COMPLIANCE REPORT

APRIL 2024 - SEPTEMBER 2024

M/s St. GEORGE GRANITES

EC NO: 57/SEIAA/KL/7585/2012

DT. 15.03.2013

ERNAKULAM DISTRICT, KERALA

St. George Granites

PALACKAMATTOM, KINGINIMATTOM P.O., KOLENCHERY - 682 311 TELEPHONE : 0484 - 276 0208, MOBILE : 9645083239, 964 5083 236 E-mail: st.georgegranites@gmail.com

Date11-11-2024

The Additional Principal Chief Conservator of Forests (C) Ministry of Environment, Forests & Climate Change, 4th Floor, E& F Wing, Kendriya Sadan, Koramangala, Bangalore - 560034

Ref :- FileNo. 57/SEIAA/KL/7585/2012

Sub :- Environment Clearance - Quarry project at Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala.- Compliance Report - first half - Reg.

Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for 3.8164 Ha. by order No. 57/SEIAA/KL/7585/2012dated 15.03.2013by State Environmental Impact Assessment Authority, Kerala. The compliance report of FirstHalf (April 2024 - September 2024) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you, Yours respectfully,

Encl: - As Above

Copy to :The Member Secretary State Environment Impact Assessment Authority (SEIAA) Thiruvananthapuram.

COMPLIANCE REPORT

TO

THE CONDITIONS

OF

ENVIRONMENTAL CLEARANCE ORDER

NO: 57/SEIAA/KL/7585/2012

DATED ON: 15.03.2013

BY

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)

FOR

BUILDING STONE QUARRY (MINOR MINERAL MINING) PROJECT

AT

SURVEY NO. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2, 1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2

MARADY VILLAGE, MARADY PANCHAYATH, MUVATTUPUZHA TALUK, ERNAKULAM DISTRICT, KERALA

BY

M/s St. GEORGE GRANITES ERNAKULAM DISTRICT, KERALA

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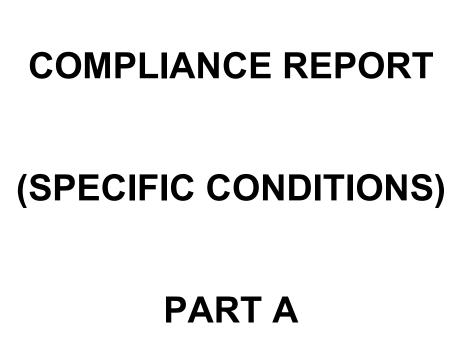
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INTRODUCTION

The quarry project of **M/s St. George Granites** is located at survey no. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2, 1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2 Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 15.03.2013. As part of general condition No.25 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 2024 - September 2024** is being submitted



PART - A - SPECIFIC CONDITIONS

01 The storm water should be channelized to a pit that has to be retained in the central area of the proposed mine.

Compliance:

As part of storm water management, the project proponent has constructed drain at entire mining area to channelize the storm water in to the existing pond in the site. The storm water drainage and its exit from the site are fully functional at all the time. A pit in the central area of the mine has developed. The photograph of the pit developed in the mine lease area is given below



02 Indigenous varieties of horticultural crops having edible fruits should also be cultivated as part of eco-restoration.

Compliance:

The project proponent has planted various varieties of horticultural crops and fruit bearing trees in the project site as part of compensatory a forestation and concurrent eco restoration. The project proponent can plant various varieties as cultivation during the post closure of mine on the restored area. The extraction of minerals is being progressing in the project site.

COMPLIANCE REPORT (GENERAL CONDITIONS) **PART B**

PART - B - GENERAL CONDITIONS

Rain water harvesting to collect and utilize the entire water falling in land area should be provided.

Compliance:

As part of conservation of rain water, the proponent has constructed a rain water harvesting pond in the project site to collect rain water falling in the entire mining area. The collected rain water is being used for irrigation purposes, watering of plants, wetting of roads, supply to public and for dust suppression system (mainly sprinklers system). The RWH facility can also act as a desiltation pond or clarifier.

O2 Environment monitoring cell as agreed under the affidavit filed by the proponent should be formed and made functional.

Compliance:

Environmental Monitoring Cell (EMC) was formed with Mr. Kuriakose I. Mathai (proprietor of St. George Granites) as head and made functional. Meeting of monitoring cell regularly convenes and discussed the status of the compliance of the specific and general conditions contained in the Environmental Clearance (EC) order.

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

Compliance:

The project proponent has planted many species along either side of the road constructed in the project site. Avenue trees can perform as dust regulation mechanism therefore the project proponent is intending to plant more saplings along the road side and parking area, where the vegetation is less. There are

natural vegetation including trees, shrubs and climbers growing in the sides of the tarred road and open parking areas.

O4 The project shall incorporate devices for solar energy generation and utilization wherever possible.

Compliance:

As part of reduce the consumption of energy from conventional sources, energy conservation and to use renewable energy, the project proponent has installed 3 solar street lights in the project site. The consumption from renewable energy reduces the energy from conventional sources.

O5 Sprinklers shall be installed and used in the project site to contain dust emissions

Compliance:

The emission of dust is a major adverse effect of a mining industry. To prevent dust emission, sprinklers are installed in the project site. This help to suppress dust during the time summer season. The project proponent has deployed a vehicle with water tanker to splash water on the mining area, haulage road and public road.

The eco-restoration plan submitted with the proposal should be fully implemented.

Compliance:

The eco restoration plan prepared is being executed in a good manner. The project proponent has started to plant various saplings in and around the project site. The mining in the EC obtained area is under progress.

O7 Corporate social responsibility agreed upon by the proponent should be implemented

Compliance:

The project proponent has executed various activities under Corporate Social Responsibility of the firm. The main activities were under various sectors worth Rs. 4,37,315 The bill and vouchers against CSR activities done in this period is attached as **Annexure No.1**.

08 Barbed metal wire fencing around the mining area shall be provided with a height of not less than 5 ft so that the falling of animals/human/belongings/dumping of garbage's etc. does not happen.

Compliance

As part of demarcation of lease area and to ensure safety, barbed metal wire fencing was installed around the mining area at 5ft height. This prevents the falling of animals/ human/dumping of garbage's etc, in to the mining area. The fencing maintains at all time.

09 Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of explosive department.

Compliance:

Installation of warning alarm is mandatory as per the explosive department to provide warning regarding blasting to the nearby community and labors. A warning alarm has installed in the project area to attain this object. It is working properly prior to the blasting. A danger board is also installed which gives information about the blasting time to the general public. The photograph of the sign board mentioning blasting time is attached given below



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

Compliance:

One of the main sources of dust emission is roads. To reduce emission of dust, the access road from the entrance of project site to quarry is tarred and tiled. The project is spraying water on the road to arrest the dust during summer season. The project proponent is maintaining access road to the quarry in good condition for dust emission. The photograph of the tiled approach road is given below



Overburden material should be managed within the site and the old quarries, if any, should be reclaimed and restored

Compliance:

The project converted a slope area in to terraces by systematically dumping the overburden. To prevent soil erosion this has covered with a *geotex* coir mat and planted grass. As part of eco - restoration, the project is intending to plant various saplings and medicinal plant on the prepared terrace area. All overburden generated from the mining area is managed within the site.

