from the preface.

	ii. Whether controlled blasting technique adopted? If yes, specify the technique with details of study, year of study	ii) To achieve a correct blasting geometry, certain amount of trial blast is pre-requisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting, a qualified Mines manager has to be appointed for proper calculation of powder factor, control blasting, sequencing and arrangements of explosives.
	iii. Impacts due to blasting defined as per the studies, if any carried out previously as indicated	iii) During blasting, the fly rocks will be get fall on the nearby agricultural land or any other structures. To control the fly rock and dust emission, blasting mat will be used.
	iv. Dust pollution	iv) Dust extractor or wet drilling will be provided to control dust at source of emission. Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF&CC to control fly of dust, noise etc.
	v. Noise level (dB(A))	v) The noise will be generated due to the drilling and blasting. It will be controlled by greenbelt development.
	vi. Ground vibration studies and Fly rock projection	vi) Ground vibration due to quarrying activities in the area is anticipated due to blasting and during movement of vehicles, etc. However, the major source of ground vibration is blasting. The major impact of the ground vibrations is observed on the domestic houses located in the villages surrounding the quarry lease area. The kuchha houses are more prone to cracks and damage due to the vibrations. No deep hole blasting is adopted and only small dia explosives are used for breaking the hard rock and boulders. Where ever necessary muffle blasting shall be followed to control fly rocks from blasting
	c) Impact of preparation of Ore and waste environment:	NA

	a) Air Pollution b) Noise Pollution c) Water Pollution d) Safety standards e) Traffic density f) Road Condition (vulnerability)	
30	**Construction and Design of Reject Dumps.** i. Place location ii. Approach to Dump from the mine-distance and safety standards. iii. Area of extent occupied iv. Dimension of Dump and No. of terrace with heights (benches) v. Vegetation covered : If yes, specify the details of plants	 No dump is proposed as only 5% of reject will be generated from the total excavation of rough stone. It will be dumped temporarily on barren land within mining lease area and it will be utilized for road maintenance. 50m Nil Nil NA
31	**Construction and Design of Waste Dumps.** (i) Numbers and Location of Dumps as per approved Mining Plan (ii) Specify whether reject dumps are located within or outside mining lease (iii) Area occupied in excess of the approval mining plan. iv) Dimension of Terracing, Light, Shapes etc., Dump as per approved Mining Plan v) Fresh/Existing Dimension Height, shape, width, etc., of Dumps in the	 The gravel which is overburden will be excavated and sold to needy customers. There will be no dumping of any waste. NA NA Nil NA

	mine.	
	vi) Volume /Quantity added to Waste/Dump during the violated period.	NA
	vii) Approach to the Dump-Dimensions, distance.	No dump proposed
	Viii) Number of and type of equipments deployed in Dump	NA
	ix) Provision of Garland drains around the Dumps.	NA
	x) Any vegetation made on the slopes.	NA
	xi) Provision of safety standards.	NA
	xii)Impact of waste/Dumps on environment a) Air Pollution b) Water Pollution c) Dust Pollution d) Noise Pollution	As no dump is proposed there will be no impact on air, water, and dust and noise environment due to dump.
32	**Construction and design of Ore and sub grade ore/mineral stacks:-** i) Number and location of Ore stacks.	

	ii) Dimension of Ore/sub grade stacks as per the Approved Mining Plan iii) Volume/Quantity added during the violation period. iv) Any screening plant or any other loading equipment engaged during the violated period. v) Approach to Ore/sub grade stack-Distance, hazards. vi) Safety standards adopted while operation. vii) Impact of Ore/sub grade on environment a)Air pollution b)Water Pollution c)Dust Pollution d)Noise Pollution	NA
33	**Mine Pit Water** i) Intersection of Ground water table, specify the measures taken.	The ground water table is observed at a depth of 43.5 to 45m bgl whereas mining operation is proposed for a depth of 42m at higher levels it may not disturb the ground water table. Hence, there will not be any intersection with ground water table.
	ii) Ground water table as per hydro geological studies (pumping test).	As per hydro geological studies, the ground water table is identified as 43.5 to 45m bgl
	iii) Provision of Garland drains around pit and dumps	Garland drainage will be provided around mine pit to collect rain water with leachates to pass through soak pits before discharge into natural drains.
	iv) Water pollution	Rain water mixed mud become slurry with high suspended particles Such Slurry water to be stored in a mine sump and decant it before discharge into natural system.

<table>
<tr><td></td><td>v) Management of mine water</td><td>Mine water shall be used for agricultural purposes by nearby villages as yield of water during monsoon is very low.</td></tr>
<tr><td></td><td>vi) Ultimate pit limit, w.r.t ground water intersection and management of drainage of ground water.</td><td>The ground water table is observed at a depth of 43.5 to 45m bgl whereas ultimate pit limit is 42m. Hence, mining activity will not disturb ground water table.</td></tr>
<tr><td>34</td><td>Diversion of general drainage/ River/Nallah course for mining</td><td>NA</td></tr>
<tr><td>35</td><td>Clearing of vegetation before the commencement of mining operation-Number of trees species wise)</td><td>No, only few shrubs are identified in the quarry area of project site. It will be removed before the commencement of mining activity. To compensate, 30 tree saplings per annum will be planted around mining lease boundary. Also, tree sapling will be along village roads and within Govt. School premises.</td></tr>
<tr><td>36</td><td>Man Power
a) Statutory management
b) Regular (Non-Statutory) manpower</td><td>4 Nos
16 Nos</td></tr>
<tr><td>37</td><td>Population (Nearby Habitation)

a) Population/Significant population/dense population within the buffer zone of 10kms</td><td>
<table>
<tr><th>Name of Village</th><th>Direction</th><th>Distance from Mines</th><th>Population</th></tr>
<tr><td>Nerkunram</td><td>SW</td><td>0.78</td><td>624</td></tr>
<tr><td>Anambakkam</td><td>NE</td><td>1.7</td><td>1665</td></tr>
<tr><td>Porpandal</td><td>W</td><td>2.2</td><td>941</td></tr>
<tr><td>Edamachi</td><td>SE</td><td>0.83</td><td>1414</td></tr>
</table>
</td></tr>
<tr><td></td><td>b) People displacements due to mining activities</td><td>The quarrying operation will be concentrated in the quarry lease area and there is no displacement of people due to quarrying activity.</td></tr>
<tr><td></td><td>c) Location/Existence of habitation near the river or any other historical/ sensitive forest distance.</td><td>The Nearest Reserve Forest is
1. Edamachi R.F is located in east side adjacent to lease area
2. Kaveripakkam R.F - 945m – E
3. Marudam R.F – 5.6km – SW</td></tr>
</table>

		4. Mayur R.F – 9.0km – E
	d) Impact of mining on surrounding and habitation- Air, Water, Noise, Pollution.	**a) Air Quality** The concentrations of SO_2 and NOx generated from mining area expected to be low due to absence of any major source. Dust will be suppressed at source by periodical wetting of land. Dust extractor or wet drilling will be used to control dust. Water sprinklers along the haul road shall be done periodically to control dust while transporting minerals and waste. **b) Water Quality** Quarrying does not have any significant impact on the ground water quality, as the proposed quarrying activity will not intersect water table. Garland drainage should be made around the quarry to drain the silt free runoff. **C) Noise Quality & Vibration** Major noise generating sources may be considered as excavation, drilling, blasting, loading and transportation of minerals. The reported noise levels meet the requirements of TNPCB Standards of Residential – 55 dB (A) and Industrial – 75 dB (A). The resultant noise level due to monitored values and calculated values at the receptors are based on the mathematical formula and it can be seen that the ambient noise levels meet the prescribed limit and will remain within permissible limits even when the project will be in operation phase after getting EC. Ground vibration due to quarrying activities in the area is anticipated due to blasting and during movement of vehicles, etc. However, the major source of ground vibration is blasting. The major impact of the ground vibrations is observed on the

		domestic houses located in the villages surrounding the quarry lease area. The kuchha houses are more prone to cracks and damage due to the vibrations. Another impact due to blasting activities is fly rocks. Vibration may be negligible due to absence of heavy deep hole blasting. The blasting mat will be used to prevent the fly rocks during blasting activity. The noise produced from the excavator and tipper will be reduced by proper maintenance. The tipper driver will also be instructed to drive the empty vehicle within 15km/hr speed. Safety devices will be provided to workers and limiting time exposure of workers will be followed to combat the excessive noise. Generation of noise from blasting shall be controlled by delay arrangements in blasting and use of proper quantity of explosives and strength. Greenbelt will be developed around the mine lease as well as safety zones which will help in arresting noise at source.
	e) Socio Economic aspects of mining	The local people will get preference. About 18persons are employed in the quarry. The proponent is proposed to spend CSR @ 2.5% of profit as per the Companies Act, 2013 and CSR Rules, 2014 through local panchayat and CER @ 2% of the project cost for maintenance of road, street light, school sanitation, providing sanitary kits to girl children etc.,
38	Conceptual post mining land use/ restoration	

Head	Present Area (Ha)	Area in use during the quarrying period
Mining area	Nil	0.31.3
Road	Nil	0.02.7
Green belt &	Nil	2.42.2

		Dump		
		Labour shed	Nil	0.00.80
		Total	**2.77.0**	**2.77.0**
39	Disaster management plan for the mine	To overcome such risks, help/aid would be sought from emergency services providers like Police station, fire station, Hospital, Ambulance services from the authorities in the vicinity of the mine site. Their contact telephone numbers and communication facilities are provided and displayed on the board at the mine office as well as mine site. Responsibility of coordinating rescue activities is entrusted to quarry-in- charge at the quarry site. In addition, quarry-in-charge is also looking after statutory obligatory under Mines Act, 1952. Govt. Hospital is located in Salavakkam – 3.8 - SE away from ML area.		
40	Mine closure plan to be furnished in Mining Plan.	Details of mine closure plan is furnished in Mining plan		

Environmental Sensitivity		
Sl.No	**Areas**	**Distance in kilometer/details**
1.	Distance of project site from nearest rail or road bridge over the concerned River, Rivulnet, Nallah etc.	Road bridge over Palar River – 7.2km - N
2.	Distance from Infrastructure facilities	
	a) Railway line	Railway line – 8.9km - NE
	b) National Highway	NH-132B – 8.3 km – N (Chengalpattu - Kancheepuram Road)
	c) State Highway	SH-118A – 8.0km – S (Palamattur-Uthiramerur Road
	d) Major District Road	MDR-789 – 2.8 km – W (Thirumukkudal - Nelvoy - Thirukazhukundram Road)
	e) Any other Road	Nerkundram Village Road – 0.91km – SW. Approach road will be formed to connect the existing approach road located at the distance of 0.26km in southwest side.
	f) Electric transmission line pole or tower	LT is passing in S.F.No 376/1 from southwest to northeast side. The LT line shall be shifted more than 50m before execution of mining lease deed.

	g) Canal or check dam or reservoirs or lake or pond	Lakes and ponds within 5km radius and river within 10 radius are given below 1. Edamachi lake – 130m – N, 170m -W 2. A small pond in Nerkundram village – 674m - SW 3. Lake near Sinnalambadi village -1.6km – SW 4. Lake adjacent to Edamachi R.F – 1.7km – S 5. Lake near Anambakkam village – 1.7km – W 6. Sirudamur lake – 1.9km – NW 7. Porpandal lake – 2.4km – ENE 8. Mampudhur lake – 2.7km - S 9. Salavakkam village lake – 3.0km – SE 10. Sittakakkavanur lake – 3.2km –ENE 11. Edayampudur lake – 3.2km – SE 12. Arunkunram lake – 3.5km - N 13. Padur lake – 3.5km – WNW 14. Peranakkavur lake – 3.6km – NE 15. Kavanipakkam Lake – 3.6km – NE 16. Amaravatipattanam – 3.6km – W 17. Sittalampakkam lake – 3.9km – NW 18. Edayampudur lake – 3.9km – S 19. A lake - 4.2km – NNE 20. Annadhur lake – 4.3km – ESE 21. Madhur lake – 4.4km – NW 22. Thandarai lake – 4.5km – ENE 23. Cheyyar River – 6.0km – NW 24. Palar River – 7.3km – N
	h) In-take for drinking water pump house	Nil within 5km radius
	i) Intake for irrigation canal pumps	Nil within 5km radius
3.	Areas protected under international conventions, national or local legislation for their ecological landscape, cultural or other related value.	NA
4.	Area which are important or sensitive for ecological reasons- wetlands, water courses or other water bodies,	**Forest:** 1. Edamachi R.F is located in east side adjacent to lease area

	coastal zone, biospheres, mountains, forests	2. Kaveripakkam R.F - 945m – E 3. Marudam R.F – 5.6km – SW 4. Mayur R.F – 9.0km – E The lease area is not a forest land. So this project does not attract The Forest (Conservation) Act, 1980. **Water bodies** Lakes and ponds within 5km radius and river within 10 radius are given below 1. Edamachi lake – 130m – N, 170m -W 2. A small pond in Nerkundram village – 674m - SW 3. Lake near Sinnalambadi village -1.6km – SW 4. Lake adjacent to Edamachi R.F – 1.7km – S 5. Lake near Anambakkam village – 1.7km – W 6. Sirudamur lake – 1.9km – NW 7. Porpandal lake – 2.4km – ENE 8. Mampudhur lake – 2.7km - S 9. Salavakkam village lake – 3.0km – SE 10. Sittakakkavanur lake – 3.2km –ENE 11. Edayampudur lake – 3.2km – SE 12. Arunkunram lake – 3.5km - N 13. Padur lake – 3.5km – WNW 14. Peranakkavur lake – 3.6km – NE 15. Kavanipakkam Lake – 3.6km – NE 16. Amaravatipattanam – 3.6km – W 17. Sittalampakkam lake – 3.9km – NW 18. Edayampudur lake – 3.9km – S 19. A lake - 4.2km – NNE 20. Annadhur lake – 4.3km – ESE 21. Madhur lake – 4.4km – NW 22. Thandarai lake – 4.5km – ENE 23. Cheyyar River – 6.0km – NW 24. Palar River – 7.3km – N **Wild life sanctuaries:** 1. Karikili Birds Sanctuary – 10.4km – S 2. Vedanthangal Bird Sanctuary – 16.3km - S

		So this project does not attract The Wildlife (Protection) Act 1972. **Coastal Zone:** Bay of Bengal – 37.6km – E So this project does not attract The C.R.Z Notification, 2018.
5.	Area used by protected, important or sensitive species of flora and fauna for breeding, nesting, foraging resting, over wintering, migration	Nil within 10km radius
6.	Inland, coastal, marine or underground waters	Bay of Bengal – 37.6km - SEE
7.	State, National boundaries	Tamil Nadu – Andhra Pradesh Interstate Boundary – 57.4km - N
8.	Whether the project site attracts the HACA clearance? If so, also furnish the HACA clearance for the mining from the competent authority.	The area does not fall under HACA Village.
9.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	There is no route located adjacent to lease area which is used for access to recreation or other tourist, pilgrim areas
10.	Defense installations	NA
11.	Densely populated or built-up area, distance from nearest human habitation	Salavakkam – 4.0km – SE Chengalpattu – 12km - E
12.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Salavakkam – 4.0km - SE Chengalpattu – 12km - E
13.	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	There is no high quality or scarce resources such as ground water resources, surface resources, forestry, agriculture, fisheries, tourism, and rare minerals near the site.
14.	Areas already subjected to pollution or environmental damage (those where existing legal environmental standards are exceeded).	Nil
15.	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	It is not an earth quake prone area or any other natural disasters. Adequate measures will be adopted to prevent flooding in the project site during rainy seasons.

16.	Is proposed mining site located over or near fissure/fracture for ground water recharge	No
17.	Whether the proposal involves approval or clearance under the following Regulations or Acts, namely:- a. The Forest (Conservation) Act, 1980; b. The Wildlife (Protection) Act, 1972: C. The Costal Regulation Zone Notification, 2011. If yes, details of the same and their status to be given.	a) NA b) NA c) NA
18.	Forest land involved (hectares)	NA
19.	Whether there is any litigation pending against the project and / or land in which the project is propose to be set up? a. Name of the court b. Case No. c. Orders or directions of the court, if any, and its relevance with the proposed project.	NA

"I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be revoked at our risk and cost."

Signature of Project Proponent
Along with name and address

THIRU.R.GIRIDHARAN,
S/o.Rajendran, No.12/113,
1st main road, Moogambigai nagar,
Sikkarayapuram extension,
Gerugambakkam, Kancheepuram,
Tamil Nadu – 600 128
Mobile No 8056065165
Date : 25.8.2023
Place : Salem

Signature of EIA Coordinator

For Aadhi Boomi Mining & Envirotech (P)Ltd.,
Director

Mr.S.Suriyakumar
M.Sc., M.Phil, F.C.C. (Min)
PGDBA, DIPC
EIA Co-ordinator (Mining)
Contact No : +919842729655
Email: suriyakumarsemban@gmail.com

BRIEF SUMMARY OF THE PROJECT

The Applicant, Thiru. R.Giridharan S/o. Rajendran, No.12/113, 1st Main road, Moogambigainagar, Sikkarayapuram Extn, Gerugambakkam , Chennai -600 128, Tamilnadu has applied for quarrying Rough Stone and Gravel over an extent of 2.77.0 Hectares located in S.F.Nos: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5 Edamachi Village, Uthiramerur Taluk, ,Kancheepuram District, Tamil Nadu.

The Assistant Director, Department of Geology and Mining, Kancheepuram has directed the applicant Thiru. R.Giridharan vide his proceedings Roc.No.47/Q3/2019, dated 20.10.2020 to get approved mining plan and obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying Rough Stone & Gravel over an extent of 2.77.0 Hectares located in S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 in Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu for a period of Ten Years.

The mining plan is prepared as per the Assistant Director's proceedings letter, Roc.No. 47/Q3/2019, dated 20.11.2020 under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying Rough Stone with due consideration of environmental parameters so as to obtain Environmental clearance (EC) from EIA Authority (SEIAA), as per the EIA Notification, 2006 and its amendment. The mining plan was approved by Rc.No.47/Q3/2020 dated 20.11.2020. The project cost is about Rs. 23 lakhs and EMP cost is Rs. 3.5 lakhs. As per AD 500m radius cluster vide Rc.No.47/Q3/2020 dated 20.11.2020, the cluster area of the proposed project is 2.77.0 Ha which comes Category "B2" as per EIA Notification 2006 and its amendments.

Therefore, the project proponent made online EC application under Category "B2" in PARIVESH portal vide SIA/TN/MIN/185288/2020 for obtaining environmental clearance from SEIAA/SEAC for this newly proposed Rough Stone and Gravel Quarry. The proposal was placed in 223rd SEAC Meeting dated 30.07.2021 and 459th SEIAA Meeting dated 09.09.2021 and EC was granted by SEIAA vide Lr.No.SEIAA-TN/F.No.8101/1(a)/EC.No:4730/2021 dated: 20.09.2021.

Then, Arjun Gopalaratnam S/o R. Gopalaratnam residing at No.2, Nerundram Village, Slavallam Post, Via Anambakkam has filed case in National Green Tribunal (NGT), Southern Zone, Chennai against The Tamil Nadu State Environmental Impact Assessment Authority and Mr.R.Giridharan (Project Proponent). The allegations made by the Arjun Gopalaratnam (Appellant) and the counter filed by SEIAA (Respondent 1) and the project proponent(Respondent 2) is given in below table.

R. Giri

Table: 1.1 Details of case filed in NGT, Southern Zone, Chennai and Judgement by NGT

S.No	Allegations by appellants	Counter filed by SEIAA	Counter filed by PP	Suppression of vital facts	Remarks by consultant
1	Applicant mentioned only three villages in Form – I namely Malaipattu, Vellari and Guduperumbedi. The nearest two more villages namely Anambakkam and Nerkundram which will be most affected by explosion, dust pollution, traffic, noise and water pollution is not mentioned.			a) There are surrounding villages which could be affected by explosion, dust pollution, traffic and also impact on ground water besides the noise pollution and contamination of agricultural land and water bodies. b) These aspects have not been considered in the Environmental Impact Assessment Study.	The mitigation measures for air Water, soil and noise pollution were given detail in the EMP report.
2	<u>Misrepresentation by PP</u> PP stated that Edamachi Reserved Forest as a social forest is adjacent to site in eastern side without leaving the buffer belt of 40.2m by 60.4m required by Revenue board standing orders.	<u>Other conditions by SEAC</u> The prior clearance from the forestry shall be obtained before starting the quarry operations, if the project site attracts Forest (Conservation) Act, 1980.	a) After the field inspection done by the Assistant Director, Geology and Mining, it was recommended to grant mining lease. Based on the recommendations, the Assistant Director had directed PP to obtain EC from SEIAA. b) In condition 4 of LOI, it is stated that the Edamachi social forest in Sy. Nos. 258 to 274 is located on the eastern side of the subject land and it should not be disturbed. In compliance of above condition, PP had applied for EC under B2 category.	a) The appellant stated that Edamachi forest is reserved forest whereas PP stated that Edamachi forest is social forest as per LOI letter from AD, Geology and Mining. It is beyond dispute. b) If pp had obtained required clearance (if applicable), it would have made it clear whether it is reserved forest or a social forest. c) In this regard appellant submitted the information obtained under RTI furnished by DFO. In that, the Edamachi reserved forest is situated in SY. Nos. 258, 260 to 274, 339 to 346 FMB also shows that these survey numbers are adjacent to the project site which is within the prohibited distance. d) The distance of Edamachi forest alone is mentioned in Form 1.	The safety distance of 60m has been left for the Edamachi Reserve forest as per conditions given in the precise area Letter of communication.

3.	In Form –I, depth of water table is mentioned as 48m bgl and the quarry is to be done only till 42m depth. However, it is stated that the ground water table in the village is at 2-8 m. PP suppresses the fact of water table and Edamachi Reserve Forest.	a) The SEAC recommended the grant of EC subject to certain conditions. The ultimate depth of mining is restricted to 32m from 42m considering the hydrogeology regime of the surrounding area. b) PP was directed to submit a hydro geological study report to SEIAA.	The allegation that water table at 02 to 08m bgl is absolutely baseless as the detailed hydro geological study report submitted by PP show that the depth of water is 43.5 to 45m bgl. There is no suppression of fact of water table.	a) The appellant has produced certain photographs to show that the water level is as low as 02m to 08m below ground level. b) The depth of water table mentioned in hydro geological report is 43.5-45m whereas the depth for water table in Form-1 is mentioned as 48m bgl which is contrary. c) The total depth of well within 1km radius as per inventory survey data is 12m only	The water table lying during rainy season in open wells is sub soil water. It will be drained within few days where as the permanent water table is said to be fluctuated between 43.5 and 45m. The maximum depth of draw down is reported as 48m. Some temporary or perched water table may be 12m but it is not regional water table.
4	Pp did not mention the Edamachi lake in Form 1 and EMP report	Other conditions by SEAC. It was also stated that the quarry should not affect the agricultural activities and water bodies near the project and the 50 meters safety distance from water body should be left vacant without any activity.		a) The PP did not mention the existence of Edamachi Lake and in his counter also he did not mention about Edamachi Lake.	The safety distance of 50m has been left for Edamachi lake as per the precise area Letter of communication. Refer Lease plan (Plate-II) in approved mining plan.
5	PP failed to disclose the presence of protected areas, ecological sensitive areas within 50 km aerial distance. PP declared that there is no protected areas within 10km radius but Karikali bird sanctuary located at the distance of 12km approximately.	Other conditions by SEAC. The prior clearance from the forestry and wildlife including clearance from the Committee of the National Board of Wildlife as applicable shall be obtained before starting the quarry operations, if the project site attracts NBWL clearance as per the existing law from time to time.	PP submitted to declare those protected areas which are within the distance of 10km from the project site whereas the Karikili Bird Sanctuary is at a distance of more than 10 km from the proposed site. Hence not mentioning of Karikili Bird Sanctuary does not amount to deliberate suppression of fact.		Details of prescribed safety distance as per EIA Notification, 2006 is explained as 10 km. No provisions for 12km radial distance from any wild life or bird sanctuary.
6.	PP stated that the site is non-agricultural land but project site is agricultural land.			The subject land is primarily a agricultural lands	All the survey numbers of proposed lease area are coming under Punjai. There is no survey number under Nanjai. Refer Patta No 970.
7	There are no access roads leading to the project site. There	Other conditions by SEAC.		a) There is no access road to the project site.	The approach road and haul

	is only a path way used for bullock carts. If PP use Nerkundram village roads for transporting the mined material, it will be risk to people and cattle etc.	The transportation of the quarried material shall not cause any hindrance to the village people or existing village road.		b) There are only pathways for bullock carts to be used. c) As per the Village Field Map book, there is no road to the project site excepting a footpath	will be formed during the commencement of project without disturbing adjacent agricultural lands. The repair work of the damaged road will be done by using the rejects generated during quarrying activity.
8	The post environmental clearance monitoring was not done.	-	-	-	The post environment monitoring will be conducted only six month once and compliance report will be submitted to Regional office, MOEF&CC, Chennai.

Judgement of NGT

The Environmental Clearance is set aside and remanded back to the SEIAA and the same should reconsidered and assessed afresh again without being influenced by this order and pass appropriate orders based on the merits within a period of 03 (three) months.

Based on the judgment given by NGT, the new EC application has been made to SEAC/SEIAA vide online proposal No. SIA/TN/MIN/441822/2023 dated 25.08.2023 for reconsideration and assessment of our file for grant of new environmental clearance.

Open cast, mechanized mining will be adopted to extract Rough Stone and Gravel of required size from the area for which lease applied for. Before opening a quarry, several aspects should be considered like planning for the development / production works, formation of faces, lying of approach road to various benches for Movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc. Gravel, weathered material materials shall be removed prior to development of working benches.

Geological resources of Rough Stone & Gravel is estimated as **5,53,940m^3** and mineable reserves is estimated at **55,040** up to depth 40m and **6528m^3** of Gravel up to a depth of 2m after leaving necessary safety distance from the lease boundary.

Production Schedule is proposed as **52,288m^3 (95%)** of Rough Stone for five years and average production is **10,458m^3** per annum or 6 loads per day. Average Production of Gravel shall be **6,528m^3** to a depth of 2m by open cast mining.

TABLE NO: 1.2. SALIENT FEATURE

FEATURE	DETAILS
Name of the Proponent and address	**THIRU.R.GIRIDHARAN** S/o.Rajendran, No.12/113, 1st main road, Moogambigai Nagar, Sikkarayapuram Extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Mobile No. 8056065165.
Existing/New Quarry	Newly proposed rough stone and gravel
Survey number	S.F. No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 (Patta Land)
Geographical features	Latitude: 12°41'45.03"N to 12°41'51.39"N Longitude: 79°51'35.91"E to 79°51'44.47"E Toposheet No. 57 P/14
Site Location	Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu
Type of Project	Rough Stone and Gravel
Category	B2
Mining lease area	2.77.0 Hectares
Geological Resources	**5,53,940m^3**
Mineable Reserves	Rough Stone – **55,040m^3** up to 40m Gravel – **6,528m^3** up to 2m
Production	**52,288m^3 (95%)** of Rough Stone for five years to a

	depth of 40m and average production is **10,458m^3** per annum. Production of Gravel shall be **6528m^3** for three years to a depth of 2m.
Depth of Mining	42m bgl
Water Table	43.5 to 45m bgl (Fluctuation)
Method of Mining	Open cast mechanized mining
Blasting Pattern	Burden – 0.60m Spacing – 0.75m Depth – 1-2m Charge per hole – 140 gm of 25 mm dia. cartridge
Types of Explosives	Nitro compound explosives will be initiated directly by blue sump fuse with Rough detonators or electric detonators. The Powder factor for waste rock development shall be 7 Tonnes per Kg. of explosives.
Storage of Explosive	The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983.
Mining plan approval	Deputy Director, Geology and Mining, Kancheepuram **Rc.No.47/Q3/2020 dated 20.11.2020.**
Period of Lease	10 years from the date of execution
Does it attract any general conditions specified in the EIA notification, 2006?	Not applicable
Man Power	20 persons
Water requirement	Total water requirement – 3.5 KLD Drinking purpose - 0.3 KLD, Domestic purposes – 0.7 KLD, Green belt - 1.5KLD, Water sprinkling on haul roads - 0.5KLD Wet drilling operation - 0.5KLD Source: Drinking water is obtained by Mineral water industries by water canes. Dust suppression, Green belt and other uses is obtained from water tank.
Project Cost	Rs. 23,00,000
EMP Cost	Rs. 3,50,000

Nearest habitation	716m - West
Nearest Village	Nerkunram – 786m - SW Edamachi – 830m - SE
Medical facility	Salavakkam Government Hospital – 3.8 km - SE
Nearest Road	• Nerkundram Village Road – 0.91km - SW • MDR-789 – 2.8 km – W (Thirumukkudal - Nelvoy - Thirukazhukundram Road) • SH-118A – 8.0km – S (Palamattur- Uthiramerur Road) • NH-132B – 8.3 km – N (Chengalpattu - Kancheepuram Road) • Approach road will be formed to connect the existing approach road located at the distance of 0.26km in southwest side
Nearest Town	Chengalpattu – 12km - E
Nearest Railway station	Palur Railway station – 9.0km - NE
Nearest Airport	Chennai International Airport – 44.0km – NE
Water bodies	Lakes and ponds within 5km radius and river within 10 radius are given below 1. Edamachi lake – 130m – N, 170m -W 2. A small pond in Nerkundram village – 674m SW 3. Lake near Sinnalambadi village -1.6km – SW 4. Lake adjacent to Edamachi R.F – 1.7km – S 5. Lake near Anambakkam village – 1.7km – W 6. Sirudamur lake – 1.9km – NW 7. Porpandal lake – 2.4km – ENE 8. Mampudhur lake – 2.7km - S 9. Salavakkam village lake – 3.0km – SE 10. Sittakakkavanur lake – 3.2km –ENE 11. Edayampudur lake – 3.2km – SE 12. Arunkunram lake – 3.5km - N 13. Padur lake – 3.5km – WNW 14. Peranakkavur lake – 3.6km – NE 15. Kavanipakkam Lake – 3.6km – NE 16. Amaravatipattanam – 3.6km – W 17. Sittalampakkam lake – 3.9km – NW 18. Edayampudur lake – 3.9km – S 19. A lake - 4.2km – NNE

<table>
<tr><td></td><td>20. Annadhur lake – 4.3km – ESE
21. Madhur lake – 4.4km – NW
22. Thandarai lake – 4.5km – ENE
23. Cheyyar River – 6.0km – NW
24. Palar River – 7.3km - N</td></tr>
<tr><td>Interstate Boundary</td><td>Tamil Nadu – Andhra Pradesh Interstate Boundary – 57.4km - N</td></tr>
<tr><td>Coastal Zone</td><td>Bay of Bengal – 37.6km - E</td></tr>
<tr><td>Reserve Forest</td><td>The Reserved Forest located within 10km radius of lease area are given below
1. Edamachi R.F is located in east side adjacent to lease area. 60m safety provided.
2. Kaveripakkam R.F - 945m – E
3. Marudam R.F – 5.6km – SW
4. Mayur R.F – 9.0km – E
The lease area is not a forest land.</td></tr>
<tr><td>National Park/Wildlife Sanctuary</td><td>There are no wildlife sanctuaries or national parks located within 10km radius of the lease area. The nearest wildlife sanctuaries is mentioned below
1. Karikili Birds Sanctuary – 10.4km – S
2. Vedanthangal Bird Sanctuary – 16.3km - S</td></tr>
<tr><td>Existing Pit</td><td>Nil</td></tr>
<tr><td>Land Use Pattern</td><td>
<table>
<tr><th>Head</th><th>Present Area (Ha)</th><th>Area in use during the quarrying period</th></tr>
<tr><td>Mining area</td><td>Nil</td><td>0.31.3</td></tr>
<tr><td>Road</td><td>Nil</td><td>0.02.7</td></tr>
<tr><td>Green belt & Dump</td><td>Nil</td><td>2.42.2</td></tr>
<tr><td>Labour Shed</td><td>Nil</td><td>0.00.80</td></tr>
<tr><td>Total</td><td>2.77.0</td><td>2.77.0</td></tr>
</table>
</td></tr>
</table>

From
R. Perumal Raja, M.Sc.,
Assistant Director,
Geology and Mining,
Kancheepuram.

To
Thiru. R.Giridharan,
S/o. Rajendran,
No.12/113, 1st Main Road,
Moogambigai Nagar,
Sikkarayapuram Extn.,
Gerugambakkam,
Chennai - 600 128.

Rc. No.47/Q3/2020, dated:20.11.2020

Sir,

Sub: Mines and Minerals – Kancheepuram District - Minor Mineral – Rough Stone & Gravel Quarry in Patta lands - S.F.Nos. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, 376/5 - Over an Extent of 2.77.00 Hectares in Edamachi Village - Uthiramerur Taluk – Thiru. R. Giridharan S/o. Rajendran Submission of Mining Plan for obtaining Environment Clearance - Mining Plan Approved - Regarding.

Ref:
1. Application for Rough Stone/Grave Quarry permission preferred Thiru. R.Giridharan S/o. Rajendran, No.12/113, 1st Main Road, Moogambigai Nagar, Sikkarayapuram Extn., Gerugambakkam, Chennai - 600 128 dated.20.03.2020.
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. G.O. Ms. No. 169 / Industries (MMC 1) Department, dated.04.08.2020.
4. G.O. Ms. No. 208 / Industries (MMC 1) Department, dated.21.09.2020.
5. The Assistant Director, Geology and Mining, Kancheepuram, Precise Area Communication letter No.47/Q3/2020, dated.20.10.2020.
6. Mining Plan submitted by Thiru. R.Giridharan S/o. Rajendran, No.12/113, 1st Main Road, Moogambigai Nagar, Sikkarayapuram Extn., Gerugambakkam, Chennai - 600 128 in letter dated.07.11.2020.

****

In the reference 5th cited, Precise Area has been Communicated to Thiru. R.Giridharan S/o. Rajendran was directed to produce the mining plan for approval and to obtain Environmental Clearance from competent authority for the Rough Stone & Gravel Quarry in S.F.Nos. 367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/1I (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3

(0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) Over an Extent of 2.77.00 Hectares in Edamachi Village, Uthiramerur Taluk, Kancheepuram District for a period of Ten years.

In the reference 6th cited above, by Thiru. R.Giridharan S/o. Rajendran, No.12/113, 1st Main Road, Moogambigai Nagar, Sikkarayapuram Extn., Gerugambakkam, Chennai - 600 128 have submitted three copies of Mining Plan prepared by the RQP, for the Rough Stone & Gravel Quarry in S.F.Nos. S.F.Nos. 367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/1I (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3 (0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) Over an Extent of 2.77.00 Hectares in Edamachi Village, Uthiramerur Taluk, Kancheepuram District and requested to approve the Mining Plan.

Now in the reference 6th cited the lessee has been submitted a Mining Plan prepared by RQP with a request to approve the same for enhanced production of Rough Stone and Gravel Quarry S.F.Nos. 367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/1I (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3 (0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) Over an Extent of 2.77.00 Hectares in Edamachi Village, Uthiramerur Taluk, Kancheepuram District. The Mining Plan has been prepared for the production of 52,288 M^3 of Roughstone and 6,528 M^3 of Gravel for a period of five years.

The Mining Plan has been verified in detail and found that it has been prepared in accordance with the guidelines / instructions issued by the Commissioner of Geology and Mining vide letter in Rc.No.3868/LC/2012 dated 19.11.2012.

Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, read with G.O. (Ms). No.79 / Industries (MMC 1) Department dated 06.04.2015, the Mining Plan is hereby approved subject to the following conditions.

Part-I

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

(ii) This approval of the mining plan does not in any way convey the approval of the Government in terms or any other provisions of the Mines and Minerals (Development and Regulation) Act, 1957, or any other connected laws including Forest (Conservation) Act, 1980, Forest Conservation Rules, 1981, Environment Protection Act, 1980,

Explosives Act, 1884 (Central Act IV of 1884) Minor Mineral Concession and Development Rules, 2010 and the Rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.

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

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

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

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

(vii) If any black granite deposit found in the applied area during quarry work the lease granted will be cancelled as per Rules.

(viii) விண்ணப்பப் புலங்களுக்கு மேற்கே உள்ள ஏரி உள்வாய் நீர்நிலை புறம்போக்கு புல எண்கள்.371, 372, 373-ல் எவ்வித ஆக்ரமணங்கள் செய்யக்கூடாது மேலும் 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு பராமரித்து குவாரிப்பணி செய்யப்பட வேண்டும்.

(ix) விண்ணப்ப புலங்களுங்களுக்கு இடையே அமைந்துள்ள கல்லாங்குத்து புறம்போக்கு புல எண்.369 இப்புலத்தினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

(x) விண்ணப்ப புலங்களுங்களுக்கு கிழக்கே புல எண். 258 முதல் 274 வரை அமைந்துள்ள எடமச்சி சமூகநலக்காடுகளுக்கும், மேலும் மேய்க்கால் நிலத்தில் அ பதிவேட்டின்படி புலஎண். 379 சமூக நலக்காடுகள் என உள்ளதால் இப்புலங்களினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புல எண்.379-னை ஒட்டியுள்ள விண்ணப்பப் புல எண்கள்.367/1, 367/2, 376/4க்கு 60 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு கம்பி வேலி அமைத்து குவாரிப்பணி செய்யப்பட வேண்டும்.

(xi) விண்ணப்ப புல எண்.376/1-ல் தென்மேற்கிலிருந்து வடகிழக்கு வழியாக குறைந்த மின்னழுத்த கம்பி செல்கிறது. எனவே குவாரி குத்தகை வழங்குவதற்குமுன் அகற்றபடவேண்டும் என்ற நிபந்தனையுடனும், இல்லையேல் பாதுகாப்பு இடைவெளி 50 மீட்டர் விடப்பட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

Part-II

(a) There are no minor mineral quarries exceeding an extent of 25.00.0 hectares in total within a radial distance of 500 meters from the periphery of the applied fields.

Encl:
Two copy of Approved Mining Plan

Assistant Director,
Geology and Mining,
Kancheepuram.

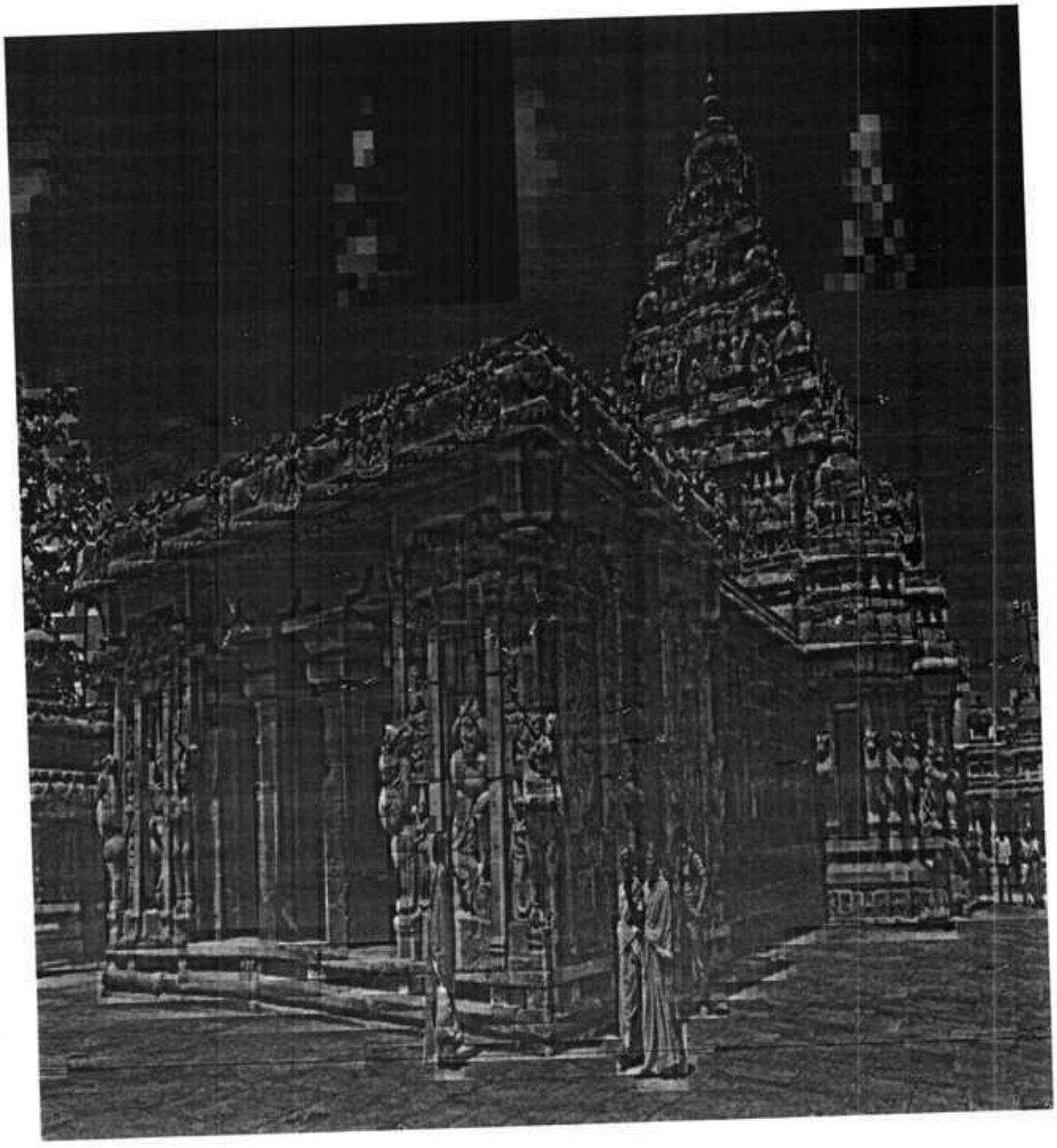
Copy to:

1. Thiru.S. Suriyakumar, M.Phil., F.C.C., PGDBA,
   Recognized Qualified person,
   No.3/216, KSV Nagar, narasothipatti,
   Salem District.
2. The Director of Geology and Mining,
   Chennai-32. (with AMP).

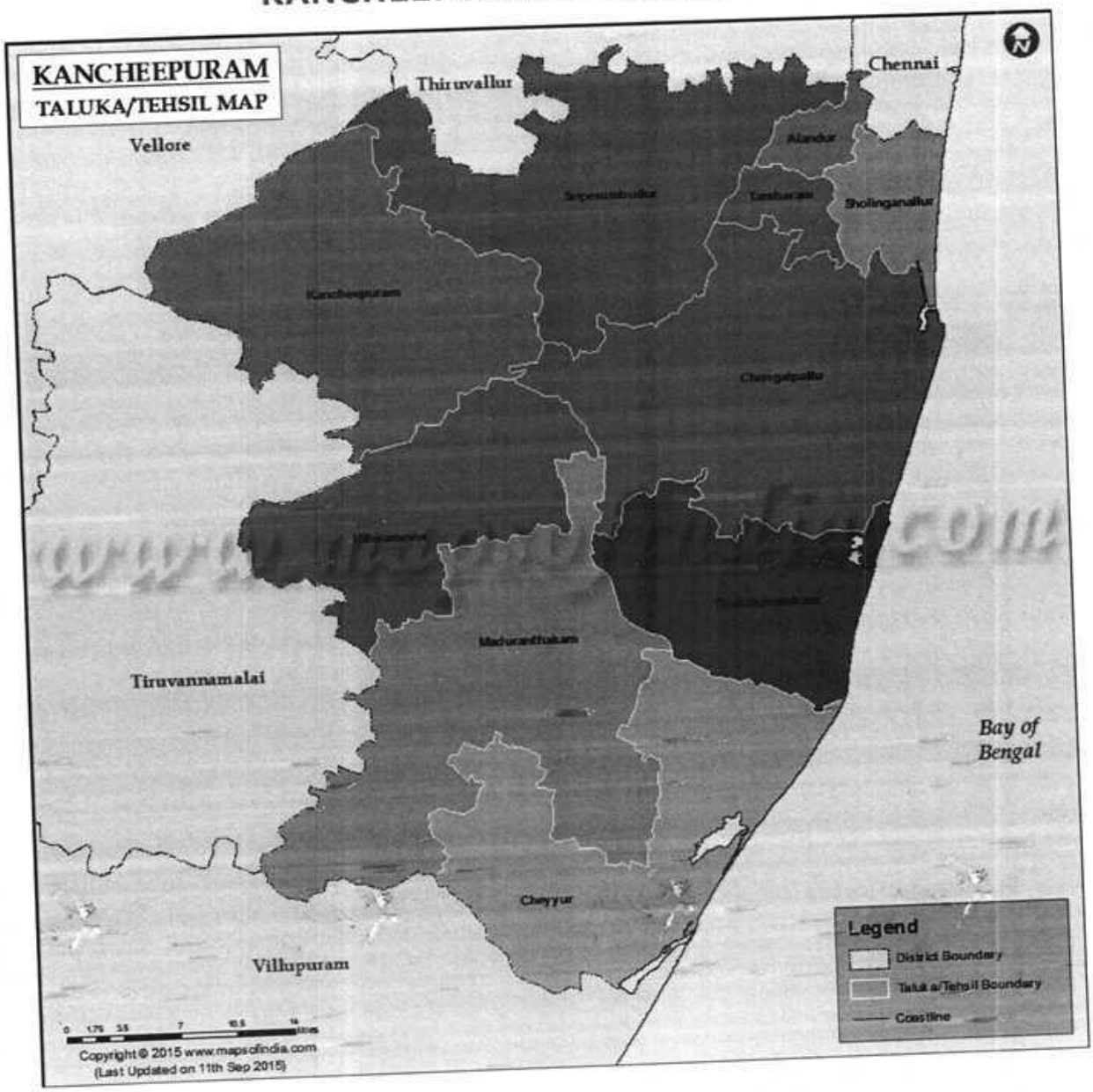
DISTRICT SURVEY REPORT

ROUGH STONE & GRAVEL

KANCHIPURAM DISTRICT



DISTRICT SURVEY REPORT FOR MINOR MINERALS
KANCHEEPURAM DISTRICT



Prepared as per the Ministry of Environment, Forest and Climate Change MoEF & CC

Gazette Notification S.O.3611 (E) Dated 25.07.2018.

MAY 2019

DISTRICT SURVEY REPORT
KANCHEEPURAM DISTRICT

I. INTRODUCTION

The Ministry of Environment, Forest Climate Change vide its notification in **S.O.3611 (E) dated 25.07.2018** had laid down the procedure for preparation of District Survey Report for Sand mining (or) River Bed Mining and of minor minerals other than sand mining (or) River bed mining. In pursuance to the said notification, the District Survey report of Kancheepuram District has been prepared. The objective of preparation of District Survey Report is to identify the mineral hearing areas. Quantity the available resources and there by carryout sustainable quarry operations with respect to economy and environment.

This District Survey report is a guide for systematic, scientific and sustainable utilization of natural resources, so that present and posterity may be benefitted at large. The purpose of District Survey Report (DSR) is "Identification of areas of aggradations or deposition where mining can be allowed; and identification of areas of erosion and proximity to infrastructural structures and installations where mining should be prohibited", in respect of Sand. In respect of other minor minerals all that parameters required for scientific and sustainable mining based on the nature and type of minor mineral have been incorporated

The District Survey report (DSR) contain mainly data published and endorsed by various Departments and websites about Geology of the area, Mineral Wealth details, Details of Lease and Forest, Rivers, Soil, Agriculture, Road, Transportation and Climate etc., Mining activity in the

District along with Revenue of Minerals. This report also contains details of Forest, Rivers, Soil, Agriculture, Road, Transportation and Climate etc.,

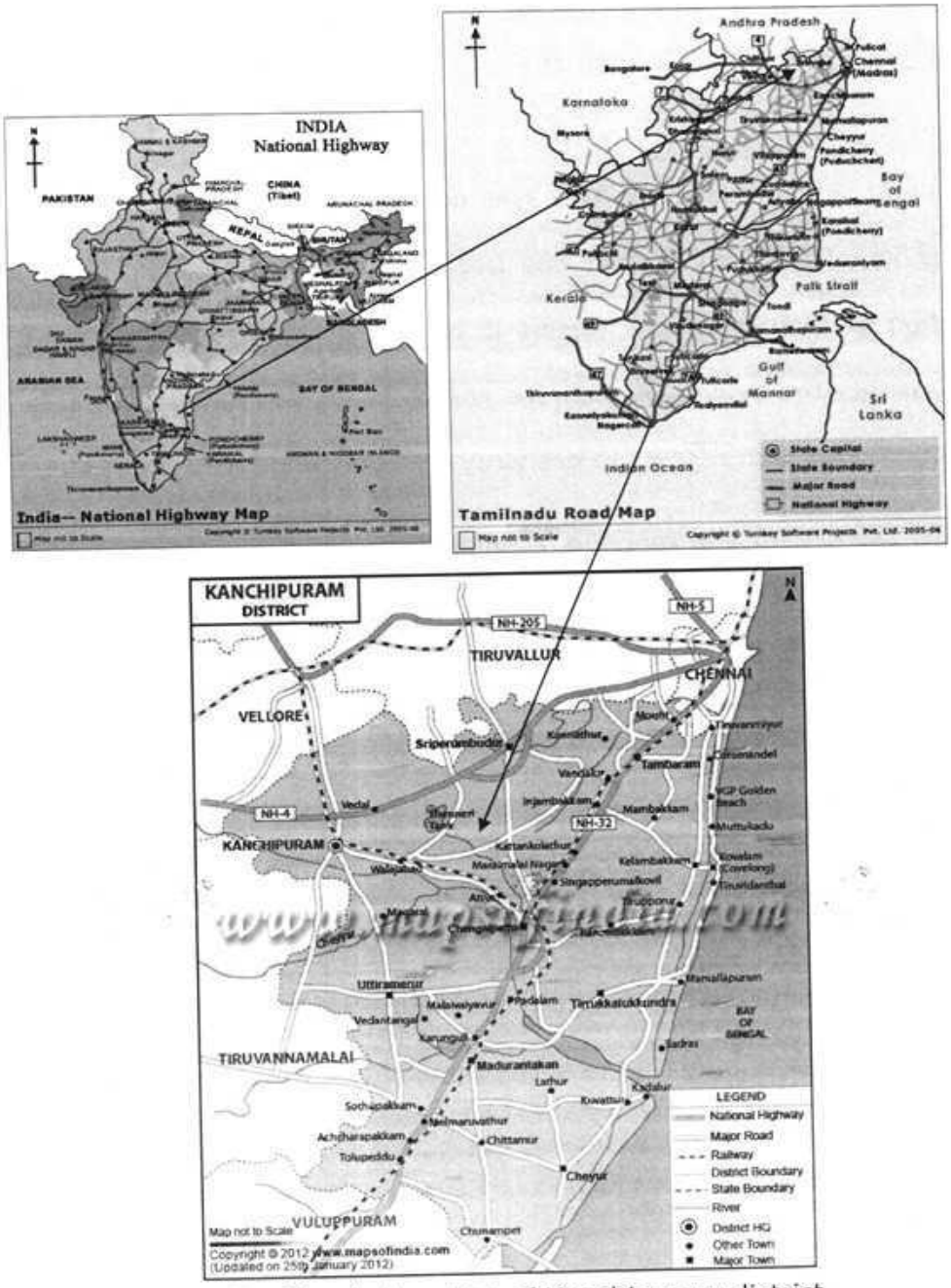


Fig. No. 1. Location of Kanchipuram district.

Kancheepuram was the historical capital of Pallavas, having magnificent temples and unique architectural beauty that bears testimony to its ancient glorious of Dravidian heritage. It is also known for its richest silk. Mamallapuram, Uthiramerur and Sriperumpudur are some of the other historical places in the district. The district is also known for the numerous electronic and software units in the IT corridor, Giant car manufactures like ford, Hyundai, BMW, Renault Nissan, Bharath Benz Telecommunication multinationals like Nokia and Flextronics and the famous glass manufacturer Saint Gobain. Kancheepuram district is having administrative divisions of 8 taluks, 13 blocks, 648 panchayats and 1137 villages as detailed below:-

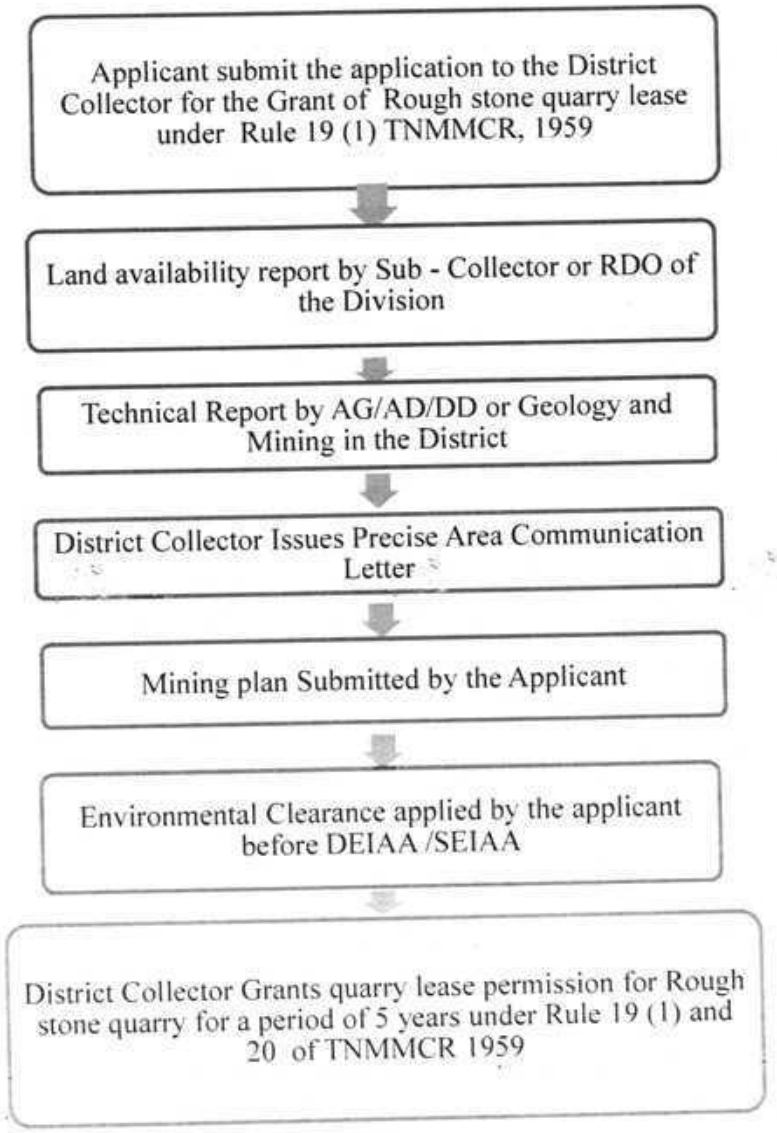
Sl. No	Taluk	No. of Villages	Block	No. of Villages
1.	Kancheepuram	207	1.Kancheepuram 2.Walajabad	91 116
2	Uthiramerur	124	2 Uthiramerur	124
3	Madurantakam	195	1.Madurantakam 2.Acharapakkam	101 94
4	Cheyyur	128	1.Chittamur 2.Lattur	65 63
5	Sriperumpudur	192	1.Sriperumpudur 2. Kundrathur	101 91
6	Tambaram	66	St.Thomas Mount	66
7	Chingleput	198	1. Kattankolathur 2. Tiruporur	101 97
8	Tirukkalukkundram	104	Tirukkalukkundram	104
	Total	**1214**		1214

Table No. 1. Overall view of Kanchipuram District.

