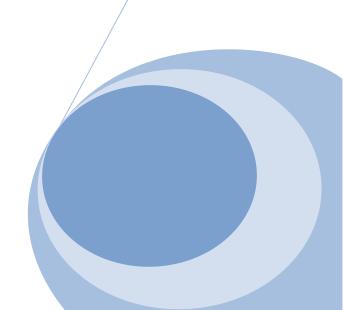
# COMPLIANCE BEPORT

### APRIL 2020 - SEPTEMBER 2020

# **Quarry project of Binu Cheriyan**

Malappuram District Kerala





Dt. 08-10-2020

From
Binu Cherian,
Thakkirickal House,
Chelad P O, Kothamangalam,
Kerala, Pin: 686681

# To The Additional Principal Chief Conservator of Forests (C)

Ministry of Environment, Forests & Climate Change, 4<sup>th</sup> Floor, E& F Wing, Kendriya Sadan, Koramangala, Bangalore - 560034

Ref:-FileNo. 839/SEIAA/EC1/2717/2015

Subj :- Environment Clearance – Quarry project at Village & Panchayat Edayur, Thirur Taluk, Malappuram District, Kerala – Compliance Report – firsthalf – Reg.

#### Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for **2.6872Ha**. by order No. **839/SEIAA/EC1/2717/2015**,dated 05/02/2016by State Environmental Impact Assessment Authority, Kerala.The compliance report of **second Half** (April 2020 - September 2020) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,

Yours respectfully,



Encl: - As Above

**Copy to :The Chairman & The Member Secretary** 

State Environment Impact Assessment Authority (SEIAA) Thiruvananthapuram, Kerala – 695 024.



#### COMPLIANCE REPORT

TO

THE CONDITIONS

**OF** 

**ENVIRONMENTAL CLEARANCE ORDER** 

NO: 839/SEIAA/EC1/2717/2015

**DATED: 05-02-2016** 

BY

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)

**FOR** 

BUILDING STONE QUARRY
(MINOR MINERAL MINING) PROJECT

AT

SURVEY NOS. 101/5, 101/6,
VILLAGE & PANCHAYAT EDAYUR, THIRUR TALUK,
MALAPPURAM DISTRICT, KERALA

BY

MR. BINU CHERIAN,
THAKKIRICKAL HOUSE, CHELAD P.O,
KOTHAMANGALAM, ERNAKULAM DISTRICT
KERALA



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#### INTRODUCTION

Quarry project of **Sri. Binu Cheriyan** Thakkirickal House, Chelad P. O Kothamangalam, Ernakulam District is a building metal stone quarry located at Survey No. 101/5, 101/6,, Edayur Village, Edayur Panchayat, Thirur Taluk, Malappuram District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 05–02–2016. As part of general condition No.37 of Environmental Clearance order, half yearly compliance report needs to be submitted by the project proponent. The compliance report of First half to the specific conditions and general conditions of the Environmental Clearance order for the period of **April 2020 – September 2020** is being submitted.



# **COMPLIANCE REPORT**

(GENERAL CONDITIONS)



#### **GENERAL CONDITIONS**

1	Rain Water Harvesting capacity should be installed as per the	Complied
	prevailing provisions of KMBR / KPBR, unless otherwise	
	specified elsewhere.	

#### Compliance

To collect rain water from the entire project land, the proponent has constructed a trench with a width of 6-7 meter and length of 30 meter to collect storm water from the upper slope of the project. The storm water flow is leading to the trench through natural drainage. The water from pond is mainly used for watering of plants, wetting of roads and sprinkler system for contain dust emission.

2	Environment Monitoring Cell (EMC) as agreed under the	Complied
	affidavit filed by the proponent should be formed and made	
	functional.	

#### Compliance

The Environmental Monitoring Cell (EMC) has formed with Mr. Judy James as head of the monitoring cell. The EMC meeting convenes regularly to evaluate and monitor quarrying work in connection with the specific and general conditions stipulated in the Environmental Clearance (EC) order. The details of the monitoring cell are given below:

TABLE No. 1 - ENVIRONMENTAL MONITORING CELL (EMC)

SI. No.	Post	Name
1.	Head of the monitoring cell	Judy James
2.	Member	Nithesh
3.	Member	Varghese

3	Suitable avenue trees should be planted along either side of	Being
	the tarred road and open parking areas, if any, inclusive of	complied
	approach road and internal roads.	



To enrich vegetation and prevent air pollution, the project proponent planted suitable avenue trees along either side of the roads, parking area and other areas in the project land. There are natural vegetations including trees, shrubs, herbs and climbers also present. The details of vegetation are given below.

TABLE No. 2 - Details of the natural vegetation existing along the road side

SI. No.	Scientific Name	Common Name	Family	Habit
1.	Mucuna bracteata	Thottapayar	Fabaceae	Climber
2.	Swietenia mahagoni	Mahagony	Meliaceae	Tree
3.	Bambusa bambos	Mula	Poaceae	Herb
4.	Chromolaena odorata	Communist-pacha	Compositae	Shrub
5.	Coccos nucifera	Thengu / Coconut	Arecaceae	Tree
6.	Mangifera indica	Mavu	Anacardiaceae	Tree
7.	Tectona grandis	Thekku	Verbenaceae	Tree
8.	Ziziphus oenopolia	Thodalli	Rhamnaceae	Climber

04	Maximum possible solar energy generation and utilization shall	Complied
	be ensures as an essential part of the project.	

