

**Compliance Status of the General Conditions for Mining Projects Laid down by the State Environment Impact Assessment Authority, Kerala vide their Environment Clearance No.81/2017 dated 05/01/2018.**

**SPECIFIC CONDITIONS**

<b>Sl No</b>	<b>Condition</b>	<b>Status of Compliance</b>
1	A Mines Manager shall be appointed to control, direct, manage and supervise Quarrying Operations as required under the Mines Act 1952.	A Permit manager is appointed to supervise Quarrying Operations.
2	Health and welfare measures for the persons employed shall be implemented.	Health and welfare measures for the employees is being implemented.
3	Controlled blasting should be practiced, and blasting should be done only during day time. The mitigating measures for control of ground vibrations to arrest the fly rocks and boulders should be implemented.	All precautionary measures are adopted while blasting operations are carried out. I. No secondary blasting like Pop Shooting or Plaster Shooting are undertaken for breaking down large boulders, to avoid Air Blast and Fly Rocks. Only rock breakers will be used for breaking down bigger boulders. II. Additional precaution of controlled blasting with sand bags and wire mesh/blasting pads are used so that there are no fly rocks from the blast
4	Plantation shall be done which includes a green belt of adequate width around the Mining Lease area excluding the rocky area, along roads, overburden dumps and non-mineralized area by planting suitable native species in consultation with the local DFO/ Agriculture Department.	A green belt of a width of 7.5 mts has been made along the periphery of the Lease area by planting local species saplings. Plantation at other places will be undertaken in a phased manner after starting Quarrying operations.
5.	The drains should be regularly desilted and maintained properly. Check dams and gully checks shall be constructed wherever required to arrest siltation. De siltation shall also be done every year before the onset of monsoon.	All civil structures made for arresting silt will be de silted before onset of Monsoon.
6	Fencing must be maintained properly all around the lease area.	The entire lease area is fenced and is well maintained.
7	The CSR should cover the felt needs of the locality with special emphasize for implementing ground water recharging techniques in and at the vicinity of the proposed site.	Rs 1.0 Lakh worth of CSR works is presently implemented. Balance works will be taken up in due course of time.
8	Appropriate sign boards should be displayed	Signboards have been displayed. (Photos are attached as Annexure 4)

9	The blasting time must be displayed and strictly adhered to.	Blasting time is displayed.
10	Dust suppression mechanism must be in place.	Water tankers with sprinklers are in use.
11	A separate small plot to be maintained in the premise to preserve rare and endemic species, if any, listed in the bio diversity assessment, etc.	No rare and endemic species is present in the lease area.
12	The PPV values must be less than 10 mm/sec.	PPV values will be kept below 10 mm/sec.
13	The green belt shall be provided along the periphery.	Green belt of 7.5 mts width has been provided along the periphery of the lease.
14	Where the height of the bench formed during earlier workings exceeds the maximum reach of the excavator engaged for work, such bench height shall be reduced from top to bottom.	Height of benches will be maintained as specified in the approved Mining Plan.
15	Loose or hanging rock or mineral boulder on the side wall shall be dressed down before engaging persons for work at the bottom of the bench.	Benches will be properly dressed by excavators or by manual means.
16	Permanent boundary pillars should be fixed by the proponent before commencing quarrying.	Permanent boundary pillars have been fixed. (photos are attached as Annexure 5)
17	No quarry blasting to be undertaken and sustained till warning time limit expires and/or when continuous 48 hours rainfall exceeds 8cms and blasting shall not be resumed until 24hours of rain free situation arises in the quarry locality based on the evaluation by the revenue officials.	Agreed
18	All waste dumps and top soil dumps shall be properly stabilized using coir mats or bio regeneration. Proper drainage system shall be provided so that water is properly diverted away from the dumps slopes with no disturbance to the stability of the slopes.	Coir mats shall be used to cover waste dumps. Proper drainage system shall be provided so as to avoid destabilizing of dumps.
19	All dump slopes shall be sufficiently stabilized by using appropriate species mix of grass, creepers, shrubs and trees. This shall be done in consultation with the Forest department and local research institutes and experts I stabilization of mine dumps.	All dump slopes will be stabilized as specified.
20	Garland drains of at least 2 mts width shall be provided all along 7.5 mts buffer zone to divert the water from entering the	Garland drains of 2 mt width shall be made in October 2018.