II. Overview of Mining Activity in the District

Granite, Rough Stone / Building Stones, River Sand, Silica Sand and Clay are the minerals available in Kancheepuram district.Mining activities based on these minerals are very less. However, numerous ordinary rough stone quarries are operational for production of construction material in many of the areas in the district.

Procedure for Grant of lease for Rough stone quarries



The office of the Assistant Director, Department of Geology and Mining is functioning under the control of District Collector, Kancheepuram. The Assistant Director, Geology and Mining is assisting the District Collector in the Mineral Administration works.

III. General Profile of The District

The district is situated on the Northern side of east coast of Tamil Nadu. It isbounded on the east by Bay of Bengal, Chennai City and Thiruvallur District on thenorth, Vellore and Thiruvannamalai Districts on the west and Villupuram District andUnion territory of Puducherry on the south. It lies between 11° 00' to 12° 00' North latitudes and 77° 28' to 78° 50' East longitudes. The district has a total geographical area of 4433 Sq. Kms and coastline of 87.2 Kms.

Kancheepuram district generally experiences hot and humid climatic conditions. The district receives the rain under the influence of both southeast and northeast monsoons. High relative humidities between 58 and 84% prevail throughout the year. Relative humidity is maximum in the morning and minimum in the evening. Higher rates of relative humidity are observed between November and January i.e., 83 to 84%. In the months of June, the humidity is lower i.e., around 58%. Average relative humidity in the morning and evening 74 and 64%.The minimum and maximum temperatures are 20°C & 37°C. The daytime heat is oppressive and the temperature is as high as 43°C. The district has a

reserved forest of 23855.84 Hectares. Cashew is the only major forest produce. Total out-turn cashew in 2010-11 was 5.282 Tonnes.

Other statistics of the district is given below:

S.No	Particular	Unit	Statistics
1	Geographical features		
(A)	Geographical Data		
	i) Latitude		11.00' - 12.00'
	ii) Longitude		77.28'& 78.50'
	iii) Geographical Area	Hect.	4,43,210
(B)	Administrative Units		
	i)Sub divisions	Nos.	4
	ii)Tehsils / Taluks	Nos.	11
	iii)Revenue Firkas	Nos.	68
	iv)Blocks	Nos.	13
	v)Town Panchayats	Nos.	17
	vi)Village Panchayats	Nos.	633
	vii)Municipalities	Nos.	9
	xi)Revenue villages	Nos.	1,112
2.	**Population(2011)**		
(A)	Sex-wise		
	i)Male	Nos.	20,10,309
	ii) Female		19,80,588
(B)	Rural Population	Nos.	14,53,072 (36.41%)
3.	**Agriculture**		
A.	Land utilization		
	i)Total Area	Hect.	4,43,210.000
	ii)Forest cover	Hect.	23855.840
	iii)Non Agriculture Land	Hect.	147350.195
	v)Cultivable Barren land	Hect.	11007.989

4.	**Forest**		
	(i)Forest	Hect.	23,855.840
5.	**Livestock, Poultry & Fisheries**		
A.	**Cattle**		
	i)Cattle	Nos.	6,21,651
	ii)Buffaloes	Nos.	1,54,434
	i)Goats	Nos.	3,89,190
	ii)Sheep	Nos.	3,08,342
	iii)Poultry	Nos.	12,32,833
	iv)Milk Production	Ltr.	235.529
	v)Egg Production	Lakhs	630.436
	vi)Fish Catch– Inland Marine	Tonne	7,948.54
	Railways, Roads, Communication, health and Education		
	a. Railways		
	i)Length of rail line	Kms	221Kms
	(a)National Highway	Kms	317
	(b)State Highway	Kms	2,700.120
	(c)Corporation & Municipal Roads	Kms	1,082.717
	(d)Panchayat Union & Panchayat Roads	Kms	4,757.412
	(e)Town Panchayat Roads	Kms	363.560

Table. No. 2 Other statistics of Kanchipuram District

In Kanchipuram district, the bovine population is high in the District and therefore, the Meat gravy concentrate industry having bright future here. The District has achieved self-sufficiency in the milk production and the surplus milk can be used to produce dairy products. The fruit-based nutritious beverages are gaining popularity and are in good demand in urban areas. There is good scope for the units

like mango pickles, Soft drinks, Chocolates and Chutneys. There is a good demand for dried fish, fish meal, dried shrimp, canned shrimp and frozen shrimp in domestic as well as export market. There is good scope for exporting these products to countries like Spain, Japan, Australia, Italy, Belgium, Hongkong, U.K. U.S.A. Sri Lanka, Saudi.

The Rain Water Harvesting Structures with public participation has begun to show results. The important rivers in the District are Palar, Cheyyar and Vegavathi, Maduranthagam, Thenneri, Damal, Kolavai Sriperumpudhur, Uthiramerur, Pillaipakkam and Sembarampakkam are the few lakes in the District.

The District leads in the production of fruits Vegetables and flowers in the State. The major horticultural crops are Mango, Cashew and Banana. It has been proposed to set up a Mini Flower Auction Centre at Pallikaranai near Chennai Airport at a cost of Rs.15.00 crores to cater to the needs of flower growers to market their produce both in domestic and international markets. Kattankulathur, St. Thomas Mount, Kundrathur and Walajabad are the blocks where the potentials can be exploited by undertaking agro/food processing activities. Kanchipuram District is rich in fish resources. Potential for exploitation of marine fisheries in the District is high with the coastal line of 87.2 Km.

The District has three large scale car production units with foreign collaboration at Sriperumbudur (HYUNDAI), Maraimalainagar (FORD) and Oragadam (Renault Nissan) the giant glass- manufacturing unit of

Saint Gobain Glass factory near Sriperumbudur providing employment to many people, apart from a number of ancillary units.

The dispersal of Small Scale Industries units reveals that the concentration of SSI units is in St. Thomas Mount, Kanchipuram and Kattankulathur Blocks. The major Khadi Industries include Cotton, Polyester khadhi, Silk and woolen units are in Kanchipuram District. More than 5,000 families are engaged in silk industry and their spectacular creations are marketed by a number of co- operative society.

Kanchipuram District is served by a network of 33 railway stations and 233 Kms. of the total route length shared by broad gauge (139 Kms) and meter gauge (94 Kms).

Bhabha Atomic Research Centre (BARC), has developed comprehensive technology for industrial operations in fuel reprocessing and waste management. The range of activities promoted by the Industrial Estates are vast - while Dr. Vikram Sarabai Estate at Thiruvanmiyur houses electronic industries, the Alathur Industrial Estate houses pharmaceutical industries and the Thirumidivakkam industrial estate houses leather products and finished leather.

A considerable number of Granite polishing units are concentrated in Echambakkam, Sembarambakkam, Chenglepattu and Madurantakam areas. Under the control of Industries department 8 cooperative societies are functioning and the Irula cooperative society has unique feature (Snake- antivenium production centre).

The District provides enough scope for the development and growth of industries engaged in Textiles Garments, Leather Products, Granites, Silk Alloy castings, Machine Tools and Automobile products

Kanchipuram is a world-renowned silk city. Silk weaving in the handloom sector is clustered in and around Kanchipuram, which is famous for silk sarees. Kanchipuram's exquisite silk sarees are woven from pure mulberry silk in contrasting colours and have an enviable reputation for texture, lustre, durability and finish. The District has well developed silk and handloom weaving industries in the co-operative sector.

IV. Geology and Mineral wealth of the district

An outline on Geology of Tamil Nadu

Geologically, Tamil Nadu chiefly comprises Archaean hard rocks formation except along the coast belt where marine sedimentary formations belonging to Cretaceous and Tertiary ages, covered by recent alluvium, are found to occur. Mineral occurrences of different origin have been recorded in all these formations. Archaean rocks mostly consist of Gneisses, Schists and Charnockites. The notable geological formation found in Tamil Nadu is Cuddalore formation belonging to Tertiary age. These formations are found to have plant fossils. Besides this, the occurrences of Upper Gondwana formation also noticed near Sriperumbudur (close to Chennai) and Satyavedu (A.P. State). These are composed mainly of white to pink clays, shale and felspathic sandstone.

Geological map of Tamilnadu and Puducherry is given below:

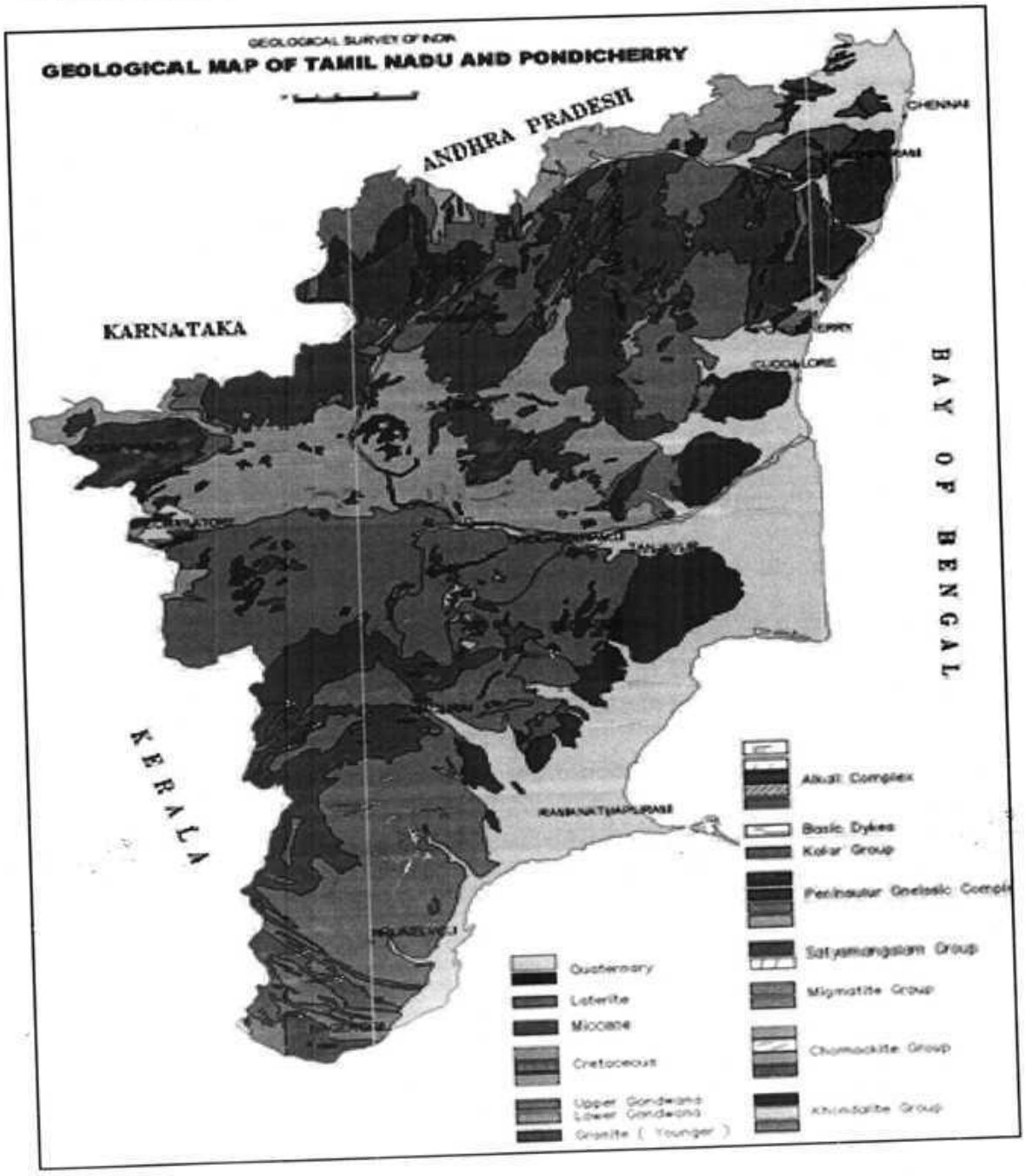


Fig. No. 2 Geological map of Tamil Nadu.

(Source:Misc.Pub. 30, GSI, Chennai)

Geology of Kanchipuram District

General Stratigraphy of the area:

Age		Formation	Group	Rock Types
Cainozoic	Recent to Late Pleistocene			Fluvial/Marine
				Laterite
	Early to middle Pleistocene			Quartz conglomerate singles (Kanchipuram gravels)
				Calcareous Gritty Sandstone and clay
	Mio Pliocene	Cuddalore		Sandstone
Mesozic	Lower Cretaceous	Sriperambudur		Sandstone/Shale/Conglomerate
Paleozoic	Permian	Talchir	Lower Gondwana	Khaki Green Shale/Conglomerate/Sandstone
Archaean		Younger Intrusives		Basic Dyke
			Migmatite Complex	Migmatite Gneiss
			Charnockite	Magnetite Quartzite Pyroxene Granulite Charnockite
			Khondalite	Garnet Sillimanite Gneiss

Kanchipuram area is endowed with a complex geological set up with crystalline rocks occurring in the Southern part of the area and the Northern part of the area The crystalline rocks occur at depths covered by sedimentary formations ranging from Gondwana to Recent. The depth at which the crystalline rocks occur progressively increase towards north. The sedimentary cover sequence is named as Palar basin and the

thickness of the sediments is as high as 300 m in the northern part. The eastern part comprises unconsolidated sediments of fluvio-marine and marine origin. The Precambrian crystalline rocks are represented by charnockites and contain several enclaves mafic granulite. Garnetiferous biotite gneisses, leptinites and banded magnetite quartzites are also encountered as linear bands. Intrusion of dolerite dykes are also found.

GEOLOGY:

The area exposes crystalline rocks of Archaean age and sedimentary rocks of Gondwana Supergroup and the Cuddalore Formation belonging to Mio-Pliocene age. A gravel and shingle bed locally known as Kanchipuram Gravels belong to the Pliocene to lower Pleistocene age. The laterite and alluvium are related to Quatemary age.

The Archaean rocks are represented by Khondalite Group, Charnockite Group and Migmatite complex. Garnet Sillimanite Gneiss is well exposed in the Northeastern part of the district in Pachchamalai hill at Chrompet, Parangimalai and Southeast of Pallavaram. Charnockite in the predominant country rock and the type area for Charnockite is St. Thomas Mount at Pallavaram Taluk. The name Charnockite, St. Thomas Mount "Originated from the use of the rocks quarried from a central band in the St. Thomas Mount for the Tomb stone of job Charnockite, the founder of Kolhath in 1679 .In Pachchamalai hill it is essentially a quartz sillimanite rich rock with minor amount of felspar. In Tambaram hill, chamockite and metapellite are intimately interbanded, particularly along

the hinge zones. Isolated outcrops are also seen on either side of National Highway No.45 near Kadaperi. The major part of the district is occupied by charnockite with enclaves of khondalite, leptynite and BMQ seen around St. Thomas Mount, east of Guduvancheri, Madurantakam, Paler and around Tirukkalukkunram. St. Thomas mount is an extensively studied type area for the Chamockite. It is a typical rock with bluish grey quartz, hard and compact, jointed showing recognisable foliation at places. The outcrop stands out prominently as isolated cluster of hills.

The area in and around Pallavaram, Tambaram and Pulikaradu contain several bands of pyroxene granulite. The chamockite is traversed by narrow dolerite dykes which stand out prominently as dark low ridges and seen for a few metres.

The lower Gondwana sediments (Talchirs) overlie the Archaean rocks unconformably and are seen to the northeast and south of Palar river preserved in the trough faults and comprise boulder beds, dirty white to light green, greyish yellow fine sandstone, siltstone with clasts of rock fragments and khaki green to greenish grey shales.

Mineral occurrences in Kanchipuram District

MINERAL WEALTH:

Silica sand

The East Coast of Kancheepuram District between Cheyyur to Perunthuravu villages were studied for taking up investigation of Silica sand deposits.

The general geology of the area comprises of Charnockite in the West, overlain by Cuddalore sand stones further to the south. This is in turn overlain by sedimentary rocks comprising clay, sandy clay, clayey sand and quartzite of Pleistocene age, now designated as coramandel formation. Silica sand overlies these and are covered by beach sands. The area is almost flat sandy terrain except a few charnockite out crops especially in the areas near Mahabalipuram.

The coastal villages of Maduvankaranai, Munipillaichatram, Mungalvakkam, Muttukadu, Nanganarkuppam, Odiyur, Paramankeni, Parasuramankuppam, Perunthuravu falling Survey of India Topo sheet No.66D/C along the east coast were studied for the occurrence of Silica Sand deposits.

Silica Sand of white to grey colour forms the upper part of the coramendel formation and is sandwitched between the underlying coramendel rocks and the overlying beach sands. These are rarely seen as outcrops, exposed along Odiyur, Nanganarkuppam, Munippillaichatram villages. The silica sand in these areas exhibits greyish white colour and the individual grains are rounded to sub-rounded. The Silica Sand being highly of porous and permeable acts as fresh water aquifers. Presence of fresh water mostly indicate the possible existence of silica sand below.

The entire silica sand deposits are covered with windblown coastal sands having variable thickness. They are pale yellow to straw yellow in colour and will round in nature.

Thus the potential mineral bearing villages are identified as follows:

Sl.No	Name of the Village
1	Cheyyur
2	Maduvankaranai
3	Munipillaichatram
4	Mungalvakkam
5	Muttukadu
6	Nanganarkuppam
7	Odiyur
8	Paramankeni
9	Parasuramankuppam
10	Perunthuravu
11	Pallambakkam
12	Mudaliyarkuppam

The coastal stretch from Mugaiyur to Munipillaichtram of Kancheepuram District consists of silica sand deposits. These sands can be exploited for use in Glass industry, Chemical industry for manufacturing Silica gel, abrasives and foundries. A further detailed sampling and chemical analysis has to be carried out for the suitability of the silica sand in Glass and foundry industry.

Map for Silica Sand Deposits-Study Area Locations In Kancheepuram District.

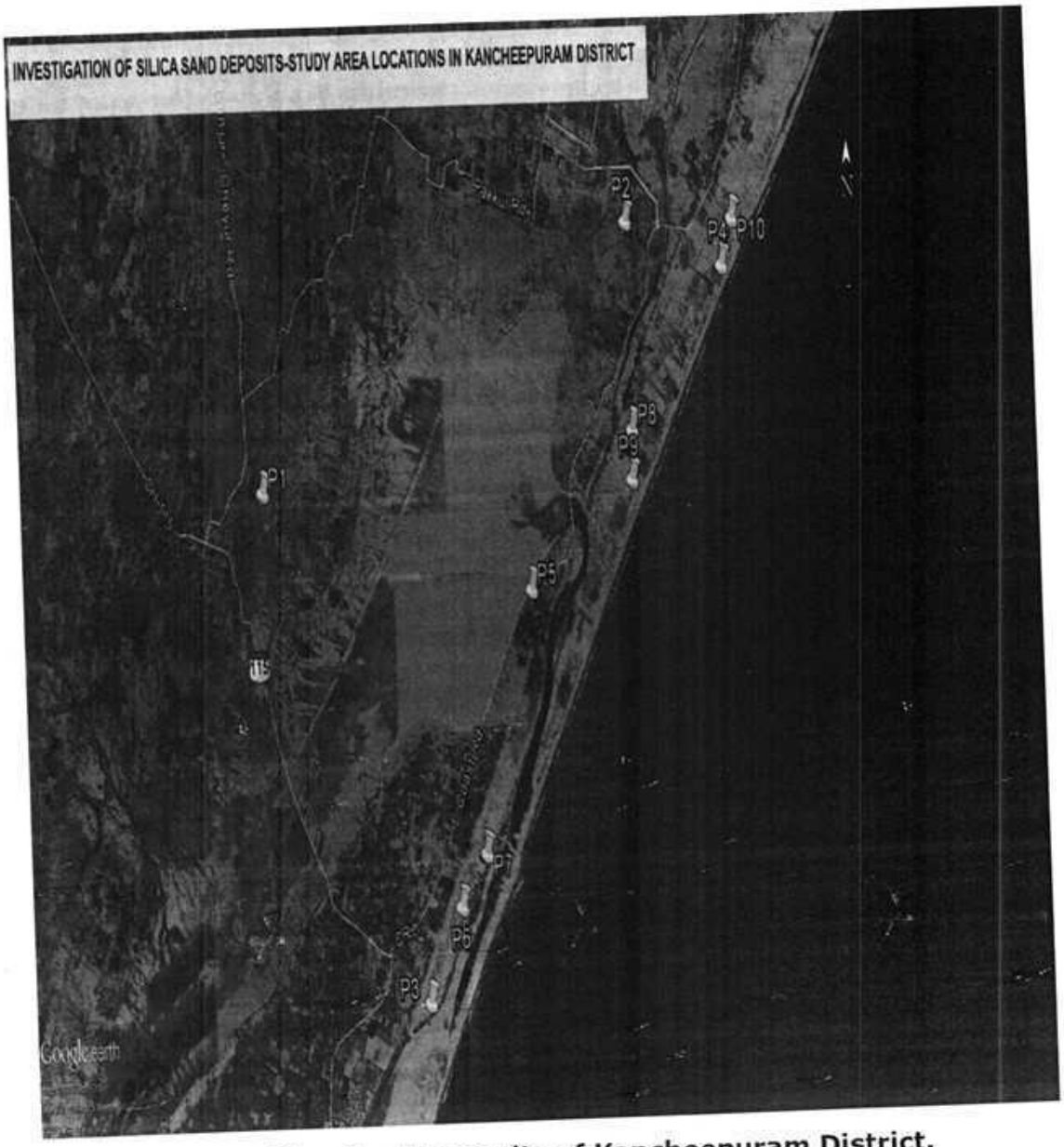


Fig. No.3 Silica Sand Deposits of Kancheepuram District.

Clay:

The upper Gondwana clay deposits occurs in parts of Sriperumpudur the clay beds are generally horizontally reposed and occur as patches in the shales and sandstones, resting uncomfortably on the archaeans i.e. Charnockites.

The clays are plastic, white to buff coloured, ferrugious in some places and generally comprises Kaolinite and montmorillonite as major minerals with Quartz and Feldspar majority of the clay deposits are refractory.

The area of clay occurrences are Sriperumbudur, Mathur, Vallam, Vaipur, Edapaliyam, Kannanthangal, Kommantangal, Kandigai, Mahadevimangalam, Kallambedu. All the clay deposits like the shales are bedded formations. They appear to have been laid, down under lacustrine conditions in a gentle easterly sloping basin with an irregular floor. The shales represent a more indurated formation.

Estimated Availability of Mineral resources

S. No.	Name of Mineral	Estimated Availability (in M^3)
1.	Silica Sand	6,00,000
2.	White Clay	5,00,000
3.	BlackGranite	3,75.000
4.	Stone	75,00,000
5.	Sand	45,00,000

Table. No. 3. Mineral resources of Kanchipuram District.
(Source: - Dept. of mines & geology)

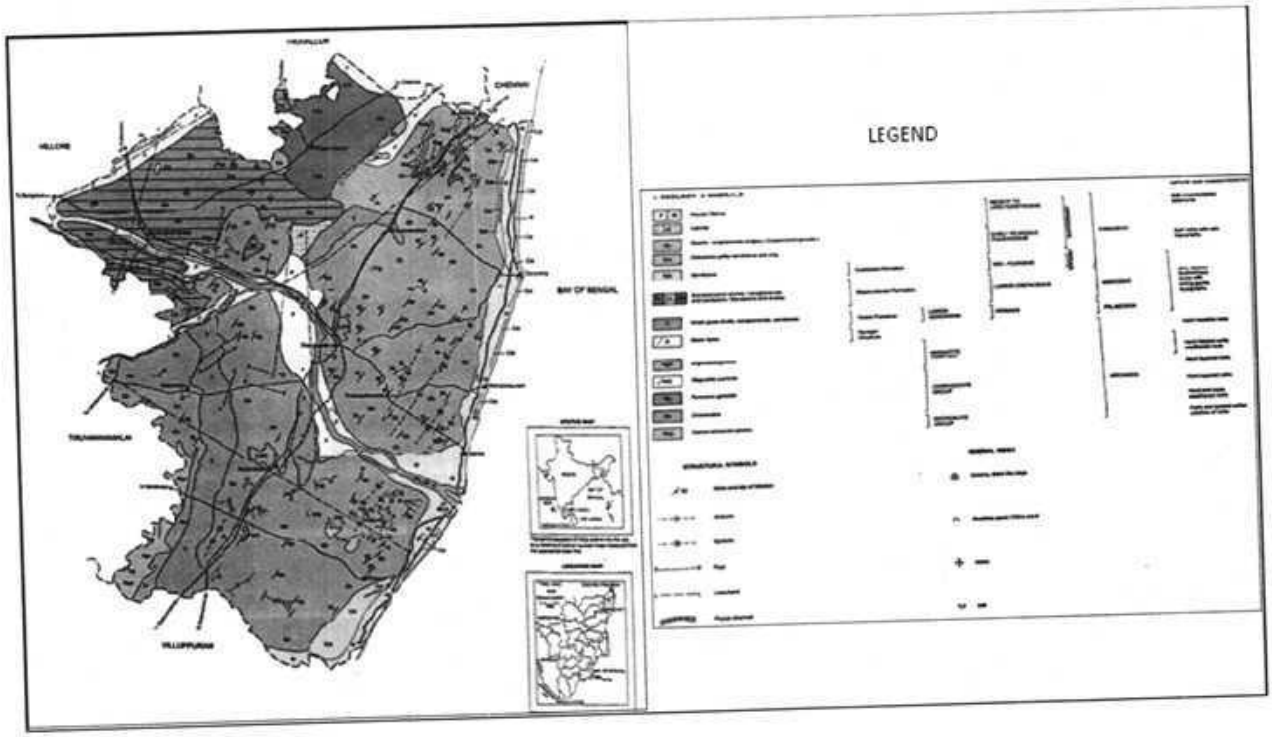


Fig. No. 4 Resource map of Kanchipuram District.

Rough Stone

Charnockite is applied to any orthopyroxene-bearing quartz-feldspar rock, composed mainly of quartz, perthite or antiperthite and orthopyroxene (usually hypersthene) formed at high temperature and pressure, commonly found in granulite facies metamorphic regions, as an end-member of the charnockite series.

Charnockite is extensively quarried for rough stone productivity / aggregates which is used as blue metals for construction of building, laying roads and manufacturing of hollow bricks. In some places, charnockite is used as grinder stone. Charnokite is exposed as excavated

hills in St.Thomas Mount, Tirisoolam, Thiruneermalai, pulikhoradu, Nallambakkam, Erumaiyur. Surfacial exposes are encountered in many villages in the Aurimedu, Panaiyur, Vettaikkaran pudur, Periya Venmani villages of Madurantagam Taluk, Siruthamur, Sirumailur, Madur of Walajabad Taluk. In most of the places charnockite occurrence is sub surgical. There could be seen in the well cutting profiles.

Apart from usage as Rough stone for aggregates, certain charnockite occurances in the Siruthamur (S.F.No. 322 "kundru Promboke") and Sankarapuram (S.F.No.240, 259 "Kundru") had been catering to Rough Blocks for ornamentation purposes. Achieves and local enquiry provides enough information that the rocks in these areas are much sought after by the sculptures for making stone idols and monuments. The list of permissions that have been granted for removal of dimensional stones for ornamental purposes in tabulated as under.

Sl. No.	District	Taluk & Village	S. No.	Classification	Name of the lease & Address	Order No. & Date	Allotment of Qty in Cft	Remarks
1	Kanchipuram	Uthiremerur & Siruthamur	322	Kundru Promboke	Dr.N.M.Veeraiyan, Chief Patron, Arulmigu Balamurugan Aalayam, Ch-05	G.O.(3D) No.2 Industries (MMB-1) dept, Dt:21.03. 2017	4179 cft	

Risk analysis follows an extensive hazard analysis. It involves the identification and assessment of risks the neighbouring populations are exposed to as a result of hazards present. This requires a thorough knowledge of failure probability, credible accident scenario, vulnerability of populations etc. Much of this information is difficult to get or generate. Consequently, the risk analysis is often confined to maximum credible accident studies.

In the sections below, the identification of various hazards, probable risks in the plant, maximum credible accident analysis, and consequence analysis are addressed which gives a broad identification of risks involved in the proposed mining and coal washery project. Based on the risk estimation disaster management plan has been also been presented.

In order to avoid any risk / hazared, the following control measures will be adopted:

- All safety precautions and provisions of the Mine Act, 1955, the Coal Mines Regulation, 1957 and the Mines Rules, 1952 will be strictly followed during all mining operations;
- Entry of unauthorized persons will be prohibited;
- Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use;
- Initial training and refresher courses for all the employees working in hazardous premises; Under mines rules all employees of mines shall have to undergo the training at a regular interval;
- Working of mine, as per approved plans and regularly updating the mine plans;
- Handling of explosives, charging and blasting will be carried out by competent persons only;

Blasting :

Most of the accidents from blasting occur due to the projectiles, as they may sometimes go even beyond the danger zone, mainly due to overcharging of the shotholes as a result of certain special features of the local ground. Vibrations also lead to displacement of adjoining areas. Dust and noise are also problems commonly encountered during blasting operations.

Measures during Drilling and Blasting :

Following measures shall be taken while drilling and blasting operations in the quarry:

- Drilling and blasting in quarry shall be done in accordance with the provisions of Mines Act, rules and regulations;
- Adequate safety measures will be taken during blasting operations in the quarry so that men/machines are not affected;
- Ground vibration due to blasting will be controlled by following

1. Reducing the explosive charge per delay;
2. Reducing the spacing and burden per blast;
3. Reducing the amount of explosive charged per blast; and
4. Proper controlled rock movement during blast by using suitable initiating sequence and delay.

Measures Suggested to avoid Accidents due to Blasting

- Shots will not be fired except during the hours of day light between to only.
- Adequate shelters or other protective structures will be provided to the workers at all times; • The shot fire will give sufficient warning by effective signal over the entire area falling within a radius of 500-m;

XXV. Details of the Occupational Health issues in the District. (Last five-year data of number of patients of Silicosis &Tuberculosis is also needs to be submitted):-

As per the guidelines of the Mine Rules 1955, occupational health safety stipulated by the ILO/WHO. The proponent's will take all necessary precautions. Normal sanitary facilities should be provided within the lease area. The management will carry out periodic health checkup of workers.

Occupational hazards involved in mines are related to dust pollution, Noise pollution, blasting and injuries from moving machineries & equipment and fall from high places. DGMS has given necessary guidelines for safety against these occupational hazards. The management will strictly follow these guidelines.

All necessary first aid and medical facilities will be provided to the workers. The mine shall be well equipped with Personal Protective Equipment (PPE). Further all the necessary protective equipment's such as helmets, safety goggles, earplugs, earmuffs, etc. will be provided to persons working in mines as per Mines Rules. Alloperators and mechanics will be trained to handle fire-fighting equipment's.

XXVI. Plantation and Green Belt development in respect of leases already granted in the District:-

Green Belt Development

A well planned Green Belt with multi rows (Three tier) preferably with long canopy leaves shall be developed with dense plantations around the boundary and haul rods to prevent air, dust

noise propagation to undesired places. Efforts will be taken for the enhancement of survival rate since the soil is alkaline in nature.

Species Recommended for Plantation

Following points have been considered while recommending the species for plantation:

1. Natural growth of existing species and survival rate of various species.
2. Suitability of a particular plant species for a particular type of area.
3. Creating of bio-diversity.
4. Fast growing, thick canopy cover, perennial and evergreen large leaf area

Efficient in absorbing pollutants without major effects on natural growth.

The following species may be considered primarily for plantation best suited for the prevailing climatic condition in the area.

RECOMMENDED SPECIES TO PLANT IN THE GREENBELT

S.No	Name of the plant (Botanical)	Family Name	Common Name	Habit
1	Azadirachta indica	Meliaceae	Neem, Vembu	Tree
2	Albizia falcatoria	Fabaceae	Tamarind, Puliyamaram	Tree
3	Polyalthia longifolia	Annonaceae	Kattumaram	Tree
4	Borassus flabellifer	Arecaceae	Palmyra Palm	Tree

XXVII. Any other Informations:-

The Details related to occurrence of mineral resources and other date of the district are subject to updation from time to time. Before grant of any quarry lease, the parameters related to geosciences and sustainable developments are to be considered on the basis of ground reality.

The Kancheepuram district is having very large deposits of Charnockite rock which is the raw material for the production of aggregates and M-sand. M.Sand is the need of the hour to replace the utilisation of river sand. The Charnockite / Rough Stones are crushed in the crushing units for the manufacture of aggregates and M-sand which gives direct and indirect employment to the local people. Preference and encouragements can be given to the Entrepreneurs for set up of new units for the production of M-sand. The Slica Sand found in Cheyyur Taluk are the India best in the quality, but the quantity available is very less. The Slica sand from this area is utilized in the glass industry.

Assistant Director
Geology and Mining
Kancheepuram.

DISTRICT COLLECTOR /
CHAIRMAN
DEIAA KANCHEEPURAM

MINING PLAN

INCLUDING ENVIRONMENTMANAGEMENT PLAN AND MINE CLOSURE PLAN FOR

ROUGH STONE &GRAVELQUARRY

(Prepared under Rule 41& 42 of TNMMCR, 1959 for a Fresh Mining Lease)

IN

Extent: 2.77.0Hectares,
S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5
Village: Edamachi,
Taluk : Uthiramerur,
District: Kancheepuram,
State: Tamil Nadu.

Address of the applicant

THIRU.R.GIRIDHARAN,
C/o.Rajendran,
No.12/113, 1st main road,
Moogambigai nagar,
Sikkarayapuram extn,
Gerugambakkam ,
Kancheepuram , Tamil Nadu
Pincode-600 128

Prepared by:

S.SURIYAKUMAR,
M.Phil.(Geology),F.C.C.(Mining), PGDBA,
PGDIPC (Industrial Pollution Control)
RQP&NABET/QCI Accredited EIA Consultant,
Reg. No. RQP\MAS\013\87\A

AADHI BOOMI MINING AND ENVIRO TECH (P) LTD.,
(NABET Accredited EIA Consultant "A" Category)
Accreditation No. NABET/EIA/1821/RA-0103
No. 3/216, K.S.V. Nagar,Narasothipatti,
Alagapuram post, Salem - 636 004. Tamil Nadu.
Email: admin@abmenvirotec.com
Mobile: 98427 29655
Website: www.abmenvirotec.com

Nov- 2020

CONTENTS

(a)

LIST OF ANNEXURES

(b)

LIST OF TABLES

(c)

LIST OF FIGURES

(d)

LIST OF PLATES

(i)

CONSENT LETTERFROM THE APPLICANT

Mining Plan in respect of proposed Rough Stone & Gravel quarry, over an extent of 2.77.0 Hectares in S.F.Nos: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 of Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu State has been prepared by **Shri.S.Suriyakumar,** a Recognized Qualified Person Reg.No. **RQP\MAS\013\87\A.**

I request the Assistant Director of Geology & Mining, Kancheepuram District to make further correspondence regarding modifications of the mining Plan with the said RQP on this following Address,

S.SURIYAKUMAR,
M.Phil. (Geology), F.C.C. (Mining), PGDBA,
PGDIPC (Industrial Pollution Control)
AadhiBoomiMining and Enviro Tech (P) Ltd.
Consultant - Geology, Mining& Environment
3/216,K.S.V.Nagar,Narasothipatti
Alagapuram-Post, Salem - 636 004. TN
Phone (0427) 2440446, Cell: 98427 29655

I hereby under take that all modifications so made in the Mining Planby the Recognized Qualified Person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respects.

Place: Kancheepuram, Tamil Nadu

Date: 04.11.2020

Signature of the Applicant

(ii)

THIRU.R.GIRIDHARAN,
S/o.Rajendran,
No.12/113, 1st main road,
Moogambigai nagar,
Sikkarayapuram extension,
Gerugambakkam ,
Kancheepuram , Tamil Nadu
Pincode-600 128.

DECLARATION OF MINE OWNER

Mining Plan in respect of proposed Rough Stone & Gravel quarry over an extent of2.77.0Hectares inS.F.Nos: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 of Edamachi Village, Uthiramerur Taluk, , Kancheepuram District, Tamil Nadu has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the laws.

Place:Kancheepuram, Tamil Nadu
Date: 04.11.2020

Signature of the Applicant

(iii)

S.SURIYAKUMAR,
M.Sc., M.Phil. (Geo), F.C.C.(Min),PGDBA,DIPC.
RQP & NABET/QCI Accredited EIA Consultant,
AadhiBoomi Mining and Enviro Tech (P) Ltd.,
3/216, K.S.V.Nagar, Narasothipatti, Salem - 636 004. TN
Email:suriyakumarsemban@gmail.com ,
Phone (0427) 2440 446, 2444 297, Cell: 98427 - 29655.

CERTIFICATE

Certify that the provisions under Rule 41& 42 of TamilNaduMinor Minerals Concession Rules,1959 have been observed in the Mining Plan for the proposed Rough Stone & Gravel Quarry located inS.F.Nos: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5over an extent of 2.77.0Hectares, of Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu State prepared to Thiru.R.Giridharan,S/o.Rajendran, No.12/113, 1st main road, Moogambigai nagar, Sikkarayapuram extension, Gerugambakkam , Kancheepuram -600 128, TamilNadufor a fresh mining lease.

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

Place: Salem, TamilNadu

Date: 04.11.2020

Recognized Qualified Person
S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

(iv)

S.SURIYAKUMAR,

M.Sc., M.Phil. (Geo), F.C.C. (Min), PGDBA, DIPC.
RQP & NABET/QCI Accredited EIA Consultant,
AadhiBoomi Mining and Enviro Tech (P) Ltd.,
3/216, K.S.V.Nagar, Narasothipatti, Salem - 636 004. TN
Email:suriyakumarsemban@gmail.com, abmenvirotech@gmail.com
Phone (0427) 2440 446, 2444 297, Cell: 98427 - 29655.

CERTIFICATE

Certified that the Mining Plan for proposed Rough Stone & Gravel quarry over an extent 2.77.0Hectaresin S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 over an extent of 2.77.0Hectares, of Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu State prepared to Thiru.R.Giridharan, S/o.Rajendran, No.12/113, 1st main road, Moogambigai nagar, Sikkarayapuram extension, Gerugambakkam , Kancheepuram -600 128, Tamilnaducoversall the provisions of Mines Act, Rules, and Regulations etc. made there under and whenever specific permissions are required, the applicant will approach the Director of Mines safety, Chennai. It is also certified that the standards prescribed by DGMS in respect of Miners Health will be strictly implemented.

Place: Salem, TamilNadu

Date:04.11.2020

Recognized Qualified Person
S SURIYAKUMAR,
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

MINING PLAN

INCLUDING MINE CLOSURE PLANFOR ROUGH STONE & GRAVEL OVER AN AREA OF 2.77.0 HECTARES IN S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5,EDAMACHI VILLAGE, UTHIRAMERURTaluk, , KANCHEEPURAM DISTRICT, TN.

(Prepared under Rule 41& 42 of TNMMCR, 1959 for a Fresh Mining Lease)

ASSISTANT DIRECTOR - GEOLOGY & MINING - KANCHEEPURAM

EXECUTIVE SUMMARY:

1. The Applicant,**Thiru.R.Giridharan,** C/o.Rajendran, No.12/113, 1st main road, Moogambigainagar, Sikkarayapuramextn, Gerugambakkam , Kancheepuram -600 128, Tamilnadu. He has applied for quarrying Rough Stone and Gravel from the area located in S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5Pattaland, over an extent of 2.77.0 Hectares in Edamachi Village, UthiramerurTaluk, ,Kancheepuram District, Tamil Nadu.
2. The Assistant Director, Department of Geology and Mining, Kancheepuram has directed the applicant **Thiru. R.Giridharan** vide his proceedings **Roc.No.47/Q3/2019, dated 20.10.2020**to get approved mining plan and obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying Rough Stone & Gravel quarry lease in S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5Pattaland, over an extent of 2.77.0 Hectares in Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu for a period of **Ten Years.**
3. The mining plan is prepared as per the Assistant Director proceedings letter of under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying Rough Stone & Gravel with due consideration of environmental parameters so as to obtain Environmental clearance (EC) from EIA Authority (SEIAA), as per the EIA Notification, 2006 and its amendments.
4. **Geological resources and Mineable reserves:** Geological resources of Rough Stone & Gravel is estimated as 526243m^3 and mineable reserves is estimated at **52288m^3(95%)** up to depth 40m and **36528m^3** of Gravel up to a depth of 2m after leaving necessary safety distance from the lease boundary.
5. **Production Schedule:** Production Schedule is proposed as **52288m^3(95%)** of Rough Stone & Gravel for five years and average production is **10457.6m^3** per annum or 6

loadsper day. Average Production of **Gravel** shall be **34734m³** to a depth of 2m **and** loads for the **300** working day per year by open cast mining.

6. Safety measures under mechanized loading as per the provisions of Reg. 106 (2)(b) Metalliferous Mines Regulation,1961 and other labour welfare Amenities as per the Mines Rules, 1955 and amended DGMS circulars to be followed strictly.

7. **General Conditions:**

   i) **Forest:** The Edamachi social reserve forest is situated on eastern side. The kaveripakkam RF is situated about 930m on NE side. The Martham RF is situated at 5.7km on SW side.

   ii) **Interstate Boundary:**There is no interstate boundary within 15Km radius.

   iii) **National Park/Wild life sanctuary:** There is no wild life sanctuary or National park found within 10Km radius and the project site area under the Wildlife (Protection) Act, 1972.

   iv) **Coastal Regulation Zone:** The quarry is located far away from sea coast about 38 km away from Bay of Bengal of eastern side. Hence, the project doesn't attract the C.R.Z. Notification, 1991.

8. **Environmental Management Plan,**

   i) Dust control at source while drilling and blasting,

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

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

   iv) Noise level should not exceed 75dB and the vehicles should use only permitted Air Horn while on road near residential areas,

   v) No de~ hole blasting permitted unless approved by DGMS.

   vi) There should be no damage to the ecological balance. No trees should be cut without prior permission from the concerned authorities.

   vii) Safety Zones as prescribed by the Dept. of Geology and Mining from adjacent infrastructures should be strictly adhere to,

   viii) There will not be any hindrance or disturbance to the people living on en route\nearby my quarry site while transporting the mined out material and due to mining / quarrying activities.

   ix) The required insurance will be taken in the name of the labours working in my quarry site.

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

INTRODUCTION:

Extracting minor minerals from an area of less than 5 hectares will need environment clearance from the Union ministry of environment and forests (MOEF) as per the EIA (Environmental Impact Assessment) notification, 2006 from State/District level EIA Authority.

1. Theapplicant,Thiru. R.Giridharan, S/o. Rajendran, No.12/113, 1st main road, Moogambigainagar, Sikkarayapuram extension, Gerugambakkam , Kancheepuram - 600 128and Tamilnadu is an individual. The proposedarea is fresh lease quarry, over an extent of 2.77.0 hectares situated inS.F.No:367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5,Pattaland, Edamachi Village, UthiramerurTaluk, Kancheepuram District, Tamil Nadu to grand for state Government minor minerals concession Rule 1959, Rule 8(6)(b) with following safety conditions as given below,

1. A safety distance of 10m and 7.5meters should provide adjacent Poramboke and Patta lands.
2. Do not occupying eri porampoke in S.F.Nos 371, 372 & 373 and safety distance of 50meters should provide.
3. Kallanguthu is located in S.F.No 369. It should be maintained without making any changes and 10m safety distance should be provided.
4. In the Eastern side of the lease applied area, the Edamachi social forest is located in SF Nos. 258 to 274 and as per A register, SF No.379 is fall in social forest. Hence these lan 's should be maintained without making any changes and 60m safety distance should be maintained.
5. The LT line is passing through in SF No.376/1 from southwest to north east. This LT line should be removed before grant of quarrying or 50m safety distance should be maintained
6. The Tamilnadu Minor Mineral concession rules 1959, According to rule number 42 must be obtained Environmental Clearance from State Level Environmental impact Assessment Authority (SEIAA).

1.0 GENERAL INFORMATION:

1.1	Name and Address of the Applicant	**THIRU.R.GIRIDHARAN** S/o. Thiru.murugan No.125/41, thirumangalam road, Villivakkam, chennai, tamilnadu Pincode-600049 Mob: 9884954054
1.2	Status	Individual
1.3	Mineral for which lessee intends to mine	Rough Stone & Gravel
i)	Area of quarry lease Area	2.77.0Hec.
ii)	Reference no and date of proceedings letter from the state Government:	**47/Q3/2019, Dated 19.10.2020**
iii)	Period of Permission\ lease to be granted	**10 Years** (To be granted)
1.4	Name and address of the RQP who prepared the companied mining Scheme	**S.SURIYAKUMAR** M.Sc., M.Phil (Geology). F.C.C. (Mining), PGDBA, DIPC (Industrial Pollution Control). **AadhiBoomiMining and Enviro Tech (P) Ltd.** 3/216, K.S.V. Nagar, Narasothipatti, Alagapuram -Post, Salem – 636 004. Tamil Nadu.
i)	Web site /E-mail	www.abmenvirotec.com abmenvirotech@gmail.com suriyakumarsemban@gmail.com
ii)	RQP registration No.& Validity	RQP & NABET/QCI Accredited EIA Consultant, Reg. No. RQP\MAS\013\87\A Valid up to 08.11.2021

2.0 LOCATION AND ACCESSIBILITY

a) Details of the area:

The way to reach from Kancheepuram to Palayaseevaram via SH58by 20km traveling. From the Palayaseevaram another10.4km traveling to reach chitlapakkam via MDR789. From chitlapakkam, the quarry is located in 3.6km on Eastern side.There is an approach road located nearby the site on the Northwest side for transport of materials.

b) **Route:**

Kancheepuram --20Km--> **Palayaseevaram10.4Km** --> **chitlapakkam** --3.6km--> **Site**

Ownership occupancy of applied area (Surface rights): Patta land.

c) Details of the lease Area: Pattaland.

TABLE NO-I: Details of land particulars

State & District	Taluk,	Village	S.F.No.	Permissible for quarrying (Ha)	Ownership Occupancy
Tamil Nadu&Kancheepuram	Uthiramerur	Edamachi	368/1G	0.26.0	Patta land
			368/1H	0.11.5	
			368/1I	0.12.5	
			367/1	0.08.5	
			367/2	0.20.0	
			376/1	0.29.0	
			376/2	0.12.0	
			376/3	0.33.5	
			376/4	1.15.0	
			376/5	0.09.0	
			TOTAL	**2.77.0**	

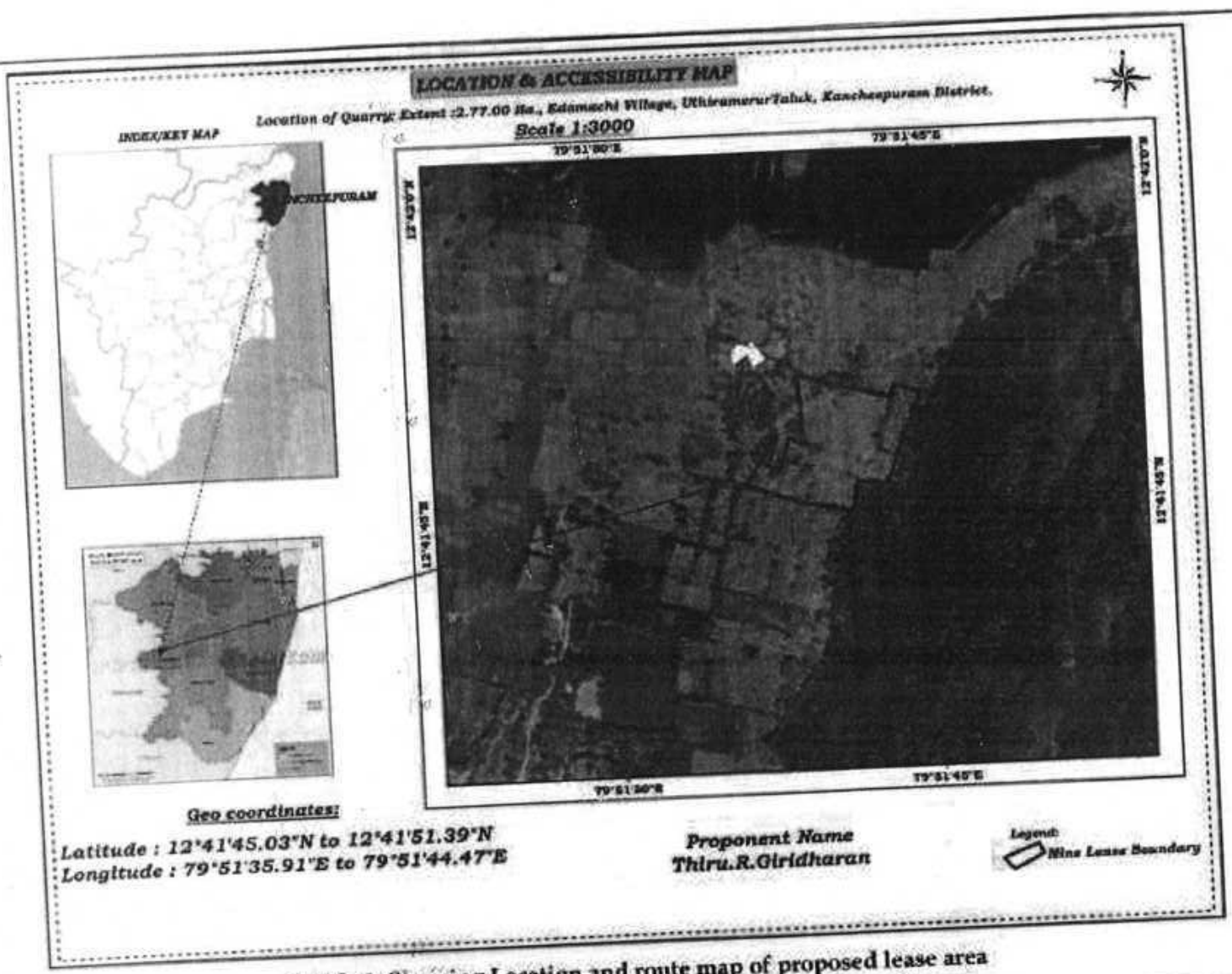


Fig.No.1: Showing Location and route map of proposed lease area

ASSISTANT DIRECTOR - KANCHEEPURAM

e) The area is represented by Survey of India Topo sheet No. 57 P/14 as given in plate No.1. The area lies in the northern latitude of 12°41'45.03"N to 12°41'51.39"N and eastern longitude of 79°51'35.91"E to 79°51'44.47"E. Latitude and Longitude of all boundary Pillars are given below,

TABLENO-II:Details of latitude and longitude of all pillars corner reading

Pillar No	Latitude (N)	Longitude (E)
1	12°41'46.49"N	79°51'35.91"E
2	12°41'47.59"N	79°51'36.83"E
3	12°41'48.71"N	79°51'37.41"E
4	12°41'48.65"N	79°51'37.58"E
5	12°41'47.31"N	79°51'37.05"E
6	12°41'47.08"N	79°51'37.59"E
7	12°41'48.59"N	79°51'38.15"E
8	12°41'48.25"N	79°51'38.78"E
9	12°41'51.39"N	79°51'38.70"E
10	12°41'50.66"N	79°51'41.28"E
11	12°41'50.18"N	79°51'43.05"E
12	12°41'50.74"N	79°51'43.27"E
13	12°41'50.28"N	79°51'44.47"E
14	12°41'46.10"N	79°51'42.60"E
15	12°41'46.36"N	79°51'41.34"E
16	12°41'45.03"N	79°51'40.94"E
17	12°41'45.52"N	79°51'38.76"E

f) Infrastructures nearby and approximate distance are given as under,

TABLE NO-III: Details of infrastructure nearby proposed lease area

S. No.	Particulars	Location	Approximate Distance in Km	Direction
1.	Post office	Kilakaddi	6.6	SE
2.	Town (District Head)	Walajabad	11	NW
3.	Police Station	Salavakkam	4.4	SE
4.	Govt. Hospital	Salavakkam	4.4	SE
5.	School	Chitlapakkam	3.3	W
6.	SP Office	Walajabad	11	NW
7.	Railway Station	Palayaseevaram	8.9	N
8.	Nearest Airport	Meenabakkam, Chennai	44	NE
9.	Villages			
	i)	Edamachi	84m	South
	ii)	Malaipattu	550m	East
	iii)	Vellari	1.8kms	West
	iv)	Gunduperumbedu	3kms	SW

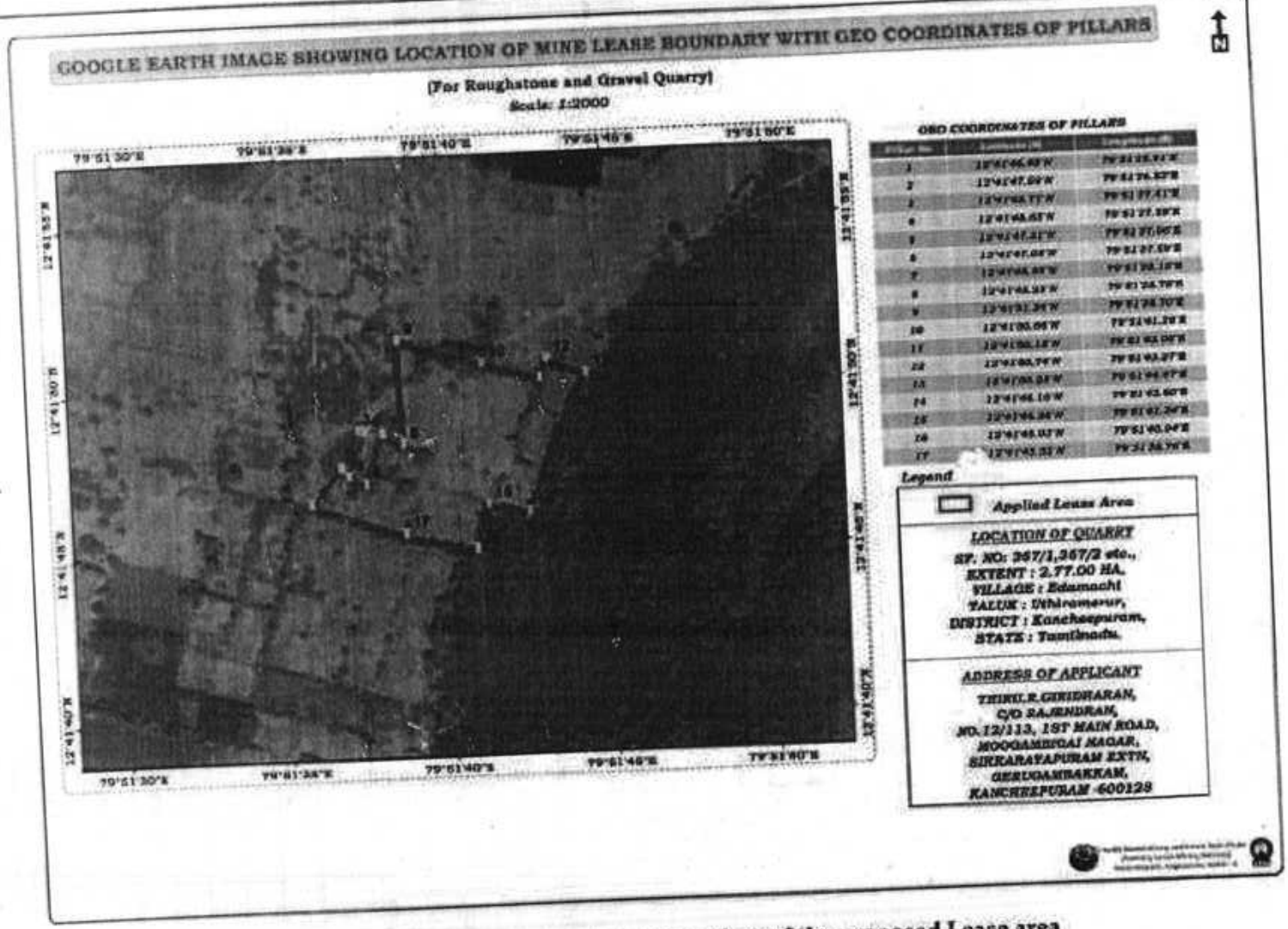


Fig.No.2: Google image shows Lease boundary of the proposed Lease area

ASSISTANT DIRECTOR • GEOLOGY AND MINING • KANCHEEPURAM

100

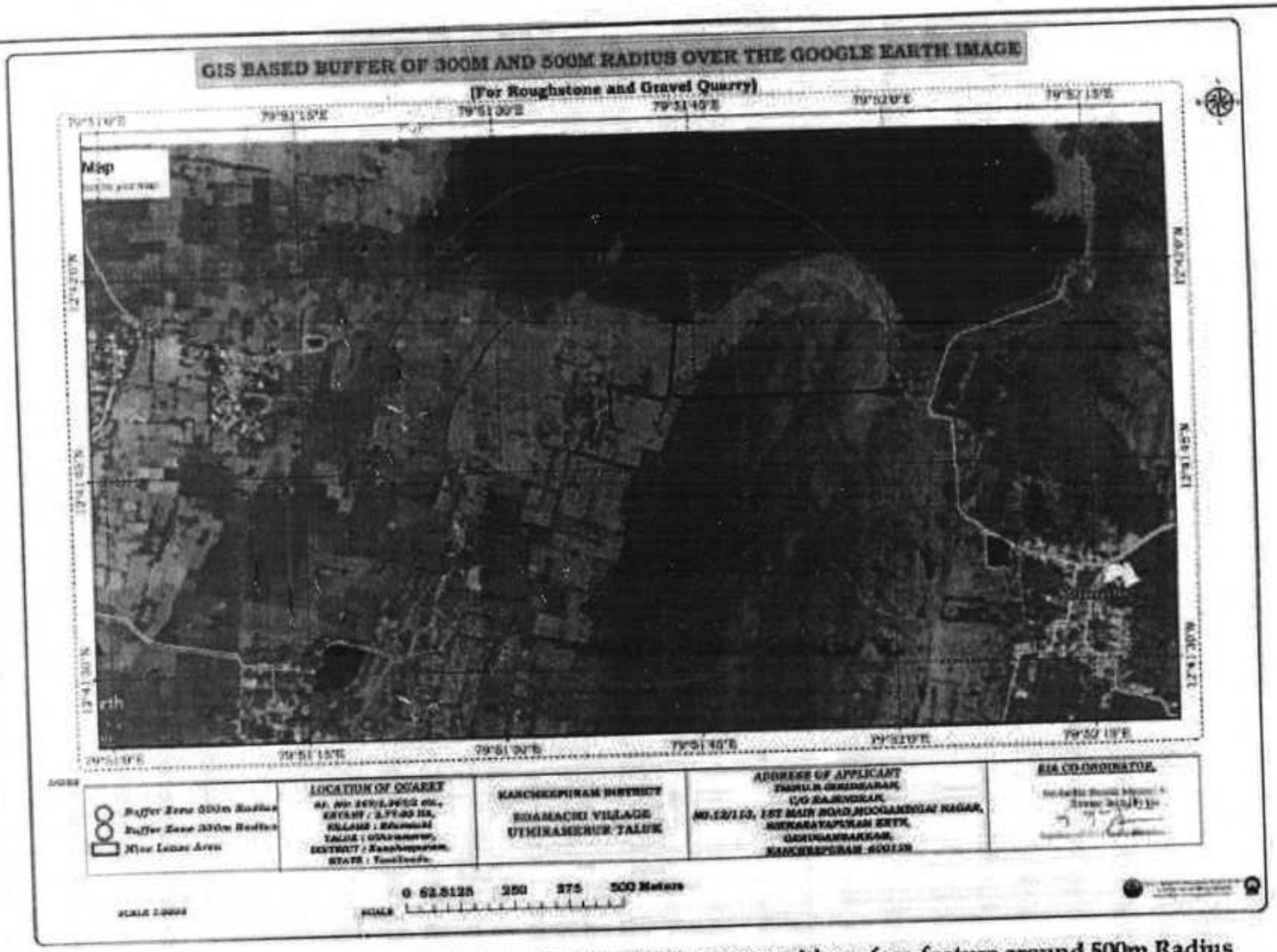


Fig.No.3: Google Image showing location of proposed lease area with surface feature around 500m Radius

101

ASSISTANT DIRECTOR - KANCHEEPURAM

PART - A

3.0 GEOLOGY AND MINERAL RESERVES:

3.1 Brief description of topography, drainage pattern, Vegetation, regional geology and rainfall data if the area applied/mining lease area:

i) **TOPOGRAPHY:**The proposed area is gentle slop- terrain and 52m above mean sea level. A safety distance of 50meters should provide adjacent eri poramboke lands on northeaster side respectively in S.F.No. 371, 372 & 373.

ii) **Drainage pattern:** There is no major river situated about 1km radius. The drainage pattern in this area is dendritic pattern in nature.

ii) **Vegetation:**Mostly grown in this area Neem, Onjai, Acacia bushes, Nona, Panai tree and shrubs are found on regional scale.

b) REGIONAL GEOLOGY:

Tamil Nadu chiefly comprises Archaean hard rock's formation except along the coast belt where marine sedimentary formations belonging to Cretaceous and Tertiary ages, covered by recent alluvium, are found to occur. Mineral occurrences of different origin have been recorded in all these formations. Archaean rocks mostly consist of Gneisses, Schists and Charnockites. The notable geological formation found in Tamil Nadu is Cuddalore formation belonging to Tertiary age. These formations are found to have plant fossils. Besides this, the occurrences of Upper Gondwana formation also noticed near Uthiramerur (close to Chennai) and Satyavedu (A.P. State). These are composed mainly of white to pink clays, shale and felspathic sandstone.

ii) DETAILED DESCRIPTION OF THE GEOLOGY OF THE PRECISE AREA:

The area exposes crystalline rocks of Archaean age and sedimentary rocks of GondwanaSupergroup and the Cuddalore Formation belonging to Mio-Pliocene age.

