# COMPLIANCE REPORT

M/s Blue Mountain Granites (Quarry Project) Thrissur District, Kerala

April 2019 – September 2019



### Blue Mountain Granites

Vellikulangara P.O., Trichur Dt. Kerala, Pin - 680 699 Tel: 0480 - 2743231, 2741432

Dt. 01-11-2019

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 :- File No. 626/SEIAA/EC1/4809/2014

Sub :- Environment Clearance - Quarry project at Vellikulangara Village, Mattathur Panchayat, Chalakudy Taluk, Thrissur District, Kerala - Compliance Report - First half - Reg.

#### Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for 3.0352 Ha. by order No. 626/SEIAA/EC1/4809/2014, dated 05/02/2016 by State Environmental Impact Assessment Authority, Kerala. The compliance report of First Half (April 2019 - September 2019) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you, Yours respectfully,

FOR BLUE MOUNTAIN GRANITES

Encl: - As Above

Copy to: The Chairman & The Member Secretary State Environment Impact Assessment Authority (SEIAA) 'Devi Kripa', Pallimukku, Pettah P.O., Thiruvananthapuram, Kerala - 695 024.

Manufacturers of Aggregates

#### COMPLIANCE REPORT

TO

THE CONDITIONS

OF

#### **ENVIRONMENTAL CLEARANCE ORDER**

NO: 626/SEIAA/EC1/4809/2014

DATED: 05-02-2016

BY

### STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) **FOR**

**BUILDING STONE QUARRY** (MINOR MINERAL MINING) PROJECT

AT

SURVEY NO. 1982, VELLIKULANGARA VILLAGE, MATTATHUR PANCHAYAT, CHALAKUDY TALUK, THRISSUR DISTRICT. **KERALA** 

BY

M/S BLUE MOUNTAIN GRANITES, **VELLIKULANGARA POST, CHALAKUDY** THRISSUR DISTRICT, **KERALA-680699** 

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#### **INTRODUCTION**

The quarry project of M/s Blue Mountain Granites is situated at Survey No. 1982, Vellikulangara Village, Mattathur Panchayat, Chalakudy Taluk, Thrissur 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 2019 - September 2019 is being submitted.

**COMPLIANCE REPORT** (SPECIFIC CONDITIONS) **PART A** 

#### **Specific Conditions**

1	Fencing should be provided all around the lease area. The	Complied
	mandatory buffer distance must be left by the side of forest	
	teak plantation, road and H T line.	

#### Compliance

To demarcate the lease area and to enhance safety, the project proponent has installed fencing around the area where lease obtained to. As per the stipulation, mandatory buffer distance has left from teak plantation, 100 meter distance to H T line and village road from the project site.

2	Overburden must be stored in the designated places and	Complied
	provided with protective support walls	

#### Compliance

To preserve the overburden for future purpose and internal use stacked at designated place. To conserve this project has staked the ordinary earth in a designated place. To prevent erosion of top soil during monsoon season, the project proponent has planted grass on the heap of topsoil. To prevent sliding, the project has constructed strong protective support walls.

3	The	RWH	structure	and	water	clarification	mechanism	complied
	prov	ided m	ust be main	taine	d throug	ghout. Periodi	c de siltation	
	is ma	andator	у					

#### Compliance

To conserve rain water, the Project proponent has developed a Rain water harvesting pond. The project proponent provided de siltation mechanism in the quarrying area. All runoff from the project site is collected in the de siltation pond so that all sediments can settle down at the bottom of the pond. This mechanism is maintaining throughout for preventing quarry waste entering in to the main stream. The project proponent is clearing sediments periodically from the pond.

4 Steps should be taken to limit fly rock within the lease area Complied

#### Compliance

To prevent fly rock, the project proponent is using blast mat and electric and ordinary delayed detonator for blasting. The blasting will under the supervision of qualified person. During blasting optimum delay sequence is maintained and stem to column ratio to minimize the fly rock distance. Therefore there is no issue with fly rock in the community and the project is also assure the maximum PPV is under 10.

**COMPLIANCE REPORT** 

(GENERAL CONDITIONS)

**PART B** 

#### PART - B - 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 conserve rain water and to reduce ground water extraction, the project proponent has developed rain water harvesting pond in the project site to collect rain water falling in the entire mining area. To utilize the rain water, this Rain Water Harvesting (RWH) structure is properly maintaining in the area. The ponds were situated at the lowest level of project site. The water from pond is mainly used for crusher work, 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

To monitor mining activity, the Environmental Monitoring Cell (EMC) was formed and made functional with Mr. Eldhose Kuriakose(Partner) as head of the monitoring cell. The EMC meeting convenes regularly for a sustainable environment. The details of the monitoring cell are given below:

TABLE 1 ENVIRONMENTAL MONITORING CELL (EMC)

SI. No.	No. Post		Name
1.	Head of the monitoring cell	:	Eldhose Kuriakose
2.	Member	:	Basavaraj Swamy
3.	Member	:	Ajesh Sebastian

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

	approach road and internal roads.	
-		

#### Compliance

The project proponent has been planting many saplings along the road side to prevent dust emission during transportation of materials. There are natural vegetation including trees, shrubs, herbs and climbers present either side of tarred road and in the parking areas. This helps to reduce air and sound pollution. 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	Туре
1.	Nephelium lappaceum	Rambuttan	Sapindaceae	Tree
2	Psidium	pera	Myrtaceae	Tree
3	Mangifera indica	Mavu	Anacardiaceae	Tree
4	Hevea brasiliensis	Rubber	Euphorbiaceae	Tree
5	Swietenia mahagoni	Mahagony	Meliaceae	Tree
6	Bambusa bambos	Mula	Poaceae	Herb
7	Chromolaena odorata	Communist-pacha	Compositae	Shrub
8	Coccos nucifera	Thengu / Coconut	Arecaceae	Tree
9	Tectona grandis	Thekku	Verbenaceae	Tree

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

#### Compliance:

To reduce the consumption of electricity from the conventional sources, the project will install 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:

The project proponent has deployed a tanker vehicle to splashes water to prevent dust emission. sprinklers are installed in the project site. The sprinklers installed in and around the crusher unit. To arrest the dust emission form the approach road and the haulage road,

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

#### Compliance:

The project started to plant various saplings in and around the project site. The list of tree/shrub/herb saplings planted in the project site is given below. The mine closure plan will be done at the own cost of project proponent as agreed in the proposal. The planted and proposed sapling to be planted in the project site is given below in the **table No. 3.** 

TABLE 3 - Details of the saplings planted within the project area

SI. No.	Scientific Name	Common Name	Family	Habitat	
1	Mangifera indica Mavu Anacardiaceae				
2	Capsicum frutescens	Kantharimulaku	Solanaceae	Herb	
3	Carica papaya	Papaya	Caricaceae	Tree	
4	Artocarpus heterophyllus Plavu Mora		Moraceae	Tree	
5	Curcuma longa	onga Manjal Zingiberaceae		Herb	
6	Coccos nucifera	fera Thengu Arecaceae		Tree	
7	Musa paradisiaca	paradisiaca Vazha <i>Musaceae</i>		Herb	
8	Swietenia mahagoni Mahagony Meliaceae		Meliaceae	Tree	
9	9 Tectona grandis Thekku		Verbenaceae	Tree	
10	Hevea brasiliensis	Rubber	Rubber Euphorbiaceae		

07	At least 10 percent out of the total excavated pit area should be							
	retained as water storage areas and the remaining area should							
	be reclaimed with stacked dumping and overburden and							

planted with indigenous pla	nt species that are eco-friendly.

#### Compliance:

To make quarried pit as water reservoir, ten percent of the excavated pit area will be retained as water storage area. This will help to improve the ground water table. It is proposed to develop a green belt in the remaining area with indigenous plant species after reclamation of the mined area with stacked top soil and overburden. This stored water can be used for community during drought prone season.