	Quarry slopes. These drains shall be cleaned every year before the monsoon season	
21	The water from the garland drainage shall be directed to the silt settling ponds. The clarified overflow from the silt settling ponds shall be directed to a Rain Water Harvesting (RWH) pond before releasing the clarified water to the natural water course.	Only clear natural water is let out into the natural water course.
22	A retaining wall of stone rubble with wire (2 mt) shall be constructed at the bottom of the slope of the Quarry lease to arrest any likely mesh of sufficient width and strength (not less than roll of boulders during heavy rainfall.	Will be constructed.

#### **GENERAL CONDITIONS OF HEALTH**

<b>Sl No.</b>	<b>Conditions</b>	<b>Status of compliance</b>
1	First Aid kit provided in the work site. It shall be periodically maintained properly. Some labourers shall be trained on First Aid.	First Aid kits are provided in the work site and key personnel will be trained to render first aid in case of emergencies.
2	Wholesome drinking water should be provided.	Wholesome potable drinking water is provided
3	Premises should be maintained as wet to suppress the dust.	Dust will be suppressed at the source.
4	Sanitary type of latrines and urinals should be provided.	Latrines and urinals are provided.
5.	Resting place to be provided for workers	Resting place is provided to workers.
6	'No Smoking' board should be exhibited according to COTPA act.	'No Smoking' board is exhibited. (Copy is attached as Annexure 4)
7	Work should not be done in night.	Work is done only during day light.
8	Details of nearest hospital, shortest route to hospital and contact no. etc. should be available	Emergency contact numbers of Key persons, Hospitals, police station, etc. is prominently displayed. (photo of the board is attached as Annexure 4)
9	Approach roads should be maintained properly	Approach roads are well maintained.

#### **GENERAL CONDITIONS**

<b>Sl No</b>	<b>Condition</b>	<b>Compliance Status</b>
1	Rainwater harvesting facility should be installed as per prevailing provisions of KMBR/KPBR, unless otherwise specified.	Not Applicable. No permanent structures constructed within Mining Lease.
2	Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.	Environmental Monitoring Cell has been formed and is headed by Mr. C.G. George
3.	Suitable avenue trees should be planted	Local species saplings procured from Forest

	along either side of the tarred road and open parking areas, if any, including approach roads and internal roads.	department and planted before onset of monsoons.
4	Maximum Possible Solar Energy generation and utilization shall be ensured as an essential part of the Project.	Mine operates only during daylight hence there is no need for any additional lighting.
5	Sprinklers shall be installed and used in the Project Site to contain dust emissions.	Water tankers with sprinklers are in use.
6	Eco-restoration, including the Mine Closure Plan shall be done at the own cost of the Project Proponent.	Agreed
7	At least 10 per cent of total excavated Pit area should be retained as water storage area and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly, if no other specific condition on reclamation of the Pit is stipulated in the EC.	Agreed
8	Corporate Social Responsibility (CSR) agreed upon by the Proponent should be implemented.	We have implemented CSR of Rs 1.0 Lakh. The balance agreed commitments and will be undertaken shortly.
9	The Lease area will be fenced off with barbed wires to a minimum height of 4 ft around, before starting of Mining. All the boundary indicators (boards, stores, markings, etc.) shall be protected at all times and shall be conspicuous.	Lease area is fenced off. Sign boards have been erected at prominent places. (Photos are attached as Annexure 5)
10	Warning alarms indicating the time of Blasting (to be done at specific timings) has to be arranged as per stipulations of the Explosives department.	Necessary precautions while blasting is taken.
11	Control measures on noise and vibrations prescribed by KSPCB should be implemented	Noise and vibrations are kept within KSPCB prescribed norms. I. Use of sharp drilling, delivery of compressed air at optimal pressure. II. Proper maintenance of compressor, drilling machine, jackhammers and tipper trucks. III. Regular monitoring of noise levels are being done within the core zone and the buffer zone of the mining lease area.
12	Quarrying activities should be limited to daytime as per KSPCB guidelines/specific conditions.	Quarrying activities limited to daytime.
13	Blasting should be done in a controlled manner as specified by the regulations of the Explosives department or any other agency.	Blasting is done in a controlled manner and is done technically as prescribed by the mining statutes. Only a small diameter drill holes of 33/48mm diameter with 25mm cartridges slurry/ emulsion