A gravel and shingle bed locally known as Kancheepuram Gravels belongs to the Pliocene to lower Pleistocene age. The laterite and alluvium are related to Quaternary age. The Archaean rocks are represented by Khondalite Group, Charnockite Group and Migmatite complex. Garnet Sillimanite Gneiss is well exposed in the Northeastern part of the district in Pachchamalai hill at Chrompet, Parangimalai and Southeast of Pallavaram. Charnockite in the predominant country rock and the type area for Charnockite is St. Thomas Mount at PallavaramTaluk, . The name Charnockite, St. Thomas Mount "Originated from the use of the rocks quarried from a central band in the St. Thomas Mount for the Tomb stone of job Charnockite, the founder of Kolhath in 1679 .In Pachchamalai hill it is essentially a quartz sillimanite rich rock with minor amount of felspar. In Tambaram hill, charnockite and metapellite are intimately interbanded, particularly along the hinge zones.

Isolated outcrops are also seen on either side of National Highway No.45 near Kadaperi. The major part of the district is occupied by charnockite with enclaves of khondalite, leptynite and BMQ seen around St. Thomas Mount, east of Guduvancheri, Madurantakam, and Palar and around Tirukkalukkunram. St. Thomas mount is an extensively studied type area for the Chamockite. It is a typical rock with bluish grey quartz, hard and compact, jointed showing recognisable foliation at places. The outcrop stands out prominently as isolated cluster of hills. The area in and around Pallavaram, Tambaram and Pulikaradu contain several bands of pyroxene granulite. The charnockite is traversed by narrow dolerite dykes which stand out prominently as dark low ridges and seen for a few metres. The lower Gondwana sediments (Talchirs) overlie the Archaean rocks unconformably and are seen to the northeast and south of Palar river preserved in the trough faults and comprise boulder beds, dirty white to light green, greyish yellow fine sandstone, siltstone with clasts of rock fragments and khaki green to greenish grey shales.

3.2 DETAILS OF PROSPECTING / EXPLORATION ALREADY CARRIED OUT:

i) Already carried out:

The proposed area is a gentle slope terrain and that the adjacent quarry as same rock as with well exposed. No explorations in like boreholes/trenches are carried out.

Fig.No.4: Photograph shows general view of the proposed area

Fig.No.5:Photograph shows GPS survey of the proposed area at pillar no: 6

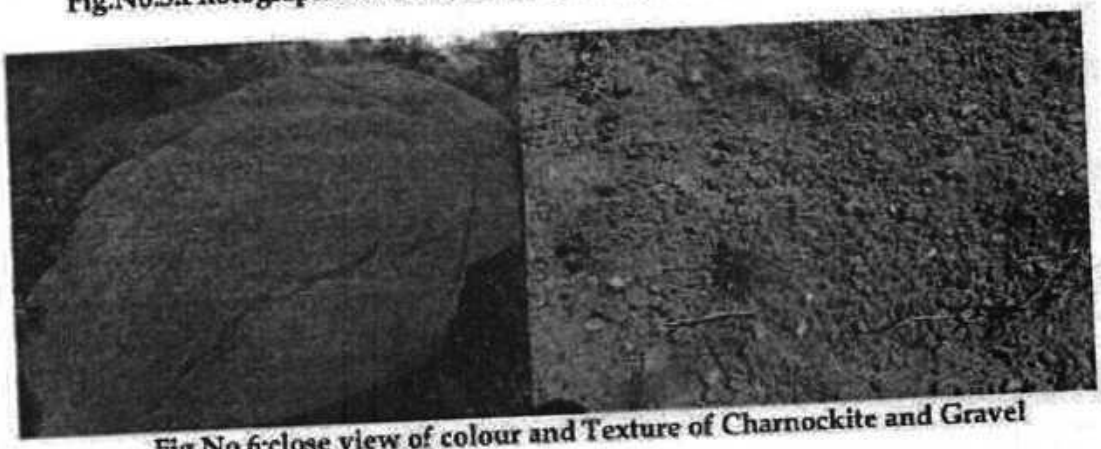


Fig.No.6:close view of colour and Texture of Charnockite and Gravel

3.3 METHOD OF ESTIMATION OF RESERVES

The geological and recoverable reserves are estimated by cross-sectional methods up to a depth of 42m from the surface. The Geological plan has been prepared in 1: 1000 scales. Totally 2 sections have been drawn, one islonger axis (A-B) and one iswidth wise section are perpendicular to the strike (X1-Y1) to cover the maximum area of influence in the scale of 1: 1000, both sections are drawn in 1:500 (Plate no-IV) to illustrate the final pit configuration of the mine and method of working the deposit systematically. The geological and recoverable reserves are estimated by cross-sectional Methods up to a depth of 42m. Recovery of Rough Stone taken as 95% and rejects as 5%.

a) GEOLOGICAL RESOURCES:

The geological resources is estimated by cross sectional method is as **553940m³** of Rough Stone & Gravel up to a depth of 42m from the surface, having considered the depth of mining, recovery, safety barriers etc. A detail of estimation of geological resources and reserves is given in the Table no -IV.

TABLE NO-IV: Computation of Geological Resources and Reserves

SECTION	DESCRIPTION	L (m)	W(m)	D(m)	Volume M3	Resources @95% (M3)	Reject @5% (M3)
AB-X1Y1	SAFETY ZONE	104.5	113	40	472340	448723	23617
	MINEABLE RESERVE	64	44	10	28160	26752	1408
		52	32	10	16640	15808	832
		40	20	10	8000	7600	400
		28	8	10	2240	2128	112
	UNDER MINE BENCH	4	4	10	160	152	8
		16	16	10	2560	2432	128
		28	28	10	7840	7448	392
		40	40	10	16000	15200	800
TOTAL					**553940**	**526243**	**27697**

Total Geological resources up to a depth of 42m = 553940m³

Total Geological reserves @ 95% = 526243m³

Total Reject @ 5% = 27697m³

b) MINERAL RESOURCES LOCKED UP UNDER SAFETY ZONE:

The mineral resources locked up under safety zone is estimated by cross sectional method is as **472340m³** of Rough Stone & Gravel up to a depth of 42m from the surface.

TABLE NO-V:Computation of locked up under safety zone Resources

Section	L (m)	W(m)	D(m)	Volume M3	Reserves @95% (M3)	Reject @5% (M3)
AB-XY	104.5	113	40	472340	448723	23617
				472340	**448723**	**23617**

Total Geological resources locked up under safety zone = 472340m³

Total Rough Stone & Gravel reserves @ 95% = 448723m³

Total Rough Stone & Gravel Reject @ 5% = 23617m³

c) MINERAL RESOURCES LOCKED UP UNDER MINE BENCHES:

The mineral resources locked up under mine benches is estimated by cross sectional method is as**26560m³** of Rough StoneGravel up to a depth of 42m from the surface.

TABLE NO-VI: Computation of locked up under mine bench Resources

Section	L (m)	W(m)	D(m)	Volume M3	Reserves @95% (M3)	Reject @5% (M3)
AB-XY	4	4	10	160	152	8
	16	16	10	2560	2432	128
	28	28	10	7840	7448	392
	40	40	10	16000	15200	800
				26560	**25232**	**1328**

Total Geological resources locked up under mine benches = 26560m³

Total Rough Stone & Gravel reserves @ 95% = 25232m³

Total Rough Stone & Gravel Reject @ 5% = 1328m³

d) MINEABLE/RECOVERABLE RESERVES:

Themineable\recoverable reserves is estimated by cross-sectional method having considered the recovery factor, depth of mining, safety barriers etc., The mineable reserves is estimated as **55040m³** of Rough Stone **&6528m³**of Gravel to a depth of mining **44m** from the surface. Details of estimation of mineable reserves are given in Table no. VII.

TABLE NO-VII:Computation of Mineable/Recoverable Reserves

SECTION	L (m)	W(m)	D(m)	Volume M3	Reserves @95% (M3)	Reject @5% (M3)
AB-XY	64	44	10	28160	26752	1408
	52	32	10	16640	15808	832
	40	20	10	8000	7600	400
	28	8	10	2240	2128	112
TOTAL				**55040**	**52288**	**2752**
GRAVEL DEVELOPMENT						
AB-XY	68	48	2	6528	6528	
TOTAL				**6528**		
GRAND TOTAL				**61568**	**58816**	**2752**

Total Mineable reserves to a depth of 42m = 55040m³

Total Mineable Rough Stone reserves @ 95% = 52288m³

Total Mineable Gravelreserves @ 100% = 6528m³

Total Rough Stone Reject @ 5% = 2752m³

Total Waste Ratio (2752m³) = 2752/58816

= 1: 0.05

SUMMARY OF RESERVE ESTIMATION

Total Geological resources (A) = 553940m³

Mineral reserves blocked under Mine benches (B) = 26560m³

Mineral reserves blocked in safety zone (C) = 472340m³

Then,

Total Mineable/Recoverable reserves = A-(B+C)

= 553940-(26560+472340)

= 553940-498900

Mineable reserves calculated as = **55040m³** X 95%

= **52288m³**

The recovery factor is taken as 95% from the top bench up to the bottom. The life of the mine will computed as 10 years, if an average production rate of **5228.8m³**per annum for the depth up to 42m from the surface. The reserves below this level shall increase the life substantially.

4.0 Conceptual Mining Plan/MINE CLOSURE PLAN:

Conceptual Mining Plan is prepared for a period of 10 years of mining to determine the ultimate pit limits, depth of mining and final slope angle adapted with an object of long-term and systematic development of bench lay-outs, selection of permanent dump(s), avoidance of re-handling, selection of sites for construction of infrastructures, lying of roads. Kindly refer Table-VIII& Plate No-VII.

The ultimate pit size is so designed based on certain practical factors such as the economical depth of mining, safety zones followed, available area for mining. The Ultimate pit size of the mine in bench-wise arrived and calculated as hereunder.

TABLENO-VIII: Computation of ultimate pit dimension

Ultimate Pit Dimensions-PIT-I (m)				
Bench	**Mineral / overburden**	**Length(m)**	**Width(m)**	**Depth(m)**
I	Gravel	68	48	2
II	RoughStone	64	44	10
III	Rough stone	52	53	10
IV	Rough stone	40	20	10
V	Rough stone	28	8	10
		Total		**42m**

However, mining with 6m vertical bench from horizontal during extraction of blocks will be maintained for optimum exploitation.

The quantum of mineable reserves of the applied area is estimated as **52288m³** up to a depth of 42m from the surface. Out of which, the generated rejects is estimated to be **21578m³**. All rejects materials are dumped along lease boundary and backfilled at the end of mine life.

Description		Volume (m³)
Reject	=	2752
Total	=	2752

5.0 MINING:

Open cast, semi-mechanized mining will be adopted to extract Rough stones of required size from the area for which lease applied for. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, formation of faces, lying of approach road to various benches for movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc.

Hydraulic excavators and tippers in combination will be utilized to recover the sizeable rough lumps and deliver to the crushing plant to get the required size of M. Sand, ½, ¾, 1½ inches and Jelly chips, etc. Bench height is designed as 10m based on boom height of excavator (8.5m) and permitted additional height of 1.5m for hard formations as per Reg. 106 (2) (b) of MMR, 1961.

5.1 Year-wise development/Production for the next five years:

The five years period of production and the generation of rejects are described in the year-wise development/production schedule as tabulated for Rough Stone & Gravel in Table no-IX&IXA. The five years production is designed up to a depth of 6m. The year-wise development/production plan is shown in Plate- V, VA, VB, VCandVI.

TABLE NO-IX:Computation of Year-wise production

YEARWISE PRODUCTION AND DEVELOPMENT						
YEAR	L (m)	W(m)	D(m)	Volume	Recovery @95% (m3)	Reject @5% (m3)
I	24	44	10	10560	10032	528
II	24	44	10	10560	10032	528
III	16	44	10	7040	10032	352
	11	32	10	3520		176
IV	34	32	10	10880	10336	544
V	7	32	10	2240	11856	112
	40	20	10	8000		400
	28	8	10	2240		112
TOTAL				55040	52288	2752
GRAVEL DEVELOPMENT						
I	24	48	2	2304		2304
II	24	48	2	2304		2304
III	20	48	2	1920		1920
TOTAL				6528	6528	
GRAND TOTAL				61568	58816	2752

Total quantum of production (ROM) = 61568m³

Total production for the five years @95% = 52288m³

Total Reject @ 5%	=	2752m³
Total Gravel @100%	=	6528m³
Total Waste Ratio (15862m³)	=	2752/52288
	=	1: 0.05

5.2 Proposed rate of production: The development involves only removal of rejects/ fines including waste rocks likely to be generated during the course of mining. About 5% of total excavated rock is estimated to be the rejects.

5.3 Mineable reserves and anticipated life of mine:

Mineable reserves is getting restricted due to the formation of benches, leaving of statutory safety distance of 7.5m 50m & 60m inner boundary, mineral lock up in the benches itself, ultimate depth of mining, bench slope adopted etc. The conceptual mining plan has been prepared by observing the above mentioned factors and achieved the ultimate pit boundaries at the end of 10 years period of mining.

5.4 Method of Mining:

A) Open cast working:

Under, Reg.106 (2) (a) of MMR, 1961, the bench height is designed as 6m and the bench width should not be less than bench height. The bench slope not exceeding 60°. As far as the mining of Miner mineral is concerned, observance of provisions of the regulations 106 (2) (a) as above is seldom due to various inherent petro genetic and mining difficulties. The bench height is designed equal to height of boom of the excavator. Hence, the applicant is suitably directed to obtain necessary relaxation from the chief inspector of mines, for which provision is available within the regulation 106 (2) (a).

Bench design parameters:

Gravel shall be removed and used for construction and afforestation purposes. A bench height of 6m and a width not less than 6mwithfive working benches or equal to the height of the excavator boom and the width more than the height is proposed to be maintained for safe movement of machinery. The bench slope is 60°. S1 fencing shall be constructed at the top of high benches in order to safe guard the unauthorized entry of men and machinery. In the case of entry and exit of pit(s). G1 fencing as a parapet should be made to control tress passes.

TABLE NO-IXA: Computation of Bench dimension for the Next five Years is given as under,

YEARWISE PRODUCTION AND DEVELOPMENT						
YEAR	L (m)	W(m)	D(m)	Volume	Recovery @95% (m3)	Reject @5% (m3)
I	24	44	10	10560	10032	528
II	24	44	10	10560	10032	528
III	16	44	10	7040	10032	352
	11	32	10	3520		176
IV	34	32	10	10880	10336	544
V	7	32	10	2240	11856	112
	40	20	10	8000		400
	28	8	10	2240		112
TOTAL				55040	52288	2752
GRAVEL DEVELOPMENT						
I	24	48	2	2304		2304
II	24	48	2	2304		2304
III	20	48	2	1920		1920
TOTAL				6528	6528	
GRAND TOTAL				61568	58816	2752

Overall pit slope 45°

b) Extent of Mechanization: The following machinery is proposed to be exclusively for the development and production work at this mine. The machinery is proposed to be purchased or engaged on hire basis.

i) **Drilling equipments:** Drilling of shot-holes will be carried out using compressor and Jack Hammers combination on hire basis. Depth of holes shall be 1-2m.The spacing shall be 0.75m and burden shall be 0.60m from the preface. To achieve a correct blasting geometry certain amount of trial blast is prerequisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting qualified mine manager has to be appointed for proper calculation of powder factor and control blasting sequencing and arrangement of explosives etc. Details of drilling equipments are below as

TABLE NO-X:Details of proposed drilling equipments

Type	Nos	Dia. of hole	Bucket/ Capacity (m^3)	Make	Motive Power	H.P
Jack Hammer	1	32mm	Hand held	Atlas copco	Air	5.5Kgs /m^3
Compressor	1	-	-	Ford Track	Diesel	80

ii) **Loading Equipment:** Loading of waste and reject materials shall be done by excavator into 10 tonner's tippers from the working place periodically. Such waste and Rough stones shall be dumped in the site earmarked for dumping as shown in the Plates no-

VII & IX. The applicant is proposed to engage one hydraulic excavator with 1.2 Metr... 19 tons capacity and two tippers of 10 tones capacity for internal transport of reject... from the working face to the dumps. Details of loading equipment are tabulated below,

TABLE NO-XA: Details of proposed loading equipments

Type	Nos	Bucket/Capacity(m^3)	Make	Motive Power	H.P
Hydraulic excavator	1	1.20m^3	Hitachi	Diesel	EX 200

iii) Transportation:

Transport of Rejects and waste shall be done by Tippers of 10tonne capacity,

TABLE NO-XB: Details of proposed transportation equipments

Type	Nos	Size/Capacity (m^3)	Make	Motive Power	H.P
Tipper	2	15M.T	Ashok Leyland	Diesel	120

c) Drilling and Blasting:

Drilling of shot-holes will be carried out by using a portable compressor with Jack Hammers. Depth of holes shall be 1-2m bench height. The spacing shall be 0.75m and the burden shall be 0.60m from the preface.

To achieve a correct blasting geometry, certain amount of trial blast is pre-requisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting, a qualified Mines manager has to be appointed for proper calculation of powder factor, control blasting, sequencing and arrangements of explosives.

a) Blasting Pattern

The massive formation shall be broken into pieces of portable size by jack hammer drilling and shot hole blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 7 tons per Kg of explosives. Blasting parameter proposed to be adopted for shot holes shall be,

Depth (m) * Burden (m) *Spacing (m)	= Volume (m^3)
1.00 x 0.60 x 0.75	= 0.45 M^3
Quantity of broken rock per hole	= 0.45 x 2.6 = 1.17 M^3
Blasting efficiency @90%	= 1.17 x 90% = 1.05 M^3/hole
Charge per hole	= 140 gm of 25 mm dia. cartridge.
Quantity of rock broken per day	= 36.7m^3 or 95.42 M.T.
Requirement of explosives per day	= 13.6 Kg (@ 7 M.T. per Kg of explosives)
No. of holes to be drilled per day	= 36.7m^3/1.05= 35Holes

b) Types of Explosives : Following explosives are recommended for efficient blasting with safe practice,

S.No.	Description	Class / Division	Type	Size
1.	Detonators	class - 6	Rough and Electric (OD & ED)	6.5 x 32
2.	Safety fuse	class - 6 Div - 1	Blue sump fuse coils of 10 m's each	

Nitro compound explosives will be initiated directly by blue sump fuse with Rough detonators or electric detonators. The Powder factor for waste rock development shall be 7 Tonnes per Kg. of explosives.

c) Measures proposed to minimize ground vibration due to blasting

The following steps shall be adopted to control ground vibration during blasting.

i) Geometry of blasting pattern like burden, spacing and inclination of hole should be

Burden (m)* Spacing (m) Inclination

0.60 x 0.75 70°

ii) High strength explosives like slurry in the form of cartridge should be used. ANFO mixture for shot holes should not be used which may cause huge fly rock fragments in view of critical diameter problem.

iii) To control vibration abatement, use delay or relay arrangements with specific charges

iv) Charge per hole should exceed the powder factor designed for each hole based on quantum of blasting, strength of rocks, fracture pattern etc.

v) In case any objection from the public, a long trench in the direction of blasting near lease boundary may be opened to a depth of 2m to control longitudinal waves (P-waves) to arrest any damage to infrastructures.

vi) If any building lies within 50m, muffle blasting practice may be followed in addition to the regular safety procedures and the charge per blast hole shall not exceed 2kg as specified by DGMS.

vii) Any other method of safety measures shall be advised to the Applicant as and when required by the qualified Mine Manager.

e) **STORAGE OF EXPLOSIVES**

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine permit under Form -23 or Agreement shall be made with holder of Form-22 who can supply

and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder appointed under Reg.160 of Metalliferous Mines Regulations, 1961.

6.0 MINE DRAINAGE:

a) Surface Water control: There is no major river found nearby the site. Small odaiPoramboke is situated on northern side.

b) Water Table: The ground water table is observed at a depth of 50mbgl and maximum depth of mining is proposed as 42meters form the surface level.

c) Quantity and Quality of Ground water: The recuperation of ground water is moderate in hard formation. The rain water percolation and collection shall be less than 165lpm and it shall be pumped about periodically by a stand by diesel powered centrifugal pumps motivated with 7.5H.P Motor. The quality of water is potable without any contamination and it shall be pumped into the adjacent agricultural fields and plantation area.

7.0 STACKING OF ROUGH STONE & GRAVEL REJECTS AND DISPOSAL OF WASTE:

Rough Stone rejects which amounts to 5% of the total excavation; about **15862m³** will be generated for mining up to 32m depth from surface. It is revealed in the final mine closure plan showing the ultimate depth of mining and ultimate pit configuration. Maximum height and spread of dumps for the first five years are given as under

TABLE NO-XI: Computation of waste and rejects of the lease area

Year	Gravel (m³)	Overburden /Waste(m³)	Rough Stone & Gravel Rejects @ 5% (m³)	Total
First	2304	---	528	528
Second	2304	---	528	528
Third	1920	---	528	528
Fourth	---	---	544	544
Fifth	---	---	624	624
Total	6528	---	2752	2752

6528m3 of Gravel shall be used for construction purpose and afforestation purposes.

All the rejects shall be dumped within the lease area.

YEARWISE DUMP DIMENSION (M)

Description		Volume (m³)
Reject	=	2752
Total	=	2752

7.1 ANY CHANGE IN PROPOSED METHOD OF MINING AND DEVELOPMENT: MACHINERIES:

No change is envisaged for future development of Mines.

7.2. Handling of waste / Sub grade materials:

Open cast mechanized mining using hydraulic excavators and tippers combination will be adopted to recover the sizeable rough lumps for deliver to the crushing plant to get the required size of M-Sand, ½, ¾, 1½ inches and Jelly chips, etc.. Working plans and sections showing the layout of faces and direction of mining are given in Plate V, VA, VB and VC. Topsoil\overburden materials shall be removed prior to development of Rough Stone & Gravel working benches. Total generation of Rough Stone rejects for the five years will be **2752m³**.

7.3 OTHER PERMANENT STRUCTURES:

7.3.1 Habilitation:

The Edamachi village population of 1860 peoples both male (1002) and female (858). The nearby villages with their population and distance are given as under,

Name of Village	Direction	Distance from Mines (Approx)	Population
South	Edamachi	184m	1860
East	Malaipattu	550m	1078
West	Vellari	1.8kms	426
SW	Gunduperumbedu	3kms	1020

7.3.2 Power lines:

There is no HT line in around 300m radius. There is one LT electric line passing in S.F No. 376/1 this will be removed before grant of quarrying.

7.3.3 Water bodies:

There is no major river found nearby the site. Small Edamachieri Poramboke land is situated on northern side. The small pond is located at 900m on SW side.There is no other water bodies are found in 1 km Radius on western side.Water table is located at a depth of 48mbgl.

7.3.4 Archaeological\Historical monuments:

No infrastructures and places of interest like Archeological monuments, Sanctuaries etc are found within 1km radius.

7.3.5 Road:

The nearest NH is The NH-15 located at 10km on SE side connecting Theni Chennai. The nearest SH is SH 58 located about 8.3km on N side connctingKanjeepuram-

Chengalpattu. The nearest MDR is MDR 789 situatedabout 2.8 km on W side connecting Walajabad- Thirukalukundram. There is an approach road located nearby the site on the Southern side for transport of materials.

7.3.6 Place of worship:

There is no place of worship like School, temple and hospital found around 500m radius.

7.3.7 Reserves Forest\Forest\ social forest\ wild life sanctuaries etc:

The Edamachi social reserve forest is situated on eastern side. The kaveripakkam RF is situated about 930m on NE side. The Martham RF is situated at 5.7km on SW side and this area does not fall the under forest Conservation Act 1980. No wild life sanctuaries are found around 10km.

7.3.8 Any other structures: Nil

8. EMPLOYMENT POTENTIAL & WELFARE MEASURES:

8.1 Employment Potential

The following manpower is proposed to look after and carry out the day today quarrying activities at the proposed production and also to comply with statutory provisions of MMR 1961.

a. Management and supervisory personal:

1. Mining Engineer/Geologist (First\ Second class Mines Manager Competency certificate holder) - 1 Person
2. Mines Foreman (Foreman competency Certificate holder) - 1 Person
3. Mining Mate (Mine Mate competency Certificate holder) - 1 Person
4. Register keeper (Workman cadre) - 1 Person

The Mining Engineer so appointed should supervise day to day workings assisted by a Foreman. Wherever the workers are employed more than 15, a qualified Mining Mate should be appointed to supervise and control the workers.

b. Labour skilled, semi-skilled and un-skilled.

i) **Skilled**

Operator : 1 Person

ii) Semi-skilled

Driver :4 Persons

iii) Un-skilled

Musdoors\ Labours	: 8 Persons
Cleaners	:2 Persons
Register Keeper	:1 Person
Total	: 20 Persons

8.2 Welfare Measures

a. Drinking Water:

Whole some drinking water shall be provided as per the Mines Rules, 1955. Quantity for drinking 0.3KLD, domestic purposes 0.7KLD, Green belt of water is 1.5KLD, water sprinkling on haul roads 0.5KLD and Wet drilling operation 0.5KLD. Total water requirement is 3.5KLD. Drinking water is obtained by Mineral water industries by water canes. Dust suppression, Green belt and other uses is obtained from water tank.

b. Sanitary facilities:

Surface latrines and urinals shall be constructed at convenient place for usage of male and female labors separately.

c. First Aid facility:

Being a small mine, a first aid station as per provisions under Rule (44) of Mines Rules 1955 shall be provided with facilities as prescribed in third schedule.

d. Medical Examination:

Initial medical examination has to be conducted for the mine workers under rule 29B of Mines Rule 1955.

e) Precautionary safety measures:

Safety provisions like Helmet, Goggles, safety belt, Safety shoes, Respirators etc. have to be provided as per the circulars and amendments made for mine labours under the guidance of DGMS.

Vocational training should be imparted to the workers proposed for quarrying as per Mines Vocational training Rules 1966.

f) The Child labour Employment:

As per the Mines Act, 1952, no child labour below 18 years of old a shell be engaged for any work in the quarry.

PART - B

9.0 ENVIRONMENT MANAGEMENT PLAN:

9.1 Base line information:

i) Existing and Post land use pattern:

The proposed area is flat terrain, composed of gravel with small outcrops in area with elevated up to height about 34-33m above mean sea level. The table indicating the area put on use at start of plan and additional requirement during plan period for calculation of net area and the area considered for reclamation has given below.

TABLENO-XII: Computation of present and proposed land use pattern

S.No	Head	Area put on use at start of plan (Ha) (Present)	% of Use	Total Area used at the end of plan (Ha)	% of Use
i)	Mining area	---	---	0.31.3	11
ii)	Road	---	---	0.02.7	1
iii)	Green belt & Safety area	---	---	2.42.2	87.8
iv)	Labour shed	---	---	0.00.80	0.2
	Total	2.77.0	100	2.77.0	100

ii) **Air quality:** The applicant has proposed to carry out air quality monitoring in and around the mine site for ambient air quality monitoring system as per regulatory guidelines.

iii) **Noise:** The proposed Ambient Noise Level survey shall be done 24 hours in a day covering readings at day and night once in a month in core and buffer zone covering all habitations and sensitive areas.

iv) **Vibration:** Blasting induced ground vibration is the only source of vibration in mining area.

v) **Water quality:** A water sample from the open well adjacent bore wells was sent to lab to assess hardness, salinity, colour, specific gravity, P^H, turbidity, COD, BOD, fluorine etc

vi) **Water Regime:** No major river is found within 1km radius. Drinking water is obtained by Mineral water industries by water canes. Dust suppression and green belt is obtained from water tank.

vii) **Public building, Places and Historical monuments:** No infrastructures like residential building, places of special interest like temples, School, etc., are found in the radius of 500m.

9.2 Flora and Fauna:

a)Flora

The proposed area is regional flora as observed and identified in the field a[illegible] covered by photograph and shown below.

TABLE NO-XIII:List of flora of the lease area

a) TREES:

S. No.	Tamil /English Name	Botanical Name	Number of Trees	Photograph
1.	Veppamaram/ Margosa tree	AzadirachtaIndica	Innumerable	
2.	Karuvelmaram/ Gum tree	Acacia Arabica wild	Innumerable	
3.	Panai/Palmyra tree	Borassusfiabellifer	Innumerable	
4.	EechaMaram	Phoenix sylvestris	5	
5	MulluMaram	Prosopisjuliflora	Innumerable	

	PoovarasamMaram	Thespesiapopulnea	Innumerable	

b) Climbers

S.No.	Tamil/English Name	Botanical Name	Number of Trees	Photograph
1.	Oonangodi	FragorMonstrum	Innumerable	
2.	Veliparuthi/ Trellis vine	Pergulariadaemia	Innumerable	

c) SHRUBS:

S.No.	Tamil Name	Botanical Name	Number of Trees	Photograph
1.	Unnichedi	Lantana Camara	Innumerable	
2.	Kallimaram/ Milk hedge	Euphorbia triucallilinn	Innumerable	

d) HERBS:

S.No.	Tamil Name	Botanical Name	Number of Plants	Photograph
1.	Erukkanchedi	Calotropisgigantea	Innumerable	

2. **Fauna:**

The fauna species may be found around the project site is given below,

a) Mammals:

TABLE NO-XIIIA List of fauna of the lease area

S.No.	Tamil & English Name	Zoological Name
1.	Keeri(Common Mongoose)	Herpestesedwardsii
2.	Anil (Three Striped Squirrel)	Funambuluspalmarum
3.	Thavalai (Frog)	Cane toad

b) Avian Fauna:

S.No.	Tamil & English Name	Zoological Name
2.	Myna (Black drogue)	Dicrurusmacrocercus
3.	Kakka (House crow)	Corvussplendens
4.	Chittukuruvi (Indian Robin)	Saxicoloidesfulicatus
5.	Parunthu(Brahminy Kite)	Haliasturindus

c) Butterfly/Insects:

S.No.	Tamil & English Name	Zoological Name
1.	Theil (Scorpion)	Scorpiones
2.	Vannthupoochi (Millipedes)	Diplopoda

9.3 Climatic Conditions:

a) **Temperature:** The District enjoys a tropical climate. The weather is pleasant during the period from November to January. Mornings in general are more humid than the afternoons, with the humidity exceeding 78% on an average. In the period June to November the afternoon humidity exceeds 66% on an average. In the rest of the year the afternoons are drier, the summer afternoons being the driest.

b) **HUMIDITY:** Relative humidity is generally high in the mornings, exceeding 70 per cent except during the summer season when it is less than 50 per cent. The humidity is comparatively less in the afternoons. The driest part of the year is the summer season when the relative humidity in the afternoons is about 25 per cent or less.

c) **WINDS:** Winds are generally light with some strengthening in the summer and early part of the monsoon season. In the post-monsoon and cold season, winds are light and variable in direction in the morning and mostly from the west or north-west in the afternoons. In April and May, winds are mainly from direction between north-west and north-east in the mornings and between west and north-east in the afternoons.

d) **RAIN FALL:** The District receives the rain under the influence of both southwest and northeast monsoons. The southwest monsoon rainfall is highly erratic and summer rains are negligible. Rainfall data from six stations over the period 1901-2000 were utilized and a perusal of the analysis shows that the normal annual rainfall over the district varies from about 640 mm to 880 mm.

9.4 Human settlement:

The Edamachi village population of 1860 peoples both male (1002) and female (858). The nearby villages with their population and distance are given as under,

Name of Village	Direction	Distance from Mines (Approx)	Population
Edamachi	SE	900m	1,414
Sirudamur	NW	1.6km	755
Kavanipakkam	E	2.2km	780
Neerkundram	SW	2.2	88

9.5 Plan for air and dust suppression:

Base line information on ambient air quality, noise and water has to be collected test SPM, SO_2 N0x and C0 both in core and Buffer Zones.

9.6 Plan for Noise level control: Noise level has to be studied prior to mining and after opening the quarry for production. Ambient noise level on threshold is 58dB. Vibration may be negligible due to absence of heavy deep hole blasting.

9.7 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Impact of mining on environment will be

i) Dust generation,
ii) Temporary storage and utilization of top soil
iii) Land degradation
iv) Stabilization and vegetation of dumps
v) Adverse effect on water regime
vi) Socio-economic benefits arising out of Mining
vii) Noise and Vibration

i) **Dust:** Dust expected to be generated from drilling, hauling roads, place of excavation etc will be suppressed by periodical wetting of land by spraying. Wet drilling and dust extractor arrangements will be provided to drilling units so as to control raise of dust from the site of drilling. Operators those exposed directly to such conditions will be provide such protective equipment like mask, ear plug, helmet, glozes etc as per the Mines Act.

ii) **Noise and Vibration:** Generation of noise from blasting shall be controlled by delay arrangements in blasting and use of proper quantity of explosives and strength. Protective devices shall be provided for use of persons employed in the vicinity. Wherever the noise level is found in excess of the stipulated limits (85db), necessary protective devices like ear plug, mask will be provided to the employees exposed to such noisy and dusty conditions.

iii) **Temporary storage and Utilization of Top Soil:**

The limited quantity of topsoil shall be dumped along 10m inner boundary of the lease area. In order to stabilize the sides of waste dump(s), suitable vegetation over it will be adopted.

iv) **Proposal for reclamation land affected by mining activities during and at the end mining lease period.**

Land degradation is unavoidable in quarrying; also it was a fresh lease. However for economic planning the depth is taken as 44m bgl. Immediate reclamation of land does not arise for this deposit. However the pit will be used for miscellaneous purposes like fish bond etc., after completion of mining.

v) **Stabilization and Vegetation of Dumps:**

The materials to be dumped shall be very hard in nature and it does not require any grading separately. The materials like Rough Stone rejects shall be graded automatically during dumping by excavator and tipper combinations. Part of top soil will be spread over the Non-active dumps along the slope and edges to plant tree sapling to form vegetal cover over the dumps. Such vegetal cover will prevent erosion of dumps during rainy seasons.

vi) **Cutting of Trees:** There is no much chance for cutting of trees. On the other hand the applicant proposes to plant more trees as per the mining plan, to plant at least 30 trees per annum.

vii) **Measures for minimizing adverse effect on water regime:**

There is no major river found nearby the site. Water table is located at a depth of 48m bgl. However the fracture zones if any in the hard rock formation should not be opened otherwise it may cause percolation of ground water through joints and fractures and deplete the recuperation in the open and tube wells.

viii) Socio-economic benefits arising out of Mining:

SOCIO-ECONOMIC ENVIRONMENT

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

a) To study the socio-economic status of the people living in the study area of the proposed mining project.

b) To assess the impact on socio-economic environment due to proposed mining project.

c) To study the socio economic environment like Noise, water due to impact of mining project.

Population Characteristics -Edamachi Village

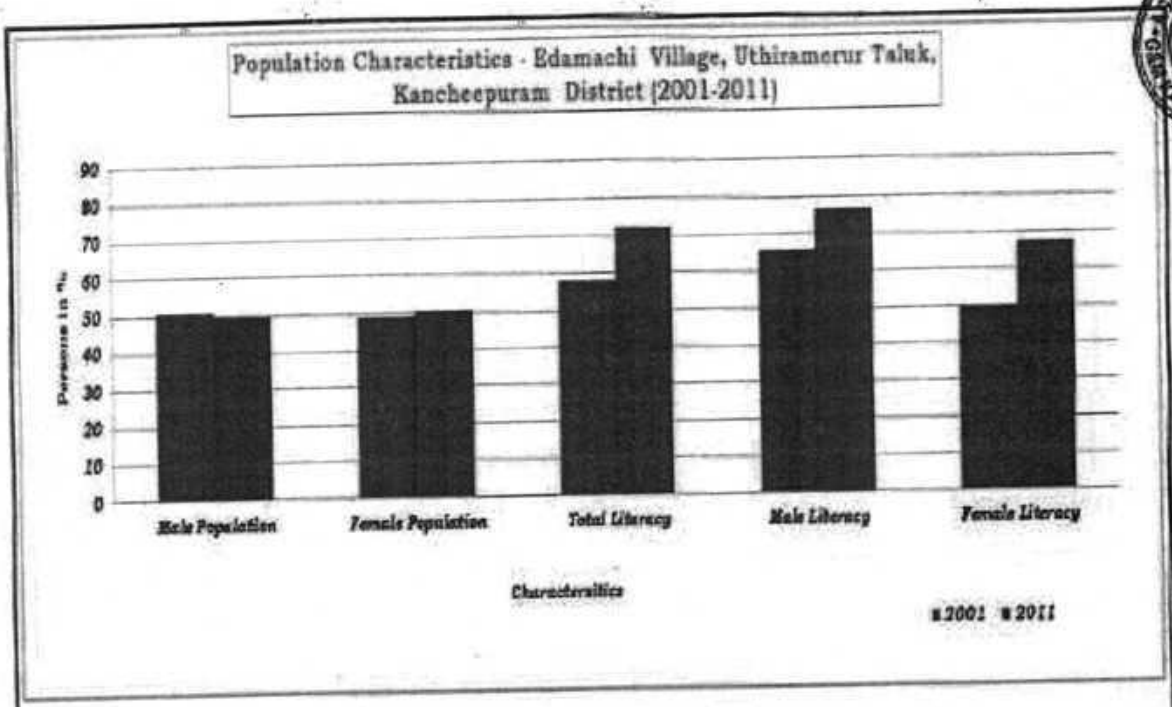
In Uthiramerur Taluk, Edamachi village had a total household 175 in 2001 which is increased to 455 in according to census 2011. Village had a total person of 1860 in 2011 census previous census 835 persons in 2001. There were about 921 men (49.5 %) according to 2011 census and 430 men (48.5 %) in 2001 census marking as increased of 491 men over the previous census. During 2001 there were about 405 women (48 %), which is increase to 939 (50 %) in 2011 census.

Edamachi village had a literate accounted for 532 persons (63%) in 2001 and increased to 1207 persons (64.8 %) in 2011. There were about 73 percent males in 2001 and 72 percent in 2011. There were about 218 (53 %) females increased to 543 (58 %) classes as literates in 2011.

Sex composition is the most important demographic characteristics that affect the incidence of birth and death. The average sex ratio in UthiramerurTaluk, ,Edamachi village was 941.9 during 2001 and increased to 1020 the year of 2011. The highest sex ratio may be either due to the migrants for educational purpose and many more industries get it employment opportunities.

Population Characteristics - Edamachi Village, UthiramerurTaluk, , Kancheepuram District (2001-2011)

S.No	Characteristics	2001	%	2011	%
1	Total Household	328		349	
2	Total Population	1436		1414	
3	Male Population	732	50.97	701	49.58
4	Female Population	704	49.03	713	50.42
5	Total Literacy	835	58.15	1021	72.21
6	Male Literacy	482	65.85	539	76.89
7	Female Literacy	353	50.14	482	67.60
8	Sex Ratio		961.7		1017



Occupational Characteristics- Edamachi Village

The term workers denote the population engaged in primary, secondary and tertiary activities classified in the census reports of Indian government. During the year 2001 Edamachi village had 621 workers accounting for 43 percent of the total population of the Village. During 2011 there were about 637 (45%) according to the census. There were about 403 men (55%) during 2001 which is an increase to 413 persons (58%) according to census 2011. There were about 218 (30%) female according to 2001 which is increase to 224 (31%) female during 2011 marking an increase of 6 women over the previous census.

In Edamachi village had a total main workers accounted of 589 (41%) persons during 2001 census which is an increase 490 (34 %) persons during 2011.

Study on occupation characteristics of population should analyze the workforce engaged in different type of occupation. Cultivators are the major category of occupation representing the workforce owning land. Edamachi village had total cultivators 350 (54 % of the total workers) cultivators. The proportion of cultivators to total workers is calculated as a percent for the two census years 2001 and 2011 for the taluk of Uthiramerur in Edamachi village.

The distribution of agricultural laborers in the study area for the two census periods has revealed that the study area has experienced a decline in the proportion of workers classed as agricultural laborers between 2001 and 2011. Uthiramerurtaluk in Edamachi village had agricultural labourers 43 (7% of the total workers) agricultural labourers during census 2011.

This group includes the employment of workers in manufacturing activities. Agro based industries, located in the study area engages a sizeable amount of workers. The distribution of secondary workers in the study area is calculated as percent to the total workers. The proportion of secondary workers to total workers has experienced decreasing trend in the Edamachi village area between 2001 and 2011. Secondary workers during 2001 and 2011 it could be stated that this may be due to the opening of a number of manufacturing units in the study area.

The tertiary workers include the labour force engaged in service sector such as education, medical, judicial, finance, administration, recreation, trade and commerce and transport. In Edamachi village had tertiary workers accounted for about 49 percent of the workers during 2011 census it is increased 14% according to census 2011. There were about male tertiary workers of 40 (10% of the male workers which is increases 73 (18% of the male workers) according to census 2011.

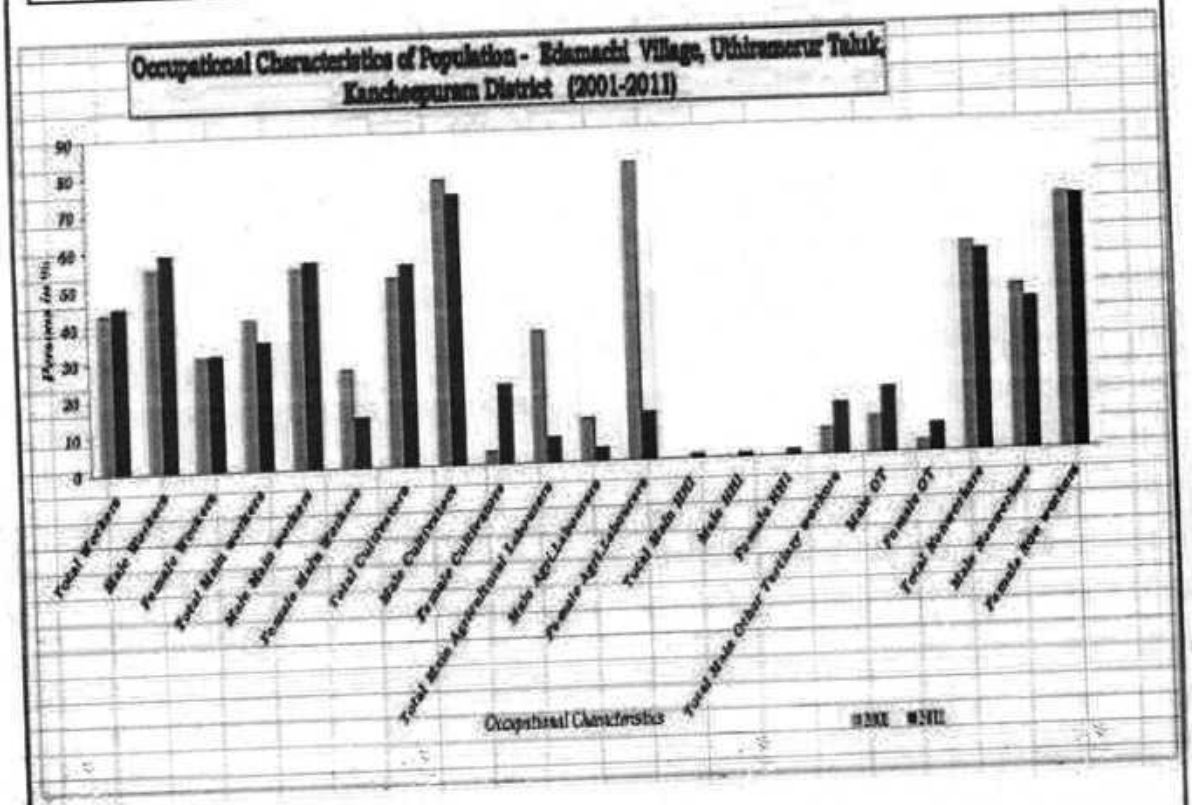
The study area has experienced a change in the occupational structure in the form of a decline in the proportion of cultivators, agricultural laborers and an increase in the proportion of tertiary workers.

In Edamachi village had non workers population accounted of 777 (54% of the total population) according to census 2011. Which is increased from previous census 2001 had population 815 (56%). There were about male non workers of 329 (45 % of the male population) during the census 2001. Which is decreased to 288 (41 % of the male population) according to census 2011. It is highest female workers due to 2011 census has 68% of the total female population. Because of more number of people are educated most of people living the village had agricultural labours and cultivating area more, and then newly mining industries also lot of money earn our daily life..

Occupational Characteristics of Population-Edamachi Village, UthiramerurTaluk, ,Kancheepuram District (2001-2011)

S.No	Characteristics	2001	%	2011	%
1	Total Population	1436		1414	
2	Male Population	732	50.97	701	49.58
3	Female Population	704	49.03	713	50.42
4	Total Workers	621	43.25	637	45.05
5	Male Workers	403	55.05	413	58.92
6	Female Workers	218	30.97	224	31.42
7	Total Main workers	589	41.02	490	34.65
8	Male Main workers	399	54.51	393	56.06
9	Female Main Workers	190	26.99	97	13.60
10	Total Cultivators	320	51.53	350	54.95
11	Male Cultivators	312	77.42	302	73.12
12	Female Cultivators	8	3.67	48	21.43

13	Total Main Agricultural Labourers	223	35.91	43	6.75
14	Male Agri.Labourers	47	11.66	14	3.39
15	Female Agri.Labourers	176	80.73	29	12.95
16	Total Main HHI	0	0.00	7	1.10
17	Male HHI	0	0.00	4	0.97
18	Female HHI	0	0.00	3	1.34
19	Total Main Other Tertiary workers	46	7.41	90	14.13
20	Male OT	40	9.93	73	17.68
21	Female OT	6	2.75	17	7.59
22	Total Nonworkers	815	56.75	777	54.95
23	Male Nonworkers	329	44.95	288	41.08
24	Female Non workers	486	69.03	489	68.58



Benefits:

The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as medical facilities, conveyance, free education, drinking water supply etc.

Awareness and opinion of the people about the project for the assessment of awareness about the project activities and opinion about it, following salient observations were recorded.

- during survey it was observed that only nearby villagers are aware and other villagers are not aware about the proposed project.
- People in the region expect job opportunities and improvement in educational, transportation and sanitation facility from project authority.

9.8 Proposal for Waste Management:

The Rough Stone rejects is hard and porous and it will not produce any waste which will pollute the ground water. More than 95% of materials shall be crushed down to various sizes and fines shall also be screened and washed for material sand. No much waste available even for dumping.

9.9 Reclamation of Land affected during mining activities and at the end of mining

The mining is proposed to an average depth of 44meters from the surface. The mine area shall be fenced on top of open cast working with type S1 fencing. Low lying area with water logging shall be used for fish culture. No immediate proposal for closure of pit as the Rough Stone & Gravel persists still at deeper level.