#### Compliance:

To reduce the consumption of electricity from the conventional sources, the project proponent Installed solar street lights to use maximum renewable energy to reduce electrical consumption from KSEB. As part of this, the project proponent could reduce the use of energy from conventional sources.

05	Sprinklers shall be installed and used in the project site to	Complied
	contain dust emissions.	

#### Compliance:

To prevent dust emissions from the road while transportation of materials, the project proponent is splashing water on roads. There is sufficient water in the rain water harvesting ponds for the purpose. The sprinklers installed in and around the crusher unit.



06	Eco-restoration including the mine closure plan shall be done	Being
	at the own cost of the project proponent.	complied

As part of eco restoration, the project proponent started to plant various saplings within the project area. The list of tree/shrub/herb saplings planted in the project site is given below in **table No. 3**. The mine closure plan will be done at own cost of project proponent as agreed in the proposal.

TABLE 3 Details of the saplings planted within the project area

SI. No.	Scientific Name	Common Name	Family	Habitat
1	Mucuna bracteata	Thottapayar	Fabaceae	Climber
3	Artocarpus heterophyllus	Plavu	Moraceae	Tree
4	Capsicum frutescens	Kantharimulaku	Solanaceae	Herb
5	Carica papaya	Papaya	Caricaceae	Tree
6	Coccos nucifera	Thengu	Arecaceae	Tree
7	Curcuma longa	Manjal	Zingiberaceae	Herb
8	Mangifera indica	Mavu	Anacardiaceae	Tree
9	Musa paradisiaca	Vazha	Musaceae	Herb
10	Swietenia mahagoni	Mahagony	Meliaceae	Tree
11	Tectona grandis	Thekku	Verbenaceae	Tree

07	At least 10 percent out of the total excavated pit area should be	Will be
	retained as water storage areas and the remaining area should	complied
	be reclaimed with stacked dumping and overburden and	
	planted with indigenous plant species that are eco-friendly.	

#### Compliance:

The project proponent is intending to retain 10 percent of total excavated pit as rain water storage area after closure of the mine. The remaining area will be reclaimed with stacked dumping of overburden and top soil. As part of its eco – restoration plan, the project proponent will plant indigenous plant species that are eco – friendly on the reclaimed area.



08	Corporate Social Responsibility (CSR) agreed upon by the complied	d
	proponent should be implemented	

The activities under Corporate Social Responsibility (CSR)/ Corporate Environmental Responsibility (CER) activities are executed in the sectors of Health and education. The details are given below. The CSR/CER receipts are attached as **Annexure No. 9** 

TABLE 4 - Details of the CSR/CER amount spent

Sectors	Activities	Beneficiaries	Amount spent
			in Rs.
Health	Medical Aid	Covid relief fund	18000
Drinking water	Donation	Water supply	10,000
supply			
Social	Donation	CMDRF	1,00,000
	Donation	Environmental	2000
		cooperative society	
	TOTAL		1,30,000

09	The lease are shall be fenced off with barbed wires to a	Complied
	minimum height of 4ft around, before starting of mine.	

#### Compliance:

To demarcate the boundary and to ensure safety, the project proponent has erected barbed metal wire fencing around the mining area with height of 5 ft. This will help to prevent falling of animals/human being/dumping of garbage etc.

10	Warning alarms indicating the time of blasting (to be done at	Complied
	specific timings) has to be arranged as per stipulations of	
	Explosive Department.	



As per the stipulation of Explosive department, to give warning to the labours and community people prior to the blasting in quarry, the project proponent installed warning alarms in the quarry site. This is properly working prior to the blasting time.

11	Control measures on noise and vibration prescribed by KSPCB	complied
	should be implemented.	

#### Compliance:

To reduce noise level in the project site, the project proponent has implemented mitigate masseurs. The major noise generating sources from the mining activity is working machineries, drilling, blasting and plying of vehicles. The following control measures are undertaken to bringing down the noise levels:-

- > Proper maintenance of machinery and equipments
- The machineries like breaker and excavator has well sound proof cabin so that the machine operators can work without stress due to the sound.
- ➤ Personal protective devices i.e., earmuffs, ear plugs etc. are provided to workers working in high noise areas.
- The mining activity held in day time only.

#### Blast vibrations and control measures

- Controlled blasting technique is adopted in this project in order to reduce blast vibrations.
- ❖ The maximum charge per delay is not more than 10kg to limit the PPV values to 10mm/sec.
- Optimum delay sequence and stem to column ratio is maintaining to minimize the ground vibration intensity.
- The project proponent has appointed qualified persons to monitor the mining operations

12	2	Quarrying	activities	should	be	limited	to	day	time	as	per	Complied
		KSPCB gui	idelines.									



Quarrying activities are limited to day time only as per KSPCB guidelines. The quarry working time is 7.30 am - 5 pm. This will help to limit the sound pollution.