Height of benches should not exceed 5m and width should not be less than 5m.

Compliance:

The volume of extracted minerals was low therefore the benches are being developed as benches. All mining activities are progressing under the supervision of qualified personals. To enhance safety and to make environment

friendly quarrying, the excavation activity in the projects progresses by creating benches of 5m width x 5m height. The copy of certificate of First class manager is attached at Annexure No2. The photograph of the mining area is attached below



Mats to reduce fly rock blast to a maximum of 15 PPV should be 13 provided.

Compliance:

The project proponent is using blasting mats to reduce fly rocks during the time of blasting. The project proponent is using NoNEL technology for blasting therefore the problem with fly rock in the community is nil. The project can also assure the maximum PPV is under 10 with the controlled blasting operations under the supervision of qualified persons.

14 Mining depth should not exceed beyond 40m, unless otherwise specifies or not below the level of nearest stream bed whichever is less.

Compliance:

The exploration of building stone has been maintained as 40 m MSL in the mining area as agreed in the proposal. To ensure this, the project appointed second class manager and mining mate as qualified personals to supervise the mining activities. The all activities of these qualified persons is being under the supervision and monitoring of Environment Monitoring Cell.

15 Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of greenbelt and hollow brick envelope for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB

Compliance:

To reduce the impact of sound to the labours in the unit, the project has provided ear plugs. Vegetation around the mining area helps to reduce noise and air pollution. This helps the noise level kept within prescribed standards as per CPCB/KSPCB standards. The project proponent is trying to enhance the vegetative cover by planting more tree saplings. The project is regularly monitors the ambient noise level at the project site by an approved laboratory.

16 Assurance in the form of affidavit should be given to SEIAA that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.

Compliance:

Assurance in the form of affidavit was already submitted to SEIAA Kerala after getting the Environmental Clearance. co restoration in the mining plan and mine closure plan will be done the own cost of the project proponent.

17 Garland drains to be provided in the lower slopes around the core area to channelize storm water.

Compliance:

To channelize the storm water falling in the mine lease area, the proponent has constructed garland drain around the project site in the lower slopes. This drain leads to the de siltation traps, which is situated at the lowest portion of the project site.

Debris/ silt traps to be provided to prevent entry of dust and 18 quarry wastes entering the main streams.

Compliance:

As part of effective storm water management, the project proponent has constructed storm water drains in the lower slopes of the project area. This helps to channelize the storm water to the rain water collection pond and the most of the debris is settling down in the bottom of the pond. The project proponent has constructed de siltation traps in the lower slopes of the project area for storm water management to prevent the quarry waste from the site to the mainstreams.

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

Compliance:

All statutory approvals required for the quarrying activity is obtained. The copy of the approvals obtained is provided at Annexure No. 3, 4, 5, 6 & 7.

Table 1- The details of statutory approvals

Name of the Statutory approval	Name of the Statutory authority		
"Consent to Operate"	Kerala State Pollution Control Board		
Environmental Clearance order	State Environmental Impact		

	Assessment Authority, Kerala	
	Ministry of Commerce & Industry –	
Explosive License	Petroleum & Explosives Safety	
	Organization (PESO)	
License for quarry operations	Gram Panchayat	
Lease order	Directorate of Mining and Geology	

20 In case of any change(s) in the scope of the project, the project would require a fresh appraisal by this authority.

Compliance:

The project proponent is working in the mine lease area which is within the EC obtained area. There is no change in the scope of the project. The project proponent will seek for a fresh Environmental clearance In the case of any change(s) in the scope of the project.

21 The authority reserved the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

Compliance:

If the authority instructs to add additional safeguard measures subsequently for enhancing safety and eco friendly mining, the project proponent will be complied with.

22 The stipulations by Statutory Authorities under different Acts and notifications should be complied with, including the 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 are being scrupulously followed. A brief list of various Acts and notifications which are followed by the proponent is given below

- ➤ Kerala Minor Mineral Concession Rules, 2015.
- ➤ Mines Act, 1952
- ➤ Explosive Rules, 2008
- ➤ Kerala Panchayat Raj Act, 1994
- ➤ Water Pollution (Prevention & Control) Act, 1974
- ➤ Air Pollution (Prevention & Control) Act, 1981
- > Environment Protection Act, 1986
- > EIA Notification, 2006 / 2009
- 23 The project proponent should advertise in at least two local newspapers widely circulated in the region. One of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters area 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 a copy of the same should be forwarded to the office of this authority as confirmation.

Compliance:

An advertisement in two news paper regarding the accordance of environmental clearance to the quarrying activity was given within stipulated period and the copy of the same was submitted to SEIAA.

24 A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat / District Panchayat / 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 clearance letter shall also be put on the website of the company by the proponent.

Compliance:

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

25 The proponent shall submit six monthly reports on the status of 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 report is being regularly submitted to the Regional Office of MoEF&CC, Govt. of India and State environment Impact Assessment Authority, (SEIAA) Kerala, as e mail. The result of monitored data is provided in compliance report. The monitored results are attached as Annexure No. 8 9 **&10.**

26 The the environmental conditions of clearance should prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman fond size of not less than 40.

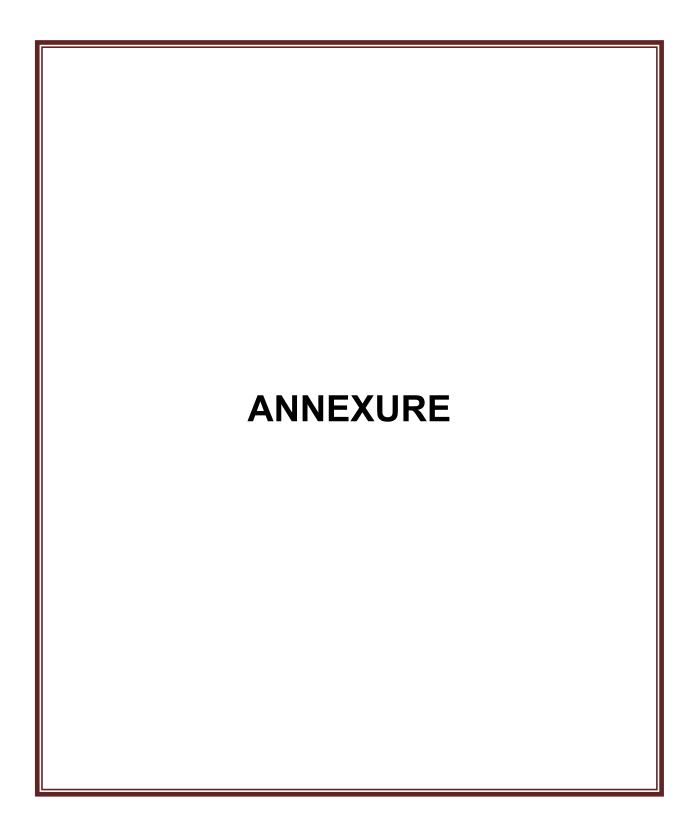
Compliance:

The 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.