9.10 Programme of Afforestation:

Local trees like Neem, Casuarinas, Teak, Eucalyptus and other regional trees etc will be planted along the lease boundary and avenues as well as over Non-active dumps at a rate of 30 trees per annum with interval 5m in between. The rate of survival expected to be 80% in this area. Land use and afforestation Plan is given Plate-X. The program of tree planting is given as under,

Proposed programme afforestation of next five years

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
II	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
III	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
IV	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
V	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%

9.11 Proposed financial estimate / budget for (EMP) Environment Management:

a) Project cost / investment:

i)	Land Cost (Patta land)	=	Rs12,00,000
ii)	Machinery to be used (Hire)	=	Rs10,00,000*
iii)	Building & Welfare amenities	=	Rs1,00,000
	Total	=	**Rs 23, 00,000**

b) EMP Cost:

i)	Personal protective equipment	=	Rs 75,000
ii)	Environmental Monitoring	=	Rs1,50,000
iii)	Occupation Health	=	Rs 75,000
iv)	Green Belt & Dust suppression	=	Rs 50,000
	Total	=	**Rs3.50lakhs**

10. MINE CLOSURE PLAN:

10.1 Steps proposed for phased restoration, reclamation of already mined out areas:

Top soil shall be used for rehabilitation and afforestation purposes. In case of steep slopes, fencing shall be made to control, inadvertent entry of animals and local persons. The mine out area shall be used for building construction purposes. No major dumps, however plantation shall be made over small dumps to prevent soil erosion\wash outs and help ecological balance.

10.2 Measures to be under taken on mine closure as per Act & Rules

Fencing shall be made around open cast working as per DGMS circulars with S1 type fencing. Back filling shall be done to a reasonable extent and depth during closure of mine. Green belt development is proposed at a density of 100 trees per Ha.

10.3 Mitigation measures to be undertaken for safety and restoration / reclamation of the already mined out area

The land ecology shall be preserved during mine closure by proper terracing and stabilization with plantations. No immediate abandoned plan, being a shallow operation. S1-type of stone fencing will be constructed around the open pit mines and watch and ward shall be to safeguard the mine from access to surface openings.

10.4 Disaster Management and Risk Assessment:

Disaster might occur only due to natural climates' like earth quake, excessive rains and flooding etc. To overcome such risks, help/aid would be sought from emergency services providers like Police station, fire station, Hospital. Ambulance services from the authorities in the vicinity of the mine site. Their contact telephone numbers and communication facilities are provided and displayed on the board at the mine office as well as mine site. Responsibility of coordinating rescue activities is entrusted to quarry-in- charge at the quarry site in addition to quarry-in-charge is also looking after statutory obligatory under Mines Act,1952. Primary Health center is available in Padurmedical emergencies, about 4.3km away from the site.

11.Any other details intend to furnish by the applicant:

The Charnockiterock of this area is commercially called as Rough sto... But geologically it is a "**Charnockite**" rock. The geological resources and mineable re...ves of Rough stone is estimated as **553940m³and 55040m³**respectively. Gravel is 65...m³ 2mdepthas respectively for the permissible area up to a depth of **42m**from the surface and period of Ten years. Systematic mining with proper orientation of working faces and blasting techniques will improve safety and eco-friendly environment.

CSR shall be provided by the lessee @ 2.5% of the profit and CER shall be 2% of the project cost to the society of the Edamachi and Neighbors Village as per the companies Act, 2013 and CSR Rules, 2014. The lessee was plant sufficient number of trees around the lease boundary and as well as along the nearby the village road to keep the environment green.

ASSISTANT DIRECTOR KANCHIPURAM

S. Suriyakumar

S SURIYAKUMAR,
Recognised Qualified Person
Reg No ROP/MAS/013/87/A

This Mining Plan is approved subject to the conditions / stipulations indicated in the Mining Plan approval Letter No. RC No. A7/03/2020.
Dated. 20.11.2020.

This Mining Plan is approved as per the powers conferred Under Rule 41 (2) of Tamil Nadu Minor Mineral Concession Rules, 1959

20/11/20

Assistant Director of Geology and Mining,
Kanchipuram District

ANNEXURE 1

நக.எண். 47/க்யூ3 /2019,
நாள். 20.10.2020

உதவி இயக்குநர் அலுவலகம்,
புவியியல் மற்றும் சுரங்கத்துறை,
காஞ்சிபுரம்.

ASSISTANT DIRECTOR KANCHIPURAM

அறிவிக்கை

பொருள் : கனிமங்களும் குவாரிகளும் – சாதாரண கற்கள் மற்றும் கிராவல் மண் – காஞ்சிபுரம் மாவட்டம் – உத்திரமேரூர் வட்டம் – எடமச்சி கிராமம் – புல எண்கள். 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, 376/5 - மொத்த பரப்பு 2.77.00 – பட்டா நிலங்கள் – சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன் என்பவர் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.19(1) -ன்கீழ் மனு செய்தது – அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் - மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் ஒப்புதல் பெற்று அளிக்க தெரிவித்தல் - தொடர்பாக.

பார்வை :
1. திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன், எண்.12/113, 1வது மெயின்ரோடு, மூகாம்பிகை நகர், சிக்கராயபுரம் விரிவு, கெருகம்பாக்கம், சென்னை – 600 128 என்பவரின் விண்ணப்பம் பெறப்பட்ட நாள்.24.02.2020.
2. காஞ்சிபுரம் சார் ஆட்சியர் அறிக்கை எண். ந.க.777/2020/அ1, நாள்.04.09.2020.
3. உதவி இயக்குனர் மற்றும் உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, காஞ்சிபுரம் அவர்களின் கூட்டு இடப்பார்வை அறிக்கை நாள் :07.10.2020.
4. அரசாணை எண்.Ms.79, தொழில் (எம்.எம்.சி.1) துறை, நாள். 06.04.2015.
5. அரசாணை எண்.Ms.No.169, தொழில் (எம்.எம்.சி.1) துறை, நாள். 04.08.2020.
6. அரசாணை எண்.Ms.No.208, தொழில் (எம்.எம்.சி.1) துறை, நாள். 21.09.2020.

காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், எடமச்சி கிராமம், புல எண்கள்.367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/1I (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3 (0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) மொத்த பரப்பு 2.77.00 ஹெக்டேர் பட்டா நிலத்தில் சாதாரண கற்கள் மற்றும் கிராவல்மண் வெட்டிஎடுக்க ஐந்து ஆண்டுகளுக்கு க சென்னை – 600 128, கெருகம்பாக்கம், சிக்கராயபுரம் விரிவு, மூகாம்பிகை நகர், 1வது மெயின்ரோடு எண்.12/113 என்ற முகவரியில் வசிக்கும் திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன் என்பவர் குவாரி குத்தகை உரிமம் கோரி

விண்ணப்பித்துள்ள மனுவின் பேரில் காஞ்சிபுரம், சார் ஆட்சியர் மற்றும் காஞ்சிபுரம், புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் (கனிமம்) ஆகியோர் மேற்காணும் விண்ணப்ப புலங்களில் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 திருத்திய விதி எண்.19(a), (b), (c) மற்றும் 20-ன் கீழ் பார்வை 6-ல் கண்ட அரசாணையின்படி பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி குத்தகை அனுமதி கீழ்கண்ட நிபந்தனைகளுக்குட்பட்டு வழங்கலாம் என பார்வை 2 மற்றும் 3-ல் கண்டவாறு பரிந்துரை செய்துள்ளனர்.

1. விண்ணப்பப் புலங்களுக்கு அருகிலுள்ள அரசு புறம்போக்கு மற்றும் பட்டா நிலங்களுக்கு முறையே 10 மீட்டர் மற்றும் 7.5 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

2. விண்ணப்பப் புலங்களுக்கு மேற்கே உள்ள ஏரி உள்வாய் நீர்நிலை புறம்போக்கு புல எண்கள்.371, 372, 373-ல் எவ்வித ஆக்ரமணங்கள் செய்யக்கூடாது மேலும் 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு பராமரித்து குவாரிப்பணி செய்யப்பட வேண்டும்.

3. விண்ணப்ப புலங்களுங்களுக்கு இடையே அமைந்துள்ள கல்லாங்குத்து புறம்போக்கு புல எண்.369 இப்புலத்தினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

4. விண்ணப்ப புலங்களுங்களுக்கு கிழக்கே புல எண். 258 முதல் 274 வரை அமைந்துள்ள எடமச்சி சமூகநலக்காடுகளுக்கும், மேலும் மேய்க்கால் நிலத்தில் அ பதிவேட்டின்படி புலஎண். 379 சமூக நலக்காடுகள் என உள்ளதால் இப்புலங்களினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புல எண்.379-னை ஒட்டியுள்ள விண்ணப்பப் புல எண்கள்.367/1, 367/2, 376/4க்கு 60 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு கம்பி வேலி அமைத்து குவாரிப்பணி செய்யப்பட வேண்டும்.

5. விண்ணப்ப புல எண்.376/1-ல் தென்மேற்கிலிருந்து வடகிழக்கு வழியாக குறைந்த மின்னழுத்த கம்பி செல்கிறது. எனவே குவாரி குத்தகை வழங்குவதற்குமுன் அகற்றப்படவேண்டும் என்ற நிபந்தனையுடனும், இல்லையேல் பாதுகாப்பு இடைவெளி 50 மீட்டர் விடப்பட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

6. தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.41-ன்படி விண்ணப்ப புலங்களுக்கு ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டம் (Approved Mining Plan) ஒப்புதல் பெற்றளிக்கப்பட வேண்டும்.

7. தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.42-ன்படி விண்ணப்ப புலத்திற்கு மாநில அளவிலான சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் சுற்றுச்சூழல் ஒப்புதல் (Environment Clearance) பெற்று சமர்ப்பிக்கப்பட வேண்டும்.

ASSISTANT DIRECTOR GEOLOGY AND MINING KANCHEEPURAM

எனவே பார்வை 5-ல் கண்ட அரசாணையில் அளிக்கப்பட்டுள்ள அதிகாரங்களின் அடிப்படையில் மேற்காணும் விண்ணப்பப் புலங்களில் சாதாரண கற்கள் மற்றும் கிராவல்மண் வெட்டியெடுக்க குத்தகை உரிமம் வழங்க அங்கீகரிக்கப்பட்ட சுரங்கத் திட்டத்தை (Approved Mining Plan) மூன்று மாதத்திற்குள் மாவட்ட ஆட்சியர் / உதவி இயக்குநர் முன்பு சமர்ப்பிக்க வேண்டியது. மேலும் மேற்காணும் விண்ணப்பப் புலங்களில் சாதாரண கற்கள் & கிராவல் மண் வெட்டியெடுக்க அனுமதி வழங்குவது தொடர்பாக மாநில சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையம் (SEIAA) ஒப்புதலை பெற்று சமர்ப்பிக்க அறிவுறுத்தப்படுகிறது.

2/10/25

உதவி இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
காஞ்சிபுரம்.

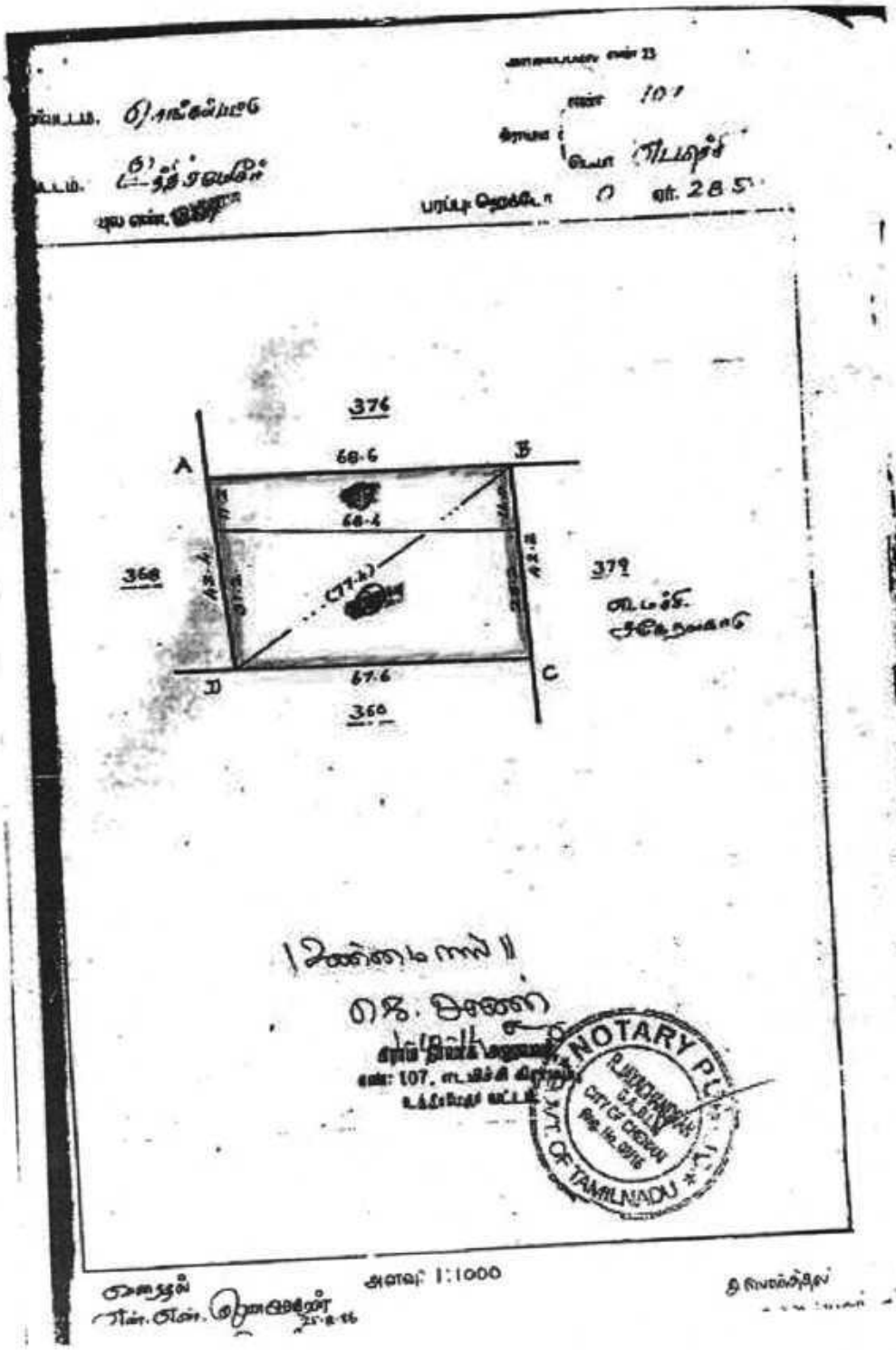
பெறுநர்,
திரு.R.கிரிதரன்
த/பெ. ராஜேந்திரன்,
எண்.12/113, 1வது மெயின்ரோடு,
மூகாம்பிகை நகர், சிக்காராயபுரம் விரிவு,
கெருகம்பாக்கம், சென்னை – 600 128

நகல் :-
1) தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை.
2) இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிண்டி, சென்னை 600 032.

S. Suriyakumar

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87'A

ANNEXURE II

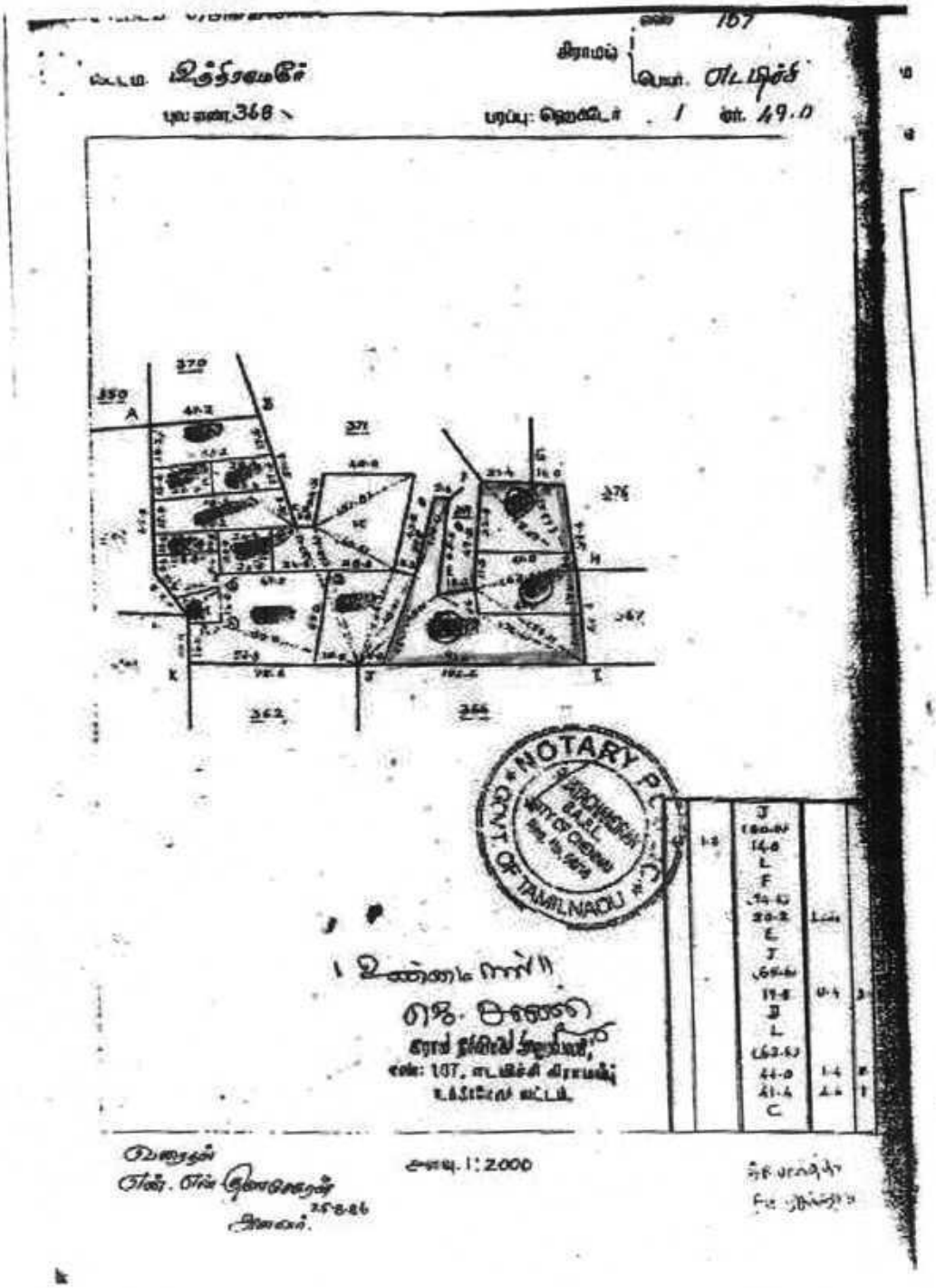


Q.L.A. Area –

Scanned with CamScanner

S SURIYAKUMAR
Recognised Qualified Person
Reg. No RQP/MAS/013/87/A

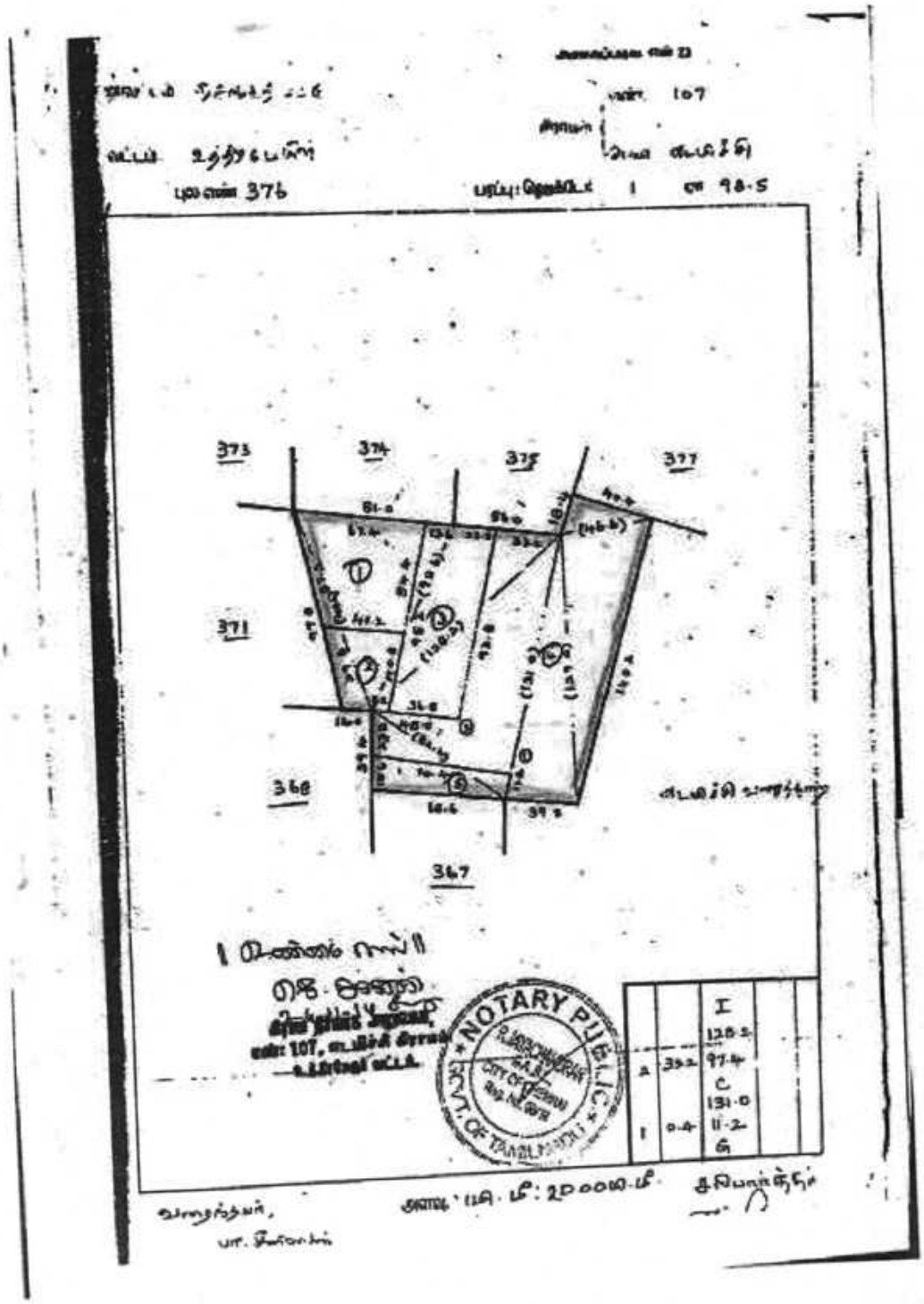
ASSISTANT DIRECTOR
GEM KANCHEEPURAM



Q.L.A. Area -

Scanned with CamScanner

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A



R.L.A Area

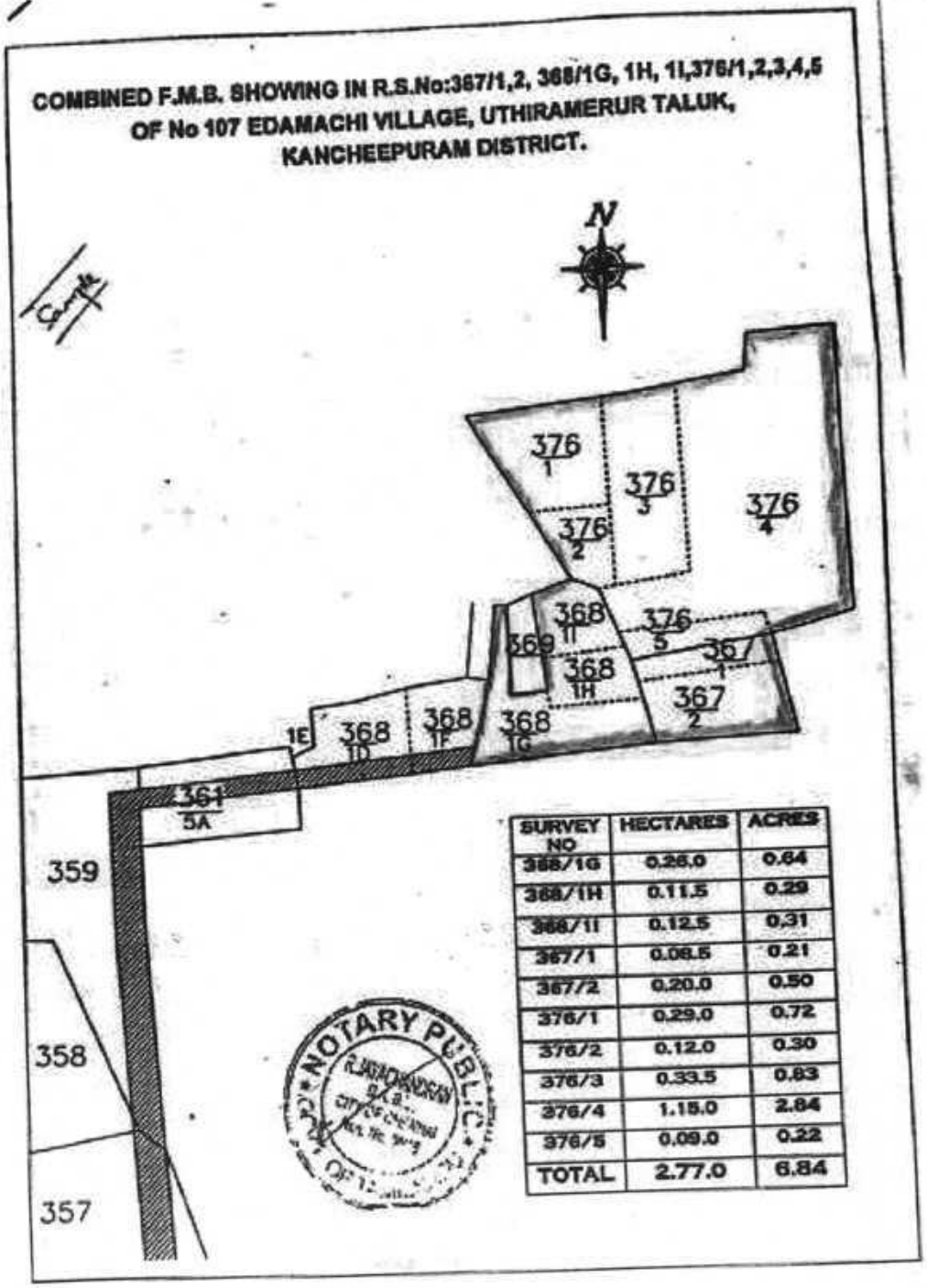
Scanned with CamScanner

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

ANNEXURE II

ASSISTANT DIRECTOR DTCP KANCHEEPURAM

COMBINED F.M.B. SHOWING IN R.S.No:367/1,2, 368/1G, 1H, 1I,376/1,2,3,4,5
OF No 107 EDAMACHI VILLAGE, UTHIRAMERUR TALUK,
KANCHEEPURAM DISTRICT.



SURVEY NO	HECTARES	ACRES
368/1G	0.26.0	0.64
368/1H	0.11.5	0.29
368/1I	0.12.5	0.31
367/1	0.08.5	0.21
367/2	0.20.0	0.50
376/1	0.29.0	0.72
376/2	0.12.0	0.30
376/3	0.33.5	0.83
376/4	1.15.0	2.84
376/5	0.09.0	0.22
TOTAL	2.77.0	6.84

NOTARY PUBLIC

G.L.A. Area -

Scanned with CamScanner

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87

ANNEXURE IV

ASSISTANT DIRECTOR KANCHEEPURAM

தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : காஞ்சிபுரம் வட்டம் : உத்திரமேரூர்

வருவாய் கிராமம் : எடமிச்சி பட்டா எண் : 970

உரிமையாளர்கள் பெயர்

1. (M/s.V.MINES நிறுவனத்தின் பார்ட்னர்) பெருமான் மகன் குணசேகரன் M/s.V MINES ...நிறுவனத்திற்காக

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	நீர்வை	பரப்பு	நீர்வை	பரப்பு	நீர்வை	
		ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	
361	5A	0 - 33.50	1.55	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
363	-	0 - 56.00	0.69	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
364	1	0 - 79.00	0.98	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
367	1	0 - 8.50	0.11	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
367	2	0 - 20.00	0.25	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1A	0 - 3.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1B	0 - 5.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1D	0 - 24.50	0.30	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1E	0 - 2.50	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1F	0 - 16.00	0.20	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1G	0 - 26.00	0.33	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020

NOTARY GOVT. OF TAMILNADU

368	1H	0 - 11.50	0.14	--	--	--	--	2020/0103/03/186942---14-02-2020
368	1I	0 - 12.50	0.16	--	--	--	--	2020/0103/03/186942---14-02-2020
368	2A	0 - 9.00	0.11	--	--	--	--	2020/0103/03/186942---14-02-2020
368	2B	0 - 4.00	0.06	--	--	--	--	2020/0103/03/186942---14-02-2020
368	2C	0 - 5.00	0.05	--	--	--	--	2020/0103/03/186942---14-02-2020
368	2D	0 - 10.00	0.13	--	--	--	--	2020/0103/03/186942---14-02-2020
376	1	0 - 29.00	0.36	--	--	--	--	2020/0103/03/186942---14-02-2020
376	2	0 - 12.00	0.15	--	--	--	--	2020/0103/03/186942---14-02-2020
376	3	0 - 33.50	0.42	--	--	--	--	2020/0103/03/186942---14-02-2020
376	4	1 - 15.00	1.40	--	--	--	--	2020/0103/03/186942---14-02-2020
376	5	0 - 9.00	0.11	--	--	--	--	2020/0103/03/186942---14-02-2020
378	1	1 - 54.50	1.92	--	--	--	--	2020/0103/03/186942---14-02-2020
		6 - 79.00	9.61					

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் https://eservices.tn.gov.in என்ற இணைய தளத்தில் 03/03/107/00976/90736 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 17-02-2020 அன்று 10:02:07 AM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவில் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்த்துக்கொள்ளவும்.

20.2.2020

R. JAYACHANDRAN
ADVOCATE & NOTARY
Saidapet Bar Association
Saidapet, Chennai - 600 015

1429 - ஆம் பசலியில் சிறுங்கூடம் மாவட்டம் உத்திரமேரூர் வட்டம் [illegible]

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.						சாகுபடி பண்ணின் பெயர்	முதல் போகம்.				
நில அளவை எண் (1)	உட்பிரிவு எண் (2)	பரப்பு (3)	தீர்வை (4)	ஒரு போகம் அல்லது இரு போகம். (5)	கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர். (6)	நிலத்தின் எந்த பகுதி பாசனத்துக்கு உபயோகமாகிறது (7)	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது. (8)	பயிரின் பெயர். (9)	பயிரான / அறுவடையான பரப்பு. (10)	உண்மையான பாய்ச்சல் ஆதாரம். (11)	விளைச்சல் அளவு விவரம். (12)
368	1A	0030	0.06	970	V. MINES நிறுவனம்		—	—	—		
368	1B	0050	0.06	970	— do —		—	—	—		
368	1D	0245	0.30	970	— do —		—	—	—		
368	1E	0025	0.06	970	— do —		—	—	—		
368	1F	0160	0.20	970	— do —		—	—	—		
368	1G	0260	0.33	970	— do —		—	—	—		
368	1H	0115	0.14	970	— do —		—	—	—		
368	1I	0125	0.06	970	— do —		—	—	—		
378	1	1545	1.92	970	— do —		—	—	—		
364	1	0790	0.98	970	— do —		—	—	—		
367	1	0085	0.11	970	— do —		—	—	—		
376	1	0290	0.36	970	— do —		—	—	—		
368	2A	0090	0.11	970	— do —		—	—	—		
368	2B	0040	0.06	970	— do —		—	—	—		
368	2C	0050	0.06	970	— do —		—	—	—		
368	2D	0100	0.13	970	— do —		—	—	—		
376	2	0120	0.15	970	— do —		—	—	—		
367	2	0200	0.25	970	— do —		—	—	—		
376	3	0335	0.42	970	— do —		—	—	—		
376	4	1150	1.40	970	— do —		—	—	—		

NOTARY P. R. JAYACHANDRAN B.A.B.L. CHENGALPATTU Reg. No. 08/16 GOVT OF TAMIL NADU

கிராம நிர்வாக அலுவலர் [illegible]

380/62-R.F. III-A-10-20,00,000 Cps.-GBP.-MOU.-7,-2016.

கிராமக் கணக்கு

1429 - ஆம் பசலியில் [illegible] கிராமம் மாவட்டம் [illegible] வட்டம் 107 - [illegible]

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.						சாகுபடியாளரின் பெயர்.	முதல் போகம்.				
நில அளவை எண். (1)	உட்பிரிவு எண். (2)	பரப்பு. (3)	தீர்வை. (4)	ஒரு போகம் அல்லது இரு போகம். (5)	கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அநுபோக தாரருடைய பெயர். (6)	நிலத்தின் எந்த பகுதியாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா. (7)	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது. (8)	பயிரின் பெயர். (9)	பயிரான / அறுவடையான பரப்பு. (10)	உண்மையான பாசனம் ஆதாரம். (11)	விளைச்சல் அளவு மதிப்பீடு. (12)
361	5A	0335	1.55	970	V-MINES [illegible]		—	—	—		
376	5	0090	0.11	970	-do-		—	—	—		
363	—	0560	0.69	970	-do-		—	—	—		
					// ————		//				

[illegible]
கிராம நிர்வாக அலுவலர்,
......கிராமம்,
உத்திரமேரூர் வட்டம்.

ASSISTANT DIRECTOR G&M KANCHEEPURAM

NOTARY PUBLIC GOVT. OF TAMILNADU R. JAYACHANDRAN CITY OF CHENNAI Reg. No. 08/18

20-2-20[illegible]

R. JAYACHANDRAN
ADVOCATE & NOTARY
Saidapet Bar Association
Saidapet, Chennai - 600 015

380/62-R.F. III-A-10-20,00,000 Cps.-GBP.-MDU.-7,-2016.

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

Scan 278/2020 ANNEXURE V

தமிழ்நாடு தமிலநாடு TAMILNADU

AD 312577

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

குத்தகை ஆவணம்

2020-ஆம் வருடம் பிப்ரவரி மாதம் 19ஆம் தேதி, சென்னை – 600 015, சைதாப்பேட்டை, சின்னமலை, வேளச்சேரி ரோடு, கதவு நெ.5/17 என்ற விலாசத்தில் இயங்கி வரும் M/s.V MINES (I.D.PAN NO.AARFV4420G) நிறுவனத்திற்கு மேற்படி நிறுவனத்திற்காக வேண்டி சென்னை – 600 012, கொசப்பேட்டை, சின்னதம்பி தெரு, கதவு நெ.76/1 என்ற விலாசத்தில் வசித்து வரும் திரு.P.R.பெருமாள் அவர்களின் குமாரர் சுமார் 43 வயதுள்ள திரு.P.குணசேகரன் (M/s.V.MINES நிறுவனத்தின் பார்ட்னர்) (I.D.PAN NO.AIGPG9545C) – 1வது பார்ட்டியாகவும் (சொத்தின் உரிமையாளர்)

For V MINES
Partner

1 புத்தகம் 2020ம் எடுத்தது 278 ம் ஆவணம்
20 தான்னைக்கொண்டது.
1 வது நாள்
பதிவு அலுவலர்

THE SEAL OF THE SUBREGISTRAR OF SHOLAVARAM

தமிழ்நாடு தமிலனாடு TAMILNADU

AD 312578

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

..2..

சென்னை 600 128, செருகம்பாக்கம், சிக்கராயபுரம் விரிவு முகாம்பிகை நகர், 1வது மெயின் ரோடு, கதவு நெ.12/113 என்ற விலாசத்தில் வசிக்கும் திரு.ராஜேந்திரன் அவர்களவின் குமாரர் சுமார் 25 வயதுள்ள திரு.ரா.இரிதரன் (I.D. PAN NO.BSWPG6479E) – 2-வது பார்ட்டியாகவும் (குத்தகைதாரர்)

இதன்கீழ் சொத்து விவரத்தில் விவரிக்கப்பட்ட சொத்தான அயிட்டம் நெ.1-ல் கண்ட சொத்தானது காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், நெ.107 எடமிச்சி கிராம புஞ்சை சர்வே எண்கள்.367/1-ல் அடங்கிய விஸ்திரணம் 0.08.5 ஏர்ஸ்க்கு ஏக்கர் 0.21 செண்ட், 376/2 – 0.12.0 ஏர்ஸ்க்கு ஏக்கர் 0.30 செண்ட், 376/3 – 0.33.5 ஏர்ஸ்க்கு ஏக்கர் 0.83 செண்ட், 376/4 – 1.15.0 ஏர்ஸ்க்கு ஏக்கர் 2.84 செண்ட், 376/5 – 0.09.0 ஏர்ஸ்க்கு ஏக்கர் 0.22 செண்ட், 368/1E – 0.02.5 ஏர்ஸ்க்கு ஏக்கர் 0.06 செண்ட், 361/5A – 0.33.5 ஏர்ஸ்க்கு ஏக்கர் 0.83 செண்ட், 367/2 – 0.20.0 ஏர்ஸ்க்கு ஏக்கர் 0.50 செண்ட், 368/1A – 0.03.0 ஏர்ஸ்க்கு ஏக்கர் 0.08

V MINES
Partner

1 பத்தகம் 2020ம் வருடத்திய 278ம் ஆவணம்
2D நான்கைக்கொண்டது.
2 வது நாள்

Scanned with CamScanner

தமிழ்நாடு तमिलनाडु TAMILNADU

AD 312579

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FAIPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

18/2/2020

..3..

செண்ட், 368/1B – 0.05.0 ஏர்ஸ்க்கு ஏக்கர் 0.12 செண்ட், 368/1D – 0.24.5 ஏர்ஸ்க்கு ஏக்கர் 0.61 செண்ட், 368/1F – 0.16.0 ஏர்ஸ்க்கு ஏக்கர் 0.40 செண்ட், 368/1G – 0.26.0 ஏர்ஸ்க்கு ஏக்கர் 0.64 செண்ட், 368/1H – 0.11.5 ஏர்ஸ்க்கு ஏக்கர் 0.29 செண்ட், 368/1I – 0.12.5 ஏர்ஸ்க்கு ஏக்கர் 0.31 செண்ட், 368/2A – 0.09.0 ஏர்ஸ்க்கு ஏக்க் 0.22 செண்ட், 368/2B – 0.04.0 ஏர்ஸ்க்கு ஏக்கர் 0.10 செண்ட், 368/2C – 0.05.0 ஏர்ஸ்க்கு ஏக்கர் 0.12 செண்ட், 368/2D – 0.10.0 ஏர்ஸ்க்கு ஏக்கர் 0.25 செண்ட், ஆக மொத்தம் ஏக்கர் 8.93 செண்ட் நிலமும், மேற்படி சர்வே எண்.368/1E-ல் கிணறு பூரா 5HP மின்மோட்டார், மின் இணைப்பு எண்.29 & டெப்பாசிட் உள்ளபட சொத்தும் மற்றும் அமிட்டம் நெ.2-ல் கண்ட சொத்தானது காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், 107-ம் எண் எடமிச்சி கிராமத்தில் இருக்கும் பட்டா எண்.126-ன்படி புன்செய் சர்வே எண்.363-ல் அடங்கிய ஹெக்டேர் 0.56.0 ஏர்ஸ்

V MINES
Partner

1 பத்தாம் 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
3 வது நாள்
பதிவு அலுவலர்

THE SEAL OF THE SUBREGISTRAR OF SALAVAKKAM

தமிழ்நாடு தமிழ்நாடு TAMILNADU

AD 312580

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) PANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

..4..

பூராவிஸ்தீரணம் ஏக்கர் 1.38 சென்ட் கொண்ட சொத்தும் மற்றும் அயிட்டம் நெ.3-ல் கண்ட சொத்தானது காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், 107-ம் எண் எடமிச்சி கிராமத்தில் புன்செய் சர்வே எண்.376/1-ல் அடங்கிய ஹெக்டேர் 0.29.0 ஏர்ஸ் பூரா விஸ்தீரணம் ஏக்கர் 0.72 சென்ட் கொண்ட சொத்தும் மற்றும் அயிட்டம் நெ.4-ல் கண்ட சொத்தானது காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், 107-ம் எண் எடமிச்சி கிராமத்தில் புன்செய் சர்வே எண்.378/1-ல் அடங்கிய ஹெக்டேர் 1.54.5 ஏர்ஸ் பூரா விஸ்தீரணம் ஏக்கர் 3.82 சென்ட் கொண்ட சொத்தும் மற்றும் அயிட்டம் நெ.5-ல் கண்ட சொத்தானது காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், 107-ம் எண் எடமிச்சி கிராமத்தில் இருக்கும் பட்டா எண்.802-ன்படி புன்செய் சர்வே எண்.364/1-ல் அடங்கிய ஹெக்டேர் 0.79.0 ஏர்ஸ் பூரா விஸ்தீரணம் ஏக்கர் 1.95 சென்ட் கொண்ட சொத்தும் சேர்த்து 1-வது பார்ட்டி சென்ற 09.08.2019-ந் தேதியில் திரு ஜெயபால் அவர்களின் மனைவி திருமதி.J.சங்கரி

For V MINES

Partner

1 பத்தாம் 2020 வருடத்திய 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
4 வது நாள்
பதிவு அலுவலர்

தமிழ்நாடு தமிழ்நாடு TAMILNADU

AD 312581

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) PANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
Lic No: 12012/B1/83
PH: 24335951

1 யிருக்கு 2020 ம் வருடம் 278 ம் ஆண்டு
20 நாள் கொண்டது ...5..
5 வது நாள்

அவர்களிடமிருந்து கிரையம் பெற்று, மேற்கண்ட கிரையப் பத்திரம் சாலவாக்கம் சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2019-ம் ஆண்டின் 835-ம் நெம்பராக பதிவு செய்யப்பட்ட கிரையப் பத்திரப்படி 1-வது பார்ட்டிக்கு சொந்தம் ஏற்பட்டு அதுமுதல் 1-வது பார்ட்டி சுவாதீனத்தில் கைப்பற்றி கொண்டு வரிவகையறாக்கள் அனைத்தும் செலுத்தி சர்வ சுதந்திர பாத்தியதைகளுடன் ஆண்டு அனுபவித்து வருகிறார்.

மேற்படி சொத்தில் சர்வே நெ.361/5A-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.83 சென்ட், சர்வே நெ.368/1D-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.61 சென்ட், சர்வே நெ.368/1F-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.40 சென்ட், சர்வே நெ.368/1G-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.64 சென்ட், சர்வே நெ.368/1H-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.29 சென்ட், சர்வே நெ.368/1I-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.31 சென்ட், சர்வே நெ.367/1-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.21 சென்ட், சர்வே நெ.367/2-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.50 சென்ட், சர்வே நெ.376/1-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.72 சென்ட், சர்வே

For V MINES

Partner

தமிழ்நாடு தமிழ்நாடு TAMILNADU

18/2/2020

AD 312582

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335854

..6..

...76/2-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.30 செண்ட், சர்வே நெ.376/3-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.83 செண்ட், சர்வே நெ.376/4-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 2.84 செண்ட், சர்வே நெ.376/5-ல் அடங்கிய விஸ்தீரணம் ஏக்கர் 0.22 செண்ட், ஆக மொத்த விஸ்தீரணம் ஏக்கர் 8.70 செண்ட் கொண்ட சொத்துக்களை நம்மில் 2-வது பார்ட்டி 6 வருடத்திற்கு கல்குவாரி வைத்து நடத்த குத்தகைக்கு கேட்டுக் கொண்டதின் பேரில் 1-வது பார்ட்டி, 2-வது பார்ட்டிக்கு வாடகைக்கு விட சம்மதித்து 2வது பார்ட்டி மாத மாதம் வாடகையாக ரூபாய்.5,000/- (எழுத்தால் ரூபாய் ஐயாயிரம் மட்டும்) 1வது பார்ட்டிக்கு கொடுத்து விட வேண்டியது. வாடகை தொகையை ஒவ்வொரு மாதமும் 1-ம் தேதிக்குள் 2வது பார்ட்டி 1வது பார்ட்டிக்கு செலுத்த வேண்டியது. இதற்கு முன் பணமாக 2வது பார்ட்டி 1-வது பார்ட்டிக்கு ரூபாய்.50,000/- (எழுத்தால் ரூபாய் ஐம்பதாயிரம் மட்டும்) ரொக்கமாக செலுத்தியுள்ளார்.

For V MINES

Partner

54

தமிழ்நாடு தமிழ்நாடு TAMILNADU

18/2/2020

AD 312583

M. KURSHITH BEGUN
STAMP VENDOR
58, (NEW No: 18) FAIPET 2nd STREE
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

..7..

மேற்படி குத்தகை காலம் இன்று தேதியில் இருந்து 6 வருடக் காலத்திற்கு மட்டும் அமுலில் இருக்கும்.

மேற்கண்ட சொத்தில் அவர் செய்யும் தொழிலின் அனைத்து செலவுகளும் நம்மில் 2-வது பார்ட்டியை சாரும், 2வது பார்ட்டி மேற்படி சொத்தை வேறு நபர்களுக்கு மேல் வாடகைக்கு விடக்கூடாது, மேற்படி தொழிலுக்காக அனைத்து அரசாங்க கட்டணங்களையும் 2வது பார்ட்டியே செலுத்த வேண்டியது. மேலும் 2வது பார்ட்டி கல்குவாரி தொழில் செய்வதற்கு குத்தகை பெறப்பட்டுள்ள இடத்தில், அரசிடமிருந்து அனுமதி பெற்று, அரசின் சட்ட திட்டங்களுக்குட்பட்டு விதிமுறைகளை மீறாமல் குவாரி தொழில் செய்ய வேண்டும்.

For V MINES

Partner

1 பத்தாம் 2020 ம் ஆண்டு 278 ம் ஆவணம்
20 தான்கையைக்கொண்டது.
7 வது தான்

பதிவு அலுவலர்

தமிழ்நாடு தமிழ்நாடு TAMILNADU

AD 312584

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

12/2/2020 கிரிதரன்

..&..

இந்தப்படிக்கு நாம் இரு பார்ட்டிகளும் சேர்ந்து மனப்பூர்வமாய் சம்மதித்து எழுதிக் கொண்ட குத்தகை ஒப்பந்தப் பத்திரம்.

சொத்து விவரம்

செங்கல்பட்டு மாவட்டப் பதிவகம், சாலவாக்கம் சார்பதிவகம், காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், நெ.107 எடமிச்சி கிராம பட்டா எண்.970-ல் அடங்கிய புஞ்சை சர்வே எண்கள்.

361/5A – 0.33.5 ஏர்ஸ்க்கு ஏக்கர் 0.83 செண்ட்,
368/1D – 0.24.5 ஏர்ஸ்க்கு ஏக்கர் 0.61 செண்ட்,
368/1F – 0.16.0 ஏர்ஸ்க்கு ஏக்கர் 0.40 செண்ட்,
368/1G – 0.26.0 ஏர்ஸ்க்கு ஏக்கர் 0.64 செண்ட்,
368/1H – 0.11.5 ஏர்ஸ்க்கு ஏக்கர் 0.29 செண்ட்,

THE SEAL OF THE SUBREGISTRAR OF SALAVAKKAM

பத்தாம் 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
8 வது நாள்
பதிவு அலுவலர்

For V MINES
Partner

தமிழ்நாடு தமிழ்நாடு TAMILNADU

AX 634013

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/83
PH: 24335954

..9..

368/11 – 0.12.5 ஏர்ஸ்க்கு ஏக்கர் 0.31 சென்ட்,
367/1 – 0.08.5 ஏர்ஸ்க்கு ஏக்கர் 0.21 சென்ட்,
367/2 – 0.20.0 ஏர்ஸ்க்கு ஏக்கர் 0.50 சென்ட்,
376/1 – 0.29.0 ஏர்ஸ்க்கு ஏக்கர் 0.72 சென்ட்
376/2 – 0.12.0 ஏர்ஸ்க்கு ஏக்கர் 0.30 சென்ட்,
376/3 – 0.33.5 ஏர்ஸ்க்கு ஏக்கர் 0.83 சென்ட்,
376/4 – 1.15.0 ஏர்ஸ்க்கு ஏக்கர் 2.84 சென்ட்,
376/5 – 0.09.0 ஏர்ஸ்க்கு ஏக்கர் 0.22 சென்ட்,

For V MINES

Partner

1 பங்குனி 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 நாள்வரைக்கொண்டது.
9 வது நாள்

பதிவு அலுவலர்

THE SEAL OF THE SUBREGISTRAR OF VALAVANUR

தமிழ்நாடு தமிழ்நாடு TAMILNADU

AX 634014

M. KURSHITH BEGUM
STAMP VENDOR
58, (NEW No: 18) FANPET 2nd STREET,
NANDANAM, CHENNAI - 600 035.
L.No: 12842/B1/93
PH: 24335954

18/2/2020.

-10-

ஆக மொத்த விஸ்தரணம் ஹெக்டேர் 3.51.0 ஏர்ஸ்க்கு ஏக்கர் 8.70 செண்ட் கொண்ட நிலம் இந்த குத்தகைப் பத்திரத்திற்கு உட்பட்டது.

For V.MINES

Partner

2-வது பார்ட்டி
(குத்தகைத்தாரர்)

1-வது பார்ட்டி
(சொத்தின் உரிமையாளர்)

சாட்சிகள்

1. (M. ANIL SELVAN)
S/o. S. MEHAK.
No. 21/1. Pinayagarkoil Street
Little Mount, Saidapet
Chennai - 600 015.

2. (D. GUNASEKARAN)
S/o. T. DEVAN.
Kanchipuram High Road,
Melacheri, Palur, 603101.

21 பங்குனி 2020 ம் திகதிய 278 ம் ஆவணம்
20 ரூபாய் கொண்டது.
10 வது நாள்
பதிவு அலுவலர்

L. GNANASOUNDARY
DOCUMENT WRITER
LICENCE No.A2/MS (S) / 96
No.32/1, Vaigundapuram 1st Street,
Nungambakkam, Chennai - 600 034.

..11..

இணைப்பு

குத்தகை மாத வாடகை ரூபாய்.5,000/-

விதம் 6 ஆறு வருடங்களகளுக்கு மொத்தமாக	ரூ.3,60,000/-
முன் பணம்	ரூ 50,000/-
மொத்தம்	ரூ.4,10,000/-

For V MINES

Partner

1 பத்தாம் 2020 ம் ஆண்டு பதிவு செய்யப்பட்ட 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
11 வது நாள்
பதிவு அலுவலர்

ASSISTANT DIRECTOR GNCHEEPURAM

आयकर विभाग
INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

स्थायी लेखा संख्या कार्ड
Permanent Account Number Card

[redacted]

[redacted]

For V MINES

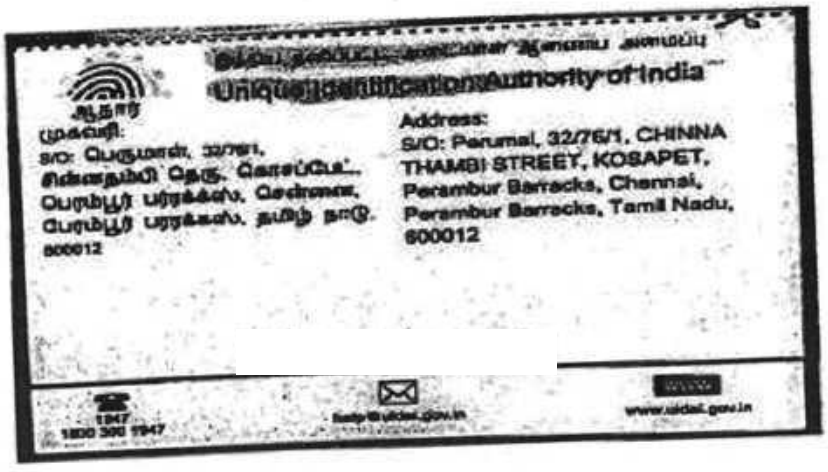
Partner

1 பத்தகம் 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 தாக்கலைக்கொண்டது.
12 வது தாள்
பதிவு அலுவலர்

THE SEAL OF THE SUBREGISTRAR OF SALAVAKKAM

ASSISTANT DIRECTOR (MINES) KANCHEEPURAM


இந்திய அரசாங்கம்
Government of India
P Gunasekaran
பிறந்தவருடம் Year of Birth
ஆண்பால் Male
ஆதார் - சாதாரண மனிதனின் அதிகாரம்


Unique Identification Authority of India
முகவரி:
S/O: பெருமாள், 32/76/1,
சின்னதம்பி தெரு, கோசப்பேட்,
பெரம்பூர் பாரக்ஸ், சென்னை,
பெரம்பூர் பாரக்ஸ், தமிழ் நாடு,
600012
Address:
S/O: Perumal, 32/76/1, CHINNA
THAMBI STREET, KOSAPET,
Perambur Barracks, Chennai,
Perambur Barracks, Tamil Nadu,
600012
1947
1800 300 1947
help@uidai.gov.in
www.uidai.gov.in

RC

1 பத்தகம் 2020 ம் ஆண்டு செப்டம்பர் 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
13 வது நாள்
பதிவு அலுவலர்

For V MINES
Partner

ASSISTANT DIRECTOR GEN NANCHEPURAM

आयकर विभाग
INCOME TAX DEPARTMENT

भारत सरकार
GOVT. OF INDIA

R GIRIDHARAN

RAJENDARAN

06/04/1994

Permanent Account Number

R. Giridharan

Signature

In case this card is lost / found, kindly inform / return to:
Income Tax PAN Services Unit, UTIITSL
Plot No. 3, Sector 11, CBD Belapur,
Navi Mumbai - 400 614.

इस कार्ड के खोने/पाने पर कृपया सूचित करें/लौटाएं :
आयकर पैन सेवा यूनिट, UTIITSL
प्लाट नं: ३, सेक्टर ११, सीबीडी बेलापुर,
नवी मुंबई-४००

RAJ

1 பற்றாக் 2020ம் வருடத்திய 278ம் ஆவணம்
20 நாள்களைக்கொண்டு இந்த
14 வது தாள் பதிவு அலுவலர்

For V MINES

Partner

62

ASSISTANT DIRECTOR (MINES) KANCHEEPURAM

आधार

இந்திய அரசாங்கம்
Unique Identification Authority of India
Government of India

பதிவேட்டு எண்/ Enrolment No.: 2040/80366/02806

To
தமிழ்செல்வன் மே
Tamilselvan M
S/O: Meshak
21/1
VINAYAGAR KOVIL STREET
CHINNAMALAI
Saidapet
Saidapet
Chennai Tamil Nadu - 600015
9444778886

Download Date: 22/03/2018

Generation Date: 14/03/2018

உங்கள் ஆதார் எண் / Your Aadhaar No. :

எனது ஆதார், எனது அடையாளம்

AADHAAR

தகவல்

- ஆதார் அடையாளத்திற்கான சான்று, குடியுரிமைக்கு அல்ல.
- அடையாளத்தை ஆன்லைனில் ஆதார் சேவைச் முறையாகப் பெறவும்.
- இது எலக்ட்ரானிக் கொள்முறை முறை தயாரிக்கப்பட்ட கடிதமாகும்.