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

#### Compliance:

The activities under Corporate Social Responsibility (CSR) activities are executed in the sector of Health, sports, education, marriage, death etc. The project proponent is intending to carry out more activities under CSR for inclusive growth in the community. The details are given below. The details are given in **Annexure No. 11.** 

TABLE 4 - Details of activities performed under CSR

Sector	Amount in Rs.
Church/Temple	4,050.00
Cultural	12,000.00
Medical	16,150.00
Donation	1,46,192.55
Political	19,750.00
Charitable	4,675.00
Tips	1,500.00
Grand Total	2,04,317.55

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 enhance safety and demarcate the lease area, the project proponent has installed fencing around major part of the project site where Environmental Clearance and lease obtained. 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.	

#### Compliance:

To give warning to the labours and community people prior to the blasting in quarry, the project installed warning alarms in the quarry site. This is properly working prior to the blasting time. This alarm can intimate the general public that the blasting is going to happen. The blasting time of the quarry is in between 12.01pm to 12.30 pm.

1	11	Control measures on noise and vibration prescribed by KSPCB					
		should be implemented.					

#### Compliance:

The project proponent has implemented mitigate masseurs to reduce noise level in the project site,. 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	Quarrying	activities	should	be	limited	to	day	time	as	per	Complied
	KSPCB gui	idelines.									

#### Compliance:

To reduce the adverse effect of Quarrying activities in the community, the mining activity will limit to day time as per KSPCB guidelines. The quarry working time is 8.00 am to 5.00 pm. This will help to limit the sound pollution.

13	В	las	ting should b	e do	one in a cont	rolled manner	as	specif	ied by	Complied
	th	e	regulations	of	explosives	department	or	any	other	
	C	onc	cerned agenc	y.						

#### Compliance:

To reduce possible fly rock and other adverse impact, the blasting is carrying out in controlled manner by using ordinary delayed detonators. All blasting activities are carrying out with the stipulated guidelines of explosive department and other concerned agency.

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

#### Compliance:

To monitor the mining activity, the project has appointed Second Class Manager, foreman and mining mate to supervise/control the blasting operations for the exploitation of minor minerals in the project site. The copies of certificates of qualified persons are provided in **Annexure No. 6.** 

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

### Compliance:

The access road from the entrance of project site to quarry has tarred 500 meter and maintaining in good manner. The project propoennt splashes water on the road to arrest the dust production during summer season. The project proponent is intending maintain access road to the quarry in good condition for dust emission and easiness of transportation of vehicles.

1	6	Overburden materials should be managed within the site and	Complied
		the old quarries, if any, should be restored.	

#### Compliance:

There is no old quarry in the site for restoration. The overburden materials are stored within the site at designated place. This will be used for plantation, haulage roads and land filling in the mining area. No overburden will let out from the project site.

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

#### Compliance:

To enhance safety and conserve environment, the project extracts the minerals by creating benches. The benches are 5 meters of height and the width of the bench have minimum of 5 meters.

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

#### Compliance:

The project proponent is using blasting mat. The project proponent is using ordinary delayed detonator. The blasting is under the supervision of qualified person. The new technology of delayed blasting is reducing the incident of fly rock. Blasting during unfavorable weather conditions is avoided. During blasting it is maintaining optimum delay sequence and stem to column ratio to minimize the fly rock distance.

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

#### Compliance:

The depth of mining won't exceed beyond 10 meter or not below the level of the nearest stream bed, whichever is less. The exploration will be done as per the plan submitted before State Environment Impact Assessment Authority (SEIAA), Kerala.

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

#### Compliance:

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
	amplificat	ions in addition	on to the	prov	visions of g	reen	belt and	hollow	
	brick env	elop for crus	hers so	that	the noise	leve	el is kept	within	
	prescribe	d standards g	iven by C	PCE	3/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	b
	protective equipments such as ear muffs, helmet, etc	

#### Compliance:

To ensure health and 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.

2	23	Garland drains with clarifiers to be provided in the lower slopes	Noted
		around the core area to channelize storm water.	

#### Compliance:

As part of storm water management the project propoentn has constructed clarifiers. All the storm water from the mining area is flowing in to the drainages created at lower slopes of mining area. The project proponent has created 2 tanks in the lower slopes. The water is letting out only through the motor pumping from the collection point.

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

#### Compliance:

To avoid dust emission while transportation of materials, the project assures the trucks are covered before it leaving the project sites.

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 has been planting various saplings in the project area as a compensation of loss of trees while the project is clearing the land for mining. The list of tree saplings planted in the project site as part of eco-restoration is provided in Table No 3.

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

#### Compliance:

The project proponent is using the used oil as lubricant for machineries and other equipments. The spend oil is being sold only to the recyclers approved by Kerala Pollution Control Board.

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

#### Compliance:

As per the stipulation of competent authority, the project has been stored the explosives in magazine. The magazine is 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.	

#### Compliance:

To reduce the adverse impact on community life, 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 170 meter form the quarry, the KSPCB condition is 50 meter.

29	9	200	m	buffer	distance	should	be	maintained	from	forest	Noted
		boui	nda	ries.							

#### Compliance:

The project proponent has left adequate buffer distance from the quarry to the nearest teak plantation.

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

#### Compliance:

The Project has obtained "Consent to Operate" (Renewal) from Kerala State Pollution Control Board. The copy of consent 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 other 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 approval	Name of the Statutory authority
Environmental Clearance order	State Environmental Impact
	Assessment Authority, Kerala
"Consent to Operate"	Kerala State Pollution Control Board
Explosive License	Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)
License for quarry operations	Gram Panchayath
Permit order	Directorate of Mining and Geology

32	In the case of any change(s) in the scope of the project, the project	Noted
	would require a fresh appraisal by this Authority	

#### Compliance:

At present there is no change in the scope of the project. The project will seek for a new Environmental clearance in the case of any change(s) in the scope of the project.

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:

To enhance safety and eco friendly mining, the project is willing to incorporate all such measures if the authority instructs to add additional safeguard measures subsequently, the project will be complied with.

The stipulations by Statutory Authorities under different Acts Noted 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 (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. KMCCR 2015
- 2. The Environment Protection Act,1986
- 3. Water (Prevention and Control of Pollution) Act, 1974
- 4. The Air (Prevention and Control of Pollution) Act, 1981
- 5. The Public Liability (Insurance) Act,1991
- 6. Municipal Solid Waste (Management and Handling) Act,2016
- 7. Hazardous and Other Wastes (Management and handling) Rules, 2016.
- 8. EIA notification, 2006

The project proponent should advertise in at least two local Complied 35 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.

#### Compliance:

An advertisement in two local daily newspapers (English and Malayalam) 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. . The copy of the advertisement given in two local newspapers is provided at Annexure **No.7.** The details are given below in the table.

Table No.6 - Details of news paper where advertisement published

News paper	Language	Date
Kerala Kaumudhi	Malayalam	10/03/2016
Indian Express	English	10/03/2016

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:

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 did not give the copy of clearance letter to anyone.

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 report is being submitted to the State Environmental Impact assessment Authority, Kerala and the Regional Office of MoEF&CC, Bangalore both in hard copy as well as mail. The monitored data of Air, Water and Noise is attached as Annexure No. 8, 9 & 10.

38	The details of Environmental Clearance should be prominently	complied
		1

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 detail of the Environmental Clearance is prominently displayed in a metallic board with the specific conditions as per specifications mentioned in the condition.