27 The proponent shall provide affidavit that all the conditions stipulated in the EC shall be scrupulously followed.

Compliance

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed was submitted to State Environmental Impact Assessment Authority.



Annexure No.1.



Compliance Report

SECTOR	DATE	ACTIVITIES	BENEFICIARIES	AMOUNT SPENT
		DONATION OF FOOD		
HEALTH	22-04-2024	PROVISIONS	AASRAYAM CHARITABLE SOCIETY	2000
		DONATION OF FOOD		
	17-05-2024	PROVISIONS	CHRIST SERVANTS MINISTRIES TRUST	500
		DONATION OF FOOD		
	25-05-2024	PROVISIONS	CARE TOUCH FOUNDATION SANTHWANAM	5000
		DONATION OF FOOD		
	01-06-2024	PROVISIONS	CHILD HELP FOUNDATION	5000
		DONATION OF FOOD		
	07-06-2024	PROVISIONS	SARANA OLDAGE HOME	1000
		DONATION OF FOOD		
	09-07-2024	PROVISIONS	GOOD SAMARITAN ATHURASRAMAM	5000
		DONATION OF FOOD		
	22-07-2024	PROVISIONS	CARE TOUCH FOUNDATION SANTHWANAM	2000
		DONATION OF FOOD		
	27-07-2024	PROVISIONS	SANTHWANAM SARANALAYAM	500
		DONATION OF FOOD		
	17-08-2024	PROVISIONS	CARE TOUCH FOUNDATION SANTHWANAM	1000
		DONATION OF FOOD		
	22-08-2024	PROVISIONS	MATHRUKA CHARITABLE TRUST	500
		DONATION OF FOOD		
	23-08-2024	PROVISIONS	CHILD HELP FOUNDATION	3000
		DONATION OF FOOD		
	26-08-2024	PROVISIONS	LIFE CARE CHARITABLE TRUST	1000
		DONATION OF FOOD		
	10-09-2024	PROVISIONS	CHRIST SERVANTS MINISTRIES TRUST	500
		DONATION OF FOOD		
	11-09-2024	PROVISIONS	AASRAYAM CHARITABLE SOCIETY	1500
		DONATION OF FOOD		
	13-09-2024	PROVISIONS	KERALA KAUMUDI PRIVATE LIMITED	1905
		DONATION OF FOOD		
	28-09-2024	PROVISIONS	MATHRUKA CHARITABLE TRUST	1000
	08-06-2024	TREATMENT SUPPORT	MATHEW PAUL	10000
	10-06-2024	TREATMENT SUPPORT	MURALI	20000
	15-06-2024	TREATMENT SUPPORT	KAMALA VIJAYAN	5000
	15-06-2024	TREATMENT SUPPORT	SUBHASH V V	15000
	16-07-2024	TREATMENT SUPPORT	AMMINI SUKUMARAN	3000
	22-08-2024	TREATMENT SUPPORT	JOLLY P P	25000
	30-08-2024	TREATMENT SUPPORT	BABU	5000
	17-09-2024	TREATMENT SUPPORT	JINU JOHN	5000
MARRIAGE	27-05-2024	MARRIAGE	SASEENDRAN	15000
	20-08-2024	MARRIAGE	MURALI	15000
	20 00 2024	DONATION FOR		13000
CULTURE	16-04-2024	CHURCH	ST GEORGE CHAPPELKINGINIMATTOM	5000
JOLIONE				
	02-05-2024	DONATION FOR	ST GEORGE JACOBITE SYRIAN CHURCH	2500