		explosive are used for blasting, no large diameter holes are proposed for blasting. With optimum blast design, effective blasting techniques with delay detonators and low charges per delay, care has been taken to limit the blast vibrations and the PPV value below 10mm per second.
14	A licensed person should supervise/control the Blasting Operations	Blasting supervision and control is done by a Mining Official having DGMS Certificate.
15	Access road to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.	Access road to the Quarry is tarred.
16	Overburden materials should be managed within the site and used for reclamation of Mine Pit as per Mine closure Plan/specific conditions	Overburden material is used for road making and as a filler along the Green Belt for plantation purpose.
17	Height of Benches should not exceed 5 M and width should not be less than 5 M, if there is no mention in the Mining Plan/specific conditions	Agreed
18	Mats to reduce fly rock blast to a maximum of 10 PPV should be provided	Controlled blasting technique is adopted. PPV is kept to a minimum. Delay detonators are used.
19	Maximum depth of Mining from general ground level at site shall not exceed 10 m	Agreed
20	No Mining operations should be carried out at places having a slope greater than 45°	Agreed
21	Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow bricks envelop for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB.	Crusher unit is not installed within Mining Lease.
22	The workers on the site should be provided with the required protective equipment such as ear muffs helmet, etc.	Requisite Personal Protective equipments (PPE's) is provided as required to all employees.
23	Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.	Garland drains are constructed
24	The transportation of minerals should be done in covered trucks to contain dust emissions.	All trucks transporting material are covered by firmly tied tarpaulin
25	The proponent should plant trees at least 5 times the loss that has been occurred while clearing the land for the project.	140 nos. local species saplings have been procured from the Forest dept, Kannur
26	Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.	Spent oil is reused as a lubricant for drilling.
27	Explosives should be stored in magazines in isolated place specified and approved by the Explosive Department.	Explosives is stored in a Licensed Explosives Magazine, which is approved by PESO. (Copy of the Explosive license is attached as Annexure 1)

28	A minimum buffer distance of 100 M from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.	No dwellings are situated within 100 M from the boundary of the quarry.
29	100 M buffer distance should be maintained from forest boundaries	Mining area is not located near any forest areas.
30	Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.	Consent from KSPCB under Air and Water Act(s) is obtained. (copy of the consent is attached as Annexure 2)
31	All other statutory clearances should be obtained, as applicable, by project proponents from the respective competitive authorities including that for blasting and storage of explosives.	All statutory clearances obtained. The DGMS permission is under process.
32	In the case of any change(s) in the scope of the Project, extent, quantity, process of mining technology involved or in any way affecting the environment parameters/impacts as assessed, based on which only the EC is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.	In case any change is required, a fresh appraisal will be submitted for obtaining Approval from the Authority.
33	The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the Environmental Clearance under provisions of the Environment (Protection) Act,1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Agreed.

34	The stipulations by the Statutory Authorities under different Acts and Notifications should be complied with including the provisions of the Water (Prevention and control of Pollution) Act,1974, the Air (Prevention and control of Pollution) Act1981, the Environment (Protection) Act,1986, the Public Liability (Insurance) Act,1991 and EIA Notification,2006	Agreed
35	The project proponent should advertise in at least 2 newspapers widely circulated in the region, one of which(both the advertisement and the newspaper) shall be in the vernacular	Advertisements informing EC accordance to the Project is done in 2 nos newspapers. (photos of the newspaper advertisement is attached as Annexure 3)