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

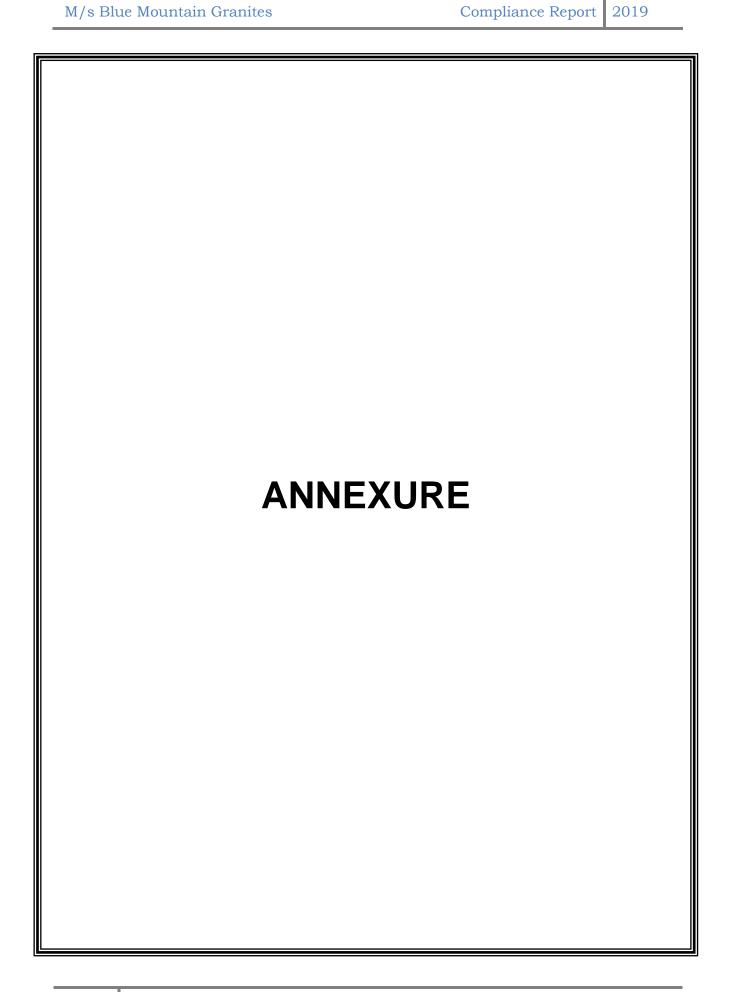
#### Compliance:

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





### KERALA STATE POLLUTION CONTROL BOARD

FILE NO.: PCB/TSR/IC/5069/08 Date of issue :27/04/2017

### INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No.: PCB/DO/TSR/R2/ICO/2758/2017

Ref.; APPLICATION DATED: 27-01-17

CONSENT NO: PCB/DO/TSR/R1/ICO/2758/2014

The ! Integrated Consent to Operate' issued as per reference above to M/s BLUE MOUNTAIN GRANITES (QUARRY)

VALLIKULANGARA P.O THRISSUR - 680 693 is hereby renewed up to 30/04/2020 and issued to M/s BLUE MOUNTAIN GRANITES (QUARRY)

VELLIKULANGARA P.O THRISSUR - 680 693 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

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#### III. CONDITIONS

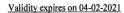
- 3.1 The PM10 in ambient air at the boundary shall not exceed  $100~\mu g/m^3$ .
- 3.2 The PM2.5 in ambient air at the boundary shall not exceed 60 µg/m3.
- 3.3 The sound level (Leq) at 1m outside the boundary of the site should not exceed the ambient noise standard applicable to the adjoining areas.

MISSIN

- 3.4 Suspended particulate matter at the boundary of the premises shall not exceed the limit applicable to that area as per the National Ambient Air Quality Standards.
- 1.5 The consent issued from the Board shall be valid only for a period when all other statutory or necessary clearance from other concerned author

#### Consent to operate







#### 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 No. 1982 at Vellikulangara Village, Mattathur Panchayath, Chalakkudy Taluk, Thrissur District by Sri. Mathew P Pathrose, Managing Partner, M/s Blue Mountain Granites -Granted- Orders issued.

#### STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 626/SEIAA/EC1/4809/2014

dated, Thiruvananthapuram 05-02-2016

- Read:- 1. Application dated 30-09-2014 submitted by Sri. Mathew P Pathrose, Managing Partner, M/s Blue Mountain Granites, Vellikulangara P.O., Chalakkudy, Thrissur -
  - 2. Minutes of the  $45^{th}$  meeting of SEIAA held on 04- 12- 2015.
  - 3. Minutes of the 46<sup>th</sup> meeting of SEAC held on 29/30-09-2015.
  - 4. Minutes of the 48<sup>th</sup> meeting of SEAC held on 06/07-11-2015.
  - 5. Minutes of the 47<sup>th</sup> meeting of SEIAA held on 07-01-2016.

#### Environmental Clearance No. 12/2016.

Sri. Mathew P Pathrose, Managing Partner, M/s Blue Mountain Granites, Vellikulangara P.O., Chalakkudy, Thrissur - 680699 vide his application received on 09/10/2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. No. 1982 at Vellikulangara Village, Mattathur Panchayath, Chalakkudy Taluk, Thrissur Districtfor an area of 3.0352 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) 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) dtd. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. The proposed project site falls in 10°21'57.69" N to 10°21'49.02" N Latitude and 76°25'09.87"E to 76°25'04.05"E Longitude. The land use classification as per revenue records is private own land with rocky area consists of 3.0352 hectares. Main rock type in the area is charnockite visible at some places and covered with soil of 0.15 m to 0.20 m. The area is undulated and slope towards southern side with highest elevation of the area is at 90m MSL and lowest is at 45 m MSL. The present land use is some native trees, shrubs, herbs etc. The proposed project is for quarrying of 120,000 MTA of building stone from an area of 3.0352 hectares of land. Domestic effluent will be discharged in septic tank and soak pit system. The quarry operation is

#### EC order

Page 1 of 2

Transfered from Mathew.M.Pathrose

#### अन्जप्ति प्ररुप एल. ई.-3 | LICENCE FORM LE-3

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3(क) से (घ) देखिए।) (See article 3(a) to (d) of Part 1 of Schedule IV of Explosives Rules, 2008)

(ग) उपयोग के लिए एक समय पर वर्ग 1,2,3,4,5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखने के लिए अन्जप्ति

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

अनुज्ञप्ति सं. (Licence No.) : E/SC/KL/22/862(E40290) वार्षिक फीस रुपए (Annual Fee Rs): 2400/-

1. Licence is hereby granted to

Shri Benny Pathrose (अधिओगी / Occupier : Shri Benny Pathrose), Blue Mountain Granite, Velikulangara Post, Thrissur District, Town/Village - Vellikulangara, District-THRISSUR, State-Kerala, Pincode - 680699

को अनुज्ञप्ति अनुदत्त की जाती है।

2. अन्जिप्तिधारी की प्रास्थिति | Status of licensee : Partnership Firm

 अन्जिप्ति निम्निलिखित प्रयोजनों के लिए विधिमान्य है। possess for use of Nitrate Mixture, Safety Fuse, Electric and/or Ordinary Detonators, - के उपयोग के लिए

Licence is valid only for the following purpose. 4. अनुज्ञप्ति विस्फोटकों के निम्निलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है।

Licence is valid for the following kinds and quantity of explosives: -- (南) (a)

क्र	नाम और विवरण	वर्ग और प्रभाग	उप-प्रभाग	मात्रा किसी एक समय में
Sr. No.	Name and Description	Class & Division	Sub-division	Quantity at any one time
1.	Nitrate Mixture	2,0	0	200 Kg.
2.	Safety Fuse	6,1	0	2000 Mtrs
3.	Electric and/or Ordinary Detonators	6,3	0	2000 Nos.

(ख) किसी एक कलैंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अन्च्छेद 3(ख) और (ग) के अधीन

(b) Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3(b) and

5. निम्नित्सित रेखाचित्र (रेखाचित्रों) से अनुजप्त परिसर की पुष्टि होती रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/862(E40290) दिनांक (Dated) 11/07/2019 The licensed premises shall conform to the following drawing(s): .