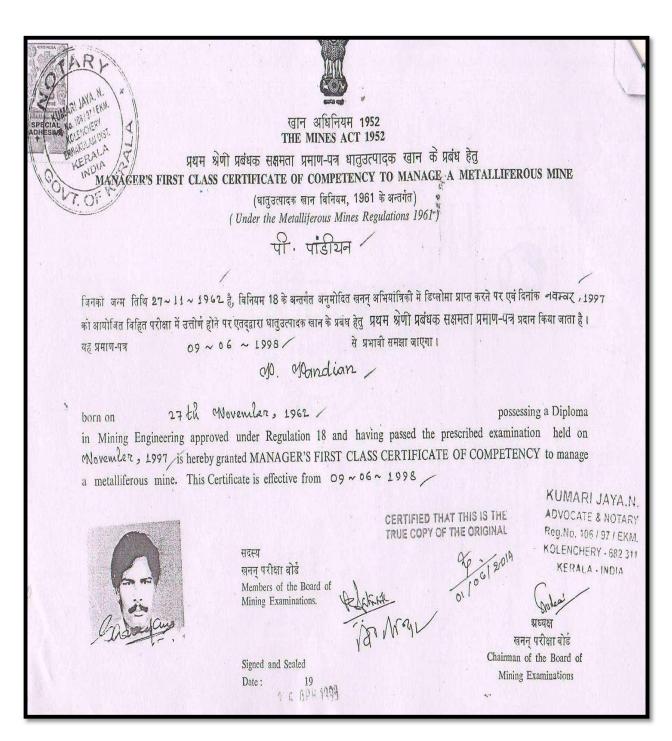
Compliance Report

		CHURCH	NIRMALAGIRI	
		DONATION FOR		
	02-05-2024	CHURCH	ST GEORGE ORTHODOX SURIYANI CHURCH	3000
		DONATION FOR		
	05-07-2024	CHURCH	ST JOHNS ORTHODOX SYRIAN CHURCH	7500
		DONATION FOR		
	06-07-2024	CHURCH	ST JOHNS ORTHODOX SYRIAN CHURCH	7500
		DONATION FOR	ST PETERS&ST PAULS ORTHODOX SURIYANI	
	10-07-2024	CHURCH	CHURCH KOLENCHERY	1000
		DONATION FOR	ST PETERS&ST PAULS ORTHODOX SURIYANI	
	10-07-2024	CHURCH	CHURCH KOLENCHERY	1000
		DONATION FOR	ST MARYS YACOBAYA SURIYANI CHURCH	
	07-08-2024	CHURCH	PAZHUKKAMATTOM,THIRUVANIYOOR	1500
		DONATION FOR		
	25-08-2024		ST MARYS ORTHODOX SYRIAN CATHEEDRAL	500
		DONATION FOR		
	25-08-2024	CHURCH	ST MARYS ORTHODOX SYRIAN CATHEEDRAL	500
		DONATION FOR	ST PETERS&ST PAULS ORTHODOX SURIYANI	
	14-09-2024		CHURCH KOLENCHERY	1500
		DONATION FOR		
	18-04-2024		PALACKAMATTOM SREE BHAGAVATHY TEMPLE	5000
		DONATION FOR		
	12-08-2024		GANESOLSAVAM	1000
		DONATION FOR	SREE KRISHNA JAYANTHI BALAGOKULAM	
	20-08-2024	TEMPLE	KARUKAPILLY	2000
		LIFE MISSION HOUSE	AMBIKA MURALEEDHARAN, VADAKKEKARA EAST	
HOUSING	03-04-2024	MARADY	MARADY	9500
		LIFE MISSION HOUSE		
	03-04-2024	MARADY	JAMEELA KAVATTU	9500
		LIFE MISSION HOUSE		
	03-04-2024		BABU P P ,PARATHALAKKAL	9500
		LIFE MISSION HOUSE		
	03-04-2024		BEENAMOL M P,CHIRAKKATTU	9500
		LIFE MISSION HOUSE		
	03-04-2024	MARADY	RAJENDRAN KUNNATHUMOLEL,KAYANADU	9500
		LIFE MISSION HOUSE	ANOOP VASU,KUNNATHUKUDIYIL HOUSE,SOUTH	
	11-04-2024	MARADY	MARADY	7000
		LIFE MISSION HOUSE		
	14-05-2024	MARADY	SHIJO,KODIKUTHIYEL HOUSE	9500
		LIFE MISSION HOUSE	MANESH PAULOSE, VELLARAM PARACKAL	
	15-05-2024	MARADY	HOUSE,NORTH PIRAMADOM	7000
		LIFE MISSION HOUSE	BENNY T PAUL, THURUVASSERIL	
	20-06-2024	MARADY	HOUSE,OORAMANA P O,KAYANADU	7000
		LIFE MISSION HOUSE	BHAVANA PADATHY VINOD A K	_
	03-07-2024	MARADY	IDAPPATTU,SOUTH MARADY	7500
		LIFE MISSION HOUSE		
	27-07-2024	MARADY	LIFE HOME	9500

Compliance Report

		LIFE MISSION HOUSE	RAHEL	
	06-08-2024	MARADY	ISSAC,PARAKKAPADAVIL,OORAMANA,KAYANADU	9500
		LIFE MISSION HOUSE		
	13-08-2024	MARADY	LIFE LINE HOUSE	9950
Cultural	20-04-2024	DONATION	PRABHAKIRAN NATIONAL FOUNDATION	500
	10-05-2024	DONATION	PARISTHITHY SAMRAKSHANA SAMATHI MISSION	500
	11-05-2024	DONATION	DRIVERS RAMAMANGALAM	2000
	25-05-2024	DONATION	ENCOUNTER FOR LEGAL INFORMATION SOCIETY	5000
	06-06-2024	DONATION	JANAMAITHRI SAMSKARIKA SAMATHI	3000
	29-06-2024	DONATION	BROOKSIDE CLLUB	8260
	20-07-2024	DONATION	NAVODHANA VEDI	200
			SOCIAL JUSTICE VIGILANCE FORUM KERALA	
	26-08-2024	DONATION	STATE COMMITTEE	1000
			SOCIAL JUSTICE VIGILANCE FORUM KERALA	
	26-08-2024	DONATION	STATE COMMITTEE	1000
	27-08-2024	DONATION	GLOBAL HUMAN RIGHTS VISION	1500
	02-09-2024	DONATION	VIJNAODAYAM VAYANASALA	1000
			TIC SEVEN ARTS &SPORTS CLUB	
	09-09-2024	DONATION	PALACKAMATTOM	3000
	28-06-2024	DONATION	LP SCHOOL KOLENCHERY	5000
	22-07-2024	DONATION	ST PETERS COLLEGE KOLENCHERY	2000
		DONATION	Marady Grama Panchayat	1,00,000
			TOTAL	4,37,315

CSR Details



Certificate of First class manager

Annexure No.3



KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/EKM/DOII/ICO-R/R15ERNA1292319/2023

Date of issue :15/07/2023

INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No: PCB/EKM/DOII/ICO-R/18565688/2023

Ref: Consent No: R15ERNA1292319 Date of issue:16/04/2018 Valid upto 30.06.2023.

The 'Integrated Consent to Operate' issued as per reference above to M/s QUARRY OWNED BY KURIAKOSE I MATHAI, MARADY, MUVATTUPUZHA is hereby renewed up to 09/10/2026 and issued to M/s QUARRY OWNED BY KURIAKOSE I MATHAI, MARADY, MUVATTUPUZHA. The consent(s)/ variation order(s) cited under reference are integral part of this renewal order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

I. GENERAL

S.No. Items		Description		
1	CATEGORY	RED		
2	CAPITAL INVESTMENT	Rs.95.55 LAKHS		
3	ANNUAL FEE Rs. 22,000/-			
4	FEE REMITTED	Rs. 11,0000/-		
5 SURVEY NUMBERS		1094/1-A 1094/1-A1 1094/1-A6 1097/7-A 1097/6-B2 1101/3 1097/7B 1097/6-A2 1094/1- A27 1097/6-B3 1097/7-C2		
6	VALIDITY	09/10/2026		

II. Stack Details

Stack No.	Source of	Emission	Stack Height above		Control
	Emission	Emission Rate(Nm3/Hr)	Ground Level(In Meters)	Roof Level(In Meters)	Equipment

III. CONDITIONS

- 3.1 For renewal of the consent in case of continuance of operation of the quarry, application in the exescribed form shall be submitted through the web portal of the Board for Online Consent Management & Monitoring System 2 months prior to the date of expiry. Late application will be accepted only with fine.
- 3.2 This consent is granted based on the Circular no: PCB/HO/CIRCULAR/51/2019 dated 04 /05/2022 and letter of the Geologist dated 13.07.2023. The quarrying shall be done after obtaining all statutory/necessary clearances from concerned authorities and is valid only when all other clearances from other concerned authorities are valid.
- 3.3 The consent issued from the board is only with respect to the powers vested under the water Act 1974, Air Act 1981 and The Rules there under. The operation of the quarry shall be commenced only after obtaining clearances from all concerned Authorities.
- 3.4 There shall not be any quarrying activity between 6 pm to 6 am.
- 3.5 Mining activities shall be done only in the area marked by Mining & Geology.
- 3.6 The PM10 in ambient air at the boundary shall not exceed 100 microgram/m3
- 3.7 The PM 2.5 in ambient air at the boundary shall not exceed 60 microgram/m3
- 3.8 The sound level (Leq) at 1 m outside the boundary of the site should not exceed the ambient noise Standard applicable to the adjoining areas.
- 3.9 Conditions given in the Environmental clearance shall be strictly complied with.
- 3.10 Mining shall be only done as per the mining plan attached with EC.