13	Blast	ting should b	e do	one in a cont	rolled manner	as	specif	ied by	Complied
	the	regulations	of	explosives	department	or	any	other	
	concerned agency.								

#### Compliance:

The blasting is done in controlled manner by using ordinary delayed detonators. All blasting activities are carrying out with the specified regulations of explosive department. All blasting are under careful supervision of qualified persons.

14	Α	licensed	person	should	supervise/control	the	blasting	complied
	ор	erations.						

#### Compliance:

The project proponent has appointed a licensed person having certificate of short fire to supervise/control the blasting operations for the extraction of granite building stones.

15	Access roads to the quarry shall be tarred to contain dust	Complied
	emissions that may arise during transportation of materials.	

#### Compliance:

To reduce emission of dust through the vehicle movement, the access road from the entrance of project site to quarry has tarred 250 meter and maintaining in good manner. The project proponent splashes water on the road to arrest the dust production during summer season. The project proponent is intending to maintain access road to the quarry in good condition for dust emission and easiness of transportation of vehicles.



10	Overburden materials should be managed within the site and	complied
	the old quarries, if any, should be restored.	

There is no old quarry in the site for restoration. The overburden materials are stored within the site. This will be used to restore the exploited area in future.

1	7	Height of the benches should not exceed 5m and width should	Being
		not be less than 5m.	complied

#### **Compliance:**

To enhance safety and to make environment friendly quarrying, the excavation activity in the project proponent is progressing by creating benches of 5m width x 5m height.

18	Mats to reduce fly rock blast to a maximum of 10 PPV should	Noted
	be provided.	

#### Compliance:

The project proponent is yet to use mats during the time of blasting. The project is using ordinary delayed detonator for blasting therefore there is no issue with fly rock in the community and the project is also assure the maximum PPV is under 10.

19	Maximum depth of mining from general ground level at site	Will be
	shall not exceed 10m.	complied

#### Compliance:

Mining depth will not exceed beyond 10 meter or not below the level of the nearest stream bed, whichever is less.

20	No mining operations should be carried out at places have	ring a Noted
	slope greater than 45°.	



In the project site, there is no area with a slope greater than 45<sup>0</sup>. Therefore it is not necessary to explore from the slopes greater than 45<sup>0</sup>.

21	Acoustic enclosures should be provided to reduce sound	Complied
	amplifications in addition to the provisions of green belt and	
	hollow brick envelop for crushers so that the noise level is kept	
	within prescribed standards given by CPCB/KSPCB.	

#### Compliance:

To reduce sound amplification, the machines of crusher unit is housed with solid bricks. A green belt is also developed around the unit to reduce noise and air pollution. This helps the noise and sound level is kept within the prescribed standards. The labours in the unit are wearing ear plugs to reduce the impact of noise generating from the machines. The project proponent is maintained all machineries in a good manner.

22	The workers on the site should be provided with the required	Complied
	protective equipments such as ear muffs, helmet, etc	

#### Compliance:

To ensure the safety of workers in working site, the project proponent provided adequate Personnel Protective Equipments (PPE) such as helmets, ear muffs, safety belts, glows, etc. to labours in the quarry site.

23	Garland drains with clarifiers to be provided in the lower slopes	Noted
	around the core area to channelize storm water.	

#### Compliance:

The proponent is very conscious to prevent all quarry waste to enter in the the public drainage or stream. The project proponent has constructed storm water drains in the lower slopes of the project area for effective management of storm water. This helps to channelize the storm water to the rain water collection pond and the most of



the debris will be settled down in the bottom of the pond. The clarifiers will be installed soon.

24	The transportation of minerals should be done in covered	Complied
	trucks to contain dust emissions.	

#### Compliance:

The project proponent assure that the trucks are covered to avoid dust emission from the vehicle while transportation of materials.

2	25	The proponent should plant trees at least 5 times of the loss	Being
		that has occurred while clearing the land for the project.	complied

#### Compliance:

The project proponent planted various saplings in the project area as a compensation of loss of trees while the project is clearing the land for mining as part of concurrent eco restoration. The project proponent is planning to plant more tree saplings in the project site.

26	Disposal of spent oil from diesel engines should be as	Complied
	specified under relevant Rules/Regulations.	

#### Compliance:

The project proponent is using the used oil as lubricant for machineries and other equipments. Disposal of spent oil from diesel engines sold only to the approved recyclers as specified under relevant Rules/Regulations.

27	Explosives should be stored in magazines in isolated place	complied
	specified and approved by the explosives department.	

#### Compliance:

Explosives are stored in magazine. The magazine situated in an isolated place specified and approved by the explosives department.



28	A minimum buffer distance of hundred meters from the	Complied				
	boundary of the quarry to the nearest dwelling unit or other					
	structures, not being any facility for mining shall be provided.					

The norms of Kerala State Pollution Control Board regarding the distance criteria of residences, roads, rivers and worship places is adhered by the project. The distance of the nearest house was 129 meter form the quarry, the KSPCB condition is 100 meter.

29	100	m	buffer	distance	should	be	maintained	from	forest	Complied
	bour	nda	ries.							