INFORMATION

- Aadhaar is a proof of identity, not of citizenship.
- To establish identity, authenticate online.
- This is electronically generated letter.

- ஆதார் நாடு முழுவதிலும் செல்லுபடியாகும்.
- வருங்காலத்தில் அரசு மற்றும் அரசு சாரா சேவைகளை பயன்படுத்திக் கொள்ள ஆதார் உதவிகரமாக இருக்கும்
- Aadhaar is valid throughout the country.
- Aadhaar will be helpful in availing Government and Non-Government services in future.

இந்திய அரசாங்கம்
Government of India

தமிழ்செல்வன் மே
Tamilselvan M
பிறந்த நாள்/DOB: 07/01/1970
ஆண்/ MALE

Unique Identification Authority of India

முகவரி:
தமிழ் / தாய் பெயர் சே மூக், 21/1, விநாயகர் கோவில் தெரு, சின்னமலை, சைதா பேட்டை, சென்னை, தமிழ் நாடு - 600015

Address:
S/O: Meshak, 21/1, VINAYAGAR KOVIL STREET, CHINNAMALAI, Saidapet, Chennai, Tamil Nadu - 600015

எனது ஆதார், எனது அடையாளம்

1 பத்தகம் 2020 ம் வருடத்திய 278 ம் ஆவணங்கள் FOR MINES
20 நாள்களைக்கொண்டது.
15 வது நாள்
பதிவு அலுவலர் Partner

63

ASSISTANT DIRECTOR G&M KANCHEEPURAM

இந்திய அரசாங்கம்
Government of India

GUNASEKARAN DEVAN

Father: DEVAN POIYAMANI

Year of Birth: 1974

Male

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

Unique Identification Authority of India

Address: S/O Devan, NO 3/2, KANCHEEPURAM HIGHWAYS, MELACHERRY PALUR, Palur, Palur, Kancheepuram, Tamil Nadu, 603101

1947
1800 300 1947

help@uidai.gov.in

www.uidai.gov.in

1 புத்தகம் 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 தாள்களைக் கொண்டது.
16 வது தாள்
பதிவு அலுவலர்

R. C

For V MINES
Partner

THE SEAL OF THE SUBREGISTRAR OF SALAVAKKAM

ASSISTANT DIRECTOR SRPM KANCHEEPURAM

தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : காஞ்சிபுரம் வட்டம் : உத்திரமேரூர்

வருவாய் கிராமம் : எடமிச்சி பட்டா எண் : 970

உரிமையாளர்கள் பெயர்

1. (M/s.V.MINES நிறுவனத்தின் பார்ட்னர்) பெருமாள் மகன் குணசேகரன் M/s.V MINES ...நிறுவனத்திற்காக

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	
361	5A	0 - 33.50	1.55	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
363	-	0 - 56.00	0.69	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
364	1	0 - 79.00	0.98	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
367	1	0 - 8.50	0.11	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
367	2	0 - 20.00	0.25	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1A	0 - 3.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1B	0 - 5.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1D	0 - 24.50	0.30	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1E	0 - 2.50	0.05	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1F	0 - 16.00	0.20	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1G	0 - 26.00	0.33	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020

For V MINES

Partner

17-Feb-20, 1:52 PM

368	1H	0 - 11.50	0.14	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	1I	0 - 12.50	0.16	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	2A	0 - 9.00	0.11	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	2B	0 - 4.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	2C	0 - 5.00	0.06	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
368	2D	0 - 10.00	0.13	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
376	1	0 - 29.00	0.36	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
376	2	0 - 12.00	0.15	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
376	3	0 - 33.50	0.42	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
376	4	1 - 15.00	1.40	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
376	5	0 - 9.00	0.11	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
378	1	1 - 54.50	1.92	--	--	--	--	2020/0103 /03/186942--- -- 14-02-2020
		6 - 79.00	9.61					

ASSISTANT DIRECTOR KANCHEEPURAM

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் https://eservices.tn.gov.in என்ற இணைய தளத்தில் 03/03/107/00970/90736 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 17-02-2020 அன்று 10:02:07 AM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

1 புத்தகம் 2020 ம் ஆண்டு 278 ம் ஆவணம்
20 தாள்களைக் கொண்டது
18 வது தாள்
பதிவு அலுவலர்

SALAVAKKAM

For V MINES
Partner

17-Feb-20, 1:52 PM

66

R/சாலவாக்கம்/புத்தகம்-1/278/2020

2020 ஆம் ஆண்டு பிப்ரவரி மாதம் 19ம் தேதி பி.ப. 03:23 மணியளவில் சாலவாக்கம் சார்பதிவாளர் அலுவலகத்தில் தாக்கல் செய்து கட்டணம் ₹ 4,420/- செலுத்தியவர்.

இடது பெருவிரல்

9840484543

P.Ramesh

கூடுதல் விவரங்கள் ஆவண வாசகத்தில் உள்ளபடி

எழுதிக் கொடுத்ததாக ஒப்புக் கொண்டவர்
இடது பெருவிரல்

P.Ramesh

கூடுதல் விவரங்கள் ஆவண வாசகத்தில் உள்ளபடி

எழுதி வாங்கியதாக ஒப்புக் கொண்டவர்
இடது பெருவிரல்

RC

கூடுதல் விவரங்கள் ஆவண வாசகத்தில் உள்ளபடி

இன்னாரென்று நிரூபித்தவர்கள்

1. திரு மே தமிழ்செல்வன் தபெ மேஷாக் கதவு நெ.21/1, விநாயகர் கோவில் தெரு, சின்னமலை, சைதாப்பேட்டை, சென்னை, தமிழ்நாடு, இந்தியா, 600015

2. திரு குணசேகரன் தே தபெ தேவன் கதவு நெ.1/2, காஞ்சிபுரம் நெடுஞ்சாலை, மேலச்சேரி பாலூர்,, காஞ்சிபுரம், தமிழ்நாடு, இந்தியா, 603101

2020 ஆம் ஆண்டு பிப்ரவரி மாதம் 19ம் நாள்

1 புத்தகம் 2020 ல் வருடம்தில 278ம் ஆவணம்
20 நாள்களைக்கொண்டது.
19 வது நாள்

பதிவு அலுவலர்

THE SEAL OF THE SUB REGISTRAR OF SALAVAKKAM

பாலகிருஷ்ணன் ராமச்சந்திரன்
சார்பதிவாளர்
சாலவாக்கம்

1/2

R/சாலவாக்கம்/புத்தகம்-1/278/2020

R/சாலவாக்கம்/புத்தகம்-1/278/2020 என்னால் பதிவு செய்யப்பட்டது.

நாள்: 19/02/2020
சாலவாக்கம்

பாலகிருஷ்ணன் ராமசந்திரன்
சார்பதிவாளர்

1 பத்தகம் 2020 ம் வருடத்திய 278 ம் ஆவணம்
20 நாள்களைக்கொண்டது.
20 வது நாள்

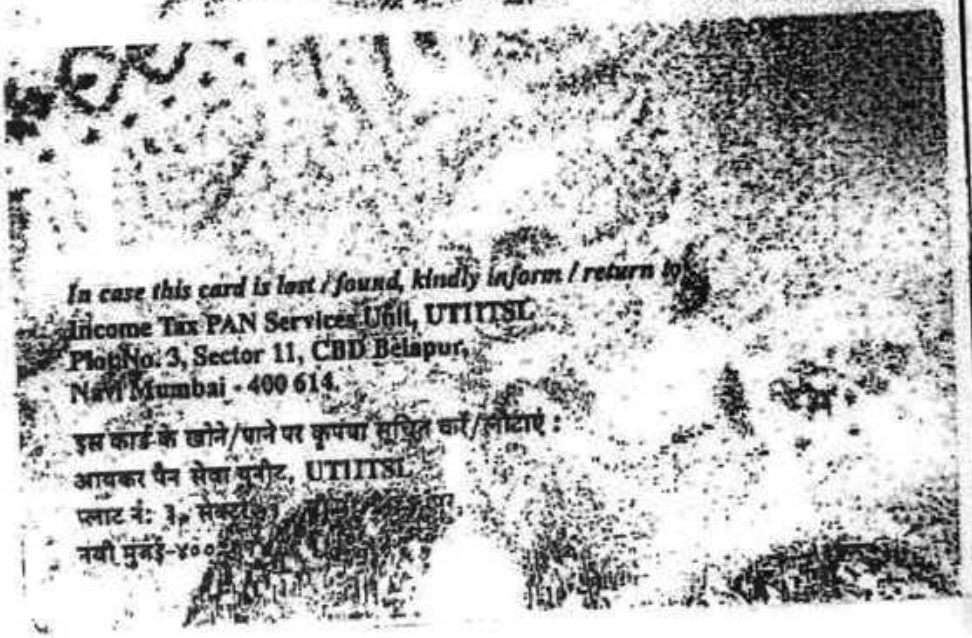
பதிவு அலுவலர்

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

68

ANNEXURE VI

ASSISTANT DIRECTOR DDIT KANCHEEPURAM



S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87

ANNEXURE VI

एक नवीकृत 10 NOV 1993
Renewed up to .....

Regional Controller of Mines
INDIAN BUREAU OF MINES
Ministry of Steel Mines & Coal
MADRAS

एक नवीकृत 10 NOV 1991
Renewed up to .....

Regional Controller of Mines
भारतीय खान ब्यूरो
INDIAN BUREAU OF MINES

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE MINING PLANS

(Under Rule 22 (c) of Mineral Concession Rules 1960)

Shri S. SURIYAKUMAR resident of A/626 H, SELVAM MANSION, KAMARAJ NAGAR, SALEM - 5, son of SHRI A. ERAPAN, having given satisfactory evidence of his qualifications and experience is hereby granted recognition under Rule 22 (c) of the Mineral Concession Rules, 1960 as a Qualified Person to prepare Mining Plans.

His registration number is QP / MAS / 013 / 87 / A

This recognition is valid for a period of two years ending 11.11.1989

Regional Controller of Mines
Indian Bureau of Mines
MADRAS.

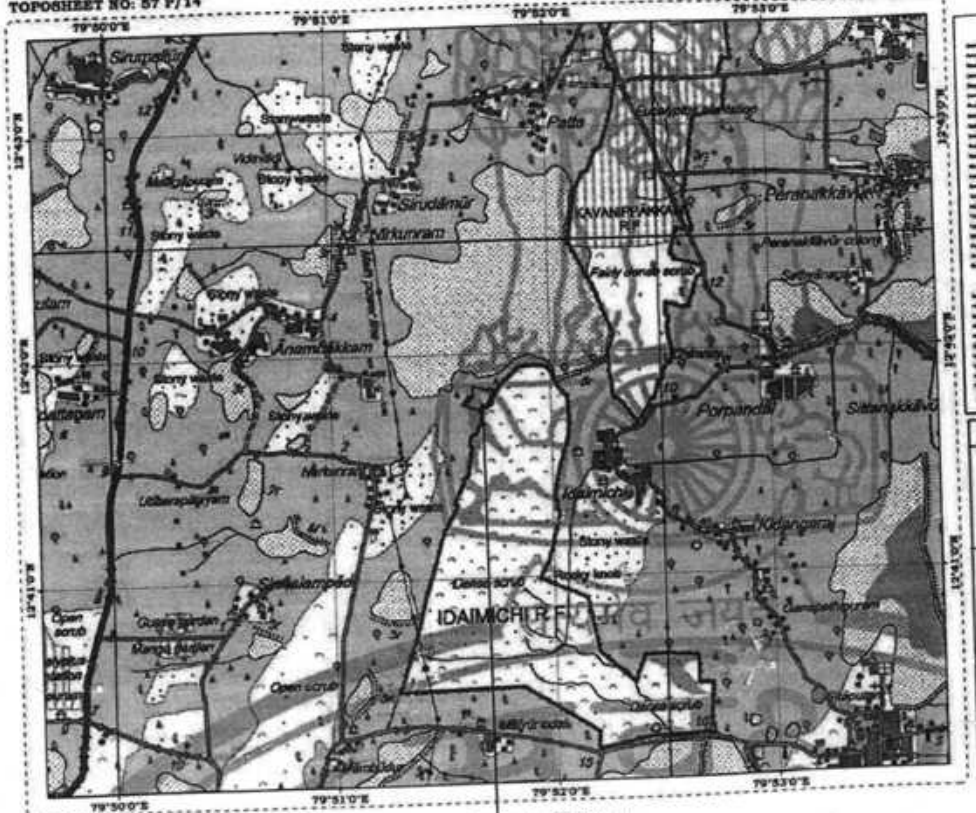
Place: MADRAS
Date : 12.11.1987

PLATE NO : 1

GEO REFERENCED TOPOSHEET SHOWING LEASE APPLIED AREA

TOPOSHEET NO: 57 P/14

KANCHEEPURAM DISTRICT



LEGEND

CONVENTIONAL SYMBOLS

Lease Applied Area

LOCATION OF QUARRY
SF. NO: 367/1,367/2 etc.,
EXTENT : 2.77.00 HA.
VILLAGE : Edamochi
TALUK : Othiramerur,
DISTRICT : Kancheepuram,
STATE : Tamilnadu.

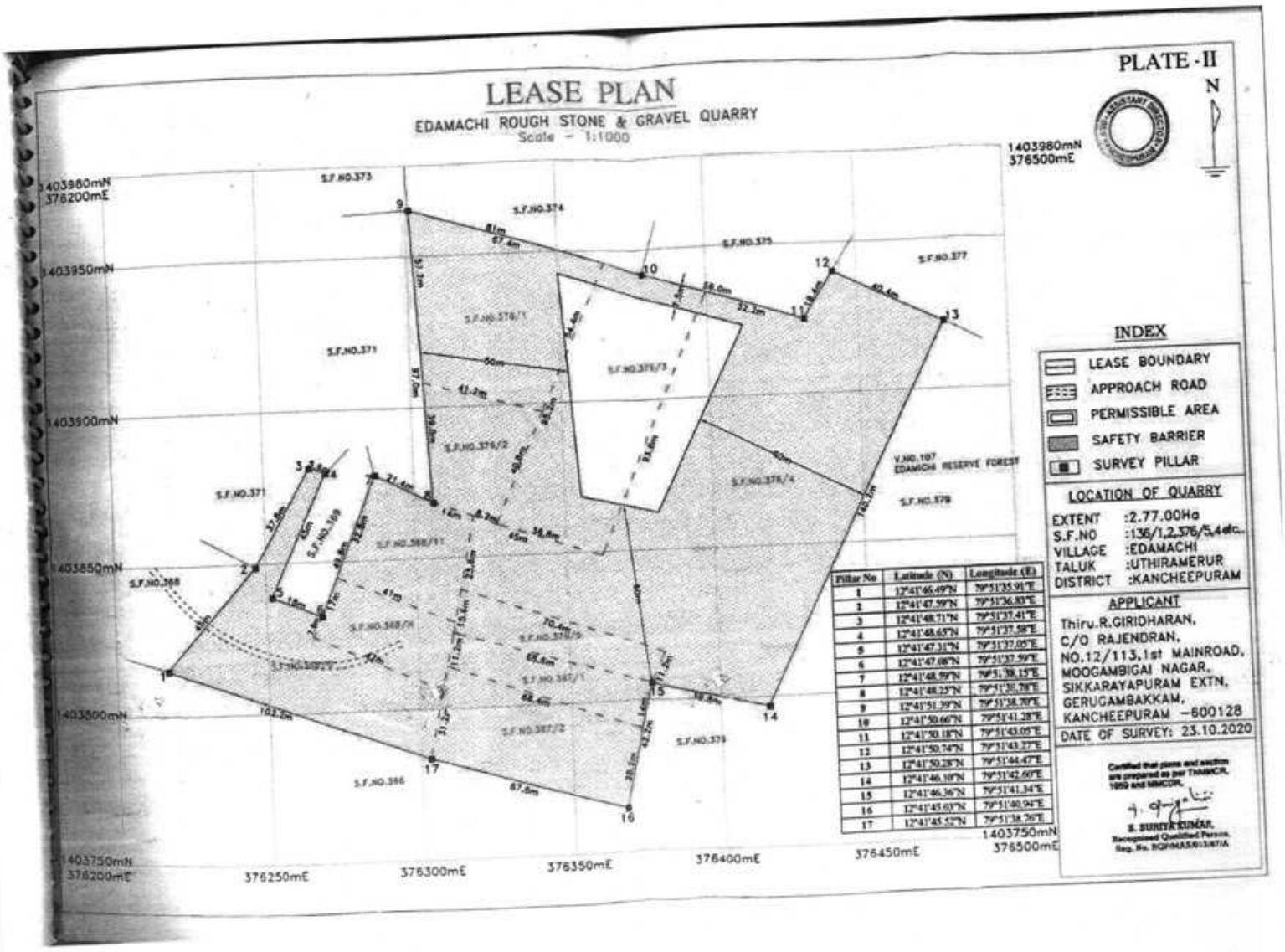
NAME OF THE CLIENT
Thiru.R.GIRIDHARAN,
C/O Rajendran,
No.12/113, 1st Main Road,
Moogambigai Nagar,
Sikharayapuram Extn,
Gerugambakkam,
Kancheepuram -600128

EIA COORDINATOR

S SURIYAKUMAR
Recognised Qualified Person
Reg. No RQPMAS/013/87/A

Lease Applied Area

Scale 1:50,000



Pillar No	Latitude (N)	Longitude (E)
1	12°41'46.49"N	79°51'35.91"E
2	12°41'47.59"N	79°51'36.80"E
3	12°41'48.71"N	79°51'37.41"E
4	12°41'48.65"N	79°51'37.58"E
5	12°41'47.31"N	79°51'37.05"E
6	12°41'47.08"N	79°51'37.59"E
7	12°41'48.99"N	79°51'38.15"E
8	12°41'48.25"N	79°51'38.78"E
9	12°41'51.39"N	79°51'38.70"E
10	12°41'50.66"N	79°51'41.28"E
11	12°41'50.18"N	79°51'43.05"E
12	12°41'50.74"N	79°51'43.27"E
13	12°41'50.28"N	79°51'44.47"E
14	12°41'46.10"N	79°51'42.60"E
15	12°41'46.36"N	79°51'41.34"E
16	12°41'45.03"N	79°51'40.94"E
17	12°41'45.52"N	79°51'38.76"E

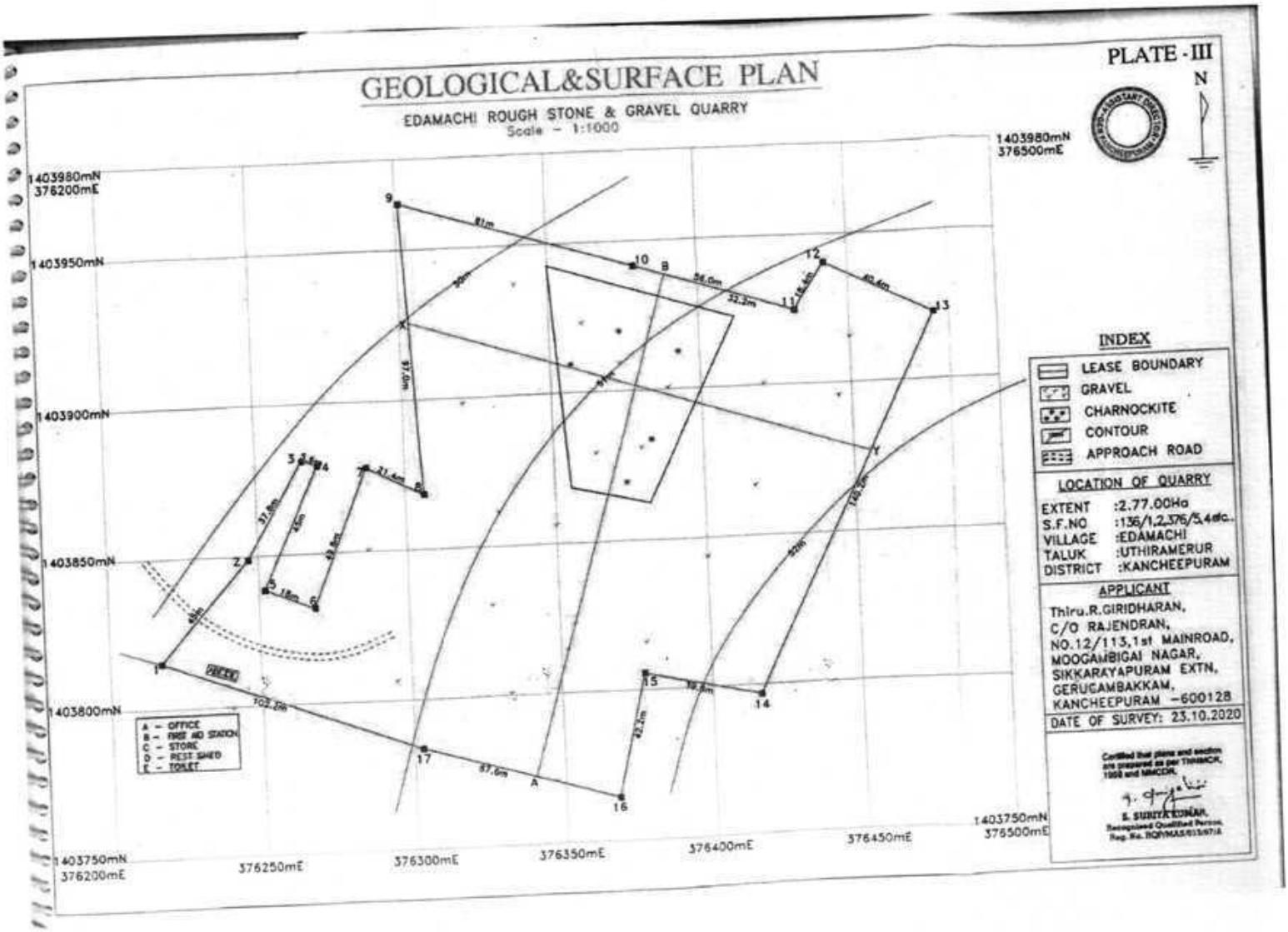


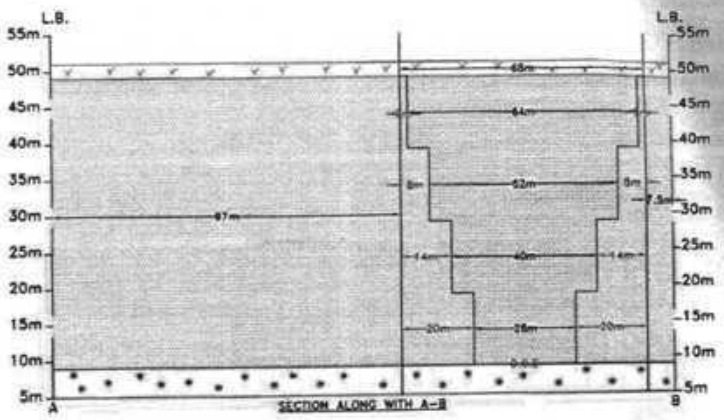
PLATE - III
GEOLOGICAL&SURFACE PLAN
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
N
1403980mN 376500mE
1403980mN 376200mE
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
1403750mN 376500mE
376250mE
376300mE
376350mE
376400mE
376450mE
INDEX
LEASE BOUNDARY
GRAVEL
CHARNOCKITE
CONTOUR
APPROACH ROAD
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/5,4etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM -600128
DATE OF SURVEY: 23.10.2020
A - OFFICE
B - FIRST AID STATION
C - STORE
D - REST SHED
E - TOILET
PREFIX
S. SURIYA KUMAR,

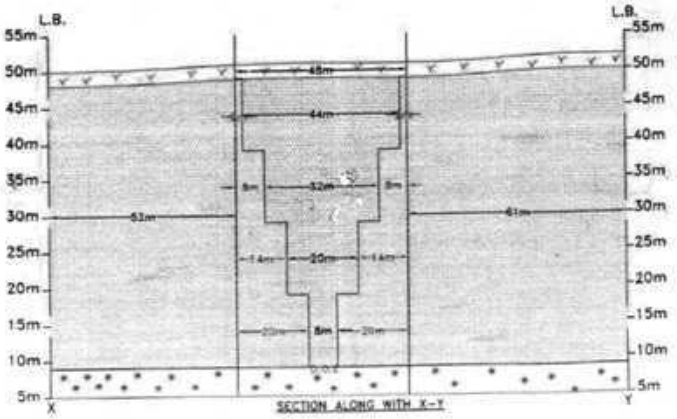
GEOLOGICAL SECTIONS

EDAMACHI ROUGH STONE & GRAVEL QUARRY

Scale : Horizontal = 1:1000
Vertical = 1:500

PLATE - IV





MINERAL RESOURCES AND RESERVES		
DESCRIPTION	VOLUME (m^3)	COLOR INDEX
Mineral Reserves	55040	
Mineral Resources Loss in Benches	26560	
Mineral Resources loss in safety barrier	472340	
GEOLOGICAL RESOURCE	553940	

INDEX

- L.B. — LEASE BOUNDARY
- GRAVEL
- CHARNOCKITE
- ULTIMATE PIT LIMIT
- D.G.S. — DEPTH OF ESTIMATION

LOCATION OF QUARRY

EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/3,4etc.
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM

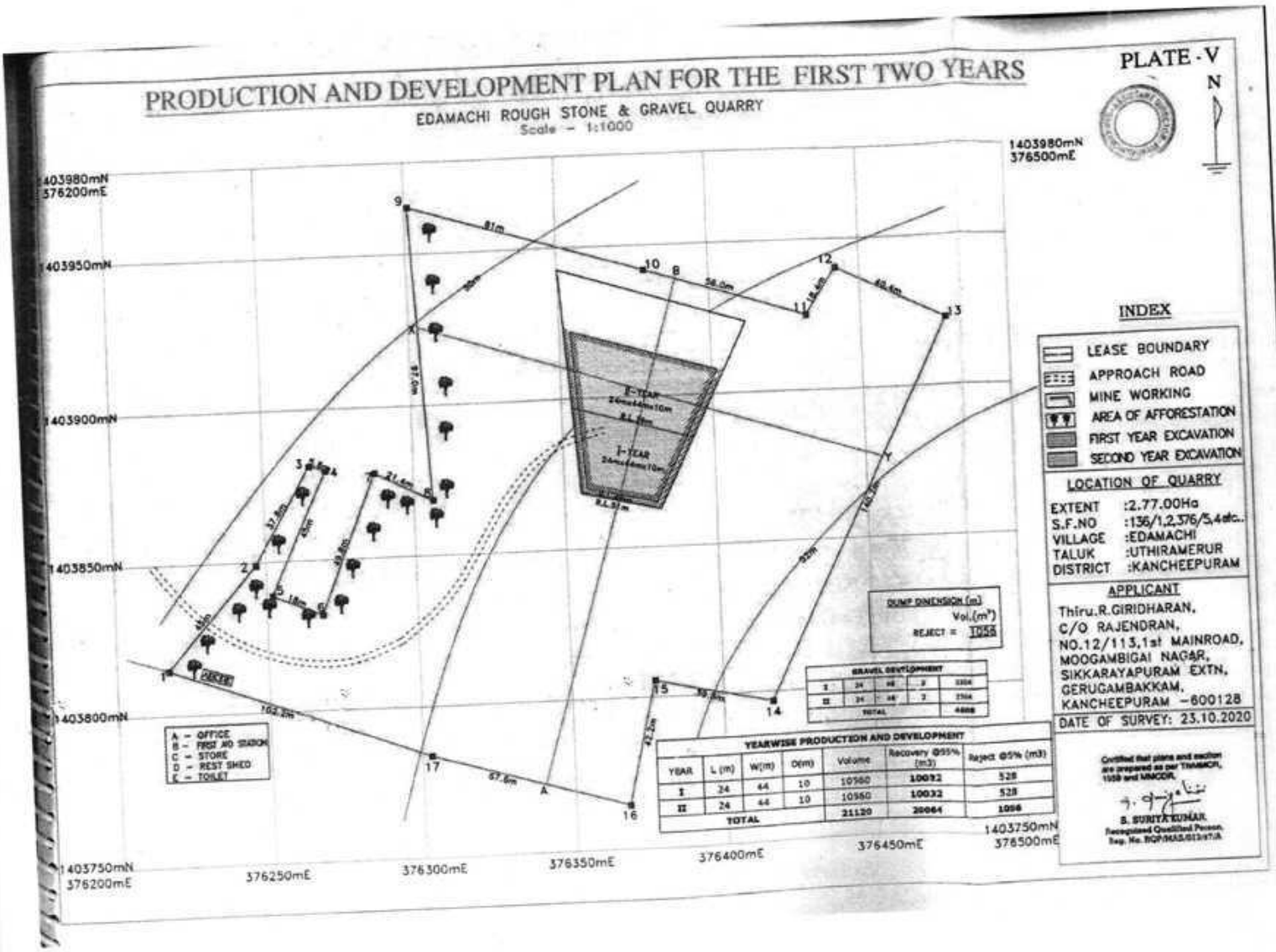
APPLICANT

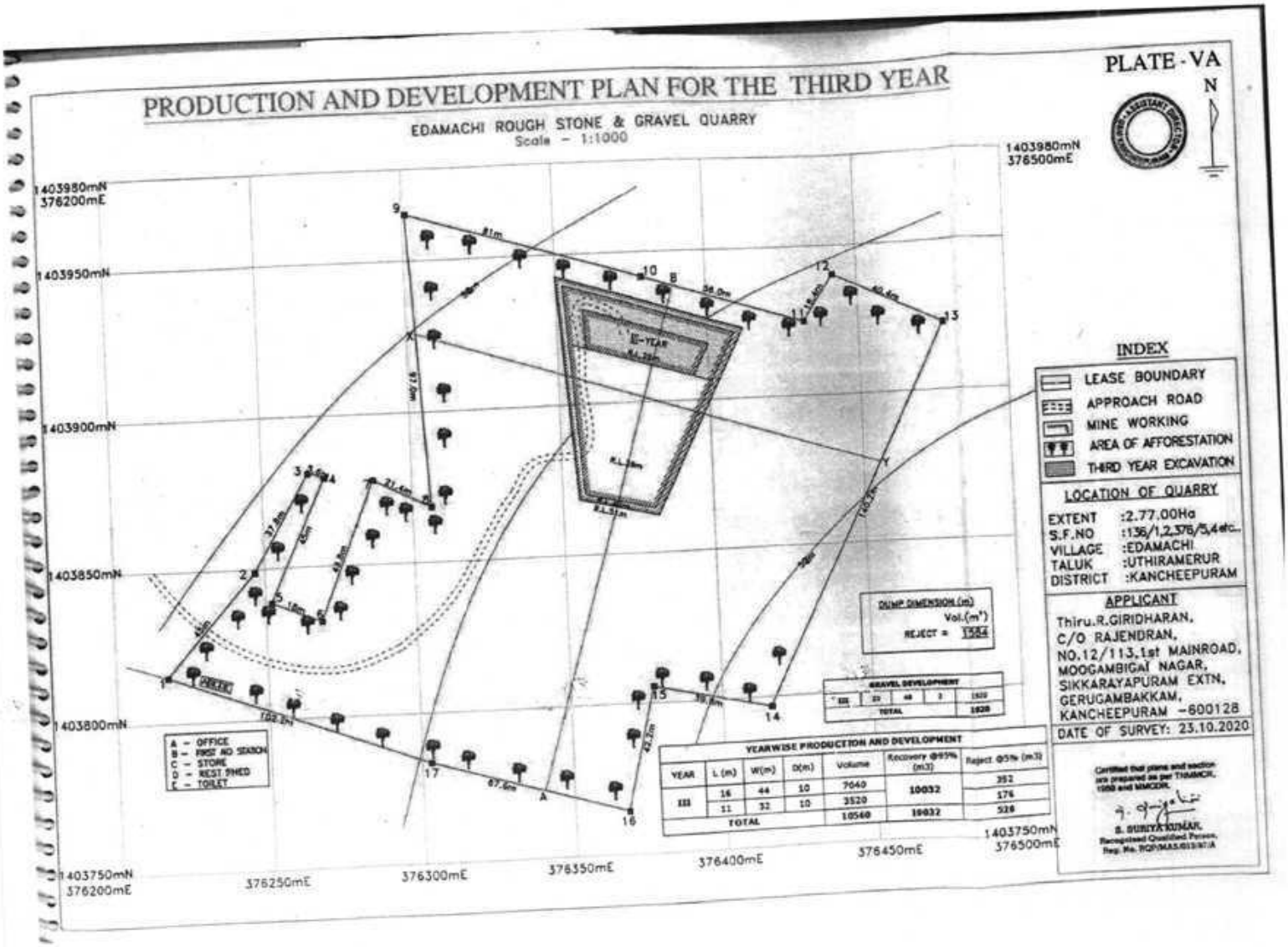
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
PERUNGAMBAKKAM,
KANCHEEPURAM -600128

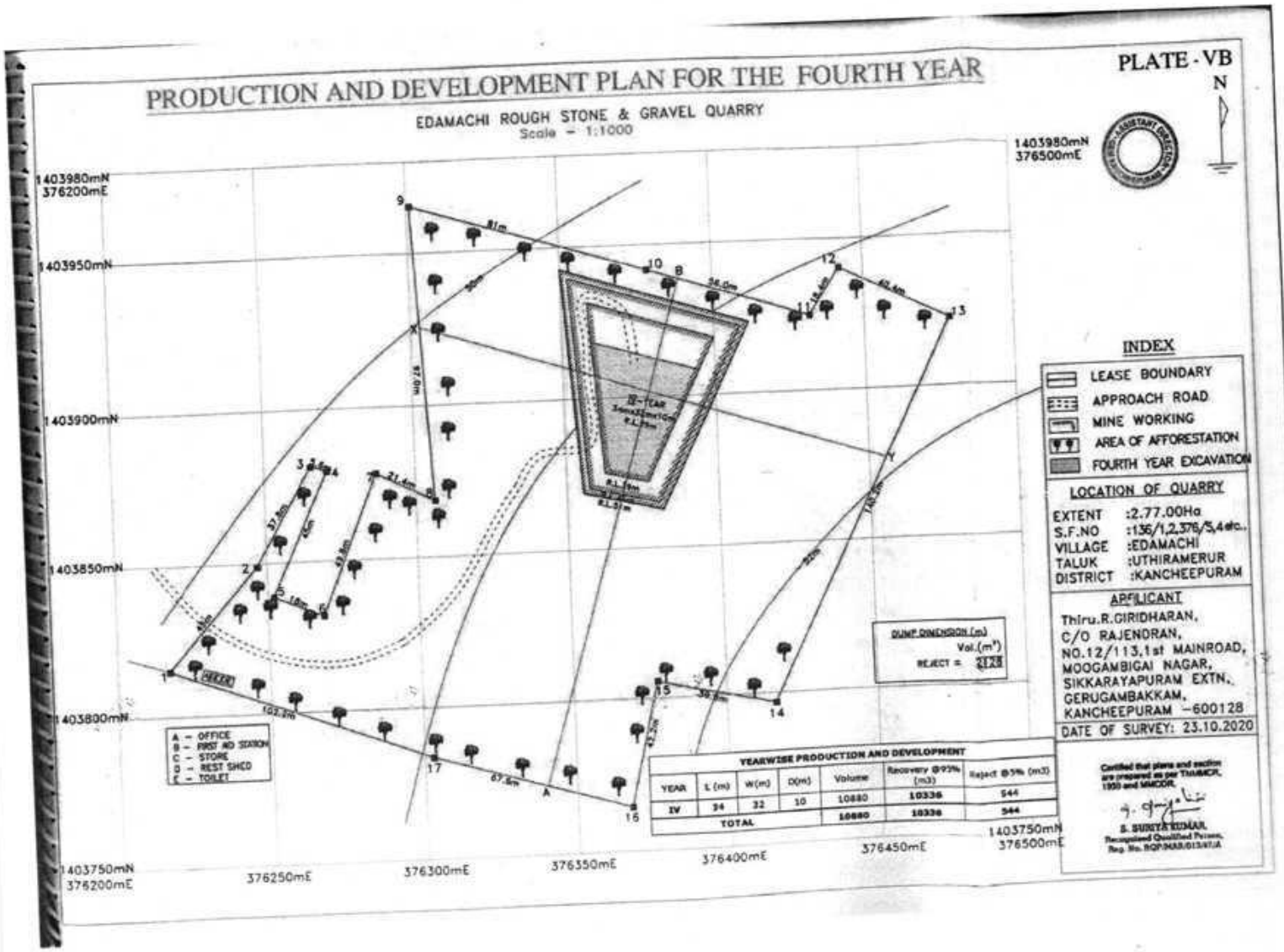
DATE OF SURVEY: 23.10.2020

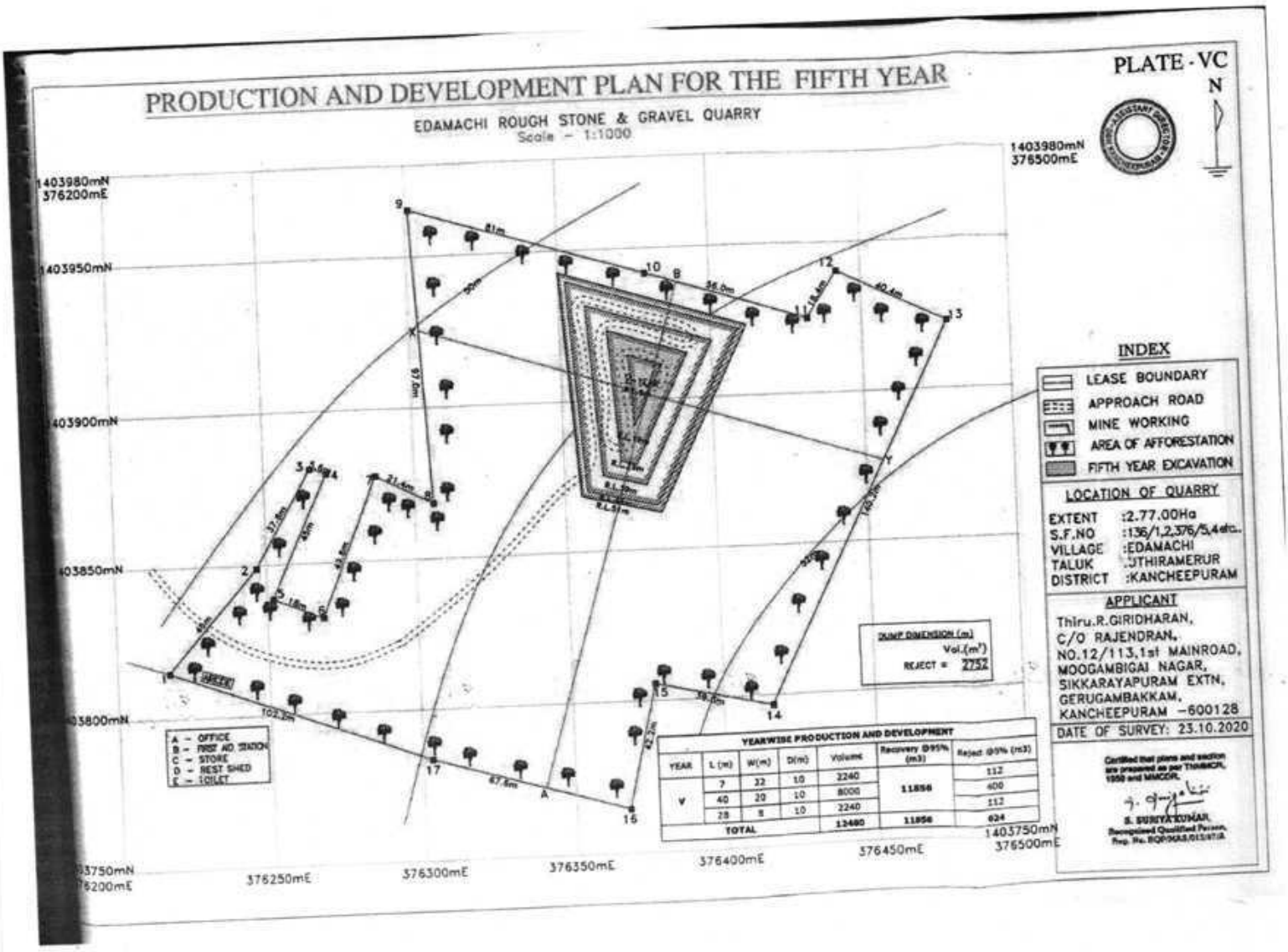
Certified that plans and sections are prepared as per TNMMCR, 1959 and MMCDR.

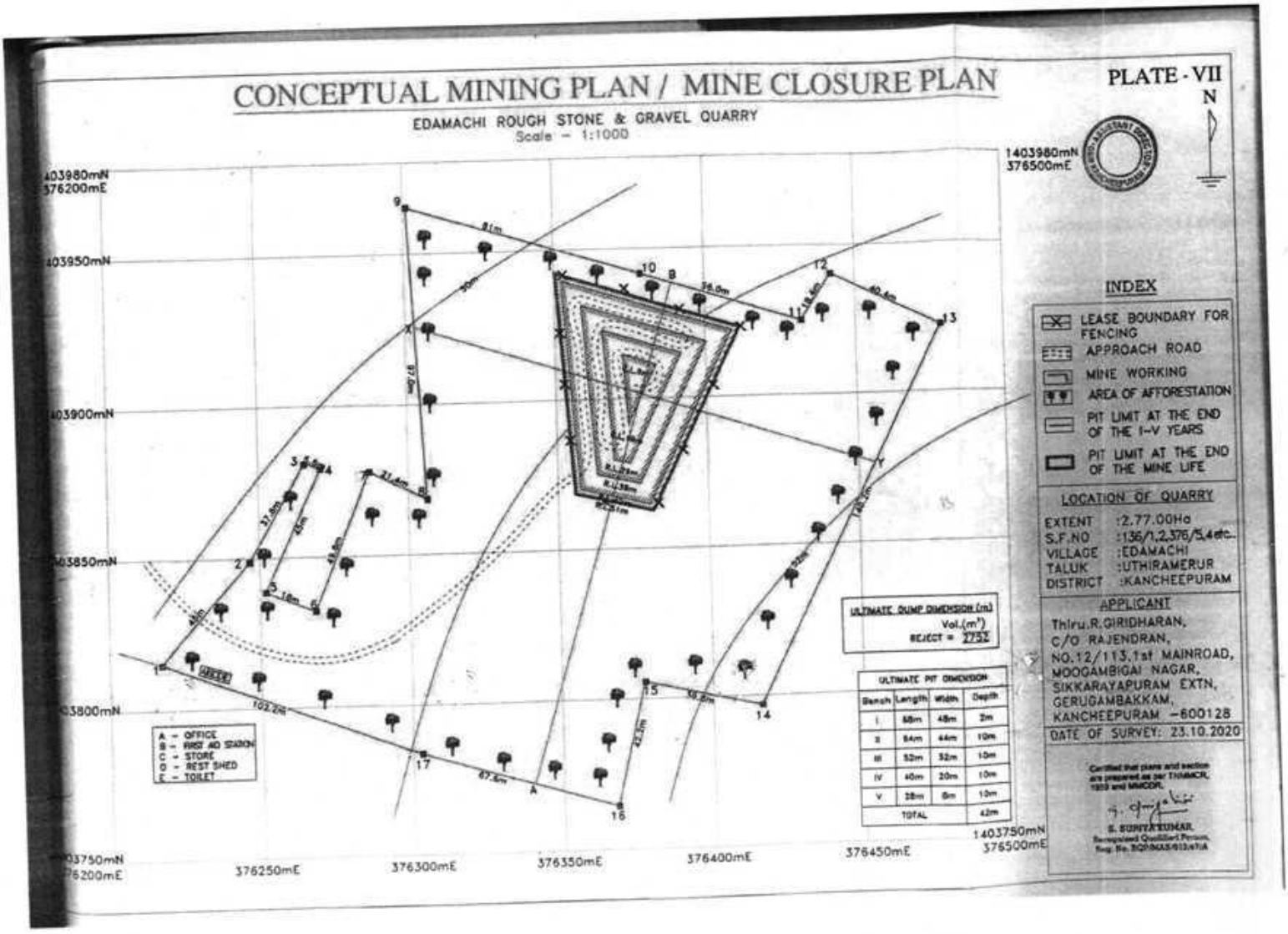
S. SURIYA KUMAR,
Recognised Qualified Person,
Reg. No. RQP/MAS/013/21/A


PRODUCTION AND DEVELOPMENT PLAN FOR THE FIRST TWO YEARS
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale – 1:1000
PLATE - V
N
1403980mN 376500mE
1403980mN 376200mE
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
376250mE
376300mE
376350mE
376400mE
376450mE
1403750mN 376500mE
INDEX
LEASE BOUNDARY
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
FIRST YEAR EXCAVATION
SECOND YEAR EXCAVATION
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/3,4etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM –600128
DATE OF SURVEY: 23.10.2020
I-YEAR
II-YEAR
DUMP DIMENSION (m)
Vol.(m³)
REJECT = 1056
GRAVEL DEVELOPMENT
TOTAL 4888
A – OFFICE
B – FIRST AID STATION
C – STORE
D – REST SHED
E – TOILET
YEARWISE PRODUCTION AND DEVELOPMENT
YEAR | L (m) | W(m) | D(m) | Volume | Recovery @95% (m3) | Reject @5% (m3)
I | 24 | 44 | 10 | 10560 | 10032 | 528
II | 24 | 44 | 10 | 10560 | 10032 | 528
TOTAL | | | | 21120 | 20064 | 1056
S. SUNITA KUMAR
Recognised Qualified Person


PRODUCTION AND DEVELOPMENT PLAN FOR THE THIRD YEAR
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
PLATE-VA
N
1403980mN 376500mE
1403980mN 376200mE
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
1403750mN 376500mE
376250mE
376300mE
376350mE
376400mE
376450mE
INDEX
LEASE BOUNDARY
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
THIRD YEAR EXCAVATION
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/3,4 etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM -600128
DATE OF SURVEY: 23.10.2020
DUMP DIMENSION (m)
Vol.(m³)
REJECT = 1584
GRAVEL DEVELOPMENT
TOTAL 1920
YEARWISE PRODUCETON AND DEVELOPMENT
YEAR | L (m) | W(m) | D(m) | Volume | Recovery @95% (m3) | Reject @5% (m3)
III | 16 | 44 | 10 | 7040 | 10032 | 352
III | 11 | 32 | 10 | 3520 | | 176
TOTAL | | | | 10560 | 10032 | 528
A - OFFICE
B - FIRST AID SHADE
C - STORE
D - REST SHED
E - TOILET
I-YEAR
II-YEAR
III-YEAR
PUBLIC ROAD
S. SURIYAKUMAR,
Recognised Qualified Person,


PRODUCTION AND DEVELOPMENT PLAN FOR THE FOURTH YEAR
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
PLATE - VB
N
1403980mN 376200mE
1403980mN 376500mE
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
1403750mN 376500mE
376250mE
376300mE
376350mE
376400mE
376450mE
INDEX
LEASE BOUNDARY
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
FOURTH YEAR EXCAVATION
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/3,4 etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN.,
GERUGAMBAKKAM,
KANCHEEPURAM -600128
DATE OF SURVEY: 23.10.2020
DUMP DIMENSION (m)
Vol.(m³)
REJECT =
A - OFFICE
B - FIRST AID STATION
C - STORE
D - REST SHED
E - TOILET
YEARWISE PRODUCTION AND DEVELOPMENT
YEAR | L (m) | W(m) | D(m) | Volume | Recovery @95% (m3) | Reject @5% (m3)
IV | 34 | 32 | 10 | 10880 | 10336 | 544
TOTAL | | | | 10880 | 10336 | 544
Certified that plans and section are prepared as per TNMMCR, 1959 and MMCDR.
S. SURIYA KUMAR
Recognised Qualified Person,


PRODUCTION AND DEVELOPMENT PLAN FOR THE FIFTH YEAR
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
PLATE - VC
N
1403980mN 376200mE
1403980mN 376500mE
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
376250mE
376300mE
376350mE
376400mE
376450mE
1403750mN 376500mE
INDEX
LEASE BOUNDARY
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
FIFTH YEAR EXCAVATION
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/5,4etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM -600128
DATE OF SURVEY: 23.10.2020
DUMP DIMENSION (m)
Vol.(m³)
REJECT = 2752
A - OFFICE
B - FIRST AID STATION
C - STORE
D - REST SHED
E - TOILET
YEARWISE PRODUCTION AND DEVELOPMENT
YEAR | L (m) | W(m) | D(m) | Volume | Recovery @95% (m3) | Reject @5% (m3)
V | 7 | 32 | 10 | 2240 | 11856 | 112
40 | 20 | 10 | 8000 | 600
28 | 8 | 10 | 2240 | 112
TOTAL | 12480 | 11856 | 824
S. SURIYA KUMAR,

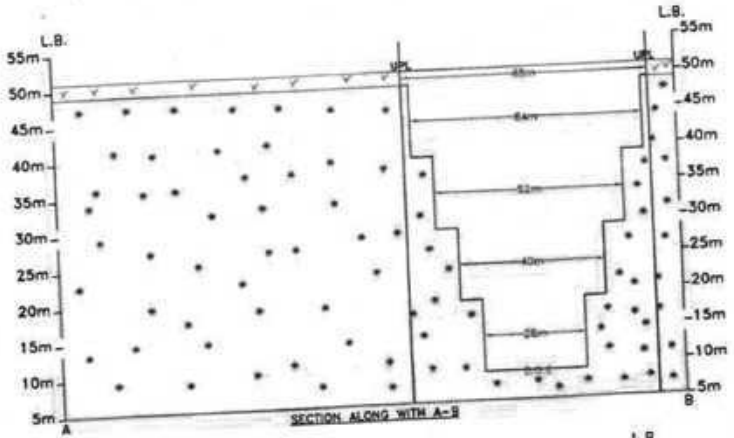

CONCEPTUAL MINING PLAN / MINE CLOSURE PLAN
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale – 1:1000
PLATE - VII
N
1403980mN 376500mE
INDEX
LEASE BOUNDARY FOR FENCING
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
PIT LIMIT AT THE END OF THE I–V YEARS
PIT LIMIT AT THE END OF THE MINE LIFE
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,376/5,4 etc.
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM –600128
DATE OF SURVEY: 23.10.2020
ULTIMATE DUMP DIMENSION (m)
Vol.(m³)
REJECT = 2752
ULTIMATE PIT DIMENSION
Bench | Length | Width | Depth
I | 88m | 48m | 2m
II | 84m | 44m | 10m
III | 52m | 32m | 10m
IV | 40m | 20m | 10m
V | 28m | 8m | 10m
TOTAL | | | 42m
A – OFFICE
B – FIRST AID STATION
C – STORE
D – REST SHED
E – TOILET
1403980mN 376200mE
1403850mN
1403900mN
1403850mN
1403800mN
1403750mN 376200mE
376250mE
376300mE
376350mE
376400mE
376450mE
1403750mN 376500mE

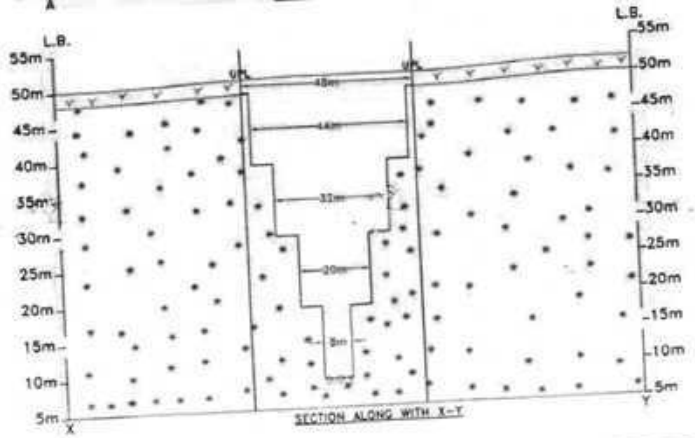
SECTIONS OF ULTIMATE PIT LIMIT

EDAMACHI ROUGH STONE & GRAVEL QUARRY

Scale : Horizontal = 1:1000
Vertical = 1:500

PLATE - VIII





INDEX

L.B.	LEASE BOUNDARY
	GRAVEL
	CHARNOCKITE
	ULTIMATE PIT LIMIT
5.0 m	DEPTH OF ESTIMATION

LOCATION OF QUARRY

EXTENT :2.77.00Ha
S.F.NO :136/1,2,3,6/5,4 etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM

APPLICANT

Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM -600128

DATE OF SURVEY: 23.10.2020

Certified that plans and section are prepared as per TNMMCR, 1959 and MMCDR.