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

Sajeesh Joy Sajeesh Joy Date: 2023.07.15 16:39:22 +05'30

DATE:15/07/2023

SIGNATURE & SEAL OF ISSUING AUTHORITY ENVIRONMENTAL ENGINEER, DO2, EKM



Sri. KURIAKOSE I. MATHAI **PROPRIETOR** M/s. QUARRY OWNED BY KURIAKOSE I MATHAI MARADY MUVATTUPUZHA

Renewed consent to operate

Annexure No.4



Proceedings of the State Environment Impact Assessment Authority Kerala Present: Dr. A.E. Muthunayagam, Chairman; Prof. (Dr.) K.P. Joy, Member; Sri. James Varghese IAS, Member Secretary

Sub: SEIAA Kerala - Proposed quarry project in Survey Nos. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2, 1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2 at Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala by M/s St. George Granites - Environmental Clearance under EIA Notification 2006 accorded - Orders issued

Environmental Clearance

No. 57/SEIAA/KL/7585/2012

dated, Thiruvananthapuram 15-03-2013

ORDER

The Proprietor of M/s St. George Granites, vide their application received on 14-11-2012, has sought environmental clearance under the EIA Notification, 2006 for the quarry project at Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala. The proposal has been appraised by the State Level Expert Appraisal Committee Kerala constituted by the competent anthority. as per prescribed procedure in the lights of provisions under the EIA Notification 2006 and subsequent amendments, in its 10th meeting held on 26th and 27th November 2012 and also in the 12th meeting held on 2nd February, 2013 AND on the basis of the supporting documents enclosed with the application viz., the Form - 1, questionnaire for mining projects, pre-feasibility report, Environment Management Plan and the additional clarifications furnished in response to the observations, the SEAC. Kerala recommended environmental clearance to the project.

It is interalia, noted that the project comes under the Category B, Activity 1(a) of Schedule of EIA Notification 2006. The proposed project site falls within 9°57' N and 76°32'E. The proposed project is for quarrying of 2,29,000 TPA of building granite stone from an area of 3.8164 hectare (38,147.66 m²) of land. The expected life of mine will be 11 years. The proposed project activity involves about 70% of the pit area for exploring granite building stone. At the end of life of mine, the reclaimed area will be suitably planted and the remaining void at lower levels of excavated pit will be utilized as water storage/ground water recharge and will be utilized for domestic/agricultural purposes. The proposed project does not involve any underground mining activities. The mining will be done by open cast semi mechanised method of mining. The bench height and width proposed is 5 m. The exploitation of mineral is being done from 155-40 m RL in conceptual phase. A total quantity of 19,050 m³ of top soil from two pits will be removed during the mining operations. The top soil will be utilized for green belt development/plantation and will also be utilized for filling the low lying areas or adjacent quarry site. The sewage of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The daily water requirement of 5 KLD will be met from storm water / bore well. There will be fugitive emissions generated during material handling, transportation, loading, unloading, etc. that are proposed to be managed by regular water sprinkling on haul road, green belt development, avoiding overloading of vehicles and limiting the speed of the vehicles. The mineral produced from the proposed mine will be sent to the crusher plant located at around 15 km towards west at Palakkamattom

for crushing it to the required size before dispatching it to end use.

The SEIAA considered the proposal in its 13th meeting held on 13th December 2012 and 15th meeting held on 22nd February 2013. The SEIAA, after due consideration of the relevant documents and additional clarifications submitted by the project proponent, and in view of the recommendations of SEAC, approved for issuance of Environmental Clearance for the project mentioned above at its 15th meeting held on 22nd February 2013. Accordingly, the State Level Environment Impact Assessment Authority (SEIAA) Kerala constituted by Govt. of India vide Notification No. S.O. 2484(E) dt.3-11-

Page 1 of 4

2011 of Ministry of Environment and Forests, Govt. of India, published as Gazette extraordinary No. 2074 on 3-11-2011, hereby accord necessary Environmental Clearance for the above project as per powers vested with it under the provisions of Environment Impact Assessment Notification - 2006 and subsequent amendments and also under the provisions made in the O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of the Ministry of Environment and Forests, Government of India, and further subject to strict compliance of the following specific conditions, and the general conditions contained in the Annexure, which shall also form a part of this document.

- 1. The storm water should be channelized to a pit that has to be retained in the central area of the proposed mine.
- 2. Indigenous varieties of horticultural crops having edible fruits should also be cultivated as part of eco-restoration.

Compliance of the above conditions will be monitored by the Directorate of the Department of Environment and Climate Change, Government of Kerala or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Government of India located at Bangalore. Necessary support for entry and inspection should be provided by the project proponent to the staff of the Directorate and Ministry for monitoring purposes.

The given address of correspondence of the Authorized Signatory of the project is:- Mr. Kuriakose I. Mathai, Proprietor, M/s St. George Granites, Palackamattom, Kinginimattom P.O., Kolenchery, Kerala - 682311; Telephone No: 0484-2760208.

Agency with NABET accreditation for EIA is: - M/s Enkay Enviro Services, 24-B, Basement, Dadu Marg, Gopal Bari, Jaipur-302001; Tel. No. 0141-2363996/4023996; Fax No. 0141-5118996; E-mail info@enkayenvirocom 1

> James Varghese IAS Member Secretary, SEIAA and Principal Secretary to Government Environment Department

Mr. Kuriakose I. Mathai Proprietor M/s St. George Granites Palackamattom, Kinginimattom P.O. Kolenchery, Kerala - 682311.

Copy to:

- The Principal Secretary, Environment Dept., Government of Kerala, Secretariat
- The Director, Dept. of Environment and Climate Change, Govt. o.f Kerala, Tvm 24. 2.
- 3. IA-Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New
- 4. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034
- Chairman and Members of SEIAA Kerala 5.
- 6. Chairman, SEAC Kerala
- 7. Website uploading
- 8. Stock file

Page 2 of 4

Annexure

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA GENERAL CONDITIONS (for mining projects)

- Rain water harvesting to collect and utilize the entire water falling in land area should be provided. (i)
- Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed (ii) and made functional.
- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.
- (iv) The project shall incorporate devices for solar energy generation and utilization wherever possible.
- (v) Sprinklers shall be installed and used in the project site to contain dust emissions.
- (vi) The eco-restoration plan submitted with the proposal should be fully implemented.
- (vii) Corporate Social Responsibility agreed upon by the proponent should be implemented.
- (viii) Barbed metal wire fencing around the mining area shall be provided with a height of not less than 5 ft so that falling of animals/human/belongings/dumping of garbages etc. does not happen.
- (ix) Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
- Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- (xi) Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored.
- (xii) Height of benches should not exceed 5 m and width should not be less than 5 m.
- (xiii) Mats to reduce fly rock blast to a maximum of 15 PPV should be provided.
- Mining depth should not exceed beyond 40 m, unless otherwise specified or not below the level of (xiv) nearest stream bed, whichever is less.
- Acoustic enclosures should have been provided to reduce sound 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.
- (xvi) Assurance in the form of affidavit should be given to SEIAA that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
- Garland drains to be provided in the lower slopes around the core area to channelize storm water. xvii)
- (viii) Debris/ silt traps to be provided to prevent entry of dust and quarry wastes entering the main streams.