6. अन्जिप्ति परिसर निम्निलिखित पते पर स्थित हैं। The licensed premises are situated at following address:

Survey No(s). 1982 , ग्राम (Town/Village) : Vellikulangara प्लिस थाना (Police Station) : Vellikulangara जिला (District) THRISSUR राज्य (State) Kerala पिनकोड (Pincode) दूरभाष (Phone) ई. मेल (E-Mail) फैक्स (Fax)

<sup>7.</sup> अन्ज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्विष्ट Portable Explosives Magazine of H type fabricated by M/S. : Industrial Explosives P Ltd, Nagpur and T type fabricated by The licensed premises consist of following facilities. M/S.Nobel Engg & Fabrication Unit.

<sup>8.</sup> अनुजप्ति समय – समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक नियम, 2004 के उपबंधों, शर्तों और अतिरिक्त शर्तों और निम्निलिखित उपाबध्दों के अधीन रहते हुए अनुदत्त की जाती है। The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 framed there under and the conditions, additional conditions and the following Annexures

- 1. उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)। Drawings (showing site, constructional and other details) as stated in serial No. 5 above.
- 2. अनुज्ञप्ति प्राधिकारी व्दाररा हस्ता.क्षरित इस अनुज्ञप्ति की शर्ते और अतिरिक्ति शर्ते। Conditions and Additional Conditions of this licence signed by the licensing authority.
- 3. दूरी प्ररूप DE-2 | Distance Form DE-2.

<sup>9.</sup> यह अन्जप्ति तारीख 31 **मार्च 200**9 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2009.

http://10.0.1.11/IntExp/ExplosivesLicenceLE3Hindi.asp?LetterGeneratedYN=Y

11-07-2019

20 times

Page 2 of 2

यह अनुज़प्ति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग 4 के प्रति निर्दिष्ट सेट-VII के अधीन तथा उपवर्णित इस अनुज्ञप्ति की शर्तों का अधिक्रमण करने या यदि अनुज्ञप्त परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहत की जा सकती है, जहां वह लागू हो। This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

तारीख | The Date - 01/03/2007

संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives South Circle, Chennai

#### Amendments:

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 05/09/2011
  Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 10/09/2013
  Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 30/11/2017
  Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 31/01/2018

#### Transfers:

Change in Licensee Name/Address/Status dated: 11/07/2019

नवीनीकरण के पृष्ठांकन के लिए स्थान Space for Endorsement of Renewal

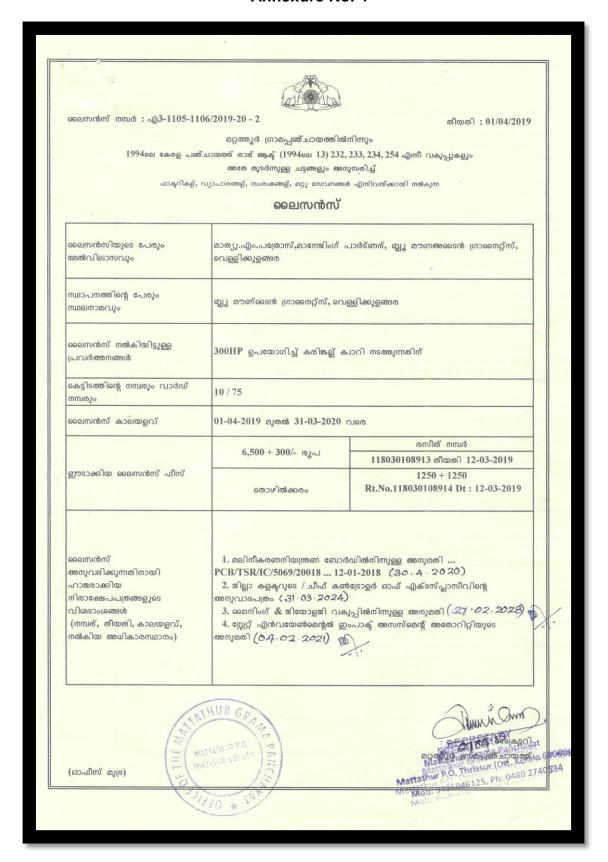
अन्जापन प्राधिकारी के हस्ताक्षर और स्टाम्प नवीकरण की तारीख समाप्ति की तारीख Date of Renewal Date of Expiry Signature of licensing authority and stamp Sd/-13/02/2019 31/03/2024 Dy. Chief Controller of Explosives, Ernakulam

कानूनी चेतावनी : विस्फोटकों को गलत ढंग से चलाने या उनका दुरूपयोग विधि के अधीन गंभीर दांडिक अपराध होगा। Statutory Warning: Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

http://10.0.1.11/IntExp/ExplosivesLicenceLE3Hindi.asp?LetterGeneratedYN=Y

11-07-2019

#### License - explosive



**License Gram Panchayat** 

#### PROCEEDINGS OF THE DIRECTOR OF MINING & GEOLOGY

- Sub: Mining & Geology Mines & Minerals Minor Minerals Granite Building Stone Quarrying Lease to M/s Blue Mountain Granites, Vellikulangara P. O, Thrissur District - 680 699 (Represented by its Managing Partner, Shri. Mathew. M. Pathrose, S/o Pathrose, Residing at Madappillil House, Malayidomthuruth, Edathala, Kunnathunad, Ernakulam District-683561)- sanctioned-orders -issued.
- Ref. 1. Application dtd. 17/08/2017 from M/s Blue Mountain Granites, Vellikulangara P. O, Thrissur District - 680 699 (Represented by its Managing Partner, Shri. Mathew. M. Pathrose, S/o Pathrose, residing at Madappillil House, Malayidomthuruth, Edathala, Kunnathunad, Ernakulam District-683561)
  - 2. Letter No:2112/C2/TDO/2017 dtd 27/11/2017 & 21/12/2017 from the Senior Geologist, District Office, Thrissur.
  - 3. Letter of Intent No. 10799/M3/2017 dtd 27/12/2017
  - 4. Pro.order. No. 626/SEIAA/EC1/4809/2014 dated 05/02/2016 (E., C. No. 12/2016) & Erratum Order No. 626/EC1/4809/2014/SEIAA dated 24/01/2017 of the State Environment Impact Assessment Authority, Kerala
  - 5. Mines and Minerals (Development & Regulation) Act, 1957.
  - 6. Kerala Minor Mineral Concession Rules, 2015.
  - Kerala Minerals (Prevention of Illegal Mining, Storage & Transportation) Rules 2015.

No.770/2017-18/10799/M3/2017/DMG

Dated, Thiruvananthapuram 21/02/2018

#### ORDER

A quarrying lease is granted to M/s Blue Mountain Granites, Vellikulangara P. O, Thrissur District - 680 699 (Represented by its Managing Partner, Shri. Mathew. M. Pathrose, S/o Pathrose, residing at Madappillil House, Malayidomthuruth, Edathala, Kunnathunad, Ernakulam District—683561) to quarry Granite (Building Stone) over an area of 3.0352 Hectares of land comprised in Survey No. 1982 of Vellikulangara Village, Chalakkudy Taluk, Thrissur District for Ten (10) 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 (LR), Chalakkudy and the approved Mining Plan and environmental clearance submitted by the applicant subject to the under mentioned conditions.