S. SURIYA KUMAR,
Recognised Qualified Person,
Reg. No. RQP/MAS/813/2018

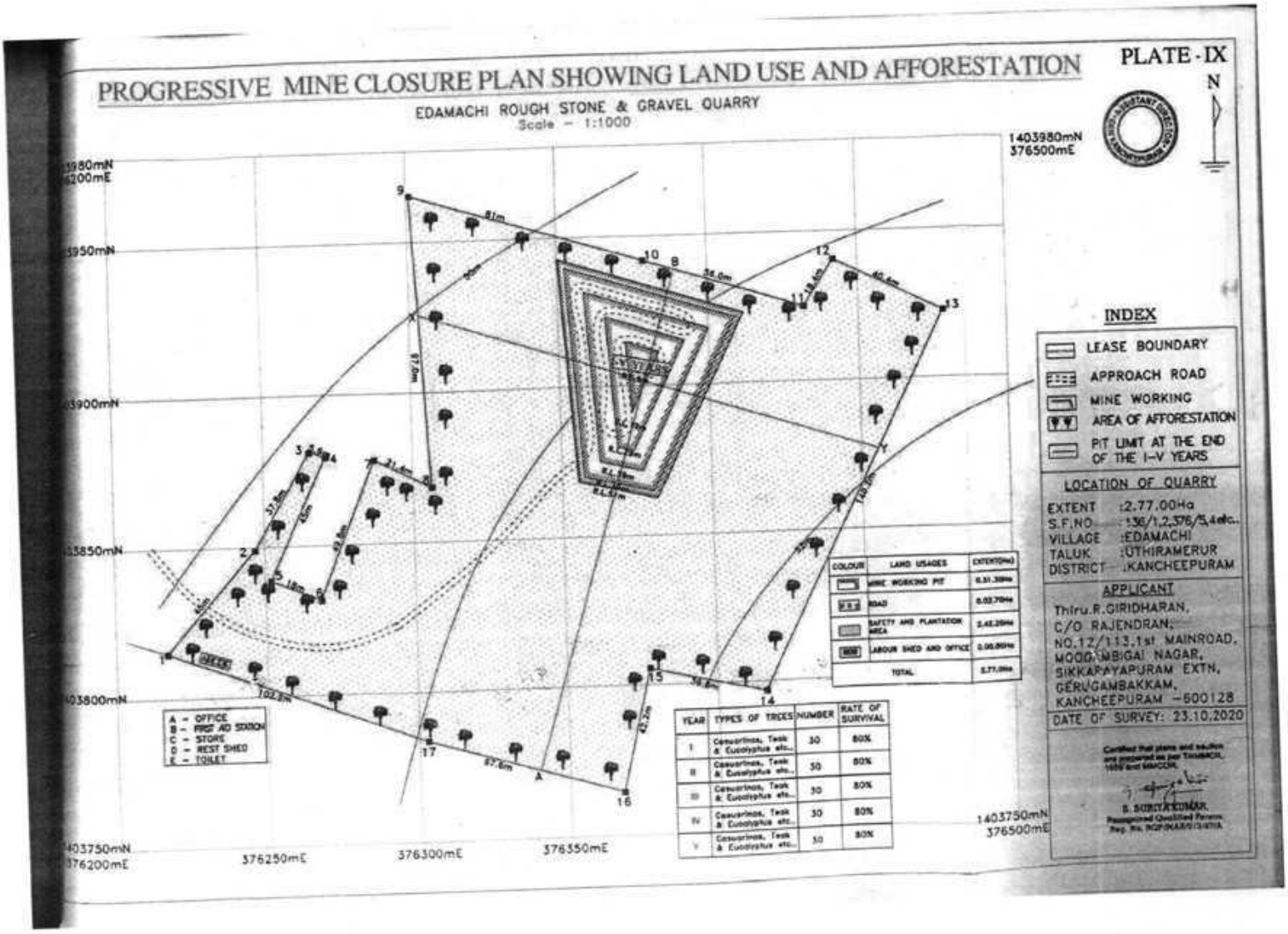
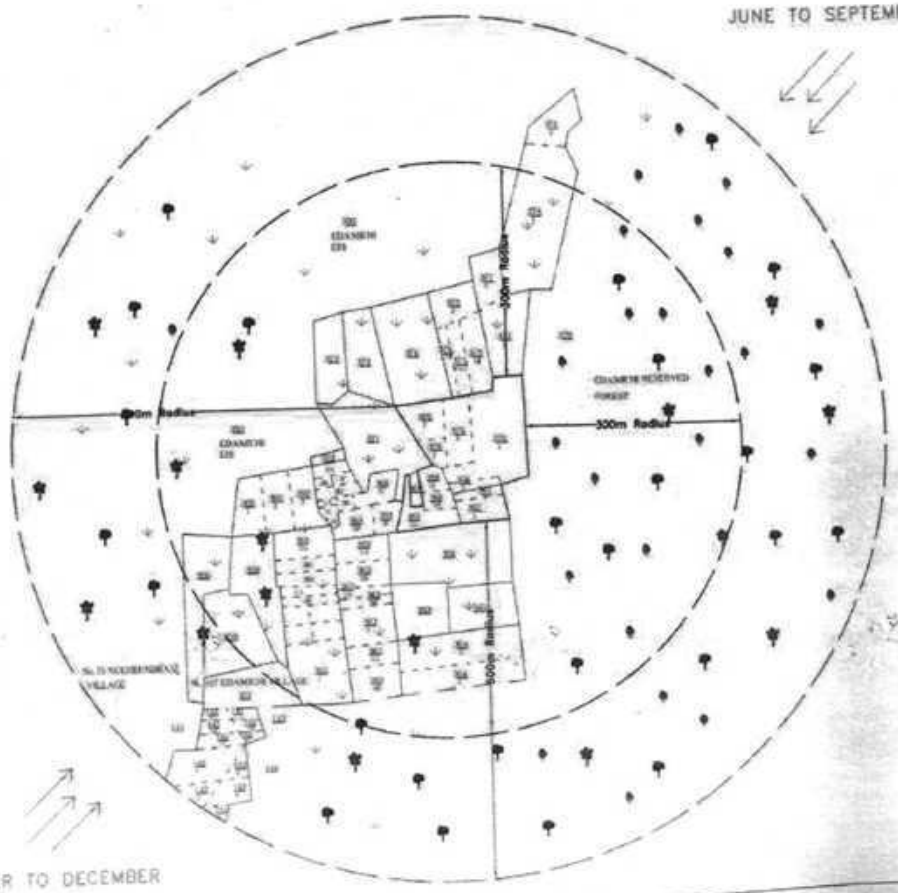

PROGRESSIVE MINE CLOSURE PLAN SHOWING LAND USE AND AFFORESTATION
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
PLATE - IX
N
1403980mN
376500mE
1403950mN
376200mE
1403900mN
1403850mN
1403800mN
1403750mN
376200mE
376250mE
376300mE
376350mE
1403750mN
376500mE
INDEX
LEASE BOUNDARY
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
PIT LIMIT AT THE END OF THE I-V YEARS
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO. :136/1,2,376/5,4etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
PERUNGAMBAKKAM,
KANCHEEPURAM -600128
DATE OF SURVEY: 23.10.2020
A - OFFICE
B - FIRST AID STATION
C - STORE
D - REST SHED
E - TOILET
COLOUR
LAND USAGES
EXTENT(Ha)
MINE WORKING PIT
ROAD
SAFETY AND PLANTATION AREA
LABOUR SHED AND OFFICE
TOTAL
YEAR
TYPES OF TREES
NUMBER
RATE OF SURVIVAL
I
Casuarinas, Teak & Eucalyptus etc.,
30
80%
II
Casuarinas, Teak & Eucalyptus etc.,
30
80%
III
Casuarinas, Teak & Eucalyptus etc.,
30
80%
IV
Casuarinas, Teak & Eucalyptus etc.,
30
80%
V
Casuarinas, Teak & Eucalyptus etc.,
30
80%

PLATE - X

ENVIRONMENT PLAN

(SHOWING LOCATIONS OF HABITATION,WATER BODIES,RESERVE FOREST,AROUND500M)

Scale – 1:5000



DESCRIPTION	NEAREST DISTANCE (m)	DIRECTION
LEASE BOUNDARY	-	CENTRE
HABITATIONS	-	-
WATER BODIES	-	-
WELLS	-	-
ROAD	-	-
QUARRIES	-	-
E.B.LINE	-	-
300m BUFFER ZONE	-	-
500m BUFFER ZONE	-	-
WIND DIRECTION	-	-
TREES	-	-
DRY LAND	-	-
ODAI	-	-
ACASIA BUSHES	-	-

LOCATION

EXTENT :2.77.00Ha
S.F.NO :136/1,2,3Pt/5,4etc.
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM

APPLICANT

Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
PERUGAMBAKKAM,
KANCHEEPURAM -600128

DATE OF SURVEY: 23.10.2020

Certified that plans and section are prepared as per TNMMCR, 1959 and MMCDR.

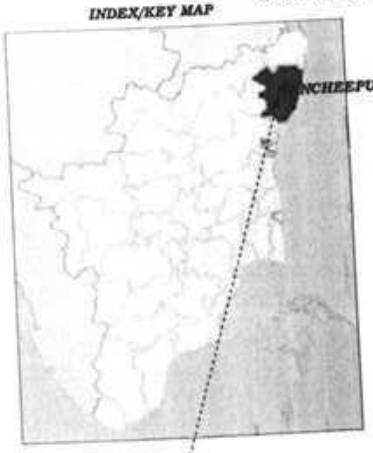
S. SURIYA KUMAR,
Recognised Qualified Person,
Reg. No. TNQP/MAS/013/07/A

LOCATION & ACCESSIBILITY MAP

Location of Quarry: Extent :2.77.00 Ha., Edamachi Village, UthiramerurTaluk, Kancheepuram District.

Scale 1:3000

INDEX/KEY MAP



Geo coordinates:

Latitude : 12°41'45.03"N to 12°41'51.39"N
Longitude : 79°51'35.91"E to 79°51'44.47"E

Proponent Name
Thiru.R.Giridharan

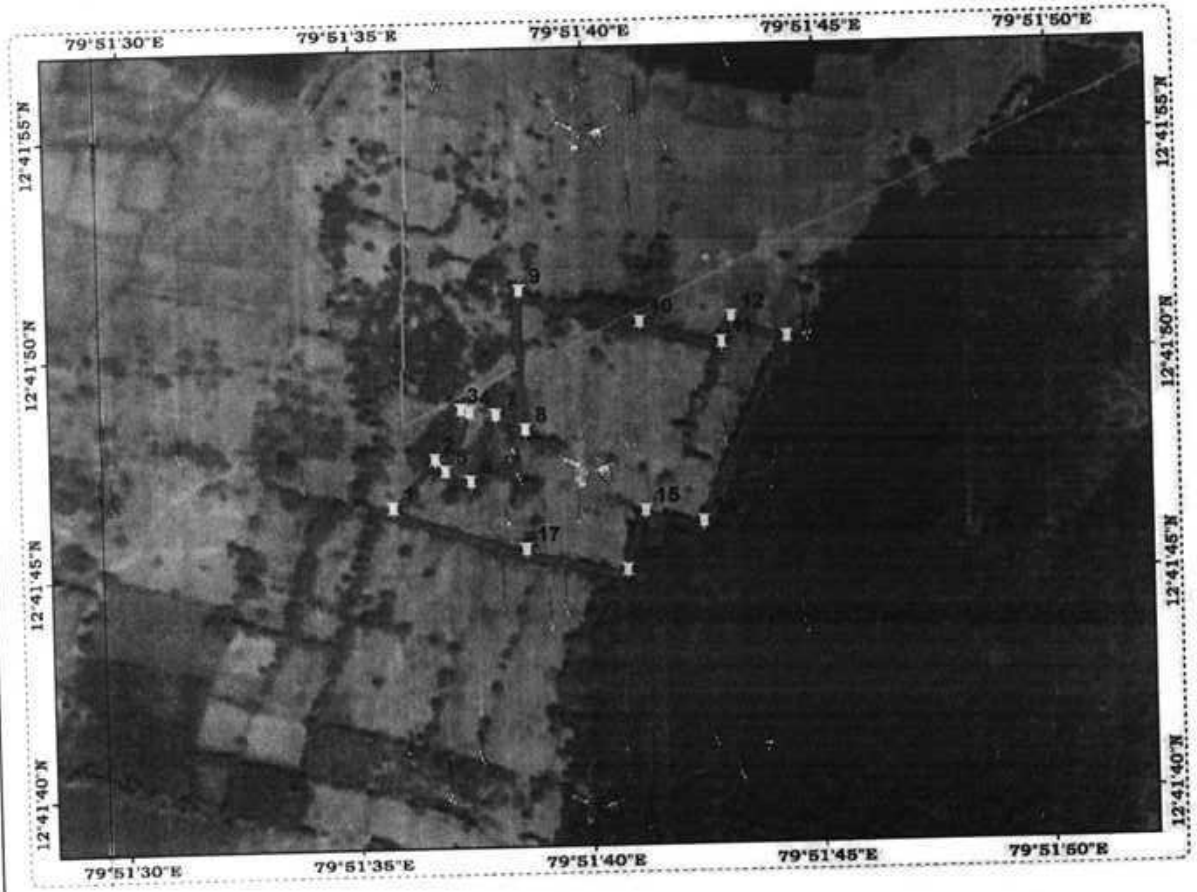
Legend:
Mine Lease Boundary

R. Giri

GOOGLE EARTH IMAGE SHOWING LOCATION OF MINE LEASE BOUNDARY WITH GEO COORDINATES OF PILLARS

(For Roughstone and Gravel Quarry)

Scale: 1:2000



GEO COORDINATES OF PILLARS

Pillar No	Latitude (N)	Longitude (E)
1	12°41'46.49"N	79°51'35.91"E
2	12°41'47.59"N	79°51'36.83"E
3	12°41'48.71"N	79°51'37.41"E
4	12°41'48.65"N	79°51'37.55"E
5	12°41'47.31"N	79°51'37.05"E
6	12°41'47.08"N	79°51'37.59"E
7	12°41'48.59"N	79°51'38.15"E
8	12°41'48.25"N	79°51'38.78"E
9	12°41'51.39"N	79°51'38.70"E
10	12°41'50.66"N	79°51'41.28"E
11	12°41'50.18"N	79°51'43.05"E
12	12°41'50.74"N	79°51'43.27"E
13	12°41'50.28"N	79°51'44.47"E
14	12°41'46.10"N	79°51'42.60"E
15	12°41'46.36"N	79°51'41.34"E
16	12°41'45.03"N	79°51'40.94"E
17	12°41'45.52"N	79°51'38.76"E

Legend

Applied Lease Area

LOCATION OF QUARRY

SF. NO: 367/1,367/2 etc.,
EXTENT : 2.77.00 HA,
VILLAGE : Edamachi
TALUK : Uthiramerur,
DISTRICT : Kancheepuram,
STATE : Tamilnadu.

ADDRESS OF APPLICANT

THIRU.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113, 1ST MAIN ROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM -600128

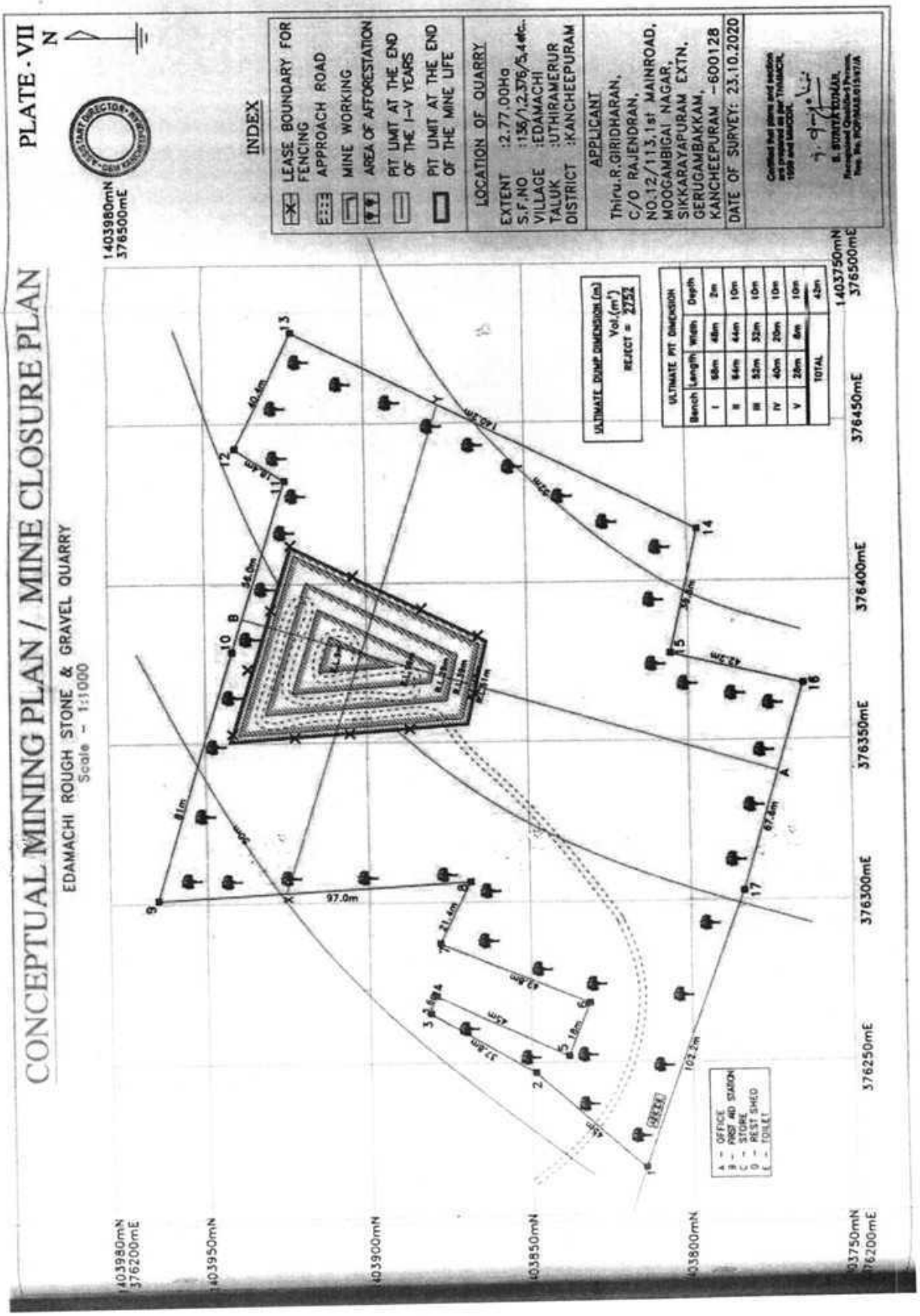


PLATE - VII
CONCEPTUAL MINING PLAN / MINE CLOSURE PLAN
EDAMACHI ROUGH STONE & GRAVEL QUARRY
Scale - 1:1000
INDEX
LEASE BOUNDARY FOR FENCING
APPROACH ROAD
MINE WORKING
AREA OF AFFORESTATION
PIT LIMIT AT THE END OF THE I-V YEARS
PIT LIMIT AT THE END OF THE MINE LIFE
LOCATION OF QUARRY
EXTENT :2.77.00Ha
S.F.NO :136/1,2,3/6,5,4 etc.,
VILLAGE :EDAMACHI
TALUK :UTHIRAMERUR
DISTRICT :KANCHEEPURAM
APPLICANT
Thiru.R.GIRIDHARAN,
C/O RAJENDRAN,
NO.12/113,1st MAINROAD,
MOOGAMBIGAI NAGAR,
SIKKARAYAPURAM EXTN,
GERUGAMBAKKAM,
KANCHEEPURAM --600128
DATE OF SURVEY: 23.10.2020
ULTIMATE PIT DIMENSION
Bench | Length | Width | Depth
I | 98m | 48m | 2m
II | 94m | 44m | 10m
III | 52m | 32m | 10m
IV | 40m | 20m | 10m
V | 28m | 8m | 10m
TOTAL | | | 42m
ULTIMATE DUMP DIMENSION (m)
Vol.(m³)
REJECT = 2752
A - OFFICE
B - FIRST AID STATION
C - STORE
D - REST SHED
E - TOILET
1403980mN 376500mE
1403750mN 376500mE
376200mE
376250mE
376300mE
376350mE
376400mE
376450mE
1403980mN
1403950mN
1403900mN
1403850mN
1403800mN
1403750mN

ENVIRONMENTMANAGEMENT PLAN

FOR ROUGH STONE AND GRAVEL QUARRY

AREA DETAILS

Extent – **2.77.0 Ha**
S.F.No – **367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4 & 376/5**
Village – **Edamachi Village**
Taluk – **Uthiramerur**
District – **Kancheepuram**
State – **Tamil Nadu**

PROJECT PROPONENT

THIRU.R.GIRIDHARAN
S/o.Rajendran, No.12/113, 1st main road,
Moogambigai nagar, Sikkarayapuram extension,
Gerugambakkam, Kancheepuram, Tamil Nadu.

EC CONSULTANT

AADHI BOOMI MINING AND ENVIRO TECH (P) LTD.,
(NABET Accredited EIA Consultant "A" Category)
Accreditation No. NABET/EIA/1821/RA-0103
No. 3/216, K.S.V. Nagar, Narasothipatti,
Alagapuram post, Salem, Tamil Nadu – 636 004
Email: abmenvirotech@gmail.com
Mobile: 98427 29655
Website: www.abmenvirotec.com

ENVIRONMENT MANAGEMENT PLAN

1. INTRODUCTION

The Environmental Management Plan (EMP) has been formulated and integrated with the mine planning to mitigate the adverse impacts which are likely to be caused due to the quarrying operation.

2. QUARRYING PROCESS

Open cast, Mechanized mining will be adopted to extract Rough stone and Gravel Quarry of required size from the area for which lease applied for. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, formation of faces, lying of approach road to various benches for movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc. There is no top soil in this lease area, topsoil stacked along lease boundary as earth bund which will be used for afforestation purposes. All the rejects shall be dumped within the lease area.

2.1 PRODUCTION DETAILS

Production Schedule is proposed as **52288m^3(95%)** of Rough Stone for five years and average production is **10457.6m^3** per annum or 6 loads per day. Average Production of Gravel shall be **6528m^3** to a depth of 2m by open cast mining.

3. MANPOWER REQUIREMENT

The manpower requirement for the proposed project will be around 20 persons.

4. BASELINE ENVIRONMENT

The EMP has been developed considering its implementation and monitoring of environmental protection measures during quarrying operations. Baseline study was carried out during 23.11.2020.

4.1. Land environment

The quarrying activity will result in disturbance of the land use pattern of the quarry lease area. The land degradation is unavoidable during mining activities like excavation, overburden dumping, etc. 0.31.3Ha will be utilized for quarrying activities. However, in the proposed quarrying activity there will not be much impact on the land environment due to the following reasons.

- There is no removal of vegetation such as plants, bushes lease area except in quarry area.
- No effluent generation as any further processing of mineral is proposed. Hence no ground water contamination due to the proposed quarrying activity.
- Opencast mechanized mining is adopted to excavate of Ordinary Stone.

i. Mitigation measures

The land ecology shall be preserved during mine closure by proper terracing and stabilization with plantations. No immediate abandoned plan, as there are more resources available in this quarry. S1-type of stone fencing will be constructed around the open pit mines and watch and ward shall be to safeguard the mine from access to surface openings. The garland drainage along with silt trap will be made around the lease area to drain the silt free rain water.

4.2 Water quality

Quarrying does not have any significant impact on the ground water quality, as the proposed quarrying activity will not intersect water table. The present ground water quality in the project site is given in Table No.1. There is one lake and one pond is located within the 1km radius of the project site. The quarry operation may affect the quality of water and holding capacity of the nearest lakes. The following mitigation measures have to be followed during quarry operation.

Fig No 1.0 Collection of Water Sample in Core Zone

Table 1: Physical and Chemical properties of water sample

S. No	Parameters	Unit	Results (Bore water)	As per IS 10500: 2012	
				Requirement (Acceptable limit)	Permissible limit in the absence of alternate source
1	pH value at 25°C	-	8.09	6.5 – 8.5	6.5 – 8.5
2	Turbidity	NTU	<1.0	1	5
3	Electrical conductivity at 25°C	Micromhos /cm	392	-	-
4	Total Suspended Solids	mg/l	6	-	-
5	Total Dissolved Solids	mg/l	310	500	2000
6	Total Hardness as $CaCO_3$	mg/l	196.2	200	600
7	Chlorides as Cl	mg/l	41.58	250	1000
8	Sulphates as SO_4	mg/l	-	200	400
9	Total Iron as Fe	mg/l	-	0.3	0.3
10	Silica (Reactive) as SiO_2	mg/l	-	-	-

i. Mitigation measures

- At present, the quality of ground water is good. There will not be any liquid waste discharge from quarrying activity, which is likely to pollute ground or surface water.
- Garland drainage with silt trap should be made around the quarry to drain the silt free runoff during monsoon season.
- During quarry operation, the nearest water body should not be disturbed at any reasons.

4.3 Noise and vibration

- Major noise generating sources may be considered as excavation, drilling blasting, loading and vehicle movement during transportation of minerals. With the starting of quarrying operations, it is imperative that noise levels shall increase.
- Baseline ambient noise level studies have been carried out at different points using Sound level meter.

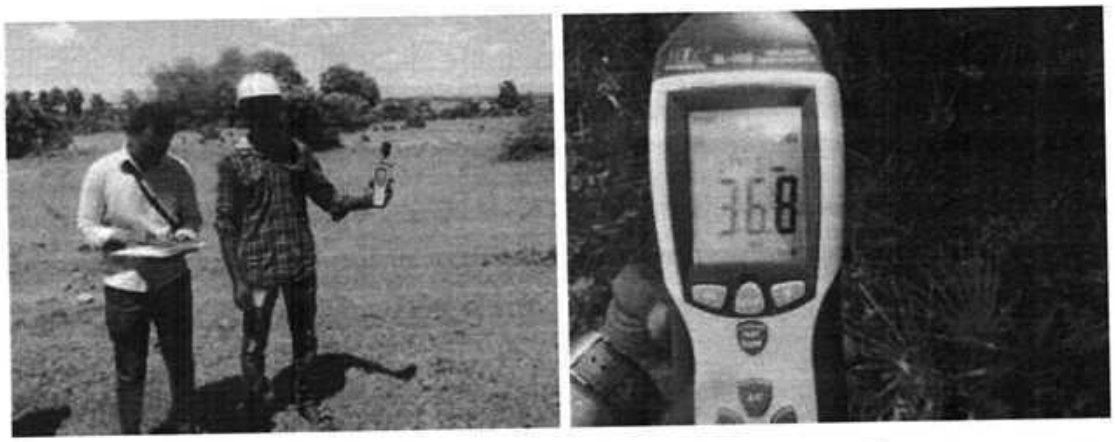


Fig No 2.0 Ambient Noise Monitoring in Core Zone

Table 2: Ambient Noise levels

S. No	Location	Latitude	Longitude	Noise levels dB (A)	TNPCB Standards
1	Core zone	12°41'48.21"N	79°51'40.18"E	32.7	**Day Time** Industrial – 75 dB (A) Residential – 55 dB (A)
2	Lease boundary (Pillar No.13)	12°41'50.28"N	79°51'44.47"E	36.4	
3	Lease boundary (Pillar No.16)	12°41'45.03"N	79°51'40.94"E	37.3	
4	Lease boundary (Pillar No.1)	12°41'46.49"N	79°51'35.91"E	37.9	
5	Lease boundary (Pillar No.9)	12°41'51.39"N	79°51'38.70"E	38.0	

The ambient noise level found to be within the limits as per TNPCB Standards.

i. Mitigation Measures

- Greenbelt will be developed around the mine lease as well as safety zones which will help in arresting noise at source
- Safety devices provided to workers, where noise is more than 80dB (A)
- Limiting time exposure of workers to excessive noise
- Proper and regular maintenance of vehicles, machinery and other equipment
- Periodic inspection of all equipment and risk prone areas
- Regular lubrication & replacement of worn out parts etc.,

A. GROUND VIBRATIONS

Ground vibration due to quarrying activities in the area is anticipated due to blasting and during movement of vehicles, etc. However, the major source of ground vibration is blasting. The major impact of the ground vibrations is observed on the domestic houses located in the villages surrounding the quarry lease area. The kutcha houses are more prone to cracks and damage due to the vibrations. Another impact due to blasting activities is fly rocks.

There is no habitation located within 300m radius of the project site. The study area currently does not involve any quarrying activity.

Mitigation Measures

1. No deep-hole blasting shall be practiced.
2. Proper warning signals should be used.
3. If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone.
4. In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring.

4.4 Air Quality

Drilling and blasting operations are source of fugitive dust emission but its effect is more or less localized. Ambient Air monitoring has been carried out in the core zone. The major part of the dust generated during such operations usually gets settle down and thus the effect of such operation will be localized phenomenon.

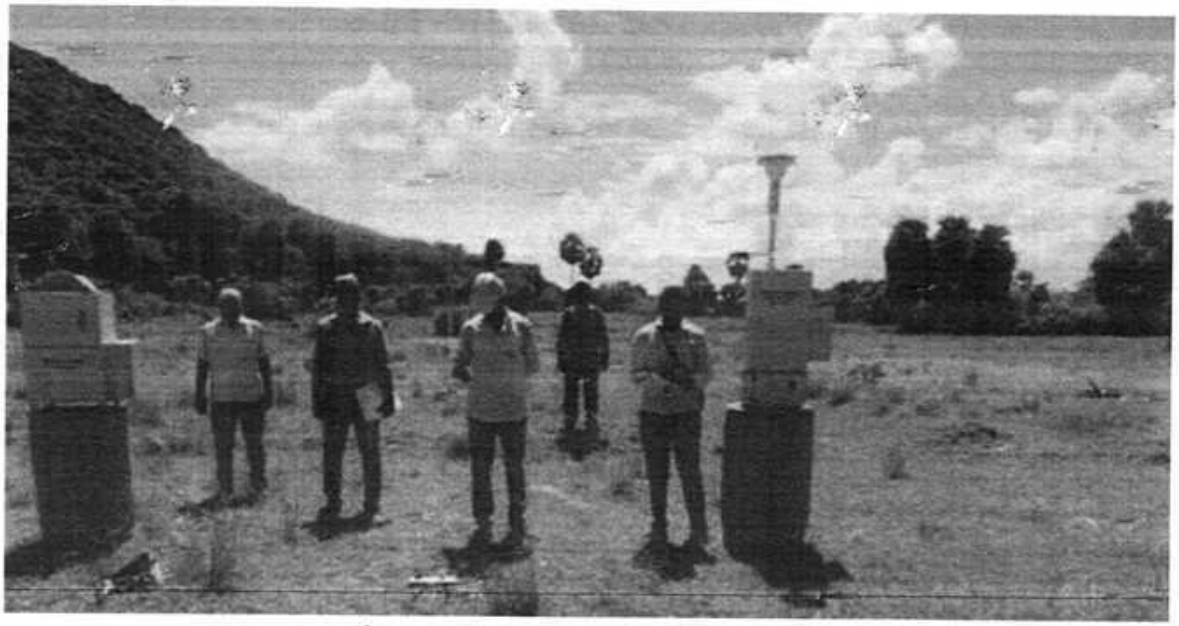


Fig No: 3. Ambient Air monitoring

Table 3: Ambient Air Monitoring

S.No	Parameters (µg/m^3)	Measured Value	NAAQS
1	Particulate Matter ($PM_{2.5}$)	27	60
2	Respirable Particulate Matter (PM_{10})	42	100
3	Sulphur Dioxide (SO_2)	12	80
4	Nitrogen Dioxide (NO_2)	10	80
5	Ozone (O_3)	20	180
6	Lead (Pb)	BDL (DL = 0.1)	1
7	Carbon Monoxide (CO) 1 hour	BDL (DL = 1.15)	4
8	Ammonia (NH_3)	21	400
9	Arsenic (As)	BDL (DL = 1.0)	6
10	Nickel (Ni)	BDL (DL = 0.1)	20
BDL = Below Detectable Limit, DL = Detection Limit NAAQS = National Ambient Air Quality Standards			

The above results comply with NAAQS. The generation of dust will be controlled and suppressed at source by sprinkling of water on haul roads, loading points at regular intervals.

i. Mitigation Measures

- Dust extractor or wet drilling to be followed to control dust at source of emission
- Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste
- Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF&CC to control fly of dust, noise etc...
- Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, and goggles as per the MMR, 1961 amendments and circulars of DGMS.

4.5 Soil Environment

Soil sample has been collected in the quarry lease area for analysis its physical and chemical characteristics.

Fig No: 4. Collection of Soil Sample

Table 4: Soil Test Report

Physical Parameters	Results
pH value (10% Solution)	7.46
EC@ 25°C (Micromhos/cm) (10% solution)	81
Moisture	1.91%
Bulk Density	1.16 g/cc
Texture	Sand- 42% Silt- 58% Silt loam
Chemical Parameters	**Results**
Calcium	0.1632 %
Magnesium	0.0816%
Chlorides	0.0004%
Organic Matter	0.0311%
Water Holding Capacity	56 %

i. Observations & Mitigation measures

- The pH of the soil found to be 7.46 indicating neutral in nature.
- Bulk Density of the soil found to be 1.16 g/cc.
- The Water Holding Capacity of the soil is found to be 56%.
- The minimal quantity of humus top soil if present, will be used for lease boundary plantation purpose.
- The repair and service works of the machinery will be done locally. There will be no possibility of oil spillage in the quarry area. If emergency, the repair work will be done by using tray to carry the spillages.

4.6 Ecology and Biodiversity

4.6.1 Flora

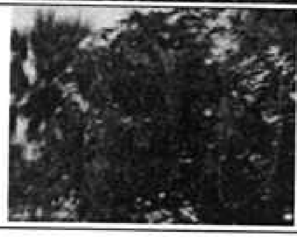
Flora as observed and identified in the buffer zone are covered by photograph and shown below. Mostly Neem tree, Eucalyptus tree, teak, Acacia bushes and Shrubs are found more on regional scale. The Applicant will develop trees like Teak, Eucalyptus, Neem, and other regional trees etc along the lease boundary under the afforestation scheme.

Table 5: List of Flora around the lease area

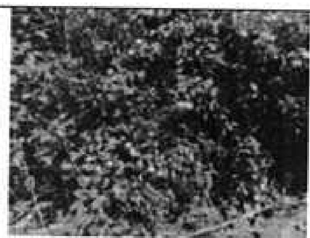
a) Trees:

S. No.	Tamil /English Name	Botanical Name	Number of Trees	Photograph
1.	Veppa maram/ Margosa tree	*Azadirachta Indica*	Innumerable	
2	Karuvel maram/ Gum tree	*Acacia Arabica wild*	Innumerable	
3.	Panai/Palmyra tree	*Borassus fiabellifer*	Innumerable	
4.	Eecha Maram	*Phoenix sylvestris*	5 Nos	
5.	Mullu Maram	*Prosopis juliflora*	Innumerable	
6.	Poovarasam Maram	*Thespesia populnea*	Innumerable	

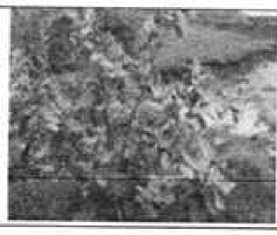
b) Climbers:

S.No.	Tamil/English Name	Botanical Name	Number of Trees	Photograph
1.	Oonangodi	*Fragor Monstrum*	Innumerable	
2.	Veliparuthi/ Trellis vine	*Pergularia daemia*	Innumerable	

c) SHRUBS:

S.No.	Tamil Name	Botanical Name	Number of Trees	Photograph
1.	Unnichedi	*Lantana Camara*	Innumerable	
2.	Kallimaram/ Milk hedge	*Euphorbia triucallilinn*	Innumerable	

d)HERBS:

S.No.	Tamil Name	Botanical Name	Number of Plants	Photograph
1.	Erukkanchedi	Calotropisgigantea	Innumerable	

4.6.2 Fauna:

The following fauna species may be found around this project site is given below

Table 6: List of Fauna around the lease area

a) Mammals:

S.No.	Tamil & English Name	Zoological Name
1.	Keeri(Common Mongoose)	Herpestes edwardsii
2.	Anil (Three Striped Squirrel)	Funambulus palmarum
3.	Thavalai (Frog)	Cane toad

b) Avian Fauna:

S.No.	Tamil & English Name	Zoological Name
1.	Myna (Black drogue)	Dicrurus macrocercus
2.	Kakka (House crow)	Corvus splendens
3.	Chittukuruvi (Indian Robin)	Saxicoloides fulicatus
4.	Parunthu (Brahminy Kite)	Haliastur indus

a) Butterfly/Insects:

S.No.	Tamil & English Name	Zoological Name
1.	Theil (Scorpion)	Scorpiones
2.	Vannthupoochi (Millipedes)	Diplopoda

4.6.3 Mitigation Measures

- During Mining activity, the flora and fauna in the buffer zone will not be disturbed. In addition the proponent will plant trees along the lease boundary for sustainable environment.
- The tippers drivers will be conducted meeting monthly once to operate the tippers at minimum speeds to not to hit any fauna.
- Convex mirrors will be placed at the turnings of roads to avoid unnecessary horn sound.

5. SOLID WASTE MANAGEMENT

The rough Stone waste is hard and porous and it will not produce any waste which will pollute the ground water. More than 95% of materials shall be crushed down to various sizes and fines shall also be screened and washed for material Stone. No much waste is available for dumping.

6. GREEN BELT

Local trees like Neem, Teak, Eucalyptus and other regional trees etc will be planted along the lease boundary at a rate of 30 trees per annum with interval 5m in between. The rate of survival expected to be 80% in this area. Land use and afforestation Plan is given Plate-IX. The program of tree planting is given as under,

Table No: 7 Proposed Afforestation for the next five years

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
II	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
III	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
IV	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
V	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%

7. COST OF EMP IMPLEMENTATION

EMP Cost:

i)	Personal protective equipment	=	Rs 75,000
ii)	Environmental Monitoring	=	Rs 1,50,000
iii)	Occupation Health	=	Rs 75,000
iv)	Green Belt & Dust suppression	=	Rs 50,000
	Total	=	**Rs 3,50,000**

The quarrying activity shall be undertaken in accordance with the environmental conditions as prescribed in the EC.

8. PROJECT BENEFITS

The quarrying activities in this area will benefit to the local people both directly and indirectly. The direct beneficiaries will be those who get employed in the mines as skilled and un-skilled workers.

The extent of impact will however be confined to lease area only. This operation doesn't need relocation of any habitats.

The proponent is proposed to spend CSR @ 2.5% of profit as per the Companies Act, 2013 and CSR Rules, 2014 and 2% of the Project Cost will be spent as CER through local Panchayat for maintenance of road, street light, school sanitation etc.

At the end of life of mine, excavated pit will be backfilled and reclaimed and rehabilitated by plantation with native species so as to restore the natural eco-system which could have positive impact on the environment. Another way is the excavated pit will be used as water storage pond which improves the agricultural activity in the nearest village.

Signature of Project Proponent
Along with name and address

THIRU.R.GIRIDHARAN,
S/o.Rajendran, No.12/113,
1st main road, Moogambigai nagar,
Sikkarayapuram extension,
Gerugambakkam, Kancheepuram,
Tamil Nadu – 600 128
Mobile No 8056065165

Signature of EIA Coordinator

For Aadhi Boomi Mining & Envirotech (P)Ltd.,
Director

S.Suriyakumar
M.Sc., M.Phil, F.C.C. (Min)
PGDBA, DIPC
EIA Co-ordinator (Mining)

Date : 25.08.2023
Place :Salem

PRE-FEASIBILITY REPORT

ROUGH STONE & GRAVEL QUARRY
(OPEN CAST - MECHANIZED METHOD)

AREA DETAILS

Extent: 2.77.0 Hectares
S.F.No: 367/1, 367/2, 368/1G, 368/1H,
368/1I, 376/1, 376/2, 376/3,376/4, & 376/5
Edamachi Village,
Uthiramerur Taluk,
Kancheepuram District, Tamil Nadu

PROJECT PROPONENT

THIRU.R.GIRIDHARAN
S/o.Rajendran, No.12/113, 1st main road,
Moogambigai Nagar, Sikkarayapuram Extension,
Gerugambakkam, Kancheepuram, Tamil Nadu.
Pin code – 600128.
Mobile No: 8056065165.

EC CONSULTANT

AADHI BOOMI MINING AND ENVIRO TECH (P) LTD
No.3/216, K.S.V.Nagar, Narasothipatti, Salem-4
Phone (0427) 244297, Cell: 09842729655
suriyakumarsemban@gmail.com, abmenvirotech@gmail.com
www.abmenvirotec.com

August - 2023

CONTENTS

CHAPTER 1: EXECUTIVE SUMMARY

The Applicant, Thiru. R.Giridharan S/o. Rajendran, No.12/113, 1st Main road, Moogambigainagar, Sikkarayapuram Extn, Gerugambakkam , Chennai -600 128, Tamilnadu has applied for quarrying Rough Stone and Gravel over an extent of 2.77.0 Hectares located in S.F.Nos: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5 Edamachi Village, Uthiramerur Taluk, ,Kancheepuram District, Tamil Nadu.

The Assistant Director, Department of Geology and Mining, Kancheepuram has directed the applicant Thiru. R.Giridharan vide his proceedings Roc.No.47/Q3/2019, dated 20.10.2020 to get approved mining plan and obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying Rough Stone & Gravel over an extent of 2.77.0 Hectares located in S.F.No: 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 in Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu for a period of Ten Years.

The mining plan is prepared as per the Assistant Director's proceedings letter, Roc.No. 47/Q3/2019, dated 20.11.2020 under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying Rough Stone with due consideration of environmental parameters so as to obtain Environmental clearance (EC) from EIA Authority (SEIAA), as per the EIA Notification, 2006 and its amendment. The mining plan was approved by Rc.No.47/Q3/2020 dated 20.11.2020. The project cost is about Rs. 23 lakhs and EMP cost is Rs. 3.5 lakhs. As per AD 500m radius cluster vide Rc.No.47/Q3/2020 dated 20.11.2020, the cluster area of the proposed project is 2.77.0 Ha which comes Category "B2" as per EIA Notification 2006 and its amendments.

Therefore, the project proponent made online EC application under Category "B2" in PARIVESH portal vide SIA/TN/MIN/185288/2020 for obtaining environmental clearance from SEIAA/SEAC for this newly proposed Rough Stone and Gravel Quarry. The proposal was placed in 223rd SEAC Meeting dated 30.07.2021 and 459th SEIAA Meeting dated 09.09.2021 and EC was granted by SEIAA vide Lr.No.SEIAA-TN/F.No.8101/1(a)/EC.No:4730/2021 dated: 20.09.2021.

Then, Arjun Gopalaratnam S/o R. Gopalaratnam residing at No.2, Nerundram Village, Slavallam Post, Via Anambakkam has filed case in National Green Tribunal (NGT), Southern Zone, Chennai against The Tamil Nadu State Environmental Impact Assessment Authority and Mr.R.Giridharan (Project Proponent). The allegations made by the Arjun Gopalaratnam (Appellant) and the counter filed by SEIAA (Respondent 1) and the project proponent(Respondent 2) is given in below table.

Table: 1.1 Details of case filed in NGT, Southern Zone, Chennai and Judgement by NGT

S.No	Allegations by appellants	Counter filed by SEIAA	Counter filed by PP	Suppression of vital facts	Remarks by consultant
1	Applicant mentioned only three villages in Form – I namely Malaipattu, Vellari and Guduperumbedi. The nearest two more villages namely Anambakkam and Nerkundram which will be most affected by explosion, dust pollution, traffic, noise and water pollution is not mentioned.	-	-	a) There are surrounding villages which could be affected by explosion, dust pollution, traffic and also impact on ground water besides the noise pollution and contamination of agricultural land and water bodies. b) These aspects have not been considered in the Environmental Impact Assessment Study.	The mitigation measures for air Water, soil and noise pollution were given detail in the EMP report.
2	Misrepresentation by PP PP stated that Edamachi Reserved Forest as a social forest is adjacent to site in eastern side without leaving the buffer belt of 40.2m by 60.4m required by Revenue board standing orders.	Other conditions by SEAC. The prior clearance from the forestry shall be obtained before starting the quarry operations, if the project site attracts Forest (Conservation) Act, 1980.	a) After the field inspection done by the Assistant Director, Geology and Mining, it was recommended to grant mining lease. Based on the recommendations, the Assistant Director had directed PP to obtain EC from SEIAA. b) In condition 4 of LOI, it is stated that the Edamachi social forest in Sy. Nos. 258 to 274 is located on the eastern side of the subject land and it should not be disturbed. In compliance of above condition, PP had applied for EC under B2 category.	a) The appellant stated that Edamachi forest is reserved forest whereas PP stated that Edamachi forest is social forest as per LOI letter from AD, Geology and Mining. It is beyond dispute. b) If pp had obtained required clearance (if applicable), it would have made it clear whether it is reserved forest or a social forest. c) In this regard appellant submitted the information obtained under RTI furnished by DFO. In that, the Edamachi reserved forest is situated in SY. Nos. 258, 260 to 274, 339 to 346 FMB also shows that these survey numbers are adjacent to the project site which is within the prohibited distance. d) The distance of Edamachi forest alone is mentioned in Form I.	The safety distance of 60m has been left for the Edamachi Reserve forest as per conditions given in the precise area Letter of communication.

3.	In Form –I, depth of water table is mentioned as 48m bgl and the quarry is to be done only till 42m depth. However, it is stated that the ground water table in the village is at 2-8 m. PP suppresses the fact of water table and Edamachi Reserve Forest.	a) The SEAC recommended the grant of EC subject to certain conditions. The ultimate depth of mining is restricted to 32m from 42m considering the hydrogeology regime of the surrounding area. b) PP was directed to submit a hydro geological study report to SEIAA.	The allegation that water table at 02 to 08m bgl is absolutely baseless as the detailed hydro geological study report submitted by PP show that the depth of water is 43.5 to 45m bgl. There is no suppression of fact of water table.	a) The appellant has produced certain photographs to show that the water level is as low as 02m to 08m below ground level. b) The depth of water table mentioned in hydro geological report is 43.5-45m whereas the depth for water table in Form-1 is mentioned as 48m bgl which is contrary. c) The total depth of well within 1km radius as per inventory survey data is 12m only	The water table lying during rainy season in open wells is sub soil water. It will be drained within few days where as the permanent water table is said to be fluctuated between 43.5 and 45m. The maximum depth of draw down is reported as 48m. Some temporary or perched water table may be 12m but it is not regional water table.
4	Pp did not mention the Edamachi lake in Form 1 and EMP report	Other conditions by SEAC. It was also stated that the quarry should not affect the agricultural activities and water bodies near the project and the 50 meters safety distance from water body should be left vacant without any activity.		a) The PP did not mention the existence of Edamachi Lake and in his counter also he did not mention about Edamachi Lake.	The safety distance of 50m has been left for Edamachi lake as per the precise area Letter of communication. Refer Lease plan (Plate-II) in approved mining plan.
5	PP failed to disclose the presence of protected areas, ecological sensitive areas within 50 km aerial distance. PP declared that there is no protected areas within 10km radius but Karikali bird sanctuary located at the distance of 12km approximately.	Other conditions by SEAC. The prior clearance from the forestry and wildlife including clearance from the Committee of the National Board of Wildlife as applicable shall be obtained before starting the quarry operations, if the project site attracts NBWL clearance as per the existing law from time to time.	PP submitted to declare those protected areas which are within the distance of 10km from the project site whereas the Karikili Bird Sanctuary is at a distance of more than 10 km from the proposed site. Hence not mentioning of Karikili Bird Sanctuary does not amount to deliberate suppression of fact..		Details of prescribed safety distance as per EIA Notification, 2006 is explained as 10 km. No provisions for 12km radial distance from any wild life or bird sanctuary.
6.	PP stated that the site is non-agricultural land but project site is agricultural land.			The subject land is primarily a agricultural lands	All the survey numbers of proposed lease area are coming under Punjai. There is no survey number under Nanjai. Refer Patta No 970.
7	There are no access roads leading to the project site. There	Other conditions by SEAC.		a) There is no access road to the project site.	The approach road and haul will be formed during the

	is only a path way used for bullock carts. If PP use Nerkundram village roads for transporting the mined material, it will be risk to people and cattle etc.	The transportation of the quarried material shall not cause any hindrance to the village people or existing village road.		b) There are only pathways for bullock carts to be used. c) As per the Village Field Map book, there is no road to the project site excepting a footpath	commencement of project without disturbing adjacent agricultural lands. The repair work of the damaged road will be done by using the rejects generated during quarrying activity.
8	The post environmental clearance monitoring was not done.	-	-	-	The post environment monitoring will be conducted only six month once and compliance report will be submitted to Regional office, MOEF&CC, Chennai.

Judgement of NGT

The Environmental Clearance is set aside and remanded back to the SEIAA and the same should reconsidered and assessed afresh again without being influenced by this order and pass appropriate orders based on the merits within a period of 03 (three) months.

Based on the judgment given by NGT, the new EC application has been made to SEAC/SEIAA vide online proposal No SIA/TN/MIN/441822/2023 dated 25.08.2023 for reconsideration and assessment of our file for grant of new environmental clearance.

Open cast, mechanized mining will be adopted to extract Rough Stone and Gravel of required size from the area for which lease applied for. Before opening a quarry, several aspects should be considered like planning for the development / production works, formation of faces, lying of approach road to various benches for Movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc. Gravel, weathered material materials shall be removed prior to development of working benches.

Geological resources of Rough Stone & Gravel is estimated as **5,53,940m^3** and mineable reserves is estimated at **55,040** up to depth 40m and **6528m^3** of Gravel up to a depth of 2m after leaving necessary safety distance from the lease boundary.

Production Schedule is proposed as **52,288m^3 (95%)** of Rough Stone for five years and average production is **10,458m^3** per annum or 6 loads per day. Average Production of Gravel shall be **6,528m^3** to a depth of 2m by open cast mining.

TABLE NO: 1.2. SALIENT FEATURE

FEATURE	DETAILS
Name of the Proponent and address	**THIRU.R.GIRIDHARAN** S/o.Rajendran, No.12/113, 1st main road, Moogambigai Nagar, Sikkarayapuram Extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Mobile No. 8056065165.
Existing/New Quarry	Newly proposed rough stone and gravel
Survey number	S.F. No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 (Patta Land)
Geographical features	Latitude: 12°41'45.03"N to 12°41'51.39"N Longitude: 79°51'35.91"E to 79°51'44.47"E Toposheet No. 57 P/14
Site Location	Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu
Type of Project	Rough Stone and Gravel
Category	B2
Mining lease area	2.77.0 Hectares
Geological Resources	**5,53,940m^3**
Mineable Reserves	Rough Stone – **55,040m^3** up to 40m Gravel – **6,528m^3** up to 2m
Production	**52,288m^3 (95%)** of Rough Stone for five years to a depth of 40m and average production is **10,458m^3** per

	annum. Production of Gravel shall be **6528m^3** for three years to a depth of 2m.
Depth of Mining	42m bgl
Water Table	43.5 to 45m bgl
Method of Mining	Open cast mechanized mining
Blasting Pattern	Burden – 0.60m Spacing – 0.75m Depth – 1-2m Charge per hole – 140 gm of 25 mm dia. cartridge
Types of Explosives	Nitro compound explosives will be initiated directly by blue sump fuse with Rough detonators or electric detonators. The Powder factor for waste rock development shall be 7 Tonnes per Kg. of explosives.
Storage of Explosive	The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983.
Mining plan approval	Deputy Director, Geology and Mining, Kancheepuram **Rc.No.47/Q3/2020 dated 20.11.2020.**
Period of Lease	10 years from the date of execution
Does it attract any general conditions specified in the EIA notification, 2006?	Not applicable
Man Power	20 persons
Water requirement	Total water requirement – 3.5 KLD Drinking purpose - 0.3 KLD, Domestic purposes – 0.7 KLD, Green belt - 1.5KLD, Water sprinkling on haul roads - 0.5KLD Wet drilling operation - 0.5KLD Source: Drinking water is obtained by Mineral water industries by water canes. Dust suppression, Green belt and other uses is obtained from water tank.
Project Cost	Rs. 23,00,000
EMP Cost	Rs. 3,50,000
Nearest habitation	716m - West

Nearest Village	Nerkunram – 786m - SW Edamachi – 830m - SE
Medical facility	Salavakkam Government Hospital – 3.8 km - SE
Nearest Road	• Nerkundram Village Road – 0.91km - SW • MDR-789 – 2.8 km – W (Thirumukkudal - Nelvoy - Thirukazhukundram Road) • SH-118A – 8.0km – S (Palamattur- Uthiramerur Road) • NH-132B – 8.3 km – N (Chengalpattu - Kancheepuram Road) • Approach road will be formed to connect the existing approach road located at the distance of 0.26km in southwest side
Nearest Town	Chengalpattu – 12km - E
Nearest Railway station	Palur Railway station – 9.0km - NE
Nearest Airport	Chennai International Airport – 44.0km – NE
Water bodies	Lakes and ponds within 5km radius and river within 10 radius are given below 1. Edamachi lake – 130m – N, 170m -W 2. A small pond in Nerkundram village – 674m SW 3. Lake near Sinnalambadi village -1.6km – SW 4. Lake adjacent to Edamachi R.F – 1.7km – S 5. Lake near Anambakkam village – 1.7km – W 6. Sirudamur lake – 1.9km – NW 7. Porpandal lake – 2.4km – ENE 8. Mampudhur lake – 2.7km - S 9. Salavakkam village lake – 3.0km – SE 10. Sittakakkavanur lake – 3.2km –ENE 11. Edayampudur lake – 3.2km – SE 12. Arunkunram lake – 3.5km - N 13. Padur lake – 3.5km – WNW 14. Peranakkavur lake – 3.6km – NE 15. Kavanipakkam Lake – 3.6km – NE 16. Amaravatipattanam – 3.6km – W 17. Sittalampakkam lake – 3.9km – NW 18. Edayampudur lake – 3.9km – S 19. A lake - 4.2km – NNE 20. Annadhur lake – 4.3km – ESE

<table>
<tr><td></td><td>21. Madhur lake – 4.4km – NW
22. Thandarai lake – 4.5km – ENE
23. Cheyyar River – 6.0km – NW
24. Palar River – 7.3km - N</td></tr>
<tr><td>Interstate Boundary</td><td>Tamil Nadu – Andhra Pradesh Interstate Boundary – 57.4km - N</td></tr>
<tr><td>Coastal Zone</td><td>Bay of Bengal – 37.6km - E</td></tr>
<tr><td>Reserve Forest</td><td>The Reserved Forest located within 10km radius of lease area are given below
1. Edamachi R.F is located in east side adjacent to lease area. 60m safety provided.
2. Kaveripakkam R.F - 945m – E
3. Marudam R.F – 5.6km – SW
4. Mayur R.F – 9.0km – E
The lease area is not a forest land.</td></tr>
<tr><td>National Park/Wildlife Sanctuary</td><td>There are no wildlife sanctuaries or national parks located within 10km radius of the lease area. The nearest wildlife sanctuaries is mentioned below
1. Karikili Birds Sanctuary – 10.4km – S
2. Vedanthangal Bird Sanctuary – 16.3km - S</td></tr>
<tr><td>Existing Pit</td><td>Nil</td></tr>
<tr><td>Land Use Pattern</td><td>
<table>
<tr><th>Head</th><th>Present Area (Ha)</th><th>Area in use during the quarrying period</th></tr>
<tr><td>Mining area</td><td>Nil</td><td>0.31.3</td></tr>
<tr><td>Road</td><td>Nil</td><td>0.02.7</td></tr>
<tr><td>Green belt & Dump</td><td>Nil</td><td>2.42.2</td></tr>
<tr><td>Labour Shed</td><td>Nil</td><td>0.00.80</td></tr>
<tr><td>Total</td><td>2.77.0</td><td>2.77.0</td></tr>
</table>
</td></tr>
</table>

CHAPTER 2: INTRODUCTION OF THE PROJECT/ BACKGROUND INFORMATION

2.1. PROJECT AND THE PROPONENT

2.1.1 Project Details

Type of Project	Rough Stone and Gravel
Existing/New	Newly proposed quarry
S.F.No.	S.F. No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3,376/4, & 376/5 (Consent Patta Land)
Extent	2.77.0 Ha
Village	Edamachi Village
Taluk	Uthiramerur
District	Kancheepuram
State	Tamil Nadu
Period of Lease	10 Years
Depth of Mining	42m bgl
Water Table	43.5 to 45m bgl

2.1.2 Name and Address of the Applicants

Name of the Applicant : **THIRU.R.GIRIDHARAN**

Address : S/o.Rajendran, No.12/113, 1st main road, Moogambigai Nagar, Sikkarayapuram Extension, Gerugambakkam, Kancheepuram, Tamil Nadu. Pin code – 600128.