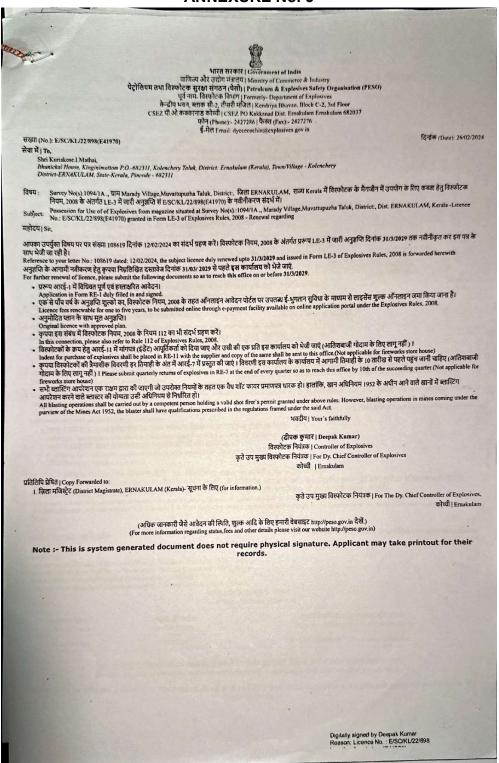
Page 3 of 4

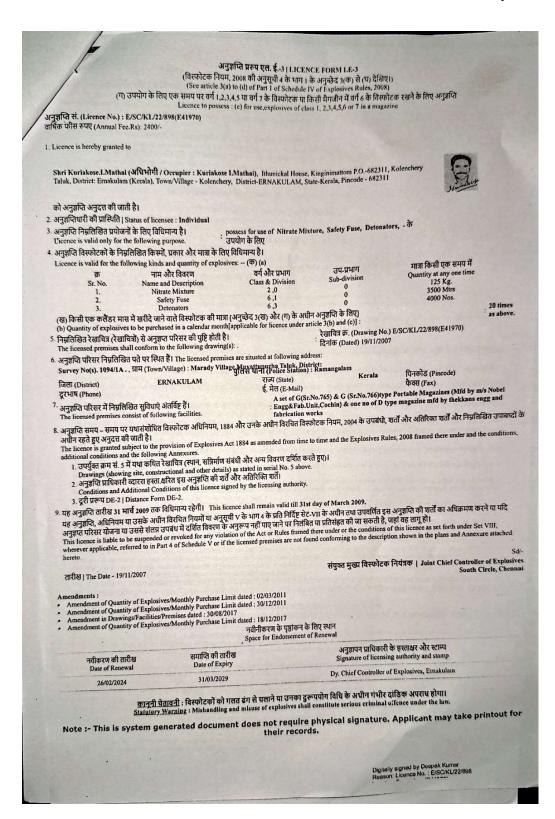
- All other statutory clearances should have been obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by (xx) this Authority.
- The Authority reserves the right to add additional safeguard measures subsequently, if found (xxi) necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- The stipulations by Statutory Authorities under different Acts and Notifications should be complied (xxii) with, including the 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.
- The project proponent should advertise in at least two local newspapers widely circulated in the (xxiii) region, one of which 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 a copy of the same should be forwarded to the office of this Authority as confirmation.
- A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District (xxiv) Panchayat/ 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 clearance letter shall also be put on the website of the company by the proponent.
- The proponent shall submit six monthly reports on the status of compliance of the stipulated EC (xxv) conditions including results of monitored data (both in hard 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 to the Directorate of Environment and Climate Change, Govt. of Kerala.
- The conditions of Environmental Clearance should be prominently displayed in a metallic board of 3 (xxvi) ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than
- The proponent should provide affidavit that all the conditions stipulated in the EC shall be (xxvii) scrupulously followed.

Sd/-Member Secretary, SEIAA Kerala

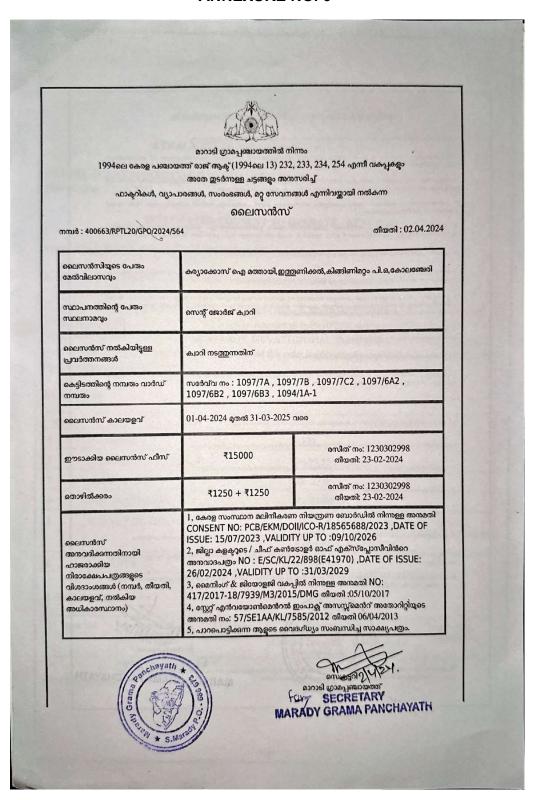
Page 4 of 4

EC order





License to possess and use of Explosives



License from Gram Panchayat

Changes as dearly there a through Many Menerity that to Budding and Lease to Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom, P. O. Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom. P.O sanctioned - orders - issued

- Ref. 1. Application dtd. 03/07/2015 from Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom. P. O, Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom. P.O.
 - 2. Letter No. DOE/3228/E2/15 dtd. 17/07/2015, 26/11/2015, 10/02/2016, 31/07/2017 from the Geologist, District Office, Ernakulam
 - 3. Pro.order. No. 57/SEIAA/KL/7585/2012 dtd. 15/03/2013 of the State Environment Impact Assessment Auhority, Thiruvananthapuram, Kerala 4. Kerala Minor Mineral Concession Rules, 2015.