	language informing that the Project has been accorded Environment Clearance and the copies of the Clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at <a href="http://www.seiaakerala.org">www.seiaakerala.org</a> . The advertisement should be made within 10 days from the date of receipt of the clearance letter and a copy of the same signed in all the pages should be forwarded to the Office of this Authority as confirmation	
.36	A copy of the clearance letter shall be sent by the proponent to the 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 Environmental Clearance shall also be put on the website of the company by the proponent.	A copy of the Clearance is submitted to the Pattiam Grama Panchayat on.
37	The proponent shall submit half yearly reports on the status of compliance of the stipulated EC 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 the MOEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office	Half yearly reports will be submitted as stipulated.
38	The details of Environment Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times Roman font of size not less than 40. Sign board with extent of Lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public	Details of Environmental Clearances are prominently displayed at the entrance to the Mine. (photo of the sign board is Attached as Annexure 4)
39	The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.	Provided
40	No change in mining technology and scope of working should be made without prior approval of the SEIAA. No further expansion or modifications in the mine shall be carried out	Prior approval from the SEIAA will be sought in case of change of mining technology.

	without prior approval of the SEIAA, as applicable.	
41	The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.	No natural water course is obstructed. Necessary safeguard measures will be taken to protect first order streams if originating from the mining lease in the future.
42	Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Monitoring of Ambient Air Quality will be carried out. Water sprinkling will be done at all places appropriately. (photos and monitoring reports have been attached as Annexure 6)
43	The top soil, if any, shall be temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The Over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8 m and the width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo-textiles shall be undertaken for stabilization of the dump. The entire excavated area should continue until the vegetation becomes self-sustaining	Available top soil will be used at the Green belt for plantation. OB generated is used for plantation purposes along the Green/Safety zone.
44	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development, etc. The drains shall be regularly de silted particularly after monsoons and maintained properly	Catch drains are made along the periphery of the mining lease.
45	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading points and transfer points-it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling is done on haul roads with water tankers.
46	Fugitive dust emissions from all sources should	Fugitive dust emissions is controlled.



	be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and transfer points should be provided and properly maintained.	
47	Measures should be taken for control of noise levels below 85 dB(A) in the work environment.	Adequate measures for noise control is adopted.
48	A separate environmental management cell with suitable qualified personnel should be set up under the control of a senior executive, who will report directly to the head of the Organization.	An Environment Management Cell is set up under the control of the Mines Manager.
49	The funds earmarked for environment protection measures and CSR activate should be kept in a separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.	Funds earmarked for environment protection measures and CSR will be made available.
50	The Regional Office of MOEF and CC located in Bangalore shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the Officer(s) if the Regional Office by furnishing the requisite data/information/monitoring reports.	We will extend full cooperation to any officer(s) from the Regional Office during his/their visit. All available data will be provided.
51	Any appeal against the Environment Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	Agreed
52	Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under provisions of the Environment (Protection) Act, 1986.	Factual and true data will be submitted.
53	The SEIAA may revoke or suspend the order for non-implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of the environment protection	Agreed
54	The above conditions shall prevail notwithstanding anything to the contrary, inconsistent or simplified, contained in any other permit, license on consent given by any other authority for the same project.	Agreed
55	The order is valid for a period of 5 years of the expiry date of Mine lease period issued by the Government of Kerala, whichever is earlier	Agreed
56	The Environment Clearance will be subject to	Agreed

	the final order of the courts in any pending litigation related to the land or the project, in any court of law.	
57	The Mining operations shall be restricted to above ground water table and it should not intersect ground water table.	Mining operations will be restricted to above ground water table and due care will be taken so as not to intersect ground water.
58	All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution checking center. Washing of all vehicles shall be inside the Lease area	Will ensure that all transportation vehicles have PUC issued by an authorized Pollution checking center.
59	Project proponent should obtain necessary prior permission of the competent authorities for drawl of necessary quantity of surface and ground water for the project.	Agreed.
60	Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six-monthly reports	No perennial nallah flows through the lease or exist around the Mine Lease.
61	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Occupational health surveillance will be undertaken

For Mr. C.G. George Stone Quarry



C.G. George  
Owner

Date: 29.06.2018



GOVERNMENT OF INDIA  
MINISTRY OF COMMERCE & INDUSTRY  
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION(PESO)  
(Formerly Department of Explosives)  
Kendriya Bhavan, Block C-2, 3rd Floor  
CSEZ PO Kakkanad Dist. Ernakulam Ernakulam 682037  
Tele: 2427286 Fax: 2427276  
Email: dycceernakulam@explosives.gov.in