- 1. 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.
- 2 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.
- Surface rent realizable under 40(1)(e) of the said rules will be equal to the land revenue 3. assessed by the Revenue Department subject to revision from time to time on the basis of the land revenue.
- 4. 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 5. 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 6 before execution of the quarrying lease deed.
- 7. 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.
- 8. 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 79, 195 Metric Tonnes per year

- (i) 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.
  - (ii) The lessee shall erect a warning board with danger sign regarding operation of the quarry, -100 metres away by the side of the road leading to it.
- The lessee shall fence the lease area before the commencement of the quarrying operation for preventing accidents by failing of human beings, animals, vehicles or any materials into the quairy. The lessee should take effective preventive measures for the safety of labourers as well as the general public.
- The lessee shall leave a distance of 7.5m from the boundaries of adjacent properties 11. including government puramboke land while carrying out quarrying operations
- The lessee shall not assign, sublet or transfer his lease or any right or interest therein to any 12. person without previous permission of the Director of Mining & Geology.
- The lessee shall pay tax related to Revenue Department, if any, as directed by them and the 13. details should be furnished to the Geologist periodically.
- The lessee shall operate the quarry in accordance with the condition stipulated in the 14. environmental clearance and mining plan submitted by them.
- The lessee shall obtain all other statutory licences/clearances/No Objection Certificates from 15. other authorities concerned including Explosive licence, consent from Pollution Control Board and D & O licence from the Local Self Government Department concerned.
- 16. The lessee shall produce scheme of mining before completion of five years of operation of the quarry.
- The lessee shall produce a financial guarantee for Rs. 1, 00, 000/- (Rupees one lakh only) 17. as stipulated in rule 62 of KMMC Rules 2015, before execution of lease deed.
- The lessee shall pay 10% of the amount of royalty/consolidated royalty as the case may be 18. paid by them, being the quarry safety fund in addition to the royalty/consolidated royalty, as per rule 63 of KMMC rules, 2015.
- The lessee shall carryout mining operations as per the approved mining plan. 19.
- The lessee shall renew Environmental Clearance on or before 04/02/2021 for the operation of 20. the quarry for the remaining period.
- 21. The quarrying permit granted from the district office, if any, in the area of this quarrying lease is hereby stands cancelled from the date of this order.
- 22. The lessee shall comply all the conditions maintained in the statutory licenses. The terms and conditions stated in this order will be subject to such further modifications as may be made by the State Government from time to time.

Sd/-C. K. BAIJU DIRECTOR OF MINING & GEOLOGY (I/C)

To

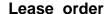
M/s Blue Mountain Granites, Vellikulangara P. O, Thrissur District – 680 699 (Represented by its Managing Partner, Shri. Mathew. M. Pathrose, S/o Pathrose, Residing at Madappillil House, Malayidomthuruth, Edathala, Kunnathunad, Ernakulam District-683561

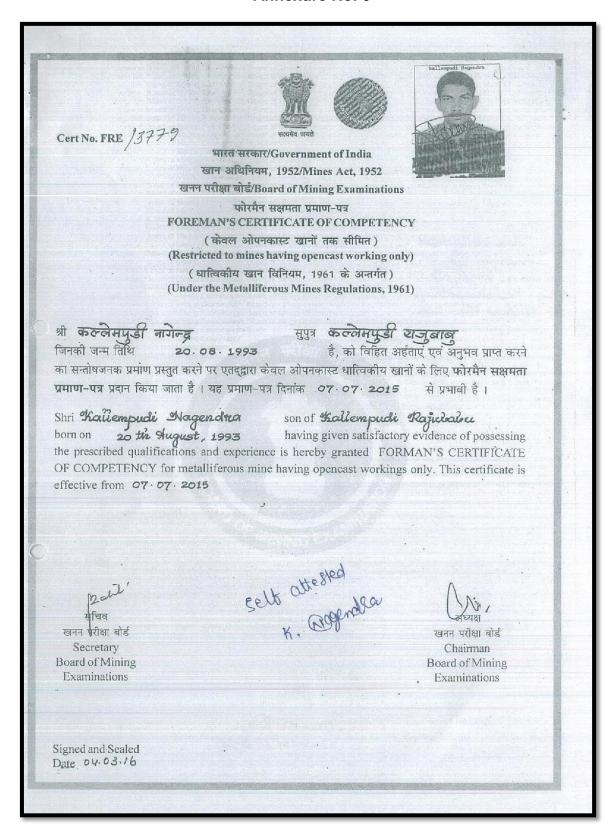
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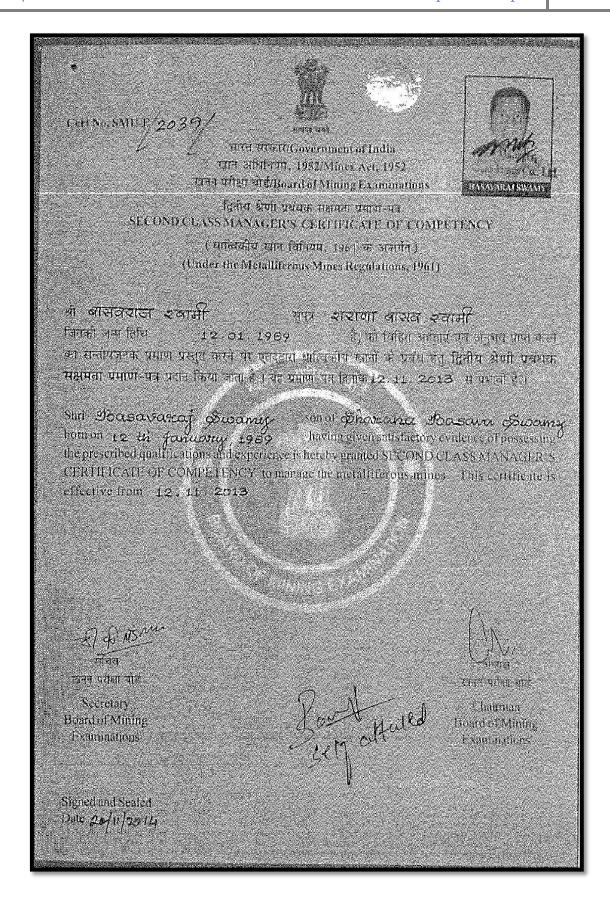
- 1. The Director of Mines Safety, No.5, 100FT,Road,17th Main, Koramangala 4th Block Bengaluru, Karnataka - 560034
- 2. The District Collector, Thrissur
- 3. The Sr. Geologist, District Office, Thrissur The Tahsildar, Chalakkudy
- 5. Stock File (2), File copy

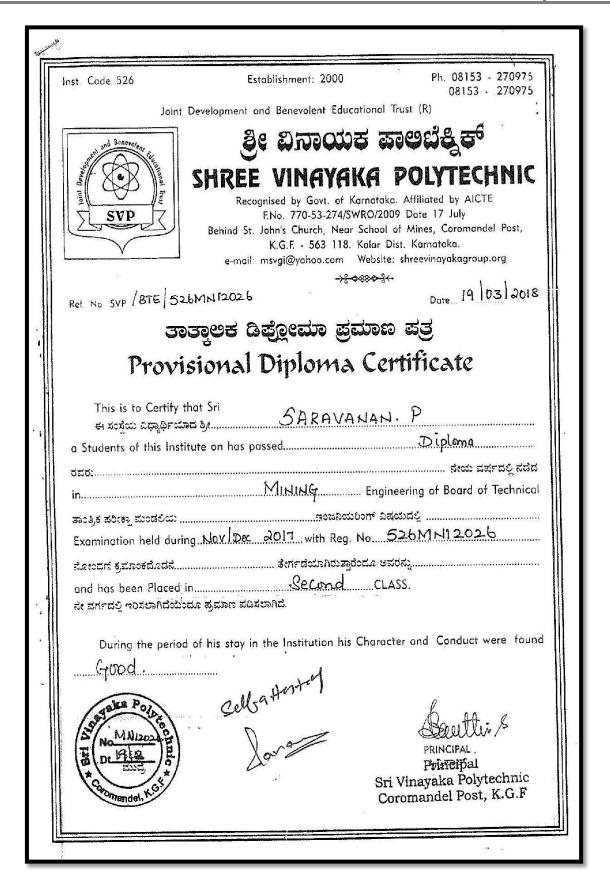
BY ORDER aras

JUNIOR SUPERINTENDENT









**Certificate of Qualified Persons** 





Advertisement in two news papers



#### TEST REPORT

Test Report No: 20191113/R054	Date: 16.11.2019	Page 1 of 1
168t Report No. 20191113/R054	Date: 16.11.2019	Page