#### Compliance:

There is no forest area near to the project site.

(	30	Consent from Kerala Pollution Control Board under water and	Complied
		Air act(s) should have been obtained before initiating activity.	

#### Compliance:

The project proponent has obtained consent from KSPCB under Water and Air Act(s). The copy of certificate of "Consent to Operate" (Renewal) from Kerala State Pollution Control Board is provided in **Annexure No.1.** 

31	All other statutory clearances should have been obtained, as	Complied
	applicable, by project proponents from the respective	
	competent authorities including that for blasting and storage of	
	explosives.	

#### Compliance:

The certificates obtained from concerned statutory authorities are enclosed in **Annexure No.1, 2, 3, 4 & 5.** The details are given below



#### TABLE 5 – APPROVALS FROM COMPETENT AUTHORITIES

Name of the Statutory	Name of the Statutory authority	Approval Number & Date
approval		
Environmental	State Environmental Impact	839/SEIAA/EC1/2717/2015
Clearance order	Assessment Authority, Kerala	Dated 05-02-2016
"Consent to Operate"	Kerala State Pollution Control	PCB/CVO/R1/EXP/1142/19
	Board	22-03-2019
Explosive License	Ministry of Commerce & Industry	E/SC/KL/22/779(E636254)
	<ul> <li>Petroleum &amp; Explosives Safety</li> </ul>	Dated 22-02-2017
	Organization (PESO)	
License for quarry	Gram Panchayath	A4-814/2020-21222
operations		dated 29-04-2020
Permit order	Directorate of Mining and	21/2019-20/GR/DOM/M-
	Geology	2784/2019
		Dated 16-10-2019

Ī	32	In the case of any change(s) in the scope of the project, the	Will be	l
		project would require a fresh appraisal by this Authority	complied	

#### Compliance:

In case of any change(s) in the scope of the project, the proponent will apply for fresh appraisal to get the Environmental Clearance.

33	The Authority reserves the right to add additional safe guard	Noted
	measures subsequently, if found necessary, and to take action	
	including revoking of the environment clearance under the	
	provisions of the Environmental (Protection) Act 1986, to	
	ensure effective implementation of the suggested safeguard	
	measures in a time bound and satisfactory manner.	

#### Compliance:

The project proponent is willing to add additional safe guard measures subsequently if the authority found necessary.



The stipulations by Statutory Authorities under different Acts Being and Notifications should be complied with, including the complied provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, The Environment (Protection) Act, 1986, the public liability (Insurance) Act, 1991 and EIA notification, 2006.

#### Compliance:

The stipulated orders and directions under different act and notification including EIA notification will be scrupulously followed. A brief list of various Acts and notifications which are followed by the proponent is given below

- 1. The Environment Protection Act, 1986
- 2. Water (Prevention and Control of Pollution) Act, 1974
- 3. The Air (Prevention and Control of Pollution) Act, 1981
- 4. The Public Liability (Insurance) Act,1991
- 5. Municipal Solid Waste (Management and Handling) Act,2016
- 6. Hazardous and Other Wastes (Management and handling) Rules, 2016.
- 7. EIA notification, 2006

35	The project proponent should advertise in at least two local	Complied
	news papers widely circulated in the region, one which (both	
	advertisement and the newspaper) shall be in the vernacular	
	language informing that the project has been accorded	
	Environmental Clearance and copies of clearance letters are	
	available with the Department of Environment and Climate	
	Change, Govt. of Kerala and may also be seen on the website	
	of the Authority at www.seiaakerala.org. The advertisement	
	should be made within 10 days from the date of receipt of the	
	Clearance letter and the copy of the same signed in all pages	
	should be forwarded to the office of this authority as	
	confirmation.	



An advertisement in two local newspapers regarding Environmental Clearance accorded to the quarry project was given within the stipulated period and the copy of the same was submitted at SEIAA Kerala.

36	A copy of the clearance letter shall be sent by the proponent to	Complied
	concerned Grama/District Panchayath / Municipality /	
	Corporation / Urban Local Body and also to the Local NGO, if	
	any from whom suggestions / representations, if any were	
	received while processing the proposal. The Environmental	
	Clearance shall also be put on the website of the company by	
	the proponent.	

#### Compliance:

To comply the conditions and as part of procedure to obtain D & O license, a copy of the Environment Clearance letter was submitted to the Panchayat Office. The project proponent did not receive any suggestions / representation from anywhere while the processing the proposal therefore does not give the copy of clearance latter to anyone. The project does not have a website and it will create a company website soon.

37	The proponent shall submit six monthly reports on the status of	Complied
	compliance of the stipulated EC conditions including results of	
	monitored data (both in hand copies as well as by e-mail) and	
	upload the status of compliance of the stipulated EC conditions	
	including results of monitored data on their website and shall update	
	the same periodically. It shall simultaneously be sent to the	
	respective Regional Office of MoEF, Govt. of India and also the	
	Directorate of Environment and Climate Change, Govt. of Kerala.	

#### Compliance:

The compliance of the stipulated specific and general conditions of Environmental Clearance is being submitted to the State Environment Impact



Assessment Authority Govt. of Kerala, and also to the Regional Office of MoEF&CC, Govt. of India as mail. The monitored data of Air, Water and Noise is attached as **Annexure No. 6, 7 & 8** 

39	The details of Environmental Clearance should be prominently	complied
	displayed in a metallic board of 3 ft x 3ft with green	
	background and yellow letters of Times New Roman font of	
	size of not less than 40. Sign board with extant of lease area	
	and boundaries shall be depicted at the entrance of the quarry,	
	visible to the public.	

#### Compliance:

The specific conditions of the environmental clearance prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font was installed.

39	The proponent should provide notarized affidavit (indicating C	Complied
	the number and date of Environmental Clearance proceedings)	
	that all the conditions stipulated in the EC shall be	
	scrupulously followed.	

#### Compliance:

An assurance in the form of affidavit was already submitted to SEIAA Kerala.

40	The above conditions shall prevail notwithstanding anything to	Noted	
	the contrary; in consistent, or simplified, contained any other		
	permit, license on consent given by any other authority for the		
	same project.		

#### Compliance:

The project proponent will give priority to the conditions stipulated in the Environment clearance Order for its execution.



ANNEXURE
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#### KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :10275352 Date of issue :2019-03-22

#### CONSENT VARIATION ORDER

Consent No: PCB/CVO/R1/EXP/1142/19

Ref: 1.PCB/CO/R1/EXP/1142/17 DATED 01.04.2017 2.ENVIRONMENTAL CLEARANCE NO.11/2016

The 'Integrated Consent to Operate' issued as per reference above to M/s QUARRY OWNED BY BINU CHERIYAN, EDAYUR, KAREKAD P.O, VALANCHERY, MALAPURAM is hereby modified & issued to M/s QUARRY OWNED BY BINU CHERIYAN, EDAYUR, KAREKAD P.O, VALANCHERY, MALAPURAM The consent(s)/ variation order(s) cited under reference are integral part of this consent variation order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

#### I. GENERAL

S.No. Items		Description
1	1.1 VALIDITY	04.02.2021
2	1.14.ACTIVITY	Quarrying in 2.6872 hectares of land in survey No.101/5 and 101/6 at Edayur village ,Tirur Taluk in Malappuram district

#### II. CONDITIONS

DATE: 22/03/2019

5.3. For renewal of the consent in case of continuance of discharge/operation of the industry, application in the prescribed form shall be submitted through the web portal of the Board for Online Consent Management & Monitoring System 2 months before the end of validity period. Late application will be accepted only with a fine /late fee as applicable.

All other conditions of the Integrated Consent to Operate issued as per reference above remain unchanged.

VINAYA K S

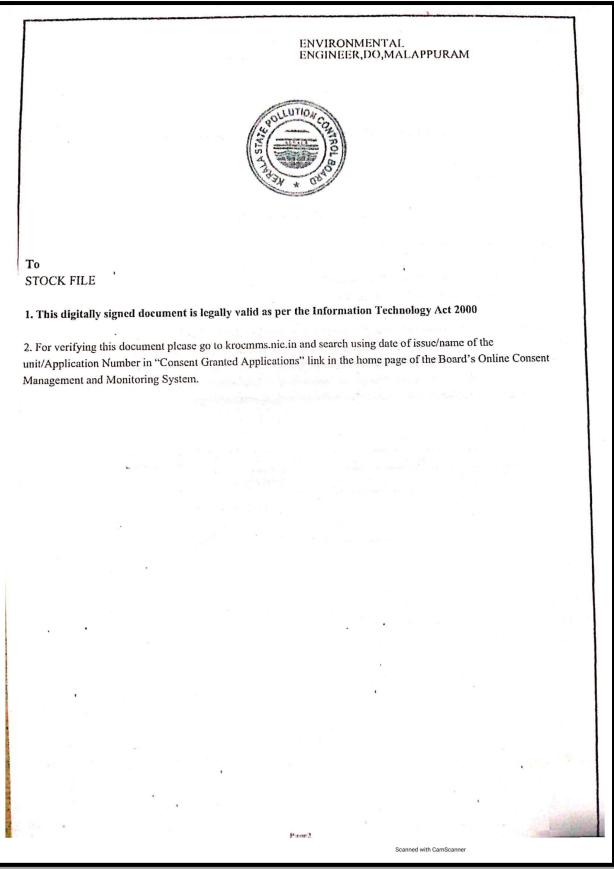
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SIGNATURE & SEAL OF ISSUING AUTHORITY

Page

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#### **Copy of Consent from PCB**





Validity expires on 04-02-2021

# Proceedings of the State Environment Impact Assessment Authority Kerala

Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and Sri. P. Mara Pandiyan, I.A.S., Member Secretary.

Sub: SEIAA- Environmental Clearance for the proposed building stone quarry project in Survey Nos. 101/5 and 101/6 at Edayur Village, Edayur Panchayath, Thirur Taluk, Malappuram District by Sri. Binu Cherian, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681-Granted- Orders issued.

#### STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 839/SEIAA/EC1/2717/2015

dated, Thiruvananthapuram 05-02-2016

- Read: 1. Application dated 07-07-2015 submitted by Sri. Binu Cherian, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681
  - 2. Minutes of the 48<sup>th</sup> meeting of SEAC held on 06/07-11-2015.
  - 3. Minutes of the 47th meeting of SEIAA held on 07-01-2016.

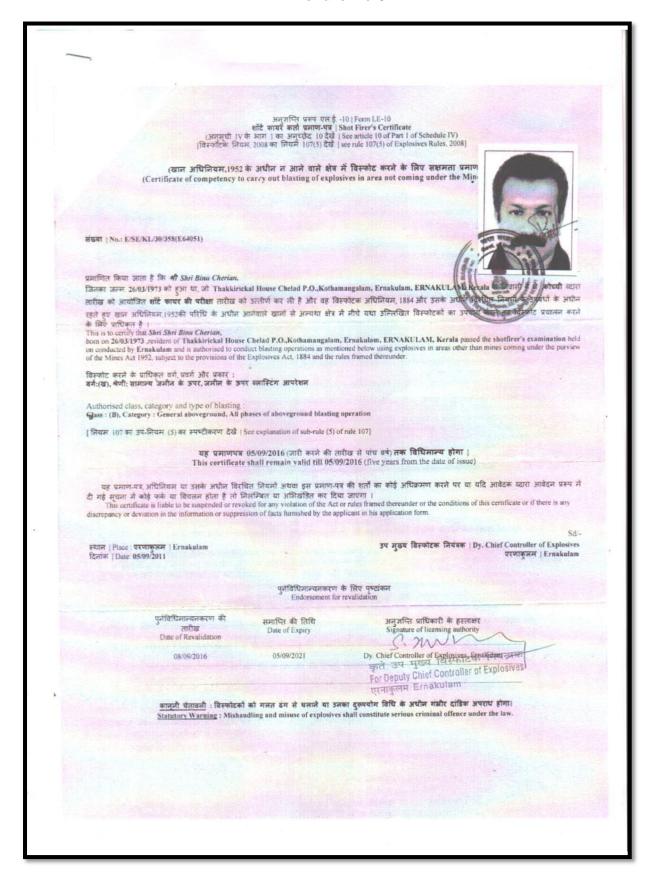
#### Environmental Clearance No. 11/2016.

Sri.Binu Cherian, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681, vide his application received on 14-07-2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 101/5 and 101/6 at Edayur Village, Edayur Panchayath, Thirur Taluk, Malappuram District, Kerala for an area of 2.6872 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50hectares) and as per O.M. No. L-11011/47/2011-IA.II (M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. This is an existing Quarry. The quarry was in operation with a short term quarrying permit issued by Mining& Geology Department, Government of Kerala for an area of 0. 4046 hectares. The land use as per revenue records is private own land of 3.6460 hectares. Main rock type in the area is granite and the area is mineral specific and hence no alternate site was examined. The present and use is some native trees, shrubs, herbs etc. The proposed project is for quarrying of 100,000 MTA of building stone from an area of 2.6872 hectares of land. Domestic effluent will be discharged in septic tank and soak pit system. The quarry operation is proposed to carry out with conventional open cast semi-mechanized mining by maintaining the bench height and width to 5.0 meter. Considering the stability of rocks the final slope or ultimate pit slope is proposed 45° from vertical. Mining will be carried out from the top to bottom by slicing of 2.5 m thick. The mineral exploitation is being done from 150 m MSL to 85 m MSL for the expected life of ten years. At the end of life of mine, excavated area will be converted into water pond and plantation. A storm water collegion benefits to the converted into water pond and plantation.

Copy of EC order





Copy of License - explosive







#### **Copy of license from Gram Panchayat**



#### FORM M

(See sub - rule(2) of rule 9) (For all type of quarrying permits)

#### GOVERNMENT OF KERALA

DEPARTMENT OF MINING & GEOLOGY DISTRICT OFFICE MALAPPURAM QUARRYING PERMIT FOR EXTRACTION OF GRANITE BUILDING UNDER RULES 3(1),9 AND 10 OF THE KERALA MINOR MINERAL CONCESSION RULES, 2015 and KMMC(2<sup>nd</sup> Amendment) Rules 2015

No. 21/2019-20/GR/DOM/M- 2794/2019

Dated. 16/10/2019

Shri. Binu Cherian, Thakkirikkal House, Chelad Post, Kothamagalam, Ernakulam is hereby permitted to extract and remove Granite Building Stone (Name of mineral) from an area of 99.58 Ares in Sy.No. 101/6 of Edayur village of Tirur Taluk of Malappuram District, Kerala State under rule 3(1) and 9 of the Kerala Mineral Concession Rules, 2015 subject to the conditions mentioned in rule 10.

Quantity of extraction of mineral permitted (Not applicable in the case of CRP System):

MT : 30,000

Whether the permit holder opted CRP System Number of mineral transit passes to be issued : No 6000 Nos.

Name and address of the owner of the land

Sri. Ulleerithodi Unneenkutty & Shanavas, Karayakkad Post, Malappuram

Under mineral concession/particulars of consent NOC received from the occupier of the land (if applicable) Date of expiry of permit

: Consent letter attached

15.10.2020 (Subject to the validity of other statutory licences)

Details of fee remitted

	Dotallo Ci I	A	Name of Treasury
Item	Chalan No.&Date	Amount	
Application fee	KL006743020201920 M	1000/-	S.T.Manjeri
Royalty	dtd.02.9.2019 KL008671847201920 M	7,20,000/-	do
	dtd.16.10.2019	500/-	do
Surface Rent Addl.Royalty remitted,if any	-	-	C Ca

To

Sri. Unneen Kutty & Shanavas, Ulleerithodi House, Karayakkad Post, Malappuram Senior Geolog

DIST. Office Of Mining & Geology Mini Civil Station, Manieri Malappurem District.

Copy to :(1) The District Collector, Malappuram (with C/L)

(2) Secretary, Edayur Grama Panchayat

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#### Copy of Permit order





#### TEST REPORT

Test Report No: 20200810/R105	Date: 14.08.2020	Page 1 of 1
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	CUSTO	OMER DETAILS			
		Mr.Binu Cherian	Mr.Binu Cherian		
		Thakkirickal (H),			
Customer Details	Name & Address	Chelad, Kothamangalam,			
		Ernakulam District.			
		Quarry of Mr. Binu Cheria	an		
	Monitoring Site	Karakkad, Edayoor, Mala	ppuram District.		
	Survey No	101/5, 101/6	101/5, 101/6		
Location of Site	Village	Edayoor	Edayoor		
Location of Site	Panchayath	Edayoor	Edayoor		
	Taluk	Thirur	Thirur		
	District	Malappuram	Malappuram		
	State	Kerala	Kerala		
Customer Reference					
	SAM	MPLE DETAILS			
Source of Sample	Ambient Air	Sample Code	20200810/S105		
Location of Monitoring	East Side Boundary	Sampled By	Laboratory		
Date of Monitoring	10.08.2020	Test Started On	12.08.2020		
Sample Received On	11.08.2020	Test Completed On	14.08.2020		
Humidity	72 %	Sampling Procedure	IS 5182 Part V & XIV		

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULT	NAAQ STANDARD
01	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23: 2006 RA 2017	μg/m³	45.6	100
02	Particulate Matter (PM <sub>2.5</sub> )	EPA 40 CFR Part 50 Appendix - L	μg/m³	21.8	60.0
03	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part 2: 2001 RA 2017	μg/m³	< 2.00	80.0
04	Oxides of Nitrogen (NO <sub>2</sub> )	IS 5182 Part 6: 2006 RA 2017	μg/m³	< 2.00	80.0

\*\*\*End of Report\*\*\*

For and on behalf of Standard<sup>s</sup> Environmental & Analytical Laboratories



Authorized Signatory

Rija Joseph Technical Manager

Standard<sup>s</sup> Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB
K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43
Web: www.sealabs.in, E-mail: seaalab@gmail.com

Monitoring result of Air





#### TEST REPORT

	Test Report No: 20200810/R106	Date: 14.08.2020	Page 1 of 1
- 1	10001101011012020010/11100	Date: 11.00.2020	rage rorr

	CU	STOMER DETAILS	
Customer Details	Name & Address	Mr.Binu Cherian Thakkirickal (H), Chelad, Kothamangalam, Ernakulam District.	
	Monitoring Site	Quarry of Mr. Binu Cherian Karakkad, Edayoor, Malappuram District.	
	Survey No	101/5, 101/6	
Location of Site	Village	Edayoor	
	Panchayath	Edayoor	
	Taluk	Thirur	
	District	Malappuram	
	State	Kerala	
Customer Reference			
	<u>S</u>	AMPLE DETAILS	
Source of Sample		Ambient Sound Level	
Sample Code		20200810/S106	
Location of Monitoring		East side Boundary	
Date of Monitoring		10.08.2020	
Method		IS 9989:1981 RA:2008	

DAYTIME	RESULT	NIGHTTIME	DECLUM	
BRITIME	RESOLI	NIGHTTIME	RESULT	
06.00 Hrs	37.4 dB (A)	23.00 Hrs	33.8 dB (A)	
07.00 Hrs	40.1 dB (A)	00.00 Hrs	36.2 dB (A)	
08.00 Hrs	44.4 dB (A)	01.00 Hrs	36.9 dB (A)	
09.00 Hrs	47.9 dB (A)	02.00 Hrs	36.5 dB (A)	
10.00 Hrs	50.2 dB (A)	03.00 Hrs	37.2 dB (A)	
11.00 Hrs	53.3 dB (A)	04.00 Hrs	36.2 dB (A)	
12.00 Hrs	50.6 dB (A)	05.00 Hrs	37.9 dB (A)	
13.00 Hrs	49.8 dB (A)			
14.00 Hrs	50.2 dB (A)	RESULTS		
15.00 Hrs	50.6 dB (A)			
16.00 Hrs	51.7 dB (A)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
17.00 Hrs	52.1 dB (A)	Ambient Sound Level (Leq) Daytime	48.7 dB (A)	
18.00 Hrs	46.7 dB (A)			
19.00 Hrs	43.2 dB (A)			
20.00 Hrs	39.4 dB (A)	7. 1:		
21.00 Hrs	38.9 dB (A)	Ambient Sound Level (Leq) Nighttime 36.5 dB (		
22.00 Hrs	36.3 dB (A)			