No.: E/SC/KL/22/746(E32353)

Dated:13/01/2015

To,  
Shri C.G. George,  
Chittath House, Kuthuparamba post, Town/Village - Kutuparamba  
District-KANNUR, State-Kerala, Pincode - 670643

Subject: Possession for Use of Explosives from magazine situated at Survey No(s):88/1, Kolavallur, Thalassery Tk., Dist. KANNUR, Kerala -Licence No.: E/SC/KL/22/746(E32353) granted in Form LE-3 of Explosives Rules, 2008 - Amendment of Quantity of Explosives/Monthly Purchase Limit.

Sir(s),

Please refer to your letter No. nil dated 11/12/2014 on the subject cited above.

The Licence No.: E/SC/KL/22/746(E32353) is forwarded herewith duly amended in respect of followings ;  
THIS IS FOR ADDITIONAL QUARRY AT SY.No.73/81/1-2, PATTIAM VILLAGE, THALASSERY TALUK, KANNUR. VALID PERMISSIONS, AS APPLICABLE, FROM THE STATE GOVERNMENT AGENCIES SHALL BE IN POSSESSION..

The licence capacity at any one time shall not exceed the kinds and quantities mentioned below ;

No	Explosive(s)	Class	Div	Sub Div	Capacity	Unit
1	Nitrate Mixture	2	0	0	150	Kg.
2	Safety Fuse	6	1	0	2000	Mtrs
3	Electric Detonators	6	3	0	2500	Nos.
4	Ordinary Detonator	6	3	0	5000	Nos.

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

This Licence shall remain valid till 31st day of March 2019.

An amount of Rs. 2640/- balance is in your credit, which may be utilized for future transaction by quoting this reference.

For further renewal of licence, please follow the procedure under Rule 112 of Explosives Rules, 2008.  
Receipt of this letter may please be acknowledged.

Enclosures :

Yours faithfully.

(T O Sasi)

Deputy Chief Controller of Explosives

उ.गु.वि.नि., ए.ए.ए.ए.  
D. C. C. E., Ernakulam

Copy Forwarded to:

1. District Magistrate, KANNUR, Kerala with reference to his Noc No: D4.5631/2005 Dated: 18/10/2005.
2. Superintendent of Police, KANNUR, Kerala

Deputy Chief Controller of Explosives  
Ernakulam

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

13-01-2015



## KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/KNR/ICO/673/2010

Date of issue :17/01/2017

### INTEGRATED CONSENT TO OPERATE - RENEWAL

**Consent No : PCB/KNR/ICO-R/889/2016**

**Ref : 1. PCB/KNR/ICO/94/2010 DATED 10/08/2010**

**2. PCB/KNR/ICO/R1-343/2013 DATED 31/08/2013**

The 'Integrated Consent to Operate' issued as per reference above to M/s QUARRY OWNED BY SRI. C.G. GEORGE , ARAMKULAM , PANOOR , KANNUR DT - 670693 is hereby renewed up to 31/10/2019 and issued to M/s QUARRY OWNED BY SRI. C.G. GEORGE , ARAMKULAM , PANOOR , KANNUR DT - 670693 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	VALIDITY	31/10/2019
2	ANNUAL FEE	Rs 4420/-
3	TOTAL FEE REMITTED	Rs 13260/-
4	EXTENT OF AREA	0.7082 HECTARE IN SURVEY NO 156 OF PUTHOOR VILLAGE

#### II. Stack Details

Stack No.	Source of Emission	Emission Rate(Nm <sup>3</sup> /Hr)	Stack Height above		Control Equipment
			Ground Level(In Meters)	Roof Level(In Meters)	

#### III. CONDITIONS

2.2 This integrated consent, unless withdrawn earlier and subject to condition No.1.1 shall be valid up to 31/10/2019. In case the operation of the quarry is to be continued thereafter application for the renewal of the consent shall be submitted through Board's online web portal [www.krocmms.nic.in](http://www.krocmms.nic.in) before 31/7/2019





3.13 Stands Deleted.

3.16 The operation of the unit shall be commenced only after obtaining clearance from all concerned authorities.

3.17 The consent issued from the Board will be valid only up to the period of validity of clearances from other concerned authorities. The consent is only with respect to the powers vested under the Water Act 1974, Air Act 1981 and Rules there under.

3.18 The PM<sub>2.5</sub> in ambient air at the boundary shall not exceed 60 µg/m<sup>3</sup>

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

DATE : 17/01/2017



SIGNATURE & SEAL OF ISSUING AUTHORITY

*Krishnan M.N.*  
Krishnan M.N.  
Environmental Engineer

To

Sri. C.G. GEORGE

QUARRY OWNED BY SRI. C.G. GEORGE , ARAMKULAM , PANOOR , KANNUR DT - 670693



Newspaper Advertisements in The Hindu and Deepika dated  
01/06/2018

[illegible][illegible]



## Sign Boards





## Annexure 4





**Boundary Pillars and Fencing**



**GLOBAL ENVIRONMENT & MINING SERVICES**

(Consulting Engineers, Mine designers, Geologist &amp; Surveyors)

3rd Main Road, Basaveswara Badavane,  
**HOSPET – 583201**, Dist., Bellary (Karnataka)

Ph : +918394 229433, 651111

e-mail : gems\_hpt@yahoo.com

Website : www.globalmining.in

Date: 14.02.2018

**TEST REPORT OF AMBIENT AIR QUALITY DATA**

- 1 Name of the Customer/Address : Granite Building Stone Quarry of  
 Mr. C. G. George  
 Sy. No. 73/4,79, 80/1C, 81/1 & 81/2  
 Extent 0.7682 Ha.(1.8982 Acres)  
 Patiom Village,  
 Talassery taluk,  
 Kannur District  
 Kerala State.
- 2 Customer Reference : By hand  
 (Post/ Courier/e-Mail/By Hand)
- 3 Name of the Station : Core zone area (A1)
- 4 Sample Description : Ambient Air Quality monitoring
- 5 Sample Collected By : GLOBAL Environment & Mining Services
- 6 Particulars of Sample Collected : Combined Sampler GTI-241
- 7 Date of Sample Collection : 06.02.2018
- 8 Date of Sample Receipt : 08.02.2018
- 9 Date of Analysis : 10.02.2018
- 10 Date of Analysis Completion : 12.02.2018
- 11 Report Number : GEMS/BNG/ CGG/AAQ/221/2017-2018

Duration of Monitoring	PM10 [µg/m <sup>3</sup> ]		PM2.5 [µg/m <sup>3</sup> ]		SO <sub>2</sub> [µg/m <sup>3</sup> ]		NO <sub>x</sub> [µg/m <sup>3</sup> ]	
	IS : 5182: (Part 23) 2006		USEPA 2001		IS : 5182: (Part 2) 2001 (RF 2012)		IS : 5182: (Part 6) 2006 (RF 2012)	
	Result	STD	Result	STD	Result	STD	Result	STD
8 Hrs	54.3	100	22.4	60	8.5	80	4.8	80

<b>INFERENCE</b>	As per CPCB Standards, Report Status: - Measured Values for the above parameters are within the limit.
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*Ravikumar*  
 Analysed By  
 Ravikumar.J  
 Chemist

*P. K. R.*  
 Authorised Signatory  
 K. Ramakrishna Reddy  
 Technical Manager

**Note:**

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles 7 Days and ILC samples from the date of issue of Month test certificate unless otherwise specified.
- This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
- Total liability of our laboratory is limited to the Invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.




**GLOBAL ENVIRONMENT & MINING SERVICES**  
 (Consulting Engineers, Mine designers, Geologist & Surveyors)

 3rd Main Road, Basaveswara Badavane,  
**HOSPET – 583201**, Dist., Bellary (Karnataka)

Ph : +918394 229433, 651111

e-mail : gems\_hpt@yahoo.com

Website : www.globalmining.in

**Date: 14.02.2018****TEST REPORT OF AMBIENT AIR QUALITY DATA**

- 1 Name of the Customer/Address : Granite Building Stone Quarry of  
Mr. C. G. George  
Sy. No. 73/4,79, 80/1C, 81/1 & 81/2  
Extent 0.7682 Ha. (1.8982 Acres)  
Patiom Village,  
Talassery taluk  
Kannur District  
Kerala State..
- 2 Customer Reference : By hand  
(Post/ Courier/e-Mail/By Hand)
- 3 Name of the Station : Cheeratta Village (A2)
- 4 Sample Description : Ambient Air Quality monitoring
- 5 Sample Collected By : GLOBAL Environment & Mining Services
- 6 Particulars of Sample Collected : Combined Sampler GTI-241
- 7 Date of Sample Collection : 06.02.2018
- 8 Date of Sample Receipt : 08.02.2018
- 9 Date of Analysis : 10.02.2018
- 10 Date of Analysis Completion : 12.02.2018
- 11 Report Number : GEMS/BNG/CGG/AAQ/222/2017-2018

Duration of Monitoring	PM10 [µg/m³]		PM2.5 [µg/m³]		SO <sub>2</sub> [µg/m³]		NO <sub>x</sub> [µg/m³]	
	IS : 5182: (Part 23) 2006		USEPA 2001		IS : 5182: (Part 2) 2001 (RF 2012)		IS : 5182: (Part 6) 2006 (RF 2012)	
	Result	STD	Result	STD	Result	STD	Result	STD
24 Hrs	52.3	100	20.1	60	9.4	80	6.3	80

<b>INFERENCE</b>	As per CPCB Standards, Report Status: - Measured Values for the above parameters are within the limit.
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*Ravikumar*  
 Analysed By  
 Ravikumar.J  
 Chemist

*R.K.R.*  
 Authorised Signatory  
 K.Ramakrishna Reddy  
 Technical Manager

**Note:**

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles 7 Days and ILC samples from the date of issue of Month test certificate unless otherwise specified.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not use any advertising media without special permission in writing.
4. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subject to Hosapete jurisdiction only.

**GLOBAL ENVIRONMENT & MINING SERVICES**

(Consulting Engineers, Mine designers, Geologist &amp; Surveyors)

3<sup>rd</sup> Main Road, Basaveswara Badavane**HOSPET – 583201, Dist., Bellary (Karnataka)**

Ph : +91 8394 229433, 651111

e-mail : gems\_hpt@yahoo.com

Website : www.globalmining.in

**Date: 14.02.2018****TEST REPORT OF AMBIENT NOISE LEVEL MONITORING**

- 1 Name of the Customer/Address : Granite Building Stone Quarry of  
Mr. C. G. George  
Sy. No. 73/4, 79, 80/1C, 81/1 & 81/2  
Extent 0.7682 Ha. (1.8982 Acres)  
Patiom Village, Talassery taluk,  
Kannur District, Kerala State.
- 2 Customer Reference : By hand
- 3 Sample Description : Ambient Noise Level Monitoring dB(A)
- 4 Sample Collected By : GLOBAL Environment & Mining Services
- 5 Particulars of Sample Collected : EQUINOX-EQ 107
- 6 Date of Sample Collection : 06.02.2018 TO 10.02.2018
- 7 Date of Sample Receipt : 12.02.2018
- 8 Method Adopted : IS 9989 -1981 Reaffirmed 2008
- 9 Date of Download Data : 12.02.2018
- 10 Report Number : GEMS/BNG/ CGG/ANLM/223/2017-2018

Date	06.02.2018	10.02.2018
Time (hrs)	Core Zone N1	Cheeratta Village N2
6.00	44.0	43.0
7.00	45.0	44.0
8.00	46.0	45.0
9.00	47.0	49.0
10.00	48.0	50.0
11.00	49.0	49.0
12.00	50.0	49.0
13.00	51.0	48.0
14.00	52.0	49.0
15.00	53.0	49.0
16.00	54.0	52.0
17.00	56.0	54.0
18.00	52.0	53.0
19.00	50.0	51.0
20.00	47.0	49.0
21.00	48.0	47.0
22.00	43.0	44.0
23.00	41.0	42.0
00.00	39.0	39.0
01.00	39.0	38.0
02.00	40.0	39.0
03.00	41.0	40.0
04.00	42.0	39.0
05.00	43.0	41.0
Min	39.0	38.0
Max	56.0	54.0

*Ravikumar.J*  
Analysed By  
Ravikumar.J  
Chemist

*P.K.P.*  
Authorised Signatory  
K. Ramakrishna Reddy  
Technical Manager



# Annexure 6

## GLOBAL ENVIRONMENT & MINING SERVICES

(Consulting Engineers, Mine designers, Geologist & Surveyors)

3rd Main Road, Basaveswara Badavane,  
HOSPET – 583201, Dist., Bellary (Karnataka)

Ph : +918394 229433, 651111  
e-mail : gems\_hpt@yahoo.com  
Website : www.globalmining.in

Date:14.02.2018

### TEST REPORT OF WATER QUALITY DATA

- 1 Name of the Customer/Address : Granite Building Stone Quarry of  
Mr. C. G. George  
Sy. No. 73/4,79, 80/1C, 81/1 & 81/2  
Extent 0.7682 Ha.(1.8982 Acres)  
Patiom Village, Talassery taluk  
Kannur District, Kerala State.
- 2 Customer Reference : By hand  
(Post/ Courier/e-Mail/By Hand)
- 3 Sample Description : Drinking Water
- 4 Sample Collected By : GLOBAL Environment & Mining Services
- 5 Date of Sample Collection : 06.02.2018
- 6 Date of Sample Receipt : 08.02.2018
- 7 Date of Analysis : 10.02.2018
- 8 Date of Analysis Completion : 12.02.2018
- 9 Report Number : GEMS/BNG/ CGG/DW/ 224/2017-2018

S.No	Parameters	Result	Unit	APHA 22 nd Edition Method	IS 10500 - 2012	
		DW-01			Acceptable	Permissible
1	Colour	<5	Hazen	APHA 2120 B	5	15
2	odour	Ag	-	APHA 2150 B	Agreeable	Agreeable
3	pH at 25 Deg Celcius	5.75	-	APHA 4500 B	6.5 - 8.5	No Relaxation
4	Taste	Ag	-	IS 3025 Part 8	Agreeable	Agreeable
5	Turbidity	0.08	NTU	APHA 2130 B	1.0	5.0
6	Total dissolved solids	51.1	mg/l	APHA 2540 B	500	2000
7	Calcium as Ca	3.8	mg/l	APHA 3500 B	75	200
8	Magnesium as Mg	2.2	mg/l	APHA 3500 B	30	100
9	Chloride as Cl	9.78	mg/l	APHA 4500 B	250	1000
10	Fluoride as F	BDL	mg/l	APHA 4500 D	1.0	1.5
11	Conductivity	85	µs/cm	APHA 2510B	-	-
12	Nitrate as NO <sub>3</sub>	8.6	mg/l	APHA 4500 E	45	No Relaxation
13	Sulphate as SO <sub>4</sub>	4.2	mg/l	APHA 4500 E	200	400
14	Total Alkalinity as CaCO <sub>3</sub>	15.0	mg/l	APHA 2320 B	200	600
15	Total Hardness as CaCO <sub>3</sub>	15.8	mg/l	APHA 2340 B	200	600
16	Iron as Fe	0.32	mg/l	APHA 3500 B	0.3	1.0
17	Boron as B	Nil	mg/l	APHA 4500 B	0.5	1.0

Note : DW-01 :Cheeratta Village,

#### INFERENCE

As per IS 10500 - 2012 Standards,  
Report Status: - Measured Values for the above parameters are within the limit.

*[Signature]*  
Analysed By  
Ravikumar.J  
Chemist

*[Signature]*  
Authorised Signatory  
K.Ramakrishna Reddy  
Technical Manager

#### Note:

- The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Water Samples will be destroyed after 15Days, Minerals 3 Months, Filter papers & Thimbles 7 Days and ILC samples from the date of issue of Month test certificate unless otherwise specified.
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Environmental Monitoring





## Annexure 6