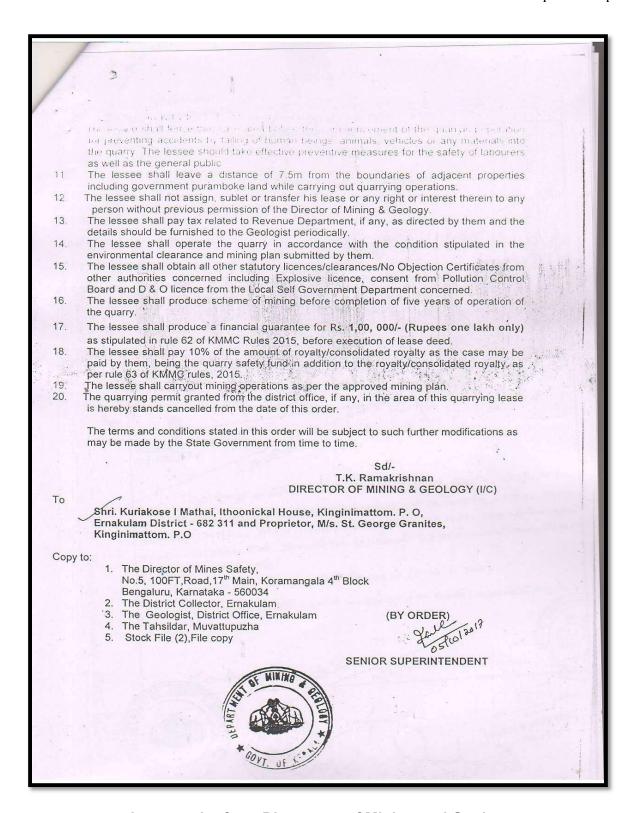
No. 417/2017-18/7939/M3/2015/DMG

Dated, Thiruvananthapuram 05/10/2017

ORDER

A quarrying lease is granted to Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom. P. O, Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom. P.O to quarry Granite (Building Stone) over an area of 1.2656 Hectares of land comprised in Sy. Nos. 1097/7A, 1097/7B, 1097/7C2, 1097/6A2, 1097/6B2, 1097/6B3, 1094/1A-1 of Marady Village, Muvattupuzha Taluk, Ernakulam District for 12 (Twelve) years from the date of execution of the quarrying lease deed under the Kerala Minor Mineral Concession Rules, 2015 and as per the survey map issued by the Tahsildar, Muvattupuzha and the approved Mining Plan and environmental clearance submitted by the applicant subject to the under mentioned conditions.

- Royalty is payable to Government as per Rule 32 of the Kerala Minor Mineral Concession Rules, 2015 in respect of minor mineral quarried and moved out of the quarry subject to revision from time to time on the basis of amendments to the schedule I of the said Rules.
- Dead rent is realizable under 40(1)(d) of the said rules subject to revision from time to time on the basis of amendments to the schedule II of the said rules. 2
- Surface rent realizable under 40(1)(e) of the said rules will be equal to the land revenue assessed by the Revenue Department subject to revision from time to time on the basis of 3. the land revenue.
- The lessee shall execute a quarrying lease deed within a period of six months from the date of this order in form 'H' as per Rule 43 of the Kerala Minor Mineral Concession Rules, 2015.
- The lessee shall also deposit an amount of Rs 10,000/- (Rupees Ten Thousand only) per hectare as security deposit for the observance of the terms and conditions of the lease before the deed is executed as per rule 42 of the said rules. The lessee shall commence quarrying operation only after the deed is executed and registered.
- The quarrying area shall be demarcated and boundary stones fixed at the lessee's expenses
- before execution of the quarrying lease deed. The lessee shall not win and dispose of any type of dimension and decorative stones from the area over which the quarrying lease has been sanctioned on the strength of this order. 7.
- The production of Granite (Building Stone) from the area covered under this grant shall be subject to the quantity specified in the Mining Plan submitted by the lessee and the same is restricted to 30,000 Metric Tonnes per year.
- The lessee shall erect a notice board in Malayalam at a prominent place with a minimum size of 1 metre X 1.5 metres in a metallic board near to the entrance of the quarry to the effect that it shall contain the name and address of the permit holder, mineral concession number and date, the mineral to extracted, permit number and date and its date of expiry, quantity of extraction permitted (if applicable). Area of extraction permitted, explosives used (if any), etc.



Lease order from Directrotre of Mining and Geology



Test Report No:20241115/R059

Customer Reference

TEST REPORT

Date: 18-05-2024

	CUSTOMER DETAILS	
	M/s St.George Granite	
	Propriator Kuriakose I Mathai	
Customer Name & Address	Ethoonickal (H),	
Address	Kinginimattom, Kolenchery,	
	Ernakulam District	

Test Request dt : 07-05-2024

	SAMPLE D	ETAILS		
Product Category	Atmospheric Pollution	Sample Code	20241115/S059	
Sample Name	Ambient Air	Sample Received on	15-05-2024	
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	15-05-2024	
Sampled by	Lab Authorized Sampler	Test Completed on	17-05-2024	
	DETAILS OF S	SAMPLING		
Sampling Location	Near East Side Boundary	Date of Sampling	13-05-2024	
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	68%	
	SAMPLING SIT	E DETAILS		
Survey No	1094/1A, 1094/1A1, 1094/1A 1097/6A2, 1097/6B2, 1097/0 1097/7B, 1097/7C2, 1101/3			
Village	Maradi	radi Taluk Muvattupuzha		
District	Ernakulam	State Kerala		

TEST RESULTS- CHEMICAL PARAMETERS						
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards	
1	Particulate Matter, PM ₁₀	IS 5182 (Part 23):2006	μg/m³	57.2	Max 100	
2	Particulate Matter, PM _{2.5}	EPA 40 CFR (Part 50)Appendix - L	μg/m³	22.5	Max 60	
3	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001 RA 2017	μg/m³	2.90	Max 80	
4	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6): 2006 RA 2017	μg/m³	< 2.00	Max 80	

Remarks:

End of Report

Shency Joy Dy.TM-Chemical Checked by:

Laiju P.N. Laboratory Head Authorized Signatory

Page 1 of 1

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

Standard^s Environmental & Analytical Laboratories
Approval & Recognition: "A" Grade Laboratory approved by Kerala State Pollution Control Board.
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