	CUSTOM	IER DETAILS		
Customer Details	Name & Address	M/s Blue Mountain Grani Vellikulangara, Chalakudy Thrissur District		
	Survey No	1982		
	Village	Vellikulangara		
Location of Site	Taluk	Chalakudy		
	District	Thrissur		
	State	Kerala		
Customer Reference				
	SAMPL	E DETAILS		
Source of Sample	Ambient Air	Sample Code	20191113/S054	
Location of Monitoring	East side boundary	Sampled By	Laboratory	
Date of Monitoring	13.11.2019	Test Started On	14.11.2019	
Sample Received On	14.11.2019	Test Completed On	16.11.2019	
Humidity	54 %	Sampling Procedure	IS 5182 Part V & XIV	

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULTS	NAAQ STANDARD
01	Particulate matter (PM <sub>10</sub> )	IS 5182 Part 23: 2006 RA 2017	μg/m³	56.2	100
02	Particulate matter (PM <sub>2.5</sub> )	EPA 40 CFR Part 50 Appendix – L	μg/m³	25.1	60.0
03	Sulphur dioxide (SO <sub>2</sub> )	IS 5182 Part 2: 2001 RA 2017	μg/m³	< 2.00	80.0
04	Nitrogen dioxide ( 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 Standards Environmental & Analytical paperatories

uthorized Signatory Laiju P. N.

Laboratory Head

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

#### **Ambient Air**



#### TEST REPORT

Test Report No: 20191113/R055	Date: 16.11.2019	Page 1 of 1

	CUSTO	OMER DETAILS	
Customer Details	Name & Address	M/s Blue Mountain Granites Vellikulangara, Chalakudy Thrissur District	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Survey No	1982	
	Village	Vellikulangara	
Location of Site	Taluk	Chalakudy	
	District	Thrissur	
	State	Kerala	
Customer Reference			
	SAM	PLE DETAILS	
Source of Sample		Ambient Sound Level	
Sample Code		20191113/8055	
Location of Monitoring		North side Boundary	
Date of Monitoring		13.11.2019	
Method		IS 9989:1981 RA:2008	

DAYTIME	RESULT	NIGHTTIME	RESULT	
06.00 Hrs	39.7 dB (A)	23.00 Hrs	35.8 dB (A)	
07.00 Hrs	42.5 dB (A)	00.00 Hrs	38.4 dB (A)	
08.00 Hrs	47.0 dB (A)	01.00 Hrs	39.1 dB (A)	
09.00 Hrs	50.7 dB (A)	02.00 Hrs	38.7 dB (A)	
10.00 Hrs	53.2 dB (A)	03.00 Hrs	39.5 dB (A)	
11.00 Hrs	56.4 dB (A)	04.00 Hrs	38.4 dB (A)	
12.00 Hrs	53.6 dB (A)	05.00 Hrs	40.2 dB (A)	
13.00 Hrs	52.8 dB (A)	RESULTS .		
14.00 Hrs	53.2 dB (A)			
15.00 Hrs	53.6 dB (A)			
16.00 Hrs	54.8 dB (A)	Noise Level (Leq) Daytime	E1 7 JD (A)	
17.00 Hrs	55.2 dB (A)	Noise Level (Leq) Daytime	51.7 dB (A)	
18.00 Hrs	49.5 dB (A)			
19.00 Hrs	45.8 dB (A)			
20.00 Hrs	41.7 dB (A)	Noise Level (Lee) Nielettine	20 6 4D (A)	
21.00 Hrs	41.2 dB (A)	Noise Level (Leq) Nighttime	38.6 dB (A)	
22.00 Hrs	38.4 dB (A)			

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

For and on behalf of Standards Environmental & Analytical Laboratories

Laboratory Head

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

#### Result of ambient sound



#### TEST REPORT

Test Report No: 20191113/R056	Date: 16.11.2019	Page 1 of 1
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	CUSTO	OMER DETAILS		
Customer Details	Name & Address	M/s Blue Mountain Gra Vellikulangara, Chalaku Thrissur District		
	Survey No	1982		
	Village	Vellikulangara		
Location of Site	Taluk	Chalakudy		
	District	Thrissur		
	State	Kerala		
Customer Reference				
	SAM	PLE DETAILS		
Sample Code	20191113/S056	Sample Received On	14.11.2019	
Sample Name	Water	Sampling Procedure		
Sample Description	Bore well	Sampling Location	100 M away from the South - East direction of the Quarry	
Identification By Customer		Sample Condition	Good	
Sampled On		Test Started On	14.11.2019	
Sampled By	Customer	Test Completed On	16.11.2019	

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	5.00 (Max)
02	Odour	IS 3025 Part 5:1983 RA 2017		Agreeable	Agreeable
03	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	< 0.10	1.00 (Max)
04	рН	IS 3025 Part 11:1983 RA 2017		7.23	6.50 - 8.50
05	Conductivity	IS 3025 Part 14:1984 RA 2013	μS/cm	136	
06	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	88.0	500 (Max)
07	Total Hardness (as CaCO <sub>3</sub> )	IS 3025 Part 21:2009 RA 2014	mg/L	32.3	200 (Max)
08	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2014	mg/L	8.09	75.0 (Max)
09	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2014	mg/L	2.95	30.0 (Max)
10	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	17.1	250 (Max)
11	Total Alkalinity (as CaCO <sub>3</sub> )	IS 3025 Part 23:1986 RA 2014	mg/L	30.3	200 (Max)
12	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	0.20	1.00 (Max)
13	Sulphate (SO <sub>4</sub> )	IS 3025 Part 24:1986 RA 2014	mg/L	10.4	200 (Max)
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

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

For and on behalf of Standards Environmental & Analytical Laboratories

Authorized Signatory Laiju P. N. Laboratory Head

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

#### Result of drinking water

12-04-2019	PAID KRISHNAN- 1000. PRABHAKARAN - 500. SHIBU - 1000	Donation	2,500.00
13-04-2019	DONATION PAID TO CPI VLKA	Political	3,000.00
13-04-2019	enviornmental protection group	Cultural	500.00
16-04-2019	assis mother funeral	Charitable	3,000.00
18-04-2019	PAID TO SKARIA THOMAS	Medical	1,000.00
20-04-2019	PAID TO CPI(M) FOR ELECTION	Political	3,000.00
27-04-2019	paid to sabu colony	Medical	300.00
03-05-2019	nature protection samathy	Cultural	500.00
06-05-2019	st. marys church chokkowa	Church/Temple	1,000.00
10-05-2019	FESTIVAL SHARE 4.250	Cultural	1,000.00
15-05-2019	PAID TO YOUTH CONGRESS FOR CRICKET TOURNAMANT	Cultural	1,000.00
20-05-2019	sabu - 300, amini - 500	Medical	800.00
21-05-2019	PAID BY AJESH	Medical	2,000.00
23-05-2019	paid to biju colony	Medical	500.00
27-05-2019	PAID FOR FOOT BALL TOURNAMENT	Cultural	2,000.00
28-05-2019	ENVIORNMENTAL AWARENESS SAMITHY	Cultural	500.00
28-05-2019	note book for school	Donation	7,660.69
	Johns Umbrella Mart		
28-05-2019	umbrella 181 nos to school students	Donation	39,353.20
	Anna Aluminium Vessels		
28-05-2019	bag 215 to students	Donation	71,466.66
03-06-2019	DONATION PAID TO C.Y FOR RAMZAN	Donation	3,000.00
04-06-2019	assis for ramzan	Donation	3,000.00
05-06-2019	hss chempuchira	Donation	2,000.00
07-06-2019	new pc 210 blessing	Church/Temple	1,500.00
07-06-2019	PRIEST & SEXTON FOR NEW 210 BLESSING	Church/Temple	1,100.00
11-06-2019	biju colony	Medical	1,000.00
18-06-2019	50 kg rece to iuml	Donation	1,750.00
24-06-2019	asokan kattipokam	Donation	1,000.00
	St. Marys Church, Thuruthypilly		
30-06-2019	BALANCE AMT FED TO DONATION	Donation	8,212.00
05-07-2019	DONATION PAID TO A	Medical	500.00