Contact Number : 8056065165

2.2. NATURE OF THE PROJECT

The area of quarry lease is elevated to a height of 52m above MSL. LT is passing in S.F.No 376/1 from southwest to northeast side. Edamachi Lake is situated at the distance of 130m and 170m from the lease area in north and west direction respectively. The Edamachi reserved forest is situated adjacent to lease area in east side. The LT line shall be shifted more than 50m before execution of mining lease deed. The safety distance of 50m and 60m has been left for Edamachi Lake and for nearest Edamachi reserved forest as per letter of intent. Kindly refer lease plan in approved mining plan. There are no major rivers found nearby the site.

The ground water table is observed at a depth of 43.5 to 45m bgl and maximum depth of mining for first five years is proposed as 42meters from the surface level. Therefore mining activity will not disturb the ground water.

Geological resources of Rough Stone & Gravel is estimated as **5,53,940m^3** and mineable reserves is estimated at **55,040** up to depth 40m and **6528m^3** of Gravel up to a depth of 2m after leaving necessary safety distance from the lease boundary.

Production Schedule is proposed as **52,288m^3 (95%)** of Rough Stone for five years and average production is **10,458m^3** per annum or 6 loads per day. Average Production of Gravel shall be **6,528m^3** to a depth of 2m by open cast mining. Refer Plate No V-VC of approved mining plan.

2.3. NEED AND SIGNIFICANCE

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

2.4. DEMAND – SUPPLY GAP

The coarse and fine aggregate are the basic raw material for the building construction and the road formation. It takes place in all villages, towns, cities and metropolitan cities. There is great demand in availability of Rough stone. So it is necessary to fulfil the demand by starting the proposed Rough stone quarry.

2.5. IMPORT VS INDIGENOUS PRODUCTION

Rough Stone and Gravel exists in the proposed site and it does not require any raw material to be imported for the production process. The extracted stone will be crushed cut into required size as per market demand.

2.6. EXPORT POSSIBILITY

Not applicable since the project meets local demand only.

2.7. EMPLOYMENT

The following manpower is proposed to look after and carry out the day today quarrying activities at the proposed production and also to comply with statutory provisions of MMR 1961.

a. Management and supervisory personal:

1. Mining Engineer/Geologist (First\Second class Mines Manager) - 1 Person
2. Mines Foreman (Foreman competency Certificate holder) - 1 Person
3. Mining Mate (Mine Mate competency Certificate holder) - 1 Person
4. Register keeper (Workman cadre) - 1 Person

The Mining Engineer so appointed should supervise day to day workings assisted by a Foreman. Wherever the workers are employed more than 15, a qualified Mining Mate should be appointed to supervise and control the workers.

b. Labor - skilled, semi-skilled and un-skilled.

i) Skilled

Operator	-	1 Person

ii) Semi-skilled

Driver	-	4 Persons

iii) Un-skilled

Musdoors\ Labours	-	8 Persons
Cleaners	-	2 Persons
Register Keeper	-	1 Person
	Total :	20 Persons

CHAPTER 3: PROJECT DESCRIPTION

3.1. TYPE OF PROJECT

The project involves quarrying of Rough Stone and Gravel from the proposed area by adopting eco-friendly and safer techniques. More than 95% of materials shall be crushed down to various sizes and fines shall also be screened and washed for material. 5% of rejects will be dumped within the mining lease area and it will be used for the village road maintenance.

3.2. LOCATION

The area is represented by Survey of India Toposheet No. 57 P/14. The proposed area represented in the Toposheet is shown in Fig No 3.2 and in the location & accessibility map is shown in Fig No 3.3. The area lies in the northern latitude of 12°41'45.03"N to 12°41'51.39"N and eastern longitude of 79°51'35.91"E to 79°51'44.47"E. Latitude and Longitude of all boundary Pillars are given below in Fig No. 3.4.

Fig No 3.1 Photograph shows GPS survey of the proposed area at pillar no: 6

TABLE NO - 3.1. Details of latitude and longitude of all pillars corner reading

Pillar No	Latitude (N)	Longitude (E)
1	12°41'46.49"N	79°51'35.91"E
2	12°41'47.59"N	79°51'36.83"E
3	12°41'48.71"N	79°51'37.41"E
4	12°41'48.65"N	79°51'37.58"E
5	12°41'47.31"N	79°51'37.05"E
6	12°41'47.08"N	79°51'37.59"E
7	12°41'48.59"N	79°51'38.15"E
8	12°41'48.25"N	79°51'38.78"E
9	12°41'51.39"N	79°51'38.70"E
10	12°41'50.66"N	79°51'41.28"E
11	12°41'50.18"N	79°51'43.05"E
12	12°41'50.74"N	79°51'43.27"E
13	12°41'50.28"N	79°51'44.47"E
14	12°41'46.10"N	79°51'42.60"E
15	12°41'46.36"N	79°51'41.34"E
16	12°41'45.03"N	79°51'40.94"E
17	12°41'45.52"N	79°51'38.76"E

The Mining plan is prepared for extraction of Rough Stone and Gravel deposit by systematic and scientific mining as per the conditions stipulated under the LOI and enable the applicant to quarry Rough stone and Gravel on a long run with consistent ore to waste ratio with a view to maintain uniform cost of mining and profit margin with safety and proper environment management. Land particulars are given as under.

Table No-3.2.Details of land particulars

State & District	Taluk	Village	S.F.No.	Permissible for quarrying (Ha)	Ownership Occupancy
Tamil Nadu & Kancheepuram	Uthiramerur	Edamachi	368/1G	0.26.0	Patta land
			368/1H	0.11.5	
			368/1I	0.12.5	
			367/1	0.08.5	
			367/2	0.20.0	
			376/1	0.29.0	
			376/2	0.12.0	
			376/3	0.33.5	
			376/4	1.15.0	
			376/5	0.09.0	
			TOTAL	**2.77.0**	

Ownership occupancy of applied area : **Thiru.R.Giridharan**
Classification of the area : Patta land, Non- Agricultural

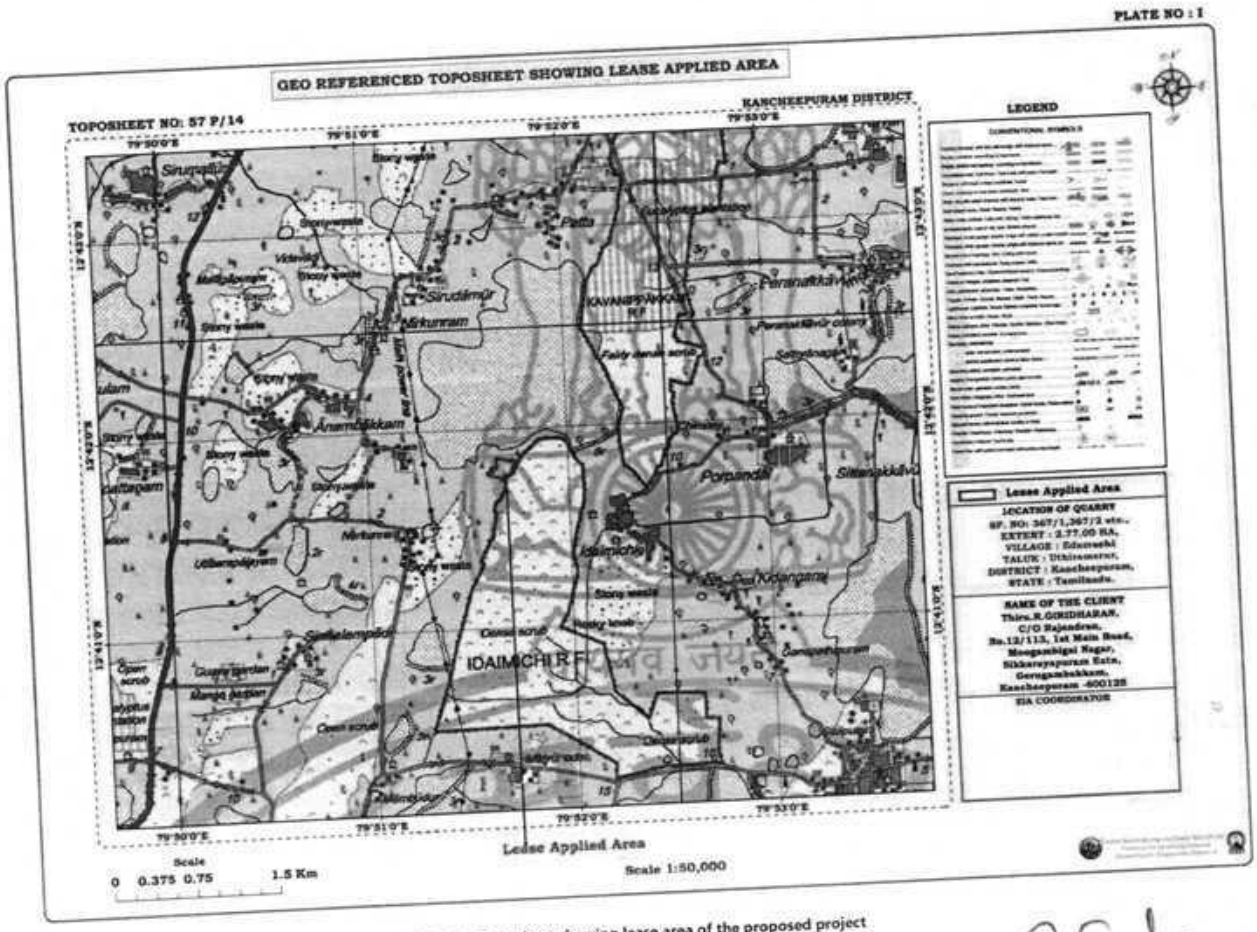


Fig No: 3.2. Toposheet showing lease area of the proposed project

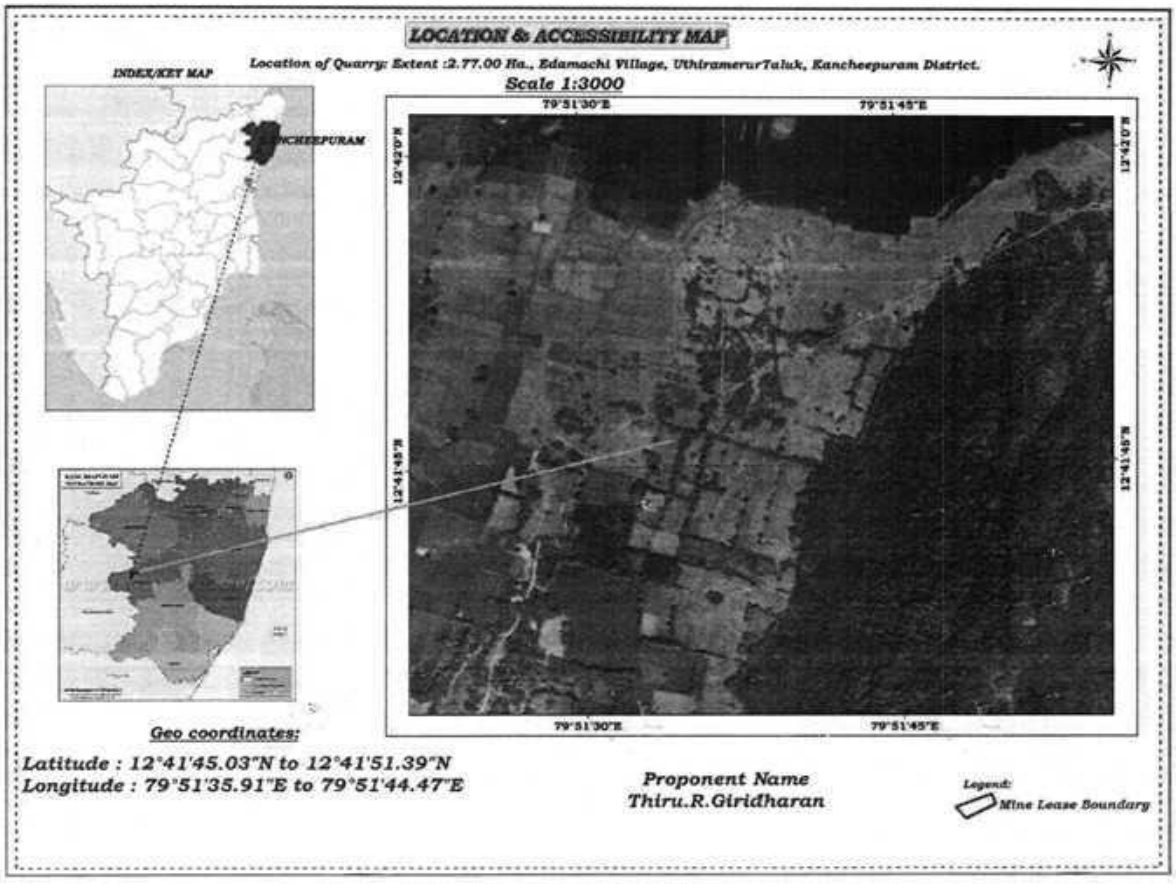


Fig No: 3.3. Location and accessibility map

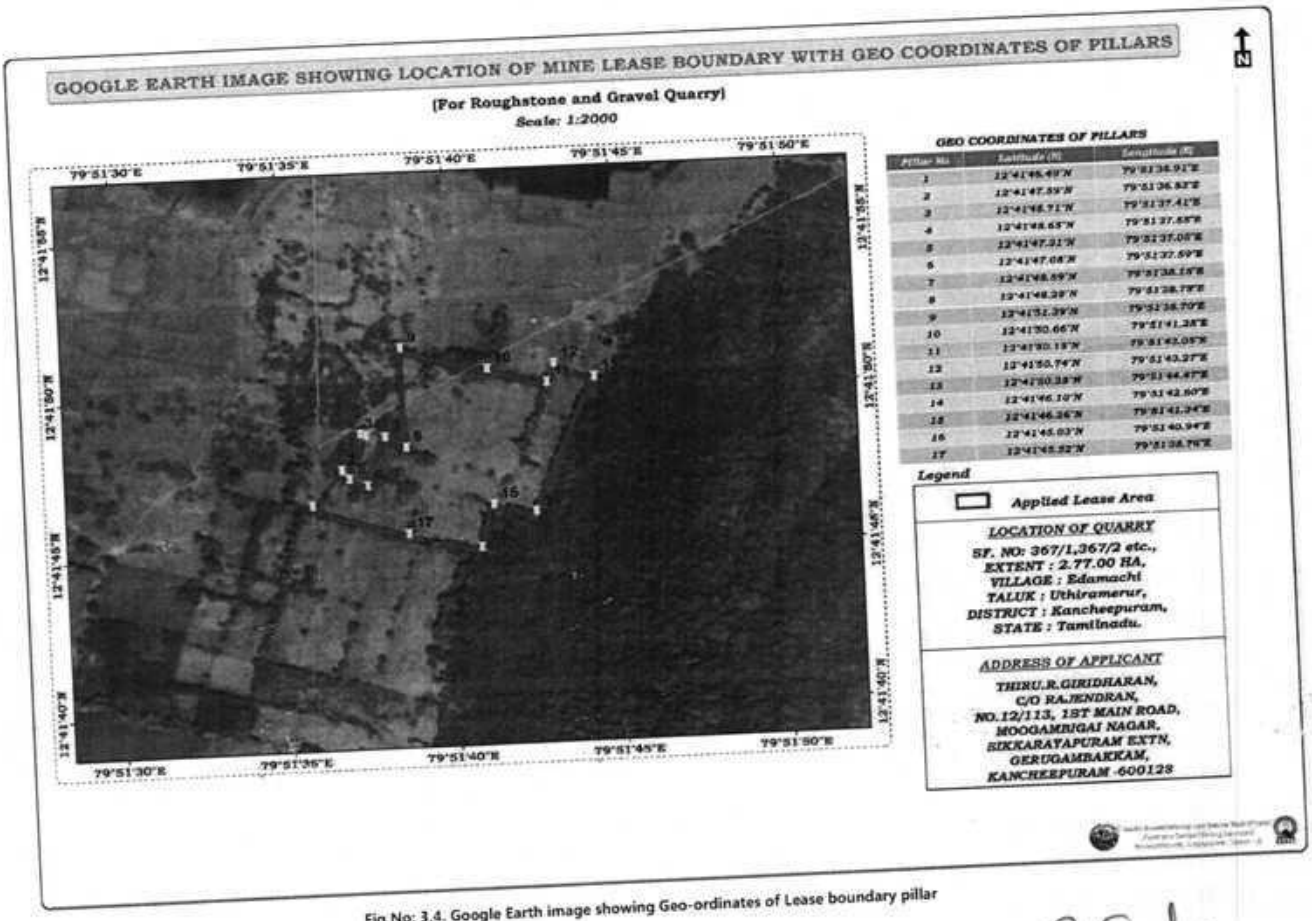


Fig No: 3.4. Google Earth image showing Geo-ordinates of Lease boundary pillar

3.3. ALTERNATIVE SITE

Since the project site is specific due to the availability of the minerals, no alternative sites proposed for this project.

3.4. PROJECT DESCRIPTION

3.4.1 Method of Mining

Open cast, semi-mechanized mining will be adopted to extract Rough stones of required size from the area for which lease applied for. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, formation of faces, lying of approach road to various benches for movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc.

Hydraulic excavators and tippers in combination will be utilized to recover the sizeable rough lumps and deliver to the crushing plant to get the required size of M. Sand, ½, ¾, 1½ inches and Jelly chips, etc. Bench height is designed as 10m based on boom height of excavator (8.5m) and permitted additional height of 1.5m for hard formations as per Reg. 106 (2) (b) of MMR, 1961.

Gravel will be removed and will be sold to public for construction purposes. The bench slope will be 60°. S1 fencing shall be constructed at the top of high benches in order to safe guard the unauthorized entry of men and machinery. In the case of entry and exit of pit(s), G1 fencing as a parapet should be made to control tress passes.

3.4.2 Extent of Mechanization

The following machinery is proposed to be exclusively for the development and production work at this quarry. The machinery is proposed to be purchased or engaged on hire basis.

i) Drilling equipment:

Drilling of shot-holes will be carried out using compressor and Jack Hammers combination on hire basis. Depth of holes shall be 1-2m.The spacing shall be 0.75m and burden shall be 0.60m from the preface. To achieve a correct blasting geometry certain amount of trial blast is prerequisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting qualified mine manager has to be appointed for proper calculation of powder factor and control blasting sequencing and arrangement of explosives etc. Details of drilling equipments are below as

Table No 3.3: Details of drilling equipment

Type	No's	Dia. of hole	Size/ Capacity	Make	Motive Power	H.P
Jack Hammer	1	32mm	Hand held	Atlas copco	Air	5.5Kgs/m^3
Compressor	1	--	--	Ford Track	Diesel	80

ii) Loading Equipment:

Loading of rough stone, waste and reject materials shall be done by excavator into 15MT capacity tippers from the working place periodically. The applicant is proposed to engage one hydraulic excavator with 1.2m^3 bucket capacity and two tippers of 15MT capacity for transport of rejects, rough stone from the working face to the dumps and crushing unit. Details of loading equipment are tabulated below.

TABLE NO- 3.4: Details of proposed loading equipments

Type	No's	Bucket/Capacity(m^3)	Make	Motive Power	H.P
Hydraulic excavator	1	1.20m^3	Hitachi	Diesel	EX 200

iii) Haulage and Transport Equipment:

Transport of rough stone, rejects and waste shall be done by Tippers of 15 tone capacity,

TABLE NO- 3.5: Details of transportation equipment

Type	Nos	Size/Capacity (m^3)	Make	Motive Power	H.P
Tipper	2	15M.T	Ashok Leyland	Diesel	120

iv) Blasting Pattern

The massive formation shall be broken into pieces of portable size by jack hammer drilling and shot hole blasting. Nonel blasting is proposed in this lease area. Drilling and blasting parameter are as follows,

Depth (m) * Burden (m) *Spacing (m) 1.00 x 0.60 x 0.75	=	Volume (m^3) 0.45 m^3
Quantity of broken rock per hole	=	0.45 x 2.6 = 1.17 m^3
Blasting efficiency @90%	=	1.17 x 90% = 1.05 m^3/hole
Charge per hole	=	140 gm of 25 mm dia. cartridge

Quantity of rock broken per day	=	36.7 m^3 or 95.42 M.T.
Requirement of explosives per day	=	13.6 Kg (@ 7 M.T. per Kg of explosives)
No. of holes to be drilled per day	=	36.7 m^3/1.05= 35Holes

Types of Explosives: Following explosives are recommended for efficient blasting with safe practice.

S.No.	Description	Class / Division	Type	Size
1.	Detonators	class - 6	Rough and Electric (OD & ED)	6.5 x 32
2.	Safety fuse	class - 6 Div - 1	Blue sump fuse coils of 10 m^3s each	

Measures proposed to minimize ground vibration due to blasting

The following steps shall be adopted to control ground vibration during blasting.

i) Geometry of blasting pattern like burden, spacing and inclination of hole should be

Burden (m)*		Spacing (m)		Inclination
0.60	x	0.75	x	70°

ii) High strength explosives like slurry in the form of cartridge should be used. ANFO mixture for shot holes should not be used which may cause huge fly rock fragments in view of critical diameter problem.

iii) To control vibration abatement, use delay or relay arrangements with specific charges

iv) Charge per hole should exceed the powder factor designed for each hole based on quantum of blasting, strength of rocks, fracture pattern etc.

v) In case any objection from the public, a long trench in the direction of blasting near lease boundary may be opened to a depth of 2m to control longitudinal waves (P-waves) to arrest any damage to infrastructures.

vi) If any building lies within 50m, muffle blasting practice may be followed in addition to the regular safety procedures and the charge per blast hole shall not exceed 2kg as specified by DGMS.

vii) Any other method of safety measures shall be advised to the Applicant as and when required by the qualified Mine Manager

v) Storage of Explosives

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine

permit under Form -23 or Agreement shall be made with holder of Form-22 who can supply and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder, appointed under Reg.160 of Metalliferous Mines Regulations, 1961.

3.5 Details of Exploration

The proposed area is a gentle slope terrain and that the adjacent quarry as same rock as with well exposed. No explorations in like boreholes/trenches are carried out.

3.6. ESTIMATION OF RESERVES

a) GEOLOGICAL RESOURCES

The geological resources is estimated by cross sectional method as **553940m³** of Rough Stone & Gravel up to a depth of 42m from the surface, having considered the depth of mining, recovery, safety barriers etc. A detail of estimation of geological resources and reserves is given in the Table no–3.6.

Table No-3.6: Computation of Geological Resources and Reserves

SECTION	DESCRIPTION	L (m)	W(m)	D(m)	Volume m^3	Resources @95% (m^3)	Reject @5% (m^3)
AB-X1Y1	SAFETY ZONE	104.5	113	40	472340	448723	23617
	MINEABLE RESERVE	64	44	10	28160	26752	1408
		52	32	10	16640	15808	832
		40	20	10	8000	7600	400
		28	8	10	2240	2128	112
	UNDER MINE BENCH	4	4	10	160	152	8
		16	16	10	2560	2432	128
		28	28	10	7840	7448	392
		40	40	10	16000	15200	800
TOTAL					**553940**	**526243**	**27697**

Total Geological resources up to a depth of 42m = 553940m^3
Total Geological reserves @ 95% = 526243m^3
Total Reject @ 5% = 27697m^3

b) MINEABLE/RECOVERABLE RESERVES:

The mineable\recoverable reserves is estimated by cross-sectional method having considered the recovery factor, depth of mining, safety barriers etc., The mineable reserves is estimated as **55040m^3** of Rough Stone & **6528m^3** of Gravel to a depth of mining 42m from the surface. Details of estimation of mineable reserves are given in Table no. 3.7.

Table No-3.7: Computation of Mineable/Recoverable Reserves

SECTION	L (m)	W(m)	D(m)	Volume M3	Reserves @95% (M3)	Reject @5% (M3)
AB-XY	64	44	10	28160	26752	1408
	52	32	10	16640	15808	832
	40	20	10	8000	7600	400
	28	8	10	2240	2128	112
TOTAL				**55040**	**52288**	**2752**

Gravel Development						
AB-XY	68	48	2	6528	6528	
TOTAL				**6528**		
GRAND TOTAL				**61568**	**58816**	**2752**

Total Mineable reserves to a depth of 42m	=	55040m^3
Total Mineable Rough Stone reserves @ 95%	=	52288m^3
Total Mineable Gravel reserves @ 100%	=	6528m^3
Total Rough Stone Reject @ 5%	=	2752m^3
Total Waste Ratio (2752m^3)	=	2752/58816
	=	1: 0.05

The recovery factor is taken as 95% from the top bench up to the bottom. The life of the mine iswill computed as 10 years, if an average production rate of **5228.8m^3** per annum for the depth up to 42m from the surface. The reserves below this level shall increase the life substantially.

3.7. PRODUCTION (SIZE OF OPERATION)

The five years period of production and the generation of rejects are described in the year-wise development/production schedule as tabulated for Rough Stone & Gravel in Table no-3.3. The five years production is designed up to a depth of 6m. The year-wise development/production plan is shown in Plate- V, VA, VB, VC.

Table No: 3.8. Computation of year wise production

Year wise Production and Development						
YEAR	L (m)	W(m)	D(m)	Volume	Recovery @95% (m3)	Reject @5% (m3)
I	24	44	10	10560	**10032**	528
II	24	44	10	10560	**10032**	528
III	16	44	10	7040	**10032**	352
	11	32	10	3520		176
IV	34	32	10	10880	**10336**	544
V	7	32	10	2240	**11856**	112
	40	20	10	8000		400
	28	8	10	2240		112
TOTAL				**55040**	**52288**	**2752**
Gravel Development						
I	24	48	2	2304		2304
II	24	48	2	2304		2304
III	20	48	2	1920		1920
TOTAL				**6528**	**6528**	
GRAND TOTAL				**61568**	**58816**	**2752**

3.8. MINE CLOSURE PLAN

Conceptual Mining Plan is prepared for a period of life of mine to determine the ultimate pit limits, depth of mining and final slope angle adapted with an object of long-term and systematic development of bench lay-outs, selection of permanent dump(s), avoidance of re-handling, selection of sites for construction of infrastructures, lying of roads. Kindly refer Table-3.9 & Plate No-VII. The ultimate pit size is so designed based on certain practical factors such as the economical depth of mining, safety zones followed, available area for mining. The Ultimate pit size of the mine in bench-wise arrived and calculated as hereunder.

Table No-3.9: Computation of ultimate pit dimension

Ultimate Pit Dimensions-PIT-I (m)				
Bench	**Mineral / overburden**	**Length(m)**	**Width(m)**	**Depth(m)**
I	Gravel	68	48	2
II	RoughStone	64	44	10
III	Rough stone	52	53	10
IV	Rough stone	40	20	10
V	Rough stone	28	8	10
		Total		**42m**

The quantum of mineable reserves of the applied area is estimated as **55040m^3** up to a depth of 42m from the surface. Out of which, the generated rejects is estimated to be **2752m^3**. All rejects materials are dumped along lease boundary and backfilled at the end of mine life.

Table No – 3.10: Quantity of rejects for life of mine

Description		Volume (m^3)
Reject	=	2752
Total	=	**2752**

3.9 STACKING OF ROUGH STONE REJECTS AND DISPOSAL OF WASTE:

Rough Stone rejects which amounts to 5% of the total excavation; about **2752m^3** will be generated for mining up to 42m depth from surface.

Table No-3.11: Computation of waste and rejects of the lease area

Year	Gravel (m^3)	Overburden /Waste(m^3)	Rough Stone & Gravel Rejects @ 5% (m^3)	Total
First	2304	----	528	528
Second	2304	----	528	528
Third	1920	----	528	528
Fourth	---	----	544	544
Fifth	---	----	624	624
Total	**6528**	**----**	**2752**	**2752**

Gravel will be removed and will be sold to public for construction purposes. All the rejects shall be dumped within the lease area.

Table No 3.12 Year wise Dump Dimension (M)

Description		Volume (m^3)
Reject	=	2752
Total	=	**2752**

CHAPTER 4: SITE ANALYSIS

4.1. CONNECTIVITY

The project site is easily accessible from Kancheepuram, By travelling from Kancheepuram via NH 132B, Pazhaya Seevaram village is arrived at the distance of 20km. From the Pazhaya Seevaram village, by travelling via Palar River bridge and via Salavakkam-Thirmukkudal road, MDR 789 situated next to Thirumukkudal village is arrived. By travelling via MDR 789, Anambakkam X road is arrived at the distance of 6km. From the Anambakkam X road, by travelling via Anambakkam village road and Nerkunram Village road, the project site arrived at the distance of 5.0km. A feature in the 300 m and 500 m buffer zone of the lease area is shown in Fig No. 4.1.

4.2. Land Details

Table No. 4.1 shows the list of survey numbers and its extent. The lease area is Patta land.

Table No: 4.1.Land Particulars

State & District	Taluk	Village	S.F.No.	Permissible for quarrying (Ha)	Ownership Occupancy
Tamil Nadu & Kancheepuram	Uthiramerur	Edamachi	368/1G	0.26.0	Patta land
			368/1H	0.11.5	
			368/1I	0.12.5	
			367/1	0.08.5	
			367/2	0.20.0	
			376/1	0.29.0	
			376/2	0.12.0	
			376/3	0.33.5	
			376/4	1.15.0	
			376/5	0.09.0	
			TOTAL	**2.77.0**	

Table No: 4.2. Existing and Proposed Land use Pattern

Head	Present Area (Ha)	Area in use during the quarrying period
Mining area	Nil	0.31.3
Road	Nil	0.02.7
Green belt & Dump	Nil	2.42.2
Labour Shed	Nil	0.00.80
Total	**2.77.0**	**2.77.0**

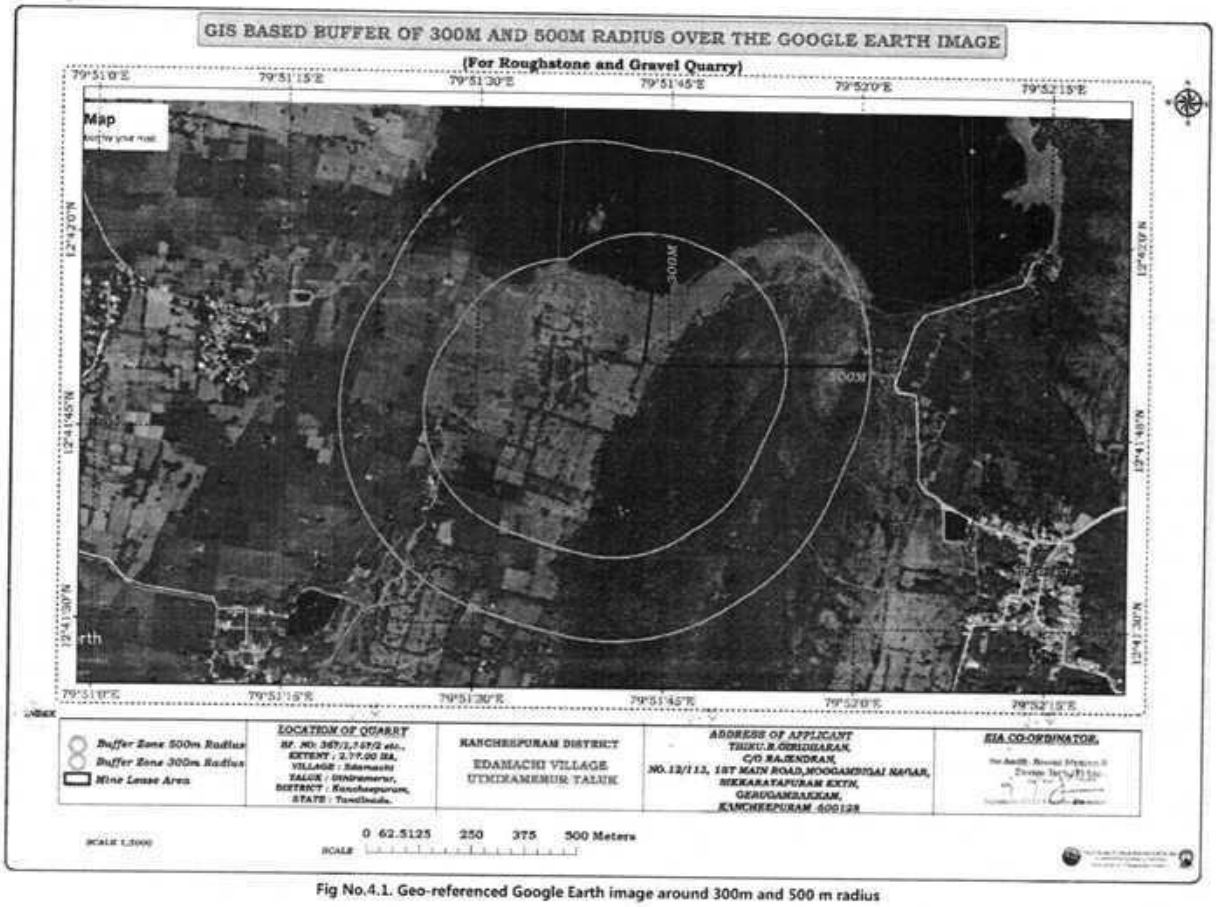


Fig No.4.1. Geo-referenced Google Earth image around 300m and 500 m radius

4.3. Geology and Exploration

4.3.1. Topography:

The area of quarry lease is elevated to a height of 52m above MSL. LT is passing in S.F.No 376/1 from southwest to northeast side. Edamachi Lake is situated at the distance of 130m and 170m from the lease area in north and west direction respectively. The Edamachi reserved forest is situated adjacent to lease area in east side. The LT line shall be shifted more than 50m before execution of mining lease deed. The safety distance of 50m and 60m has been left for Edamachi Lake and for nearest Edamachi reserved forest as per letter of intent. Kindly refer lease plan in approved mining plan. There are no major rivers found nearby the site.

4.3.2. Drainage pattern

There is no major river situated about 1km radius. The drainage pattern in this area is dendritic pattern in nature.

4.3.3. Vegetation:

Mostly grown in this area Neem, Acacia bushes, Panai tree and shrubs are found on regional scale.

4.3.4. Regional Geology:

Tamil Nadu chiefly comprises Archaean hard rock's formation except along the coast belt where marine sedimentary formations belonging to Cretaceous and Tertiary ages, covered by recent alluvium, are found to occur. Mineral occurrences of different origin have been recorded in all these formations. Archaean rocks mostly consist of Gneisses, Schists and Charnockites. The notable geological formation found in Tamil Nadu is Cuddalore formation belonging to Tertiary age. These formations are found to have plant fossils. Besides this, the occurrences of Upper Gondwana formation also noticed near Uthiramerur (close to Chennai) and Satyavedu (A.P. State). These are composed mainly of white to pink clays, shale and felspathic sandstone.

4.3.5. Geology of the Precise Area:

The area exposes crystalline rocks of Archaean age and sedimentary rocks of GondwanaSupergroup and the Cuddalore Formation belonging to Mio-Pliocene age.
A gravel and shingle bed locally known as Kancheepuram Gravels belongs to the Pliocene to lower Pleistocene age. The laterite and alluvium are related to Quatemary age. The Archaean rocks are represented by Khondalite Group, Charnockite Group and Migmatite complex. Garnet Sillimanite Gneiss is well exposed in the Northeastern part of the district in Pachchamalai hill at Chrompet, Parangimalai and Southeast of Pallavaram. Charnockite in

the predominant country rock and the type area for Charnockite is St. Thomas Mount at Pallavaram Taluk. The name Charnockite, St. Thomas Mount "Originated from the use of the rocks quarried from a central band in the St. Thomas Mount for the Tomb stone of job Charnockite, the founder of Kolhath in 1679 .In Pachchamalai hill it is essentially a quartz sillimanite rich rock with minor amount of felspar. In Tambaram hill, charnockite and metapellite are intimately interbanded, particularly along the hinge zones. Isolated outcrops are also seen on either side of National Highway No.45 near Kadaperi. The major part of the district is occupied by charnockite with enclaves of khondalite, leptynite and BMQ seen around St. Thomas Mount, east of Guduvancheri, Madurantakam, and Paler and around Tirukkalukkunram. St. Thomas mount is an extensively studied type area for the Chamockite. It is a typical rock with bluish grey quartz, hard and compact, jointed showing recognisable foliation at places. The outcrop stands out prominently as isolated cluster of hills. The area in and around Pallavaram, Tambaram and Pulikaradu contain several bands of pyroxene granulite. The charnockite is traversed by narrow dolerite dykes which stand out prominently as dark low ridges and seen for a few metres. The lower Gondwana sediments (Talchirs) overlie the Archaean rocks unconformably and are seen to the northeast and south of Palar river preserved in the trough faults and comprise boulder beds, dirty white to light green, greyish yellow fine sandstone, siltstone with clasts of rock fragments and khaki green to greenish grey shales

Fig.No: 4.2 Photograph shows general view of the proposed Lease area

4.4 ENVIRONMENTAL BASELINE DATA

4.4.1. Flora

The regional flora as observed and identified in the field are covered by photograph and shown below.

a) TREES:

S. No.	Tamil /English Name	Botanical Name	Number of Trees	Photograph
1.	Veppa maram/ Margosa tree	*Azadirachta Indica*	Innumerable	
2	Karuvel maram/ Gum tree	*Acacia Arabica wild*	Innumerable	
3.	Panai/Palmyra tree	*Borassus fiabellifer*	Innumerable	
4.	Eecha Maram	*Phoenix sylvestris*	5 Nos	
5.	Mullu Maram	*Prosopis juliflora*	Innumerable	
6.	Poovarasam Maram	*Thespesia populnea*	Innumerable	

b) CLIMBERS:

S.No.	Tamil/English Name	Botanical Name	Number of Trees	Photograph
1.	Oonangodi	*Fragor Monstrum*	Innumerable	
2.	Veliparuthi/ Trellis vine	*Pergularia daemia*	Innumerable	

c) SHRUBS:

S.No.	Tamil Name	Botanical Name	Number of Trees	Photograph
1.	Unnichedi	*Lantana Camara*	Innumerable	
2.	Kallimaram/ Milk hedge	*Euphorbia triucallilinn*	Innumerable	

d) HERBS:

S.No.	Tamil Name	Botanical Name	Number of Plants	Photograph
1.	Erukkanchedi	*Calotropis gigantea*	Innumerable	

4.4.2 Fauna:

The following fauna species may be found around this project site.

a) Mammals:

S.No.	Tamil & English Name	Zoological Name
1.	Keeri (Common Mongoose)	Herpestes edwardsii
2.	Anil (Three Striped Squirrel)	Funambulus palmarum
3.	Thavalai (Frog)	Cane toad

b) Avian Fauna:

S.No.	Tamil & English Name	Zoological Name
1.	Myna (Black drogue)	Dicrurus macrocercus
2.	Kakka (House crow)	Corvus splendens
3.	Chittukuruvi (Indian Robin)	Saxicoloides fulicatus
4.	Parunthu (Brahminy Kite)	Haliastur indus

c) Butterfly/Insects:

S.No.	Tamil & English Name	Zoological Name
1.	Theil (Scorpion)	Scorpiones
2.	Vannthupoochi (Millipedes)	Diplopoda

4.5. EIA General Conditions

Forest:

1. Edamachi R.F is located in east side adjacent to lease area
2. Kaveripakkam R.F - 945m – E
3. Marudam R.F – 5.6km – SW
4. Mayur R.F – 9.0km – E

The proposed project site is not a forest land. Hence it does not attract Forest Conservation Act, 1980

Interstate Boundary: Tamil Nadu – Andhra Pradesh Interstate Boundary – 57.4km - N

National Park/Wild life sanctuary:

1. Karikili Birds Sanctuary – 10.4km – S
2. Vedanthangal Bird Sanctuary – 16.3km - S

There is no wild life sanctuary found within 10 Km radius from the proposed area and this project doesn't fall under the Wildlife (Protection) Act, 1972.

Coastal Regulation Zone: Bay of Bengal – 37.6km - E. Hence, the project doesn't attract the C.R.Z. Notification, 1991.

4.6. Rainfall of the District and Climatic Condition:

Kancheepuram generally experiences hot and humid climate throughout the year with heavy to moderate rainfall during the monsoon seasons. The normal rainfall pertains to 1227.7 mm and Actual rainfall pertains to 1165.8 mm in Kancheepuram district with the highest amount of rainfall in the month of October and November. Kancheepuram agriculture mainly depends on monsoon. The irrigation in Kancheepuram is mostly taken care by the tanks and wells. During the summer season, the maximum temperature is 36.6 degree celsius and the minimum is 21.1 degree celsius.

4.7. Social infrastructure

Table No: 4.3. Infrastructures on nearby the lease area

S. No.	Particulars	Location	Approximate Distance in Km	Direction
1.	Post office	Padur Post Office	4.3	NW
2.	Town	Chengalpattu	12	E
3.	Police Station	Salavakkam	4.2	SE
4.	Fire Station	Chengalpattu	12.7	SE
5.	Nearest Medical facility	Salavakkam Government Hospital	3.8	SE
6.	Nearest School	Anambakam Primary School	1.8	NW
7.	DSP Office	Chengalpattu	12.8	SE
8.	Railway Station	Palur	9.0	NE
9.	Nearest Airport	Chennai	44.0	NE
10.	Villages			
	i)	Nerkunram	0.78	SW

	ii)	Anambakkam	1.7	NE
	iii)	Porpandal	2.2	W
	iv)	Edamachi	0.83	SE

4.8. SOCIO-ECONOMIC ENVIROMENT

4.8.1 Population Characteristics

The population details of villages around the lease area as per 2011 census are given below

Name of Village	Direction	Distance from Mines (Approx)	Population
Nerkunram	SW	0.78	624
Anambakkam	NE	1.7	1665
Porpandal	W	2.2	941
Edamachi	SE	0.83	1414

4.8.2 Public buildings, places of worship and monuments.

No infrastructures like residential building, places of special interest like temples, archaeology monuments, Sanctuaries etc., are found in the radius of 500m.

CHAPTER 5: PLANNING BRIEF

5.1. Planning Concept

Excavation of Rough Stone and Gravel is planned and described in Plate No. V-VC in Approved Mining Plan. Proposed land is a consent patta land which does not come under Residential, Forest or any other sensitive land classification. As a small project, it is not demanding any town or country planning. However, approach roads and haul roads will be laid for the transportation of excavated materials to the market.

5.2. Population projection

The proposed project will not affect the village population, and hence population projection is not significant. However, it provides occupation to about 20 persons of which 80% of them will be from the local villages. Other than mine employment, workshops, spare parts, tyres and tubes and related several self-employment opportunities will be developed due to proposed project.

5.3. Land Use Planning

The present and proposed land use pattern is given in Table No. 4.2.

5.4. Infrastructure demand

The infrastructures such as office room, labour shed and toilet facilities will be developed after getting EC from SEIAA/SEAC.

5.5. Amenities/ Facilities

List of equipments and materials required for drilling, loading, transporting is given in Table No. 5.1, 5.2, 5.3 respectively.

5.5.1 Drilling machines:

Table No: 5.1. Drilling equipment

Type	Nos	Dia.of hole	Bucket/ Capacity (m^3)	Make	Motive Power	H.P
Jack Hammer	1	32mm	Hand held	Atlas copco	Air	5.5Kgs/m^3
Compressor	1	-	-	Ford Track	Diesel	80

5.5.2: Loading Equipment:

Table No: 5.2 Loading Equipment

Type	No's	Bucket/Capacity(m^3)	Make	Motive Power	H.P
Hydraulic excavator	1	1.20m^3	Hitachi	Diesel	EX 200

5.5.3 Haulage and Transport Equipment

Table No: 5.3. Transportation vehicles

Type	No's	Size/Capacity (m^3)	Make	Motive Power	H.P
Tipper	2	15M.T	Ashok Leyland	Diesel	120

5.6. HAZARDS AND RISK MANAGEMENT

5.6.1. Explosives

Blasting is done by means of explosives which are hazardous during of handling, storage and blasting.

5.6.1.1 Storage and Handling

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine permit under Form - 23 or Agreement shall be made with holder of Form - 22 who can supply and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder, appointed under Reg. 160 of Metalliferous Mines Regulations, 1961.

5.6.2 Blasting

Poorly designed shots can result in misfires early ignition and flying rock. Safety can be ensured by planning for round of shots to ensure face properly surveyed, holes correctly drilled, direction logged, the weight of explosion for good fragmentation. Blast design, charge and fire around of explosives should be carried out by a trained person.

5.6.3 Drilling

Slipping and Falling of labors from the edge of a bench during drilling is possible. Part of training should include instructions to face towards the open edge of the bench so any inadvertent backward step is away from the edge. Suitable portable rail fencing which can be erected between the drilling operations and the edge of the mine can be provided.

Attachment of a safety line to the drilling rig and provide harness for the driller to wear can be done. Newer drill machines are provided with cabin which controls noise level within cabins. Driller operators should be protected with ear protection.

5.6.4 Loading

Possible risks during loading of mined rocks are falling of rock on the driver, plant toppling aver due to uneven ground, failure of hydraulic system, fires, fall while gaining access to operating cabin, electrocution in Draglines, failure of wire ropes in Dragline.

- In order to overcome these risks:
- Operator cabin should be of suitable strength to protect the driver in event of rock fall.
- Electrical supply to dragline should be properly installed with adequate earth continuity and earth leakage protection.
- Wire rope should be suitable for work undertaken and be examined periodically.
- Ensure that loaders are positioned sufficiently away from face edges.

5.6.5. Transportation

Brake failure, lack of all-around visibility from driver position, vehicle movements particularly while reversing, rollover, Vibrations, Noise, Dust and improper / no signaling are some of the factors causing risk. This can be avoided by following measures:

- Visibility defects can be eliminated by the use of visibility aids such as closed circuit television and suitable mirrors.
- Edge protection is necessary to prevent inadvertent movement.
- Seatbelt to protect driver in event of vehicle rollover.
- Good maintenance and regular testing necessary to reduce possibility of brake failure.
- Avoid driving at the edge of roadway under construction
- Heavy earth moving equipment and vehicle drivers and those giving signals should be well trained.

5.6.6. Unstable face

Chances of Rock fall or slide exists. Regular examination of face must be done and remedial measures must be taken to make it safe if there is any doubt that a collapse could take place. Working should be advanced in a direction taken into account the geology such that face and quarry side remain stable.

5.6.7. General safety measures

Provisions of the Mines Act, Rules and Regulations orders made there under shall be complied with, so that the safety of the mine, machinery and persons will be ensured. Permission, relaxation or exemption wherever required for the safe and scientific mining of the deposit will be obtained from the Department of Mine Safety. Copy of Agreement for handling of Explosives under License Holder at Proposed site is given in additional document.

- Safety kits should be located in easily accessible place with major first aid materials in it.
- Entry of any unauthorized person into mine and plant areas shall be completely prohibited
- Arrangements for firefighting in the mine's office complex and mining area
- Provision of all the safety appliances such as safety boot, helmets, goggles, ear plugs etc. shall be made available for the employees
- Mining will be undertaken in coexistence with the requirements of the Mining
- Plan which shall be updated from time to time
- Handling of explosives, charging and blasting shall be undertaken only by competent person
- Adequate safety equipment shall be provided at the explosive magazine
- All the mining equipment shall be maintained as per the guidelines of the manufacturer.

CHAPTER: 6 INFRASTUCTURE & WELFARE MEASURE

6.1. HABILITATION

The nearest villages are found in the buffer zone with population as per 2011 census

Name of Village	Direction	Distance from Mines (Approx)	Population
Nerkunram	SW	0.78	624
Anambakkam	NE	1.7	1665
Porpandal	W	2.2	941
Edamachi	SE	0.83	1414

6.2. POWER LINES

LT is passing in S.F.No 376/1 from southwest to northeast side. The LT line shall be shifted more than 50m before execution of mining lease deed.

6.3. WATER BODIES

Lakes and ponds within 5km radius and river within 10 radius are given below

1. Edamachi lake – 130m – N, 170m -W
2. A small pond in Nerkundram village – 674m SW
3. Lake near Sinnalambadi village -1.6km – SW
4. Lake adjacent to Edamachi R.F – 1.7km – S
5. Lake near Anambakkam village – 1.7km – W
6. Sirudamur lake – 1.9km – NW
7. Porpandal lake – 2.4km – ENE
8. Mampudhur lake – 2.7km - S
9. Salavakkam village lake – 3.0km – SE
10. Sittakakkavanur lake – 3.2km –ENE
11. Edayampudur lake – 3.2km – SE
12. Arunkunram lake – 3.5km - N
13. Padur lake – 3.5km – WNW
14. Peranakkavur lake – 3.6km – NE
15. Kavanipakkam Lake – 3.6km – NE
16. Amaravatipattanam – 3.6km – W
17. Sittalampakkam lake – 3.9km – NW
18. Edayampudur lake – 3.9km – S
19. A lake - 4.2km – NNE
20. Annadhur lake – 4.3km – ESE

21. Madhur lake – 4.4km – NW
22. Thandarai lake – 4.5km – ENE
23. Cheyyar River – 6.0km – NW
24. Palar River – 7.3km – N

6.4. ARCHAEOLOGICAL\HISTORICAL MONUMENTS

No infrastructures and places of interest like Archeological monuments, Sanctuaries etc are found within 500km radius.

6.5. TRANSPORTATION

Road:

- Nerkundram Village Road – 0.91km - SW
- MDR-789 – 2.8 km – W (Thirumukkudal - Nelvoy - Thirukazhukundram Road)
- SH-118A – 8.0km – S (Palamattur- Uthiramerur Road)
- NH-132B – 8.3 km – N (Chengalpattu - Kancheepuram Road)

Approach road will be formed to connect the existing approach road located at the distance of 0.26km in southwest side

Railway: Palur Railway station – 9.0km - NE

Airport: Chennai International Airport – 44.0km – NE

6.6. PLACE OF WORSHIP

Nil within 1km radius.

6.7. RESERVES FOREST\FOREST\ SOCIAL FOREST\ WILD LIFE SANCTUARIES ETC

1. Edamachi R.F is located in east side adjacent to lease area
2. Kaveripakkam R.F - 945m – E
3. Marudam R.F – 5.6km – SW
4. Mayur R.F – 9.0km – E

The proposed project site is not a forest land. Hence it does not attract Forest Conservation Act, 1980

6.8. PROPOSED AFFORESTATION & GREEN BELT DEVELOPMENT

Local trees like Neem, Teak, Eucalyptus and other regional trees etc will be planted along the lease boundary at a rate of 30 trees per annum with interval 5m in between. The rate of survival expected to be 80% in this area. Land use and afforestation Plan is given Plate-IX. The program of tree planting is given as under,

Table No: 6.1. Proposed Afforestation for the next five years

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
II	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
III	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
IV	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%
V	Lease Boundary	Neem, Teak, Eucalyptus and other regional trees	30	5m X 5m	80%

6.9 WELFARE MEASURES

Drinking Water: Whole some drinking water shall be provided as per the Mines Rules, 1955. Quantity of water required for drinking is 0.3KLD, for domestic purpose is 0.7KLD, for Green belt is 1.5KLD, for water sprinkling on haul road is 0.5KLD and for Wet drilling operation is 0.5KLD. Total water requirement is 3.5KLD. Drinking water is obtained by Mineral water industries by water canes. Dust suppression, Green belt and other uses is obtained from water tank.

Sanitary facilities: Surface latrines and urinals shall be constructed at convenient place for usage of male and female labours separately.

First Aid facility: Being a small mine, a first aid station as per provisions under Rule (44) of Mines Rules 1955 shall be provided with facilities as prescribed in third schedule.

Medical Examination:

Initial medical examination has to be conducted for the mine workers under rule 29B of Mines Rule 1955

Precautionary safety measures to the Laborers:

Safety provisions like helmet, goggles, safety belt, safety shoes etc have to be provided as per the circulars and amendments made for Mine labours under guidance of DGMS. Vocational training should be imparted to the workers engaged for quarrying as per Mines Vocational training Rules 1966.

The Child labour Employment:

As per the Mines Act, 1952, no child labours below 18 years of old were engaged for any work in the quarry.

CHAPTER 7: REHABILITATION AND RESETTLEMENT (R&R) PLAN

Being a small Rough stone and Gravel excavation, the project does not involve displacement of any residents or public infrastructures. Thus resettlement is not proposed.

Humus top soil/gravel shall be used for rehabilitation and afforestation purposes. In case of steep slopes, fencing shall be made to control, inadvertent entry of animals and local persons. The mine out area shall be used for rain water harvesting and fish culture purposes. No major dumps, however plantation shall be made over small dumps to prevent soil erosion\wash outs and help ecological balance.

Fencing shall be made around open cast working as per DGMS circulars with S1 type fencing. Back filling shall be done to a reasonable extent and depth during closure of mine. Green belt development is proposed at a density of 30 trees per annum.

CHAPTER 8: PROJECT COST

Proposed financial estimate / budget for (EMP) Environment Management

a) Project cost / investment:

i)	Land Cost (Patta land)	=	Rs 12,00,000
ii)	Machinery to be used (Hire)	=	Rs 10,00,000*
iii)	Building & Welfare amenities	=	Rs 1,00,000
	Total	=	**Rs 23,00,000**

c) EMP Cost:

i)	Personal protective equipment	=	Rs 75,000
ii)	Environmental Monitoring	=	Rs 1,50,000
iii)	Occupation Health	=	Rs 75,000
iv)	Green Belt & Dust suppression	=	Rs 50,000
	Total	=	**Rs 3,50,000**

CHAPTER 9: ANALYSIS OF PROPOSAL

The quarrying activities in this area will benefit to the local people both directly and indirectly. The direct beneficiaries will be those who get employed in the mines as skilled and un-skilled workers.

The extent of impact will however be confined to lease area only. This operation doesn't need relocation of any habitats.

The proponent is proposed to spend CSR @ 2.5% of profit as per the Companies Act, 2013 and CSR Rules, 2014 and 2% of the Project Cost will be spent as CER through local Panchayat for maintenance of road, street light, school sanitation etc.

At the end of life of mine, excavated pit will be backfilled and reclaimed and rehabilitated by plantation with native species so as to restore the natural eco-system which could have positive impact on the environment. Another way is the excavated pit will be used as water storage pond which improves the agricultural activity in the nearest village.