Result of ambient air



TEST REPORT

Test Report No: 20241115/R060			Date: 18-05-20	024		Page 1 of 1			
				CUSTOMER	DETAILS				
			M/sSt	.George Granite					
			Propria	tor Kuriakose I Math	ai				
	mer Nan	ne &	Ethoonickal (H),						
Addre	ess		Kinginimattom, Kolenchery,						
			Ernaku	am District					
Custo	mer Refe	rence	Test Re	equest dt :07-05-20)24				
				DETAILS OF M	IONITORING				
Produc	ct Categor	y	Atmosp	heric Pollution	Sample Code				
Sampl	e Name		Ambien	t Noise	Monitoring Comr	nenced	13-05	5-2024	
Monito	oring Loca	tion	Near Ea	st Side Boundary	Monitored by		Lab A	uthorized Sampler	
Test M	lethod		IS 9989	:1981			0.	_	
				MONITORING S	SITE DETAILS				
Survey	No No	+	1097/6	A, 1094/1A1, 1094/ A2, 1097/6B2, 1097 B, 1097/7C2, 1101/	/6B3, 1097/7A,	1		20	
Village			Maradi		Taluk		Muvat	tupuzha	
Distric	t		Ernakul	am	State		Kerala		
				MONITORING R	ESULTS - Leq				
T	IME	RESULTS	dB(A)	TIME R	ESULTS dB(A)	TIN	1E	RESULTS dB(A)	
0	6:00	38.6	i i	14:00	51.7	22:	00	37.4	
0	7:00	41.4		15:00	52.1	23:	00	37.8	
0	8:00	45.8		16:00	53.3 24:		00	37.4	
0	9:00	49.4		17:00	53.7	01:	00	38.2	
1	0:00	51.7		18:00	48.2	02:00		37.8	
11:00 54.9			19:00	44.6	03:00		38.5		
12:00 52.1		al .	20:00	40.6	04:00		37.4		
13:00 51.3			21:00	00 40.1 05:00 39.2			39.2		
		8	TEST	RESULTS- CHEN	MICALPARAME	TERS			
Sl. No.			PAR	AMETERS		UNIT		RESULT	
1	Ambien	t Sound Level (Leq) Day Time (06:00 to 22		Time (06:00 to 22:0	0)	dB(A)		50.2	
2	Ambien	Ambient Sound Level (Leq) Night Time (22:00 to 0			:00)	dB(A)		37.7	

Shency Joy
Dy.TM-Chemical
Checked by:

Laiju P.N. Laboratory Head

Authorized Signatory

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Standard⁵ Environmental & Analytical Laboratories
Approval & Recognition: "A" Grade Laboratory approved by Kerala State Pollution Control Board.
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Web: www.sealabs.in, E-mail: seaalab@gmail.com

Result of ambient Noise level



TEST REPORT

Test Report No: 20241115/R061 .	Date: 18-05-2024	Page 1 of 2
Tool Report No. 20211111/1001	D 20 00 E0E 1	1 4 5 1 5 1

CUSTOMER DETAILS					
Customer Name & Address	M/s St.George Granite Propriator Kuriakose I Mathai Ethoonickal (H), Kinginimattom, Kolenchery, Ernakulam District				
Customer Reference	Test Request dt: 07-05-2024				

Bore Well Water Sample Received on 15-05-2024		SAMPLE	DETAILS	
Temperature @ Receipt 4°C	Product Category	Water	Sample Code	20241115/S061
ceipt Fit for Analysis Temperature @ Receipt 4°C mple Quantity& cking 1L & 250ml Plastic Bottles Test Commenced on 15-05-2024 DETAILS OF SAMPLING Test Completed on 17-05-2024 DETAILS OF SAMPLING mple Source Date of Sampling 14-05-2024 mpling Procedure SEAAL/ENL/GEN/SOP/018 Sample Temperature 28 °C SAMPLING SITE DETAILS rvey No 1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, 1097/6B2, 1097/6B2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3 lage Maradi Taluk Muvattupuzha	Sample Name	Bore Well Water	Sample Received on	15-05-2024
Table 250mi Plastic Bottles Test Commenced on 15-05-2024	Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4°C
DETAILS OF SAMPLING 14-05-2024	Sample Quantity& Packing	1L & 250ml Plastic Bottles	Test Commenced on	15-05-2024
Date of Sampling 14-05-2024	Sampled by	Lab Authorized Sampler	Test Completed on	17-05-2024
SEAAL/ENL/GEN/SOP/01& Sample Temperature 28 °C		DETAILS OF	SAMPLING	
SAMPLING SITE DETAILS 1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3 1098 Maradi Taluk Muvattupuzha	Sample Source		Date of Sampling	14-05-2024
1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, rvey No 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3 lage Maradi Taluk Muvattupuzha	Sampling Procedure		Sample Temperature	28 °C
rvey No 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3 Taluk Muvattupuzha		SAMPLING S	TE DETAILS	
	Survey No	1097/6A2, 1097/6B2, 1097/6		
strict Ernakulam State Kerala	Village	Maradi	Taluk	Muvattupuzha
	District	Ernakulam	State	Kerala

	TEST RESULTS - CHEMICAL PARAMETERS							
DADAMETERS TEST METHOD HAIT DESILET					ACCEPTABLE LIMIT (IS 10500 - 2012)			
1	Colour	IS 3025 Part 4:1983 RA 2017	Hazen	1.00	5.00 (Max)			

Shency Joy Dy.TM-Chemical Checked by

Microbiologist Authorized Signatory

Laiju P.N. Laboratory Head

Authorized Signatory

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



TEST REPORT

Test Report No: 20221115/R061	Date: 18-05-2024	Page 2 of 2

	TEST RESULTS - CHEMICAL PARAMETERS							
SI. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)			
2	Odour	IS 3025 Part 5:2018		Agreeable	Agreeable			
3	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	0.3	1.00 (Max)			
4	pН	IS 3025 Part 11:1983 RA 2017		6.76	6.50 - 8.50			
5	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	198	500 (Max)			
6	Total Hardness (as CaCO ₃)	IS 3025 Part 21:2009 RA 2019	mg/L	110	200 (Max)			
7	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2019	mg/L	30.4	75.0 (Max)			
8	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2019	mg/L	8.28	30.0 (Max)			
9	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2019	mg/L	24.9	250 (Max)			
10	Total Alkalinity (as CaCO ₃)	IS 3025 Part 23:1986 RA 2019	mg/L	30.1	200 (Max)			
11	Iron (as Fe)	IS 3025 Part 53:2003 RA 2019	mg/L	0.12	1.00 (Max)			
12	Sulphate (SO ₄)	IS 3025 Part 24:1986 RA 2019	mg/L	32.5	200 (Max)			

	TEST RESULTS - CHEMICAL PARAMETERS							
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)			
14	Total Coliform Bacteria	IS 15185 : 2016		Absent/100 ml	Absent/100 ml			
15	E coli	IS 15185 : 2016		Absent/100 ml	Absent/100 ml			

Remarks:

End of Report

Shency Joy Dy.TM-Chemical

Checked by

Microbiologist Authorized Signatory

Authorized Signatory

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Result of water