PPC SOCIETY   05-07-2019   EXPENSE TO POLICE   TIPS   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.20   1,500.00   1,500.00   1,500.00   1,500.20   1,500.00		PATIENT		
09-07-2019   PAID TO KGDA   Cultural   2,000.00	05-07-2019		Donation	250.00
10-07-2019   DONATION PAID TO   PRABAKARAN   200.00     13-07-2019   paid to shyji colony   Medical   1,000.00     15-07-2019   paid to shyji colony   Medical   1,000.00     15-07-2019   DONATION PAID   Donation   500.00     16-07-2019   PAID TO CHURCH   Church/Temple   450.00     18-07-2019   PAID TO BJP   RIISHNAKUMAR   RISHNAKUMAR   23-07-2019   DONATION TO ADF   Donation   500.00     24-07-2019   DONATION TO ADF   Donation   500.00     24-07-2019   PAID TO AMMINI COLONY   Medical   500.00     25-07-2019   TO BHARATHIYA DALITH   Political   250.00     CONCRESS   25-07-2019   PAID TO PAUL DAS VLKGRA   Medical   1,000.00     30-07-2019   DONATION PAID TO A   Medical   250.00     APATIENT   PAID TO ALITH   Political   2,000.00     31-07-2019   PAID TO ASHOKAN CITU   Political   2,500.00     02-08-2019   PAID TO ASHOKAN CITU   Political   2,500.00     02-08-2019   PAID TO THANKA COLONY   Medical   1,000.00     10-08-2019   DONATION PAID TO BIJU   COLONY-500   SABU   COLONY-500   SABU   COLONY-500   SABU   COLONY-500   SABU   COLONY-500   SABU   COLONY-500   DONATION PAID TO INTUC   Political   500.00     10-08-2019   DONATION PAID TO SREE   KRISHNA JAYANTHI   RANGAL   1,000.00     24-08-2019   DONATION PAID TO SREE   Cultural   500.00     24-08-2019   DONATION PAID TO SAJESH   Medical   1,000.00     29-08-2019   PAID TO ANJEN COLONY   Medical   1,000.00     29-08-2019   PAID TO DIVICONY   Medical   1,000.00     03-09-2019   PAID TO ENVIRONMENT   Cultural   1,000.00     03-09-2019   PAID TO ENVIRONMENT   Cultural   1,000.00     09-09-2019   PAID TO ANJEN COLONY   Medical   500.00     17-09-2019   DONATION PAOD TO   JANATHADHAL   1,007.00     18-09-2019   PAID TO ANJEN COLONY   Medical   500.00     18-09-2019   DONATION PAOD TO   JANATHADHAL   10-00.00	05-07-2019		TIPS	1,500.00
PRABAKARAN   13-07-2019   paid to igp   Medical   200.00   13-07-2019   paid to shyji colony   Medical   1,000.00   15-07-2019   DONATION PAID   Donation   500.00   16-07-2019   PAID TO CHURCH   Church/Temple   450.00   18-07-2019   PAID TO BJP   KRISHNAKUMAR   RISHNAKUMAR   23-07-2019   DONATION TO ADF   Donation   500.00   24-07-2019   PAID TO AMMINI COLONY   Medical   500.00   25-07-2019   TO BHARATHIYA DALITH   Political   250.00   CONGRESS   CONGRESS	09-07-2019	PAID TO KGDA	Cultural	2,000.00
13-07-2019	10-07-2019		Medical	500.00
15-07-2019   DONATION PAID   Donation   500.00     16-07-2019   PAID TO CHURCH   Church/Temple   450.00     18-07-2019   PAID TO BJP   RISHNAKUMAR   RISHNAKUMAR     23-07-2019   DONATION TO ADF   Donation   500.00     24-07-2019   PAID TO AMMINI COLONY   Medical   500.00     25-07-2019   TO BHARATHIYA DALITH   Political   250.00     CONGRESS   CONGRESS   CONGRESS   CONGRESS     25-07-2019   DONATION PAID TO A   Medical   250.00     30-07-2019   DONATION PAID TO A   Medical   250.00     30-07-2019   DONATION PAID TO A   Medical   250.00     31-07-2019   PAID TO ASHOKAN CITU   Political   2,500.00     02-08-2019   PAID TO THANKA COLONY   Medical   1,000.00     10-08-2019   DONATION PAID TO BIJU   COLONY-500   SABU   COLONY-500   SABU   COLONY-500     10-08-2019   PAID TO ASSIS FOR   Donation   2,000.00     10-08-2019   DONATION PAID TO SREE   KRISHNA JAYANTHI	13-07-2019	paid to igp	Medical	200.00
16-07-2019	13-07-2019	paid to shyji colony	Medical	1,000.00
18-07-2019	15-07-2019	DONATION PAID	Donation	500.00
KRISHNAKUMAR   23-07-2019   DONATION TO ADF   Donation   500.00	16-07-2019	PAID TO CHURCH	Church/Temple	450.00
24-07-2019   PAID TO AMMINI COLONY   Medical   500.00	18-07-2019		Political	2,500.00
25-07-2019   TO BHARATHIYA DALITH CONGRESS   25-07-2019   PAID TO PAUL DAS VLKGRA   Medical   1,000.00	23-07-2019	DONATION TO ADF	Donation	500.00
CONGRESS   25-07-2019   PAID TO PAUL DAS VLKGRA   Medical   1,000.00   30-07-2019   DONATION PAID TO A   Medical   250.00   PATIENT     2,000.00   02-08-2019   PAID TO ASHOKAN CITU   Political   2,500.00   02-08-2019   PAID TO ASHOKAN CITU   Political   1,000.00   10-08-2019   PAID TO THANKA COLONY   Medical   1,000.00   1,000.20   1,000	24-07-2019	PAID TO AMMINI COLONY	Medical	500.00
30-07-2019   DONATION PAID TO A PATIENT   Paid to AIYF-1000 , AISF-1000   Political   2,000.00	25-07-2019		Political	250.00
PATIENT   31-07-2019   paid to AIYF-1000   AISF-1000   Political   2,000.00   02-08-2019   PAID TO ASHOKAN CITU   Political   2,500.00   02-08-2019   PAID TO THANKA COLONY   Medical   1,000.00   10-08-2019   DONATION PAID TO BIJU   Donation   1,000.00   COLONY-500   SABU   COLONY-500   COLONY-500   DONATION PAID TO BIJU   Donation   2,000.00   10-08-2019   PAID TO ASSIS FOR   Donation   2,000.00   EACH   EACH	25-07-2019	PAID TO PAUL DAS VLKGRA	Medical	1,000.00
02-08-2019         PAID TO ASHOKAN CITU         Political         2,500.00           02-08-2019         PAID TO THANKA COLONY         Medical         1,000.00           10-08-2019         DONATION PAID TO BIJU         Donation         1,000.00           10-08-2019         CY KUNJUMOHAMMED         Donation         2,000.00           10-08-2019         PAID TO ASSIS FOR BAKRIED         Donation         2,000.00           22-08-2019         DONATION PAID TO SREE KRISHNA JAYANTHI         500.00           24-08-2019         DONATION PAID TO INTUC Political         3,000.00           24-08-2019         DONATION PAID TO RAJESH COLONY         Medical         1,000.00           29-08-2019         PAID TO BIJU COLONY         Medical         500.00           31-08-2019         DONATION PAID TO SNDP         Cultural         3,000.00           03-09-2019         PAID TO ENVIRONMENT PROTECTION SOCIETY         Cultural         1,000.00           09-09-2019         PAID TO A PATIENT Medical         500.00           09-09-2019         PAID TO AJISH COLONY Medical         500.00           17-09-2019         DONATION PAOD TO Political         500.00           18-09-2019         DONATION OF THANKAPPAN Medical         2,000.00	30-07-2019		Medical	250.00