Signature of Project Proponent Along with name and address

Signature of the Qualified person

For Aadhi Boomi Mining & Envirotech (P) Ltd.,

Director

THIRU.R.GIRIDHARAN,
S/o.Rajendran, No.12/113,
1st main road, Moogambigai nagar,
Sikkarayapuram extension,
Gerugambakkam, Kancheepuram,
Tamil Nadu – 600 128
Mobile No 8056065165

Mr.S.Suriyakumar
M.Sc., M.Phil, F.C.C. (Min)
PGDBA, DIPC
EIA Co-ordinator (Mining)

Date : 25.8.2023
Place : Salem

RISK ASSESSMENT AND DISASTER MANAGEMENT PLAN

S.No	Risk Prone zones	Mitigation measures
1	**Surface Fire**	▪ Fire Extinguishers ▪ Sand Buckets
2	**Explosives/Blasting**	▪ The applicant is directly purchasing explosives from an authorized dealer and they are blasting with help of certified blaster. Agreement is made with License holder in Form-22 for store, use and sale of explosives.
3	**Flooding of Rain water**	▪ Escape Routes will be provided to prevent inundation of storm water ▪ Garland drains with check dam will be provided
4	**Radioactive hazard**	▪ Not Anticipated
5	**Failure of Mine Benches and Pit Slope**	▪ Four working benches each with height of 10m as equal to the height of the excavator boom and a width of 6m is proposed to be maintained for safe movement of machinery. The bench slope will be maintained as 60° from horizontal.
6	**Failure of Waste Dumps**	▪ Stabilization of dump with top soil and tree plantation shall make the dump more stable. ▪ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse.
7	**Dust**	▪ Periodical wetting of land by spraying $MgCl_2$ solutions. ▪ Regular water sprinkling on haul roads ▪ Provision of Dust mask to workers ▪ Green Belt shall be carried out within the quarry premises by planting trees, to improve the aesthetics of the area and also to reduce the pollution outside the activity area
8	**Noise**	▪ Rotation of workers to minimize exposure time of noise ▪ The equipments and machineries shall be maintained properly ▪ Provision of earmuffs to workers
9	**Transportation**	▪ Convex mirrors should be kept at all corners ▪ All vehicles should be fitted with reverse horn with one spotter at every tipping point

R. Gud

		▪ Loading according to the vehicle capacity ▪ Regular checking of brakes to avoid failures
10	**General measures**	▪ No entry for any unauthorized persons ▪ S1 type fencing as per DGMS circulars ▪ Quarrying as per Approved Plans only ▪ Provision of Personal Protective Equipments ▪ In case of any closure of mine the compensation under Industrial Dispute Act will be paid as per law

ANNEXURE I

நக.எண். 47/க்யூ3 /2019,
நாள். 20.10.2020

உதவி இயக்குநர் அலுவலகம்,
புவியியல் மற்றும் சுரங்கத்துறை,
காஞ்சிபுரம்.

ASSISTANT DIRECTOR GEOLOGY AND MINING KANCHIPURAM

அறிவிக்கை

பொருள் : கனிமங்களும் குவாரிகளும் – சாதாரண கற்கள் மற்றும் கிராவல் மண் – காஞ்சிபுரம் மாவட்டம் – உத்திரமேரூர் வட்டம் – எடமச்சி கிராமம் – புல எண்கள். 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, 376/5 - மொத்த பரப்பு 2.77.00 – பட்டா நிலங்கள் – சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன் என்பவர் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.19(1) -ன்கீழ் மனு செய்தது – அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் - மாநில அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் ஒப்புதல் பெற்று அளிக்க தெரிவித்தல் - தொடர்பாக.

பார்வை :
1. திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன், எண்.12/113, 1வது மெயின்ரோடு, மூகாம்பிகை நகர், சிக்கராயபுரம் விரிவு, கெருகம்பாக்கம், சென்னை – 600 128 என்பவரின் விண்ணப்பம் பெறப்பட்ட நாள்.24.02.2020.
2. காஞ்சிபுரம் சார் ஆட்சியர் அறிக்கை எண். ந.க.777/2020/அ1, நாள்.04.09.2020.
3. உதவி இயக்குனர் மற்றும் உதவி புவியியலாளர், புவியியல் மற்றும் சுரங்கத்துறை, காஞ்சிபுரம் அவர்களின் கூட்டு இடப்பார்வை அறிக்கை நாள் :07.10.2020.
4. அரசாணை எண்.Ms.79, தொழில் (எம்.எம்.சி.1) துறை, நாள். 06.04.2015.
5. அரசாணை எண்.Ms.No.169, தொழில் (எம்.எம்.சி.1) துறை, நாள். 04.08.2020.
6. அரசாணை எண்.Ms.No.208, தொழில் (எம்.எம்.சி.1) துறை, நாள். 21.09.2020.

காஞ்சிபுரம் மாவட்டம், உத்திரமேரூர் வட்டம், எடமச்சி கிராமம், புல எண்கள்.367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/1I (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3 (0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) மொத்த பரப்பு 2.77.00 ஹெக்டேர் பட்டா நிலத்தில் சாதாரண கற்கள் மற்றும் கிராவல்மண் வெட்டியெடுக்க ஐந்து ஆண்டுகளுக்கு க சென்னை – 600 128, கெருகம்பாக்கம், சிக்கராயபுரம் விரிவு, மூகாம்பிகை நகர், 1வது மெயின்ரோடு எண்.12/113 என்ற முகவரியில் வசிக்கும் திரு.R.கிரிதரன் த/பெ. ராஜேந்திரன் என்பவர் குவாரி குத்தகை உரிமம் கோரி

விண்ணப்பித்துள்ள மனுவின் பேரில் காஞ்சிபுரம், சார் ஆட்சியர் மற்றும் காஞ்சிபுரம், புவியியல் மற்றும் சுரங்கத்துறை, உதவி இயக்குநர் (கனிமம்) ஆகியோர் மேற்காணும் விண்ணப்ப புலங்களில் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 திருத்திய விதி எண்.19(a), (b), (c) மற்றும் 20-ன் கீழ் பார்வை 6-ல் கண்ட அரசாணையின்படி பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி குத்தகை அனுமதி கீழ்கண்ட நிபந்தனைகளுக்குட்பட்டு வழங்கலாம் என பார்வை 2 மற்றும் 3-ல் கண்டவாறு பரிந்துரை செய்துள்ளனர்.

1. விண்ணப்பப் புலங்களுக்கு அருகிலுள்ள அரசு புறம்போக்கு மற்றும் பட்டா நிலங்களுக்கு முறையே 10 மீட்டர் மற்றும் 7.5 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

2. விண்ணப்பப் புலங்களுக்கு மேற்கே உள்ள ஏரி உள்வாய் நீர்நிலை புறம்போக்கு புல எண்கள்.371, 372, 373-ல் எவ்வித ஆக்ரமணங்கள் செய்யக்கூடாது மேலும் 50 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு பராமரித்து குவாரிப்பணி செய்யப்பட வேண்டும்.

3. விண்ணப்ப புலங்களுங்களுக்கு இடையே அமைந்துள்ள கல்லாங்குத்து புறம்போக்கு புல எண்.369 இப்புலத்தினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புலத்திற்கு 10 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

4. விண்ணப்ப புலங்களுங்களுக்கு கிழக்கே புல எண். 258 முதல் 274 வரை அமைந்துள்ள எடமச்சி சமூகநலக்காடுகளுக்கும், மேலும் மேய்க்கால் நிலத்தில் அ பதிவேட்டின்படி புலஎண். 379 சமூக நலக்காடுகள் என உள்ளதால் இப்புலங்களினை எவ்வித மாறுதல்கள் செய்யாமல் பூமியில் உள்ளவாறே பராமரிக்க வேண்டும். மேலும் இப்புல எண்.379-னை ஒட்டியுள்ள விண்ணப்பப் புல எண்கள்.367/1, 367/2, 376/4க்கு 60 மீட்டர் பாதுகாப்பு இடைவெளிவிட்டு கம்பி வேலி அமைத்து குவாரிப்பணி செய்யப்பட வேண்டும்.

5. விண்ணப்ப புல எண்.376/1-ல் தென்மேற்கிலிருந்து வடகிழக்கு வழியாக குறைந்த மின்னழுத்த கம்பி செல்கிறது. எனவே குவாரி குத்தகை வழங்குவதற்குமுன் அகற்றப்படவேண்டும் என்ற நிபந்தனையுடனும், இல்லையேல் பாதுகாப்பு இடைவெளி 50 மீட்டர் விடப்பட்டு குவாரிப்பணி செய்யப்பட வேண்டும்.

6. தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.41-ன்படி விண்ணப்ப புலங்களுக்கு ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டம் (Approved Mining Plan) ஒப்புதல் பெற்றளிக்கப்பட வேண்டும்.

7. தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி எண்.42-ன்படி விண்ணப்ப புலத்திற்கு மாநில அளவிலான சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் சுற்றுச்சூழல் ஒப்புதல் (Environment Clearance) பெற்று சமர்ப்பிக்கப்பட வேண்டும்.

ASSISTANT DIRECTOR GSM KANCHEEPURAM

எனவே பார்வை 5-ல் கண்ட அரசாணையில் அளிக்கப்பட்டுள்ள அதிகாரங்களின் அடிப்படையில் மேற்காணும் விண்ணப்பப் புலங்களில் சாதாரண கற்கள் மற்றும் கிராவல்மண் வெட்டியெடுக்க குத்தகை உரிமம் வழங்க அங்கீகரிக்கப்பட்ட சுரங்கத் திட்டத்தை (Approved Mining Plan) மூன்று மாதத்திற்குள் மாவட்ட ஆட்சியர் / உதவி இயக்குநர் முன்பு சமர்ப்பிக்க வேண்டியது. மேலும் மேற்காணும் விண்ணப்பப் புலங்களில் சாதாரண கற்கள் & கிராவல் மண் வெட்டியெடுக்க அனுமதி வழங்குவது தொடர்பாக மாநில சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையம் (SEIAA) ஒப்புதலை பெற்று சமர்ப்பிக்க அறிவுறுத்தப்படுகிறது.

20/10/25

உதவி இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
காஞ்சிபுரம்.

பெறுநர்,
திரு.R.கிரிதரன்
த/பெ. ராஜேந்திரன்,
எண்.12/113, 1வது மெயின்ரோடு,
மூகாம்பிகை நகர், சிக்கராயபுரம் விரிவு,
கெருகம்பாக்கம், சென்னை – 600 128

நகல் :-
1) தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை.
2) இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, கிண்டி, சென்னை 600 032.

S. Suriyakumar

S SURIYAKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/874

ANNEXURE I

No. 47/Q3/2019,
Dt. No. 20.10.2020

Office of the Assistant Director,
Geology and Mines,
Kanchipuram.

Notification

Meaning : Minerals and Quarries - Common Stones and Gravel Soils - Kanchipuram District - Uttaramerur Circle - Edamachi Village Pol. 367/1, – 367/2, 368/1G, 368/1H, 368/11, 376/1, 376/2, 376/3, 376/4, 376/5 - 5 4 2.77.00 - Leased lands - Common Stones / Gravel Soil Mr.R.Kridharan T/P. Rajendran filed a petition under Rule No. 19(1) of the Tamil Nadu Mineral Concession Rules, 1959 regarding the approval of the mining project and the approval of – the State Level Environmental Impact Assessment Authority.

View:

1. Mr.R.Kridharan D/P. Rajendran, No.12/113, 1st Main Road, Moogambikai Nagar, Sikkarayapuram Extension, Kerugambakkam, Chennai 600 – 128 Date of receipt of application.24.02.2020.
2. Kanchipuram Sir Collector Report No. N.K.777/2020/1, no. Dt. 04.09.2020.
3. Joint Site Visit Report of Assistant Director and Assistant Geologist, Department of Geology and Mines, Kanchipuram Date : 07.10.2020.
4. Ordinance No.Ms.79, Industry (MMC1) Department, dt. 06.04.2015.
5. Ordinance No.Ms.No.169, Industry (MMC1) Department, No. Dt. 04.08.2020.
6. Ordinance No.Ms.No.208, Industry (MMC1) Department, No. Dt. 21.09.2020.

Kanchipuram District, Uttaramerur Circle, Edamachi Village, Field Nos.367/1 (0.08.50), 367/2 (0.20.00), 368/1G (0.26.00), 368/1H (0.11.50), 368/11 (0.12.50), 376/1 (0.29.00), 376/2 (0.12.00), 376/3 (0.33.50), 376/4 (1.15.00), 376/5 (0.09.00) total area 2.77.00 ha for quarrying of common stones and gravel on leased land for five years at 600 128, Kerugambakkam, Chennai. Sikkarayapuram Extension, Mookambikai Nagar, 1st Main Road No. Mr.R.Kritharan residing at 12/113. Rajendran seeking quarry lease license

38

On the application, the Deputy Collector, Kanchipuram and Kanchipuram, Department of Geology and Mines, Assistant Director (Minerals) in the above fields of application may issue mining lease permit for ordinary stones and gravel soil for ten years under the Tamil Nadu Minor Mineral Concession Rules, 1959 amended rule no.19(a), (b), (c) and 20 as per order seen in view 6 and subject to the following conditions. As seen in 3 have recommended.

1. Excavation shall be carried out with a safety distance of 10 meters and 7.5 meters respectively for Government Exemption and leased lands near the application fields.

2. No encroachment should be done in the lake inlet watershed to the west of the application fields No. 371, 372, 373 and quarrying should be done with a safety distance of 50 meters.

3. Kallanguthu Outcrop Field No. 369 located between the application fields should be maintained as it is on earth without making any changes. Also, 10 meters safety gap should be kept for this field.

4. Field No. to the east of the application fields. 258 to 274 of Edamachi Community Forests and also in Meykal land as per register no. As there are 379 social welfare forests, these fields should be maintained as they are on earth without making any changes. Also, the application field numbers 367/1, 367/2, 376/4 adjacent to this field number 379 should be fenced with a wire fence of 60 meters.

5. In application field no.376/1 there is a low voltage line running from South West through North East. So with the condition that the quarry should be removed before grant of lease, otherwise the safety gap of 50 meters should be left and the quarrying should be carried out.

6. As per Rule No. 41 of Tamil Nadu Mineral Concession Rules 1959, the approved mining plan should be approved for the application fields.

7. As per Rule No.42 of Tamil Nadu Mineral Concession Rules 1959, the application field should obtain and submit Environment Clearance from the State Land Level Environmental Impact Assessment Authority.

Therefore, on the basis of the powers given in the order seen in point 5, the approved mining plan (Approved Mining Plan) should be submitted before the District Collector / Assistant Director within three months for granting lease license to mine ordinary stones and gravel in the above application fields. It is also advised to obtain and submit the approval of the State Environmental Impact Assessment Authority (SEIAA) for granting permission for quarrying of normal stones & gravel soil in the above application fields.

20102

Assistant Director,
Department of Geology and Mines,
Kanchipuram.

receiver,
Mr. R. Kridharan
T/P Rajendran,
No.12/113, 1st Main Road,
Mookambikai Nagar, Sikkarayapuram
Extension, Kerugambakkam, Chennai - 600 128

Copy :-

1) Chairman, State Environmental Impact Assessment Commission, Chennai.
2) Director, Department of Geology and Mines, Guindy, Chennai 600 032.

2. Friend his

AKUMAR
Recognised Qualified Person
Reg No RQP/MAS/013/87/A

Q. No: 2

Enclsoure - 2

DFO letter

TAMIL NADU FOREST DEPARTMENT

From

Thiru.Ravi Meena,I.F.S.,
District Forest Officer,
Chengalpattu Division,
No.5/9 Varadaraja Farm,
Vandavasi Road,
Kancheepuram 631 501.

To

Assistant Director,
Mines and geology,
Kancheepuram.

C.No.D/4295/2024, Dt.18.10.2024.

Sub: FORESTS – Chengalpattu Division, Kancheepuram District – Rough Stone and gravel Quarry located at S.F.No.367/1, 367/2, 368/1G, 368/1H, 376/1, 376/2, 376/3, 376/4, 376/5 - Total over an area of 2.77.0 Ha - Edamitchi village, Uthiramerur Taluk, Kancheepuram District - Remarks called for – regarding.

Ref: 1. Assistant Director, Mines and geology, Kancheepuram Ref No.47/சுமூ3/2024, Dt.23.09.2024.
2. Forest Range Officer, Maduranthagam Range Ref.No.490/2024 Dt.09.10.2024.

With reference to the above Subject, it is informed that Thiru.R.Giridharan S/o.Rajendiran, Chennai -128 Rough Stone and Gravel quarry located at S.F.No.367/1, 367/2, 368/1G, 368/1H, 376/1, 376/2, 376/3, 376/4, 376/5 Total over an area of 2.77.0 Ha of Edamitchi village, Uthiramerur Taluk, Kancheepuram District.

The proposal site was inspected By Forest Range Officer, Maduranthagam. The Distance is 60 Mtr nearest Edamitchi Reserved Forest.

As per the report submitted by Forest Range Officer there is a lake located at the distance of about 130 meters from the place where the quarry has been chosen. The carriage way leading to the quarry is not clearly marked and in case of setting up the quarry vehicular route is to be confirmed before issuing the quarry license which is used for vehicular access to the government-owned Meikkal land/Kallanguthu/other classified land. Also the place of the quarry is only 60 meters distance from the Reserved Forests. All these factors should be considered while issuing quarry permission.

The distance of the proposed quarry site from the nearby sanctuaries are as follows: -

Sl. No	Name of Sanctuary	Distance in Km
1	Karikili Bird Sanctuary to Rough Stone and Gravel quarry	5.6 KM
2	Vendathangal Bird Sanctuary to Rough Stone and Gravel quarry	11.5 KM

Encl : KML Map.

District Forest Officer,
Chengalpattu Division,
Kancheepuram.

Copy to SEAC Committee for favour of kind information.

Q. No: 2

1. Hydrogeological Report

HYDROGEOLOGICAL INVESTIGATION IN PART OF EDAMACHI VILLAGE, KANCHIPURAM DISTRICT

Report Submitted to
Thiru.R.Giridharan
Proposed for Mining in S.F.Nos. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5, extent of 2.77.0 Hectares

DEPARTMENT OF GEOLOGY
UNIVERISTY OF MADRAS
CHENNAI – 600 025
March, 2024

Dr. P. SARAVANAN
Assistant Professor
Department of Geology
University of Madras
Chennai – 600 025.

Certificate

This is to certify that this Report Entitled **HYDROGEOLOGICAL INVESTIGATION IN PART OF EDAMACHI VILLAGE, KANCHEEPURAM DISTRICT** submitted to **Thiru. R.Giridharan, Proposed for Mining in S.F.Nos. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5 of Edamachi Village, Kancheepuram District** and carried out by me during the months of January - 2024.

Date:
Place: Chennai – 600 025.

(P. SARAVANAN)
Dr. P. SARAVANAN, M.D.
Assistant Professor,
Department of Geology
University of Madras,
(Guindy Campus)
Chennai - 600 025.

R. Cmt

CONCLUSION FROM THE STUDY (Hydrogeology)

- No streams crossing the mining area whereas lake is situated in the Northern side but the slope direction is towards opposite side of the lease area, thereby no seepage is expected. Also being a hard and massive formation, 50m safety zone is left as per precise area communication letter.
- Major part of the catchment area is on the west & SW of the lease area and flow is SE of the hill away from the lease area.
- In conclusion, the geophysical studies in and around the proposed quarry site shows that massive charnockite formation is found after 6 m Gravel and Seepage of Water is anticipated in the fissures and fractures developed within the rocks at greater depth surround 60-90 m. The water level in the existing bore wells near to the proposed quarry is around is 53.6m which may rise up to 50 m (during post monsoon).
- Since the mining operation is above this level no adverse impact on ground water regime expected.

सत्यमेव जयते

File No: 10372

Government of India

Ministry of Environment, Forest and Climate Change

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

***

Dated **11/01/2025**

To,

Thiru.R.Giridharan
S/o.Rajendran,No.12/113, 1st Main Road,Moogambigai Nagar, Sikkarayapuram Extension,Gerugambakkam, Kancheepuram, Tamil Nadu. Pin Code 600128., KANCHIPURAM, TAMIL NADU, 600128
giridharanrs2023@gmail.com

Subject: Grant of EC under the provision of the EIA Notification 2006- as amended regarding.

Sir/Madam,

Sub: SEIAA-TN – Proposed Rough stone & Gravel quarry lease over an extent of 2.77.0Ha in S.F. Nos:367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5 of Edamachi Village, Uthiramerur Taluk, Kancheepuram District, Tamil Nadu by Thiru.R.Giridharan - under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006 issue of Environmental Clearance – Regarding.

Ref: 1. Online Proposal No. SIA/TN/MIN/441822/2023, Dt. 25.08.2023.
2. Your Application for Environmental Clearance dated: 02.09.2023.
3. Minutes of the 426th meeting of SEAC held on 24.11.2023.
4. Minutes of the 487th meeting of SEAC held on 01.08.2024.
5. Minutes of the 523rd meeting of SEAC held on 27.12.2024.
6. Minutes of the 748th meeting of SEIAA held on 13.08.2024.
7. Minutes of the 775th meeting of SEIAA held on 02.12.2024.
8. Minutes of the 787th meeting of SEIAA held on 08.01.2025.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23C0108TN5413025N
(ii) File No.	10372
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Edamachi Village Rough stone and Gravel Quarry (Extent: 2.77.0 Ha)
(viii) Name of Company/Organization	RAJENDARAN GIRIDHARAN

(ix) Location of Project (District, State)	KANCHIPURAM, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

1.In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A & B)/EMP Reports were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.

2.The above-mentioned proposal has been considered by SEIAA in the meeting held on 08.01.2025. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.

3.The SEAC, based on information submitted viz: Form2 (Part A, B)EMP report etc., & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below.

4.The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the SEAC hereby accords Environment Clearance for the instant proposal to Thiru.R.Giridharan under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (2)

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

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

7.The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

8.Salient features of the proposal are as follows:

Sl. No	Salient Features of the Proposal	
1	Name of the Owner/Firm	R.Giridharan S/o.Rajendran, No.12/113, 1st main road, Moogambigai nagar, Sikkarayapuram extension, Gerugambakkam, Kancheepuram, Chennai,
2	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	Rough stone & Gravel quarry
3	S.F Nos. of the quarry site	367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5
4	Village in which situated	Edamachi
5	Taluk in which situated	Uthiramerur
6	District in which situated	Kancheepuram
7	Extent of quarry (in ha.)	2.77.0 Ha
8	Latitude & Longitude of all corners of the quarry site	12°41'45.03"N to 12°41'51.39"N 79°51'35.91"E to 79°51'44.47"E
9	Topo Sheet No.	57P/14
10	Type of mining	Opencast semi-mechanized of Mining
11	Period of Current Mine Plan	5 Years
12.	Production (Quantity in m3)	**35,837m^3 of Rough Stone & 3,264m^3 of gravel**
13	Depth of Quarrying	24m
14	Depth of water table	48m
15	Water requirement: 1. Drinking	**3.5KLD** 0.3 KLD

	2. Domestic 3. Green belt 4. Water sprinkling on haul roads 5. Wet drilling operation	0.7 KLD 1.5KLD 0.5KLD 0.5KLD
16	Power requirement	TNEB
17	Precise area communication approved by the District Collector	Roc. No. 47/Q3/2019 dated 20.10.2020
18	Mining Plan approved by Deputy Director/Assistant Director, Dept. of Geology & Mining.	Roc. No. 47/Q3/2019 dated 22.04.2024
19	500m cluster letter issued by the Deputy Director/Assistant Director, Dept. of Geology & Mining.	Roc. No. 47/Q3/2019 dated 20.11.2020
20	VAO Certificate Regarding Structures within 300m Radius	Letter Dt:18.12.2020
21	Project Cost (excluding EMP cost)	Rs 23.0 Lakhs
22	EMP cost (in Rs. Lakhs).	Capital Cost- Rs. 13,90,000/- Recurring cost - Rs. 6,45,000/- per Annum
23	CER cost (in Rs. Lakhs).	5 Lakhs/-
24	**Validity:** **This Environmental Clearance is accorded for the quantity of 35,837m^3 of Rough Stone & 3,264m^3 of gravel and the annual peak production should not exceed 7,591m^3 of Rough Stone & 1,632 m^3 of Gravel up to the depth of mining 24m BGL.** **The Environmental Clearance issued is valid as per the approved mine plan period and as per MoEF&CC's notification S.O.1533(E) dated 14.09.2006 and S.O. 1807(E) dated 12.04.2022.**	

9.General Instructions:

(i)The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.

(ii)The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

(iii)The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company), or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(iv)Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(v)Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

The Regional Office of this SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(vi)Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

10. This issue with an approval of the Competent Authority. For information on deliberations, refer to the minutes of SEAC and SEIAA available in the PARIVESH Portal.

Copy To

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

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Seiaa Specific Conditions:

S. No	EC Conditions
1.1	1. The removal of Rough stone and gravel should not disturb the agriculture/horticulture activities, biodiversity & drainage pattern. 2. The proposed activity should in no way cause any impact on the livelihoods and road situated adjacent to the proposed mine area. 3. No mining/Production activity should be outside the mine lease area. 4. Keeping in view of MoEF&CC's notification S.O.1533(E) dated.14.09.2006 and S.O. 1807(E) dated 12.04.2022, this Environmental Clearance is valid as per the approved mine plan period. 5. The topsoil/side burden/weathered rock should be used only for the purpose of progressive mine closure. Further, non-recoverable reserves i.e., mined waste should be used for filling of mines & restoration of mining sites. 6. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every 5 years and also during the mine plan period, till the project life so as to review the EC conditions and to ensure that they have all been adhered to and implemented. 7. The project proponent shall submit a Certified Compliance Report obtained from IRO of MoEF&CC to the monitoring, regulatory and other concerned authorities including SEIAA, while seeking a renewal of the mining plan to cover the project life. 8. There should be regular monitoring of air quality, water quality, ground water level and noise quality and reports regarding the same should be submitted to TNPCB, SEIAA & IRO of MoEF&CC once in every 6 months. 9. The proponent shall strictly adhere to the mining plan and half yearly and annual returns shall be submitted to the Director of Geology and Mining Department with copy marked to TNPCB, SEIAA & IRO of MoEF&CC. 10. Biodiversity in and around the project area should be monitored frequently and detailed biodiversity report should be submitted every year to SEIAA & IRO of MoEF&CC. 11. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP and as per the amount committed and approved in EC for EMP. Status of progressive mine closure and green belt implementation should be included in the half yearly compliance report submitted to TNPCB, SEIAA & IRO of MoEF&CC. 12. As per the OM vide F. No. IA3-22/1/2022-IA-III [E- 172624] Dated: 14.06.2022, the Project Proponents are directed to submit the six-monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance

S. No	EC Conditions
	module in the PARIVESH Portal from the respective login. 13. The amount allocated for EMP should be kept in a separate account and both the capital and recurring expenditures should be done year wise for the works identified, approved and as committed. The work & expenditure made under EMP should be elaborated in the bi-annual compliance report submitted and also should be brought to the notice of concerned authorities during inspections. 14. EMP allotted for greenbelt development and maintenance shall be carried for a minimum period of 5 years, without fail. 15. The plantation of saplings shall be carried out in the earmarked greenbelt area as a part of the tree plantation campaign **"Ek Ped Ma Ke Naam"** and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in).

2. Seiaa Standard Conditions:

S. No	EC Conditions
2.1	**a) EC Compliance:** 1. The Environmental Clearance is accorded based on the assurance from the project proponent that there will be full and effective implementation of all the undertakings given in the Application Form, Pre-feasibility Report, mitigation measures as assured in the Environmental Impact Assessment/ Environment Management Plan and the mining features including Progressive Mine Closure Plan as submitted with the application. 2. All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full. 3. The proponent shall submit Compliance Reports on the status of compliance of the stipulated EC conditions including results of monitored data. It shall be sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment Authority (SEIAA). 4. Concealing the factual data or submission of false/fabricated data and 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. **b) Applicable Regulatory Frameworks:** 5. The project proponent shall strictly adhere to the provisions of 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, Biological diversity Rules, 2004 & TN Forest Act, 1882 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. **c) Safe mining Practices:** 6. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission of slope stability study conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc and ensure strict compliance and implementation of bench wise recommendations/action plans as recommended in the scientific slope stability study. 7. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically sensitive and archeologically important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on

S. No	EC Conditions
	specific local conditions. **d) Water Environment – Protection and mitigation measures:** 8. The proponent shall ensure that the activity does not disturb the water bodies, neighboring open wells, bore wells and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area nor effect the water quality and water quantity in the water sources. 9. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report. 10. Quality of water discharged from the quarry should be monitored regularly as per the norms of State Pollution Control Board and included in the Compliance Report. 11. Rain Water Harvesting facility should be installed as per the prevailing provisions of TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project. 12. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. 13. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB. **e) Air Environment – Protection and mitigation measures:** 14. The activity should not result in CO2 release and temperature rise and add to micro climate alternations. 15. The proponent shall ensure that Monitoring is carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads. **f) Soil Environment – Protection and mitigation measures:** 16. The proponent shall ensure that the operations neither result in loss of soil biological properties and nutrients nor deplete the indigenous soil seed bank and disturb the mycorrizal fungi, soil organism, soil community and result in eutrophication of soil and water. Further, 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. 17. Bio remediation using microorganisms should be carried out to restore the soil environment to enable carbon sequestration. 18. The proponent shall ensure that the mine restoration is done using mycorrizal VAM, vermincomposting, Biofertilizers and the topsoil is protected and used in planting activities, site restoration and establishment of green belt in the area to ensure soil health and biodiversity conservation. 19. The top soil shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geotextile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled. 20. Activities should not result in invasion of site by exotic and alien plant and animal species and disturb the native biodiversity and soil micro flora and fauna. **g) Noise Environment – Protection and mitigation measures:** 21. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines. The activity of the proponent should not effect the biological clock of the villages resulting in stress, sleeping disorders affecting health.

S. No	EC Conditions
	h) Biodiversity - Protection and mitigation measures: 22. 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. 23. 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. The proponent shall ensure that the activities in no way result in disturbance to forest and trees in vicinity. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem. The proponent shall ensure that the activities do not disturb the resident and migratory birds. The proponent shall ensure that the activities do not disturb the vegetation and wildlife in the adjoining reserve forests and areas around. Also, the activities should not disturb the agro biodiversity, agro farms, green lands and grazing fields of all types. Actions to be taken to promote agroforestry, mixed plants to support biodiversity conservation in the mine restoration effort. 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. **i) Climate Change:** 25. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change. 26. Operations should not result in GHG releases and extra power consumption leading to Climate Change. 27. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations. 28. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water. 29. Mining activity should be flood proof with designs and the drainage, pumping techniques shall ensure climate-proofing and socio-economic wellbeing in the area and vicinity. **j) Reserve Forests & Protected Areas:** 30. The activities should provide nature based support and solutions for forest protection and wildlife conservation. 31. The project activities should neither result in forest fires, encroachments nor create forest fragmentation and disruption of forest corridors and alter the geodiversity and geological heritage of the area. 32. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands. 33. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation. 34. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behaviour of wildlife and flora. 35. The activities should support and recognise the rights and roles of indigenous people and local communities and also support sustainable development. 36. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds. 37. The project activities should not result in changes in forest structure, habitats and genetic diversity within forests. **k) Green Belt Development:** 38. The proponent shall ensure that in the green belt development more indigenous trees species as suggested in Appendix of SEAC Minutes are planted and that the area is restored and rehabilitated with native trees . **l) Workers and their protection:**

S. No	EC Conditions
	39. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc. 40. The proponent has to provide insurance protection to the workers and the working hours and wages shall be implemented/enforced as per the Mines Act, 1952 in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease. **m) Transportation:** 41. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a bypass road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centres. 42. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions. **n) Storage of wastes** 43. The project proponent shall store/dump the waste generated within the earmarked area of the project site for mine closure as per the approved mining plan. **o) CER/EMP:** 44. The CER should be fully Implemented and fact reflected in the Half-yearly compliance report. 45. The EMP shall also be implemented in consultation with local self-government institutions & Govt. departments as indicated in SEAC meeting. **p) Directions for Reclamation of mine sites:** 46. The mining closure plan should strictly adhere to appropriate soil rehabilitation measures to ensure ecological stability of the area. 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. The proponent shall ensure that the mine closure plan is followed as per the mining plan and the mine restoration should be done with native species, and site restored to near original status. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services. 47. A crucial factor for success of reclamation site is to select sustainable species to enable develop a self-sustaining eco system. Species selected should easily establish, grow rapidly, and possess good crown and preferably be native species. Species to be planted in the boundary of project site should be un palatable for cattle's/ goats and should have proven capacity to add leaf-litter to soil and decompose. The species planted should be adaptable to the site conditions. Should be preferably pioneer species, deciduous in nature to allow maximum leaf-litter, have deep root system, fix atmospheric nitrogen and improve soil productivity. Species selected should have the ability to tolerate altered pit and toxicity of and site. They should be capable of meeting requirement of local people in regard to fuel fodder and should be able to attract bird, bees and butterflies. The species

S. No	EC Conditions
	should be planted in mixed association. 48. Top soil with a mix of beneficial microbes (Bacteria/Fungi) to be used for reclamation of mine spoils. AM Fungi (Arbuscular mycorrhizal fungi), plant growth promoting Rhizo Bacteria and nitrogen fixing bacteria to be utilized. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site. Top soil is most important for successful rehabilitation of mined sites. Topsoil contains majority of seeds and plant propagation, soil microorganism, Organic matter and plant nutrients. Wherever possible the topsoil should be immediately used in the area of the for land form reconstruction, to pre mining conditions. 49. Over burdens may be analyzed and tested for soil characteristics and used in the site for revegetation. Wherever possible seeds, rhizome, bulbs, etc., of pioneering spices should be collected, preserved and used in restoring the site. Native grasses seeds may be used as colonizers and soil binders, to prevent erosion and allow diverse self- sustaining plant communities to establish. Grasses may offer superior tolerance to drought, and climatic stresses. 50. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoil should have necessary physical, chemicals, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broad casted after topsoil and treated overburden are spread. Alkaline soils, acidic soils, Saline soils should be suitably treated/amended using green manure, mulches, farmyard manure to increase organic carbon. The efforts should be taken to landscape and use the land post mining. The EMP and mine closure plan should provide adequate budget for re-establishing the site to pre-mining conditions. Effective steps should be taken for utilization of over burden. Mine waste to be used for backfilling, reclamation, restoration, and rehabilitation of the terrain without affecting the drainage and water regimes. The rate of rehabilitation should be similar to rate of mining. Efforts should to taken to aesthetically improve the mine site. Action taken for restoration of the site should be specifically mentioned in the EC compliances.

AFFIDAVIT FURNISHED BY THE PROPONENT

I, R.Giridharan S/o. Rajendran, residing at No.12/113, 1st Main road, Moogambigai Nagar, Sikkarayapuram Extn, Gerugambakkam , Chennai - 600 128, Tamil Nadu state do hereby solemnly declare and sincerely affirm that,

I have applied for getting Environmental Clearance to SEIAA, Tamil Nadu for Rough stone and Gravel quarry lease over an extent of 2.77.0 Ha at S.F.No. 367/1, 367/2, 368/1G, 368/1H, 368/1I, 376/1, 376/2, 376/3, 376/4, & 376/5 of Edamachi Village, Uthiramerur Taluk, ,Kancheepuram District, Tamil Nadu.

1. I swear to state that within 10kms radius of the quarry which I have applied for environmental clearance, none of the followings are situated as per the General Conditions of EIA Notification, 2006

   - Protected area notified under the Wildlife (Protection) Act, 1972.
   - Critically polluted area as identified by CPCB constituted under Water (Prevention and Control of Pollution) Act, 1974
   - Eco Sensitive areas identifies by the Forest Dept/State Govt
   - Inter-state boundaries and International boundaries.

2. I will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities in addition to CSR and EMP.

CER Activity	CER Cost (Rs in Lakhs)
Providing 5 Lakhs to Karikili Bird Sanctuary for Conservation and Development	5.0
Total Cost Allocation	**5.0**

EMP COST

S.No	Description	Capital Cost (Rs)	Recurring cost per annum (Rs)	Remarks
1	Compaction, gradation and drainage on both sides	60,000	20,000	NA

2	Fixed water sprinkling arrangements+ Thrice a day water sprinkling by own tankers	4,00,000	1,00,000	NA
3.	Air Quality will be regularly monitored as per norms within ML area & Ambient Area	-	60,000	NA
4.	Muffle Blasting	-	20,000	NA
5.	Wet drilling procedure/latest eco-friendly drilling machine with separate dust extractor unit	50,000	5000	NA
6	No overloading of trucks /trucks /tractors (Manual Monitoring Through security Guard)	-	10,000	NA
7.	Stone carrying trucks will be covered by tarpaulin (Monitoring if trucks will be covered by tarpaulin)	-	20,000	NA
8	Enforcing speed limits of 20km/hr within ML lease area (Manual Monitoring Through security Guard)	10,000	5000	NA
9.	Regular monitoring of exhausted fumes as per RTO norms	0	10,000	NA
10.	Regular sweeping and maintenance of roads for at least about 200m (provision of 2 Labour @Rs.10.000/ Labour)	0	20,000	NA
11	Installing wheel wash system near gate of quarry	50,000	10,000	NA
12	Source of noise will be during operation of transportation vehicles. HEMM for this proper maintenance will be done at regular intervals.	0	0	NA
13	Oiling & greasing of transport vehicles and HEMM at regular interval will be done	0	0	NA

14	Adequates silence will be provided in all the diesel engines of vehicles.	0	0	NA
15	It will be ensured that all transportation vehicles carry a fitness certificate.	0	0	NA
16	Plantation along periphery of lease area will act as attenuation.	80,000 (400trees)	20,000	NA
17.	Safety tools and implements that are required will be kept adequately near blasting site at the time of charging	0	0	NA
18	Line drilling all along the boundary to reduce the ppv from blasting activity and implementing controlled blasting	0	0	NA
19	Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.(Manual /Mine Mate)	0	0	NA
20	Provision for portable blaster shed	25,000	0	NA
21	NONEL Blasting will be practiced to control ground vibration and fly rocks	0	50,000	NA
22	Water management (Provision of Garland drainage Rs.10,000 per hectare)	50,000	5000	NA
23	Waste management	10,000	0	NA
24	Bio toilets will be made available outside mine lease on the land of owner itself	1,00,000	10,000	NA
25	Size 6'× 5' with blue background and white letters as men	10,000	1000	NA
26	Workers will be provided with personal protective equipment's (Provision of 28 kits 3500 to 4000 per person) (20*3500)	70,000	5,000	NA
27	Health checkup for workers will be provisioned (1000 per person x 20)	0	20000	NA

28	First aid facility will be provided (Provision of 6 kits)	0	12,000	NA
29	Mine will have safety precaution sign boards.	10,000	2,000	NA
30	Barbed wire fencing to quarry area will be provisioned	2,00,000	5,000	NA
31	Closure includes greenbelt development, wire fencing, drains etc..	Rs 50,000	0	NA
32	Installation of CCTV Cameras in the mine and mine entrance (Camera 6Nos, DVR, Monitor with internet facility)	15,000	5000	NA
33	Implementation as per Mining Plan and ensure safe quarry working (Mines Manager (1st Class/2nd Class/Mine Foreman) under regulation 34/34 (6) of MMR, 1961 and Mining Mate under regulation 116 of MMR,1961	0	1,80,000	NA
34	Green Belt Development (500 trees per hectare- 200 inside, 300- outside) 200 per plant (Capital Cost) 50 for maintenance cost	Rs 2,00,000 (1000trees)	Rs 50,000	NA
Total Cost		13,90,000	6,45,000	

3. There are no any other quarries located **within 500m** radius from the periphery of our proposed quarry as per AD Cluster letter – Rc.No.47/Q3/2020 dated 20.11.2020

4. There will not be any hindrance or disturbance to the people living on enroute / nearby my quarry site while transporting the mined out materials and due to quarrying activities.

5. There is no habitations within 300m radius of mining lease boundary.

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 labourers working in my proposed quarry.

8. The approach road will be formed during commencement of quarry. The village road and approach road will be maintained in good condition and utilized for transportation of Rough Stone & Gravel.
9. I will not engage any child labour in my mines and I am aware that engaging child labour is punishable under the Law.
10. All types of safety/protective equipments will be provided to all the laborers working in my quarry.
11. No place of important such as archaeological site, temple, schools and hospitals located within 500m radius of proposed mining lease boundary. The quarrying activity has not yet commenced and it will be carried out only after obtaining environmental clearance.

SEAC SPECIFIC CONDITIONS:

1) The prior Environmental Clearance granted for this mining project shall be valid subject to the standard conditions as per the **Annexure I** of this minutes & normal conditions stipulated by MOEF &CC.
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, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.
3) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
4) Tree plantation & fencing and installation of garland drainage with siltation tank around the mine lease area shall be completed before execution of the mine lease.
5) The PP shall **register promptly through online in the Shram Suvidha Portal** which is the official portal of Ministry of Labour & Employment, Govt of India to obtain **Labour Identification Number** (LIN) **before obtaining the CTO from the TNPCB.**
6) The PP shall comply with **all the conditions imposed in the Precise area communication issued** vide Roc. No. 47/Q3/2019 dated 20.10.2020.
7) The PP shall abide by the proposed mitigation measures, as recommended in the "Hydrogeological Investigation in part of Edamachi village, Kanchipuram District" carried out by University of Madras.
8) The PP shall abide by the mitigation and restoration measures provided in the Environment Management plan prepared for the project life.
9) The PP shall abide by all the conditions as stipulated in accordance with the provisions of MMR 1961 and DGMS Circular No.7 of 1997 while carrying out the controlled blasting operations through a statutorily competent persons appointed by him.
10) The proponent shall carryout suppression of dust generated due to transport vehicles by continuous water spraying using tankers.
11) The PP shall fulfil the requirements of the provisions of Mines Act 1952, the regulations of MMR 1961 and the DGMS Circulars, the Environment Act & Rules, 1986, Explosives Act 1884, Explosive rules 1983

and other laws, orders **pertaining to the geometry of quarry and its operation & mine closure activities** without any deviation.

12) As accepted by the Project Proponent the CER cost of Rs.5,00,000/- and the amount shall be spent for the Karikili Bird Sanctuary for Conservation and Development before obtaining CTO from TNPCB.

SEAC STANDARD CONDITIONS:

Category	Conditions	
1. General	1.1.	Prior approval shall be secured from the SEIAA for any modification / change in the Project mentioned in the Environmental Clearance (EC).
	1.2.	The Environmental Clearance (EC) shall be renewed in accordance with EIA Notification, 2006 vide S.O.2944 (E) dated: 14.09.2016, as amended from time to time.
	1.3.	The EC does not exempt the Proponent and/or his appointed contractors and operator from securing other government approvals or preclude other agencies/departments from enforcing their rules and regulations.
	1.4.	CTO from TNPCB shall be obtained and complied with.
	1.5.	A copy of the EC shall be kept at the Project site at all times. The Project Owner and/or its appointed contractors and operator shall allow access, and provide assistance to the authorised SEIAA officers and engineers in carrying out inspections, incident investigations, taking of pictures, and in obtaining relevant information such as onsite sources of emissions and effluent discharges at any time.
	1.6.	Any environment-related incidents and complaints shall be reported to SEIAA within twenty-four (24) hours. The incident report shall describe the likely cause, the time of occurrence, and the conditions under which an incident occurred, the extent of impact, and the remedial actions undertaken.
	1.7.	A Half-Yearly Compliance Report (HYCR), including environmental protection measures implementation and monitoring, and a brief description with photo documentation shall be submitted to SEIAA and IRO, MoEF&CC.

	1.8.	The EC Holder shall send 'Notice of Opening', to the Director of Mine Safety, Chennai Region, as required under the section 16 of the Mines Act 1952 before commencement of mining operations.
	1.9.	While transporting the mined material, the ECH shall ensure that there is no over loading of trucks/trippers/tractors. Every load transported should be weighed in an approved weighing station and the details should be maintained by the ECH.
2. Land	2.1	Topsoil shall be segregated, stockpiled, and protected from wind and water erosion, or contaminants. The segregated top soil shall not be disturbed by surface operations, such as roads and areas upon which support facilities are to be sited.
	2.2	As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEF & CC, the ECH shall, undertake re-grassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report.
	2.3	The ECH must not carry out any activity: • Within 60 m from the Reserve Forest. • Within the notified environmentally sensitive area of notified protected areas. • Within 1 km of protected areas where the environmentally sensitive area has not been notified.
	2.4	The ECH must design, install and maintain adequate erosion and sediment control structures wherever necessary to prevent or minimise erosion of disturbed areas and the sedimentation and/or blockage of any watercourse, waterway, or water body.
	2.5	The ECH shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.
	2.6	The ECH must not carry out any activity within 300m of an identified historical and archaeological site.

3. Water	3.1	Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and any discharged water into the natural stream should meet CPCB standards.
	3.2	Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB. As a part of Ground Water Management, the ECH shall carry out the scientific studies **to assess the existing hydrogeological conditions (water table in the core & buffer zones) and impacts of the quarrying operation on the ground water level present in the core zone**, during the 2nd year of the mining operation, by involving any one of the reputed Research and Academic Institutions. A copy the report shall be submitted to the SEIAA, MoEF&CC, TNPCB, WRD and DMS, Chennai.
	3.3	The ECH shall construct a garland drain of appropriate size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
	3.4	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.
4. Air	4.1	The ECH must not cause any release of dust that is not in conformity with the National Ambient Air Quality Standards.
	4.2	The following measures along with any other measures shall be implemented by the ECH to control dust pollution. • Installing pollution control equipment (e.g. fitting bag filters or a cyclone to dust generating equipment). • Altering work practices to avoid or minimise the generation of dust. • Scheduling activities during times when they will have least impact. • Spraying water on roads and tracks.

		• Re-vegetating disturbed areas as soon as possible.
	4.3	The ECH shall ensure that the loaded trucks are **covered** to avoid the spillage & dust pollution while transportation.
	4.4	The ECH shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
5. Noise & Vibration	5.1	Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. (i) Workers engaged in operations of HEMM, etc. should be provided with Ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
	5.2	The ECH must ensure that the ground vibration (peak particle velocity) shall not exceed the threshold limits prescribed by DGMS vide the DGMS Circular No. 7, of 1997.
	5.3	The ECH shall monitor the whole-body vibration level of all the machineries deployed and shall undertake adequate measures to reduce whole-body vibration (WBV) exposure to eliminate the adverse occupational health hazards/impacts caused to the operators. The report on the periodic monitoring shall be included in the HYCR.
	5.4	The ECH shall carry out blasting in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 300 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
	5.5	Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site.
	5.6	The ECH shall ensure that the blasting operations shall be carried out with a prior notice to the habitations situated around the proposed quarry. The ECH also should post sentries/guards adequately to ensure safety to the public.
	5.7	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.** The plant

		species of native origin with dense/moderate canopy should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
	5.8	Taller/one-year-old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanists/horticulturists with regard to site specific choices.
	5.9	The ECH shall maintain a register of all the trees planted and the survival rate.
	5.10	Adequate water sprinkling arrangements 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.
	5.11	If a credible, supported complaint is made that noise or vibration is adversely impacting human noise receptors, then the ECH shall consult with affected stakeholders to develop mitigation strategies to resolve the complaint.
6. Social & OHS	6.1	The ECH 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.
		The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
	6.2	The proponent shall install the 'S3 (or) G2' type of fencing with reflectors all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
	6.3	The ECH shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are provided with adequate PPEs before engaged in mining operations.

	6.4	The ECH shall use only the road indicated in the mining plan for transportation purposes. ECH shall monitor the condition of the road at all times and if the roads are damaged, ECH shall approach the District Collector for the maintenance of haulage road/village / Panchayat Road under DMF.
	6.5	During the operation of mine, the ECH shall take adequate safety precautionary measures while the vehicles pass through schools / hospitals.
	6.6	The ECH shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman **duly employed** by him/her in accordance with the provisions of MMR 1961.
	6.7	The ECH shall register promptly through online in the **Shram Suvidha Portal** which is the official portal of Ministry of Labour & Employment, Govt of India to obtain **Labour Identification Number (LIN)** before obtaining the CTO from the TNPCB.
	6.8	The ECH shall **annually** carry out an Occupational Health Survey (OHS) **in accordance with the guidelines & period of examination laid in the DGMS (Tech.) (S&T) Circular No. 01 of 2011**, on OHS of the persons working in mines prone to generate the airborne dust, under Section 9A of Mines Act, 1952 and a copy of the annual compliance certificate shall be submitted to the SEIAA, IRO, MoEF&CC, TNPCB, AD/Mines-DGM and DMS, Chennai.
	6.9	The ECH shall install a 'Bio-toilet' and Rest shelter facility for the persons employed in the mine before obtaining the CTO from the TNPCB.
7. Financial	7.1	The ECH shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and such funds should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
	7.2	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.
8. Others	8.1	The ECH shall ensure that the provisions of the MMDR Act, 1957 & Tamil Nadu Minor Mineral Concession Rules 1959 are compiled by carrying out the quarrying operations in a skillful, scientific and

		systematic manner keeping in view proper safety of the labour, structure, 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.
	8.2	The ECH shall abide by the production schedule specified in the approved mining plan and if any deviation is observed, it will render the ECH liable for legal action in accordance with Environment and Mining Laws.
	8.3	The PP to erect Display board as Appendix-II

Abbreviations:

ECH	=	Environment Clearance Holder
HYCR	=	Half Yearly Compliance Report.
CTO	=	Consent to Operate
DMF	=	District Mining Fund
IRO	=	Integrated Regional Office of MoEF&CC
CPCB	=	Central Pollution Control Board
WRD	=	Water Resources Department
DMS	=	Director of Mine Safety
OHS	=	Occupational Health and Safety
NABL	=	National Accreditation board for Testing and Calibration Laboratories

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'bleHigh Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
1.2	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation)Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.3	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.

1.4	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Planand approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
1.5	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
1.6	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid WasteManagement Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
1.7	Permission of power supply to be taken from the concerned authority for meeting power demand ofthe project site.
1.8	The maximum production or peak production at any given time shall not exceed the limit asprescribed in the EC.
1.9	Validity of EC is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification,2006 and its amendments therein

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution ControlBoard. Online ambient air quality monitoring station/stations may also be installed in addition to theregular air monitoring stations as per the requirement and/or in consultation with the SPCB

2.2	Transportation of mineral, to the extent if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ Fog cannon /mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the mineral transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
2.3	Major approach roads shall be black topped and properly maintained.
2.4	PP to install solar lights along the road used for transportation of mineral to avoid the accidents atnight and also seek its maintenance.
2.5	The transportation of mineral shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the mineral through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be soconstructed that the impact of sound, dust and accidents could be appropriately mitigated.
2.6	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engagedin mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
2.7	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollutionat dust generating sources with time bound action plan.
2.8	Post environmental closure third party monitoring by reputed instituted in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuos AQMS, site specific water regime. Also third party shall analyses the implementation of river diversion, meeting to the requirement of project report.

3. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions

3.1	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.2	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
3.3	Monitoring of water quality upstream and downstream of river including pons, lakes, tanks shall becarried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
3.4	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
3.5	The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
3.6	Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft andlow lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
3.7	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly

3.8	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
3.9	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry/SEIAA-TN and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

1. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM,etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
4.2	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

2. Mining Plan

S. No	EC Conditions
5.1	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 andsubordinate legislations made there-under as applicable.
5.2	No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and

	Climate Change (MoEFCC)/SEIAA-TN.
5.3	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to non-coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
5.4	Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
5.5	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
5.6	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

3. Land Recalmation

S. No	EC Conditions
6.1	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
6.2	Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

6.3	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
6.4	A separate team for subsidence monitoring and surface mitigation measures shall be constituted andcontinuous monitoring & implementation of mitigation measures be carried out.
6.5	Native tree species shall be selected and planted over areas affected by subsidence.
6.6	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

4. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
7.2	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up,20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
7.3	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
7.4	Skill training as per safety norms specified by DGMS shall be provided to all workmen includingthe outsourcing employees to ensure high safety standards in mines.

7.5	Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
7.6	Implementation of the time bound action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the time bound action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
7.7	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z- 11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part ofmine lease areas or habitations and villages are surrounded by the mine lease area'.
7.8	PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
7.9	PP must ensure an emergency action plan during pandemic in order to provide assistance to thenearby villages located within the 10 km radius buffer zone (If required)
7.10	PP is asked to also identify the rural areas for installation of solar light with its maintenance withinthe study area of 10 km radius buffer zone with time bound action plan
7.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10km radius

5. Corporate Environment Responsibility

S. No	EC Conditions
8.1	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

8.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
8.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
8.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
8.5	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority

6. Miscellaneous

S. No	EC Conditions
9.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
9.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
9.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website

	and update the same on half-yearly basis.
9.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
9.6	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
9.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9.8	The project proponent shall abide by all the commitments and recommendations made in theEIA/EMP report, commitment made during Public Hearing and also that during their presentation tothe Expert Appraisal Committee.
9.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC)/SEIAA-TN.
9.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
9.11	The Ministry/SEIAA-TN may revoke or suspend the clearance, if implementation of any of theabove conditions is not satisfactory.
9.12	The Ministry/SEIAA-TN reserves the right to stipulate additional conditions if found necessary.The Company in a time bound manner shall implement these conditions.
9.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of

9.14	Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
9.15	The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the SEAC. All the commitments made on the issuesraised during public hearing shall also be implemented in letter and spirit.
9.16	Compensation of the land acquired for the project shall be settled as per the R&R Policy. Adequatefacility of drinking water, plantation and other social amenities should be provided to established R&R villages.
9.17	Persons of nearby villages shall be given training on livelihood and skill development to make thememployable with its proper records.
9.18	The illumination and sound at night at project sites disturb the villages in respect of both human andanimal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels atnight. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours

STANDARD CONDITIONS

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.**
   - **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. Depth of quarrying should be as per approved mining plan.
15. 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.
16. 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.
17. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. 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.
20. 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.

21. 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
22. 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.
23. 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.
24. 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.
25. Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.
26. Topsoil, if any, shall be stacked properly with proper slope with adequate measures and should be used for plantation purpose.
27. 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.
28. 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.
29. 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.
30. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
31. 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.

32. 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.
33. No tree-felling shall be done in the leased area, except only with the permission from competent Authority.
34. 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.
35. 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.
36. 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.
37. Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
38. Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF& CC, GOI.
39. Bunds to be provided at the boundary of the project site.
40. 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.
41. Floor of excavated pit to be levelled and sides to be sloped with gentle slope (Except for granite quarries) in the mine closure phase.
42. The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity
43. The Project Proponent shall provide solar lighting system to the nearby villages.
44. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
45. Safety equipments to be provided to all the employees.
46. Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai .
47. 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.

48. 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.
49. 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.
50. 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.
51. 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.
52. Heavy earth machinery equipments if utilized, after getting approval from the competent authority.
53. 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.
54. 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.
55. 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.
56. All the commitment made by the project proponent in the proposal shall be strictly followed.
57. 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.

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 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 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, 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.
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.

Validity unknown

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

Date: 11/01/2025