\*\*\*End of Report\*\*\*

For and on behalf of Standards Environmental & Analytical Laboratories

Authorized Signatory Rija Joseph **Technical Manager** 

Standard<sup>s</sup> Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43

Web: www.sealabs.in, E-mail: seaalab@gmail.com

Copy of result of Water







#### TEST REPORT

Test Report No: 20200810/R107	Date: 14.08.2020	Page 1 of 1

	CUST	OMER DETAILS	8		
Customer Details	Name & Address	Mr.Binu Cherian Thakkirickal (H), Chelad, Kothamangala	m,Ernakulam District.		
	Monitoring Site		Quarry of Mr. Binu Cherian Karakkad, Edayoor, Malappuram District.		
	Survey No	101/5, 101/6	101/5, 101/6		
Location of Site	Village	Edayoor	Edayoor		
Location of Site	Panchayath	Edayoor	Edayoor		
	Taluk	Thirur	Thirur		
	District	Malappuram	Malappuram		
	State	Kerala	Kerala		
Customer Reference					
	SAM	MPLE DETAILS			
Sample Code	20200810/S107	Sample Received On	11.08.2020		
Sample Name	Water	Sampling Procedure			
Sample Description	Open Well	Sampling Location	Adjoint plot on West direction		
Identification By Customer		Sample Condition	Good		
Sampled On		Test Started On	12.08.2020		
Sampled By	Customer	Test Completed On	14.08.2020		

SL NO	TEST PARAMETER	TEST METHOD	UNITS	RESULT	ACCEPTABLE LIMIT (IS 10500 – 2012)
01	Colour	IS 3025 Part 4:1983 RA 2017	Hazen	1.00	5.0 (Max)
02	Odour	IS 3025 Part 5:1983 RA 2017	33	Unobjectionable	Unobjectionable
03	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	0.30	1.0 (Max)
04	pH	IS 3025 Part 11:1983 RA 2017		6.95	6.5 – 8.5
05	Conductivity	IS 3025 Part 14:1984 RA 2013	μS/cm	185	
06	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	120	500 (Max)
07	Total Hardness (as CaCO <sub>3</sub> )	IS 3025 Part 21:2009 RA 2014	mg/L	66.7	200 (Max)
08	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2014	mg/L	15.4	75.0 (Max)
09	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2014	mg/L	6.89	30.0 (Max)
10	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	11.9	250 (Max)
11	Total Alkalinity (as CaCO <sub>3</sub> )	IS 3025 Part 23:1986 RA 2014	mg/L	49.7	200 (Max)
12	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	0.19	1.00 (Max)
13	Sulphate (SO <sub>4</sub> )	IS 3025 Part 24:1986 RA 2014	mg/L	1.30	200 (Max)
14	Total Coliform Bacteria	IS 15185 : 2016		Absent/100 ml	Absent
15	E coli	IS 15185 : 2016		Absent/100 ml	Absent

\*\*\*End of Report\*\*\*

For and on behalf of Standards Environmental & Analytical Laboratories

Rija Joseph
Technical Manager
Authorized Signatory

Standard<sup>s</sup> Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43

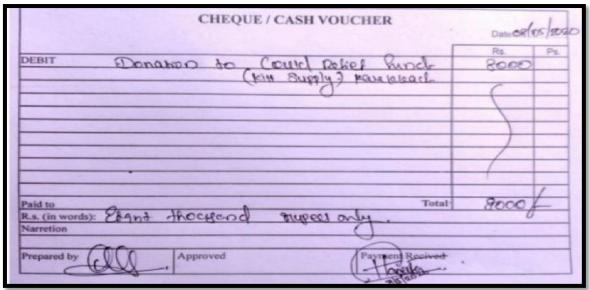
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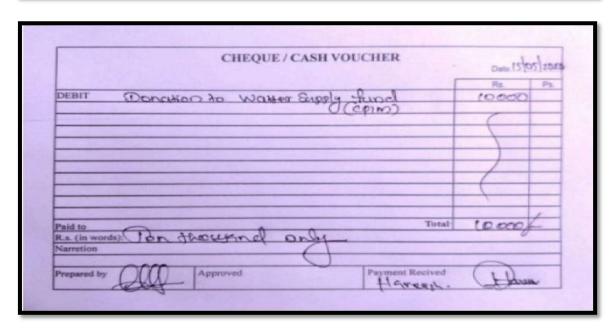
Monitoring results of Sound

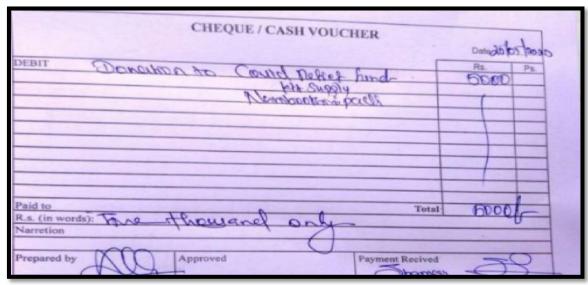














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