02-08-2019         PAID TO THANKA COLONY         Medical         1,000.00           10-08-2019         DONATION PAID TO BIJU COLONY-500 , SABU COLONY-500 , SABU COLONY-500         Donation         2,000.00           10-08-2019         CY KUNJUMOHAMMED         Donation         2,000.00           10-08-2019         PAID TO ASSIS FOR BAKRIED         Donation         2,000.00           22-08-2019         DONATION PAID TO SREE KISHNA JAYANTHI         Cultural         500.00           24-08-2019         DONATION PAID TO INTUC Political         3,000.00           24-08-2019         DONATION PAID TO RAJESH Medical         1,000.00           29-08-2019         PAID TO BIJU COLONY Medical         500.00           31-08-2019         DONATION PAID TO SNDP         Cultural         3,000.00           03-09-2019         PAID TO ENVIRONMENT Cultural         1,000.00           03-09-2019         PAID TO A PATIENT Medical         500.00           09-09-2019         PAID TO A PATIENT Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY Medical         500.00           17-09-2019         DONATION PAOD TO JANATHADHAL         500.00           18-09-2019         DONATION OF THANKAPPAN Medical         2,000.00	31-07-2019	paid to AIYF-1000 , AISF-1000	Political	2,000.00
10-08-2019   DONATION PAID TO BIJU   COLONY-500 , SABU   COLONY-500   Donation   2,000.00	02-08-2019	PAID TO ASHOKAN CITU	Political	2,500.00
COLONY-500   SABU   COLONY-500	02-08-2019	PAID TO THANKA COLONY	Medical	1,000.00
10-08-2019	10-08-2019	COLONY-500 , SABU	Donation	1,000.00
BAKRIED     22-08-2019   DONATION PAID TO SREE   KRISHNA JAYANTHI     24-08-2019   DONATION PAID TO INTUC   Political   3,000.00   24-08-2019   DONATION PAID TO RAJESH   Medical   1,000.00   COLONY     29-08-2019   PAID TO BIJU COLONY   Medical   500.00   31-08-2019   DONATION PAID TO SNDP   Cultural   3,000.00   03-09-2019   PAID TO ENVIRONMENT   Cultural   1,000.00   PROTECTION SOCIETY     03-09-2019   PAID TO A PATIENT   Medical   500.00   09-09-2019   PAID TO A PATIENT   Medical   500.00   09-09-2019   PAID TO AJISH COLONY   Medical   500.00   17-09-2019   DOANTION PAOD TO   JANATHADHAL   18-09-2019   DONATION OF THANKAPPAN   Medical   2,000.00   BMG	10-08-2019	CY KUNJUMOHAMMED	Donation	2,000.00
KRISHNA JAYANTHI   24-08-2019   DONATION PAID TO INTUC   Political   3,000.00   24-08-2019   DONATION PAID TO RAJESH   Medical   1,000.00   COLONY   Medical   500.00   31-08-2019   DONATION PAID TO SNDP   Cultural   3,000.00   03-09-2019   PAID TO ENVIRONMENT   Cultural   1,000.00   PROTECTION SOCIETY   Medical   500.00   09-09-2019   PAID TO A PATIENT   Medical   500.00   09-09-2019   PAID TO AJISH COLONY   Medical   500.00   17-09-2019   DOANTION PAOD TO   JANATHADHAL   18-09-2019   DONATION OF THANKAPPAN   Medical   2,000.00   BMG	10-08-2019		Donation	2,000.00
24-08-2019       DONATION PAID TO RAJESH COLONY       Medical       1,000.00         29-08-2019       PAID TO BIJU COLONY       Medical       500.00         31-08-2019       DONATION PAID TO SNDP       Cultural       3,000.00         03-09-2019       PAID TO ENVIRONMENT PROTECTION SOCIETY       Cultural       1,000.00         03-09-2019       PAID TO A PATIENT Medical       500.00         09-09-2019       50 KG RICE TO CHARITY Charitable       1,675.00         09-09-2019       PAID TO AJISH COLONY Medical       500.00         17-09-2019       DOANTION PAOD TO JANATHADHAL       Political       500.00         18-09-2019       DONATION OF THANKAPPAN Medical       2,000.00	22-08-2019		Cultural	500.00
COLONY         29-08-2019         PAID TO BIJU COLONY         Medical         500.00           31-08-2019         DONATION PAID TO SNDP         Cultural         3,000.00           03-09-2019         PAID TO ENVIRONMENT PROTECTION SOCIETY         Cultural         1,000.00           03-09-2019         PAID TO A PATIENT         Medical         500.00           09-09-2019         50 KG RICE TO CHARITY         Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY         Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN BMG         Medical         2,000.00	24-08-2019	DONATION PAID TO INTUC	Political	3,000.00
31-08-2019         DONATION PAID TO SNDP         Cultural         3,000.00           03-09-2019         PAID TO ENVIRONMENT PROTECTION SOCIETY         Cultural         1,000.00           03-09-2019         PAID TO A PATIENT         Medical         500.00           09-09-2019         50 KG RICE TO CHARITY         Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY         Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN BMG         Medical         2,000.00	24-08-2019	COLONY	Medical	1,000.00
03-09-2019         PAID TO ENVIRONMENT PROTECTION SOCIETY         Cultural         1,000.00           03-09-2019         PAID TO A PATIENT Medical         500.00           09-09-2019         50 KG RICE TO CHARITY Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN Medical         2,000.00	29-08-2019		Medical	500.00
PROTECTION SOCIETY           03-09-2019         PAID TO A PATIENT         Medical         500.00           09-09-2019         50 KG RICE TO CHARITY         Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY         Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN Medical         2,000.00	31-08-2019	DONATION PAID TO SNDP	Cultural	3,000.00
09-09-2019         50 KG RICE TO CHARITY         Charitable         1,675.00           09-09-2019         PAID TO AJISH COLONY         Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN BMG         Medical         2,000.00	03-09-2019		Cultural	1,000.00
09-09-2019         PAID TO AJISH COLONY         Medical         500.00           17-09-2019         DOANTION PAOD TO JANATHADHAL         Political         500.00           18-09-2019         DONATION OF THANKAPPAN BMG         Medical         2,000.00	03-09-2019		Medical	500.00
17-09-2019 DOANTION PAOD TO JANATHADHAL  18-09-2019 DONATION OF THANKAPPAN Medical 2,000.00 BMG	09-09-2019	50 KG RICE TO CHARITY	Charitable	1,675.00
JANATHADHAL  18-09-2019 DONATION OF THANKAPPAN Medical 2,000.00 BMG	09-09-2019	PAID TO AJISH COLONY	Medical	500.00
BMG	17-09-2019		Political	500.00
19-09-2019 PAID TO AITUC Political 3,000.00	18-09-2019		Medical	2,000.00
	19-09-2019	PAID TO AITUC	Political	3,000.00

	Grand Total		2,04,317.55
27-09-2019	PAID TO CANCER PATIENT	Medical	500.00
21-09-2019	PAID TO KEERTHANA COLONY	Medical	600.00

### **CSR Details**