TO
THE CONDITIONS
OF

ENVIRONMENTAL CLEARANCE ORDER NO: 823/SEIAA/EC1/2606/2015

DT. 09-08-2016

BY
STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)
FOR

QUARRY PROJECT AT
SURVEY NO. 1244/1pt KILLANUR VILLAGE, THRISSUR TALUK,
THRISSUR DISTRICT, KERALA



 \mathbf{BY}

M/S RUDRA GRANITES (October, 2019- March, 2020)

To.

The Director

Department of Environment and Climate Change

Government of Kerala

Sub: Environmental Clearance - Proposed quarry Project Re Sy. No. 1244/1 (pt) at Killanur Village, Thrissur Taluk, Thrissur District, Kerala-Second Half Compliance report-Reg.

Ref: File No.823/SEIAA/EC1/2606/2015.dtd. 09-08-2016

Respected Sir,

Our Quarry project was accorded with Environmental Clearance vide order 823/SEIAA/EC1/2606/2015.dtd. 09-08-2016. The Second Half compliance report of the specific and general conditions of the Environmental clearance is enclosed.

Thanking You Your Faithfully

Mr. Dineshmon N.T.

13 must

Proprietor

M/s. Rudra Granites

Copy to

The Regional Director

MoEF Regional Office, southern zone, KendriyaSadan, 4th Floor,

E&F Wing, II Block, Koramangala, Bangalore-560034.

INTRODUCTION

M/S Rudra Granites is a stone quarry located at Survey No., 1244/1pt Killanur Village, Thrissur Taluk, Thrissur District, Kerala. The quarry project was accorded with the Environmental Clearance by state Environmental Impact Assessment Authority on 09-08-2016. Consequently based on this EC, mining activity started during February 2017 in this area. Six month compliance reports to the conditions of the Environmental Clearance are to be submitted as part of compliance. The compliance report to the specific conditions and general conditions of the Environmental Clearance for the period of October, 2019-March, 2020 is being submitted.

PART A - SPECIFIC CONDITIONS

Condition 1

Protection wall (Protective fencing) shall be provided at vulnerable points of the quarry to avoid accidents.

√ Compliance

We have provided barbed metal wire fencing around the lease area with a height of 5ft to avoid accidents. Photograph showing the same is enclosed as Annexure 1.

Condition 2

Overburden is to be stored at the designated place.

√ Compliance

For the present project, the quantity of topsoil and overburden estimated to be 29095 MT and 138000 MT respectively. The top soil and Overburden has been storing separately in an earmarked site since the starting of the project. Photograph showing the same is enclosed as Annexure 2.

Condition 3

The approach road to the quarry from the main road is not maintained at all. This road must be maintained at good condition by the proponent.

The access road to project area has well maintained by strengthening by metal pieces pavement and trees are planted along both sides to avoid land sliding. To decrease dust emission during transportation, roads are watering at regular intervals using sprinklers fitted in vehicles. The photographs showing the same is given in Annexure 3.

> Condition 4

Dust suppression mechanism must be in place.

√ Compliance

To bring down the dust giving out through transportation, the haul roads are watering at regular intervals. Fixed sprinklers are also provided along the sides of approach road. To ensure adequate supply of water during the summer season, water harvesting pond is constructed in the project area. Dust emission during drilling is reducing using wet sack.

Condition 5

A more realistic CSR shall be prepared and submitted before SEIAA

✓ Compliance

CSR activities are carrying out as per the more realistic CSR prepared and submitted to SEIAA. The documents regarding CSR were maintained in the company office as record. Some of the Proof of the CSR activities carried out are given in Annexure No.19.

PART B - GENERAL CONDITIONS

Condition 1

Rainwater harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR unless otherwise specified.

√ Compliance

In connection with the present project, rainwater harvesting system has provided. It consists of one harvesting tanks constructed with stone masonry wall having the capacity of 300000 liter. Photograph of the rainwater harvesting system as enclosed as Annexure 4.

Condition 2

Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

√ Compliance

An Environmental Monitoring Cell has formed with Mr. Dineshmon NT (Owner) as head of the monitoring cell and made functional. Meeting of the monitoring cell has been arranging periodically and discus the status of the compliance of the specific and general conditions stated in the Environmental clearance order. The details of the monitoring cell members are given below.

Sl. No.	Post	Name
1	Head of the monitoring cell	Dineshmon NT
2	Head in charge (Environment)	P. Sathyanarayana Rai
2	Senior Environmental Officer	Jammu Bhaskara Rao
3	Environmental Officer	Ratheesh N
4	Name of the environmental officers in charge at Site	Jacob AM
5	Address of Environmental laboratory	M/s Poluchem Laboratory Pvt. Ltd.

Condition 3

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

√ Compliance

The margins of the project area is roughly covered by thick vegetation, the vacant spaces including the sides of approach road and other places near to the project area is planted with tree saplings. The photographs showing the same are attached as Annexure No.5.

> Condition 4

Maximum possible solar energy generation and utilization shall done at the own cost of the project proponent.

√ Compliance

We have provided solar panels system near the project office and associated buildings. All the power needs of the office building are generated from solar power. The photographs showing the solar system is attached as Annexure No.5A.

Condition 5

Sprinklers shall be installed and used in the project site to contain dust emission.

√ Compliance

Dust emission during drilling is reduced using wet sack. To reduce dust emission during transportation, the haul roads are watered at regular intervals. Fixed Sprinklers are also provided along the sides of approach road. The photographs showing the fixed sprinklers along the road side is attached as Annexure No.5b

Condition 6

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

√ Compliance

Following to the shutting of the mine, it is proposes to build up a green belt in the mined out area after reclaimed with stacked dumping and overburden. For the same, we are storing the top soil and overburden in a prefixed area. Ten percent of the excavated pit area will be maintained as water storage area. Ecorestoration including the mine closure plan will perform at our own cost.

Condition 7

At least 10 percent out of the 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 pit is stipulated in the E.C.

Following the closure of the mine, ten percent of the excavated pit area will be retained as water storage area. The project team proposes to develop a green belt in the remaining area with indigenous plant species after reclaimed with stacked dumping and overburden. Grass and Shrub species with strong root system will plant in the areas prone to erosion especially at the foot of the hill. As part of compliance we have started planting teak and jackfruit tree saplings. The photographs showing the same shown as Annexure No.5c

Condition 8

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

√ Compliance

As part of the Corporate Social Responsibility, the amount proposed by the company has been spending for various social activities. CSR activities are carrying out as per the application submitted to SEIAA. The registers regarding CSR were maintained in the company office as record.

Condition 9

The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc.) shall be protected at all times and shall be conspicuous.

√ Compliance

The project team provided barbed metal wire fencing around the mining area with a height of 5 ft to prevent falling of animals/human/belongings/dumping of garbage's etc. The photograph showing the same is attached as Annexure No.1

Condition 10

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

Warning alarm has installed in the project area and maintaining properly. The blasting time has fixed and is between 4.0pm and 5.0pm. A danger board indicating blasting time has also installed in the project site.

> Condition 11

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

√ Compliance

Noise pollution

Mitigation measures Implemented

The major noise generating source from the mining activity is working machinery, drilling, blasting and plying of vehicles. The following control measures are undertaken to bring down the noise levels:-

- Proper maintenance of machinery, equipments and improvement of design of machines.
- Personal protective devices i.e., earmuffs, ear plugs etc. are provided to workers working in high noise areas.
- > Maintain a wide green belt of dense foliage between mine areas and residential colonies.
- The mining area is working only during day times.
- > Noise quality is checking periodically. The sound levels are monitored through an NABL accredited laboratory during the quarry in operation and the monitored results are well within the permissible limits.

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.

Condition 12

Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.

√ Compliance

Quarrying activities is carrying out only during day time.

≻ Condition 13

Blasting should be in a controlled manner as specified by the regulations of Explosive department or any other concerned agency.

√ Compliance

Blasting

- ❖ The controlled blasting is proposed by adopting all the safety measures as per "MMR 1961" and with the permission of DGMS.
- ❖ Blasting is carried out for the fragmentation of the granite within the project area. Multiple blast holes of 1.0 to 1.5 m depth will be drilled with the help of 32mm drill rod, Jack Hammer and air compressor of 100 cm capacity.
- ❖ It is estimated about 250g of explosives per hole is required. About 30-50 holes per blast are proposed. Therefore the requirement of explosive will be about 10kg/ blast.

Blasting safeguard

- Blasting in the open cast is done only during day time at designated hours.
- Only competent blasters are appointed to handle explosives.
- Explosives are stored in approved and licensed magazine as per explosive Act/ Rules.
- Explosives are brought from magazine to blasting site in licensed explosive van under the care of blaster.
- Sufficient warning signals are given before blasting the holes.
- Guards are posted on all roads and paths at least 250 m distance to stop entrance to the danger zone during the blasting hour.

- Controlled blasting is practiced to control vibrations and flying fragments.
- Optimum charge is used, while blasting near office complex/ infrastructure site.
- Maximum charge per delay is always being less than 10kg to limit the PPV levels within the DGMS standards of 15 mm/sec.

Condition 14

A licensed person should supervise/ control the blasting operations.

√ Compliance

Licensed person is supervising/controlling the blasting operations. Copy of license of the licensed person is enclosed as Annexure 6.

> Condition 15

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

√ Compliance

Entree road area to the mine has well maintained by paving granite stones. Roads have been well maintaining to contain dust emissions that may arise during transportation of materials. The photographs showing the same is given in Annexure 3.

> Condition 16

Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan/specific condition.

√ Compliance

The excavated top soil has been storing separately in a prefixed location. The quantity of topsoil and overburden estimated to be 29095MT and 138000MT respectively. Photograph showing the same is enclosed as Annexure 2.

> Condition 17

Height of the benches should not exceed 5m, and width should not be less than 5m, if there is no mention is the mining plan/specific condition.

Quarry has started working during March, 2017 and the mining is carrying out in the form of benches. Now we are managing the height of the bench around 5 meters. The photograph showing our current working is shown as Annexure No.7.

> Condition 18

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

√ Compliance

Various safety measures have set down to prevent fly rocks cross the lease area. Safety measures include no blasting during unfavorable weather conditions, maintain optimum delay sequence and stem to column ratio etc.

> Condition 19

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

√ Compliance

In the current project, the exploitation of mineral is from 90-15m MSL in conceptual phases. Mining depth will not exceed beyond 10m from general ground level.

Condition 20

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

√ Compliance

Mining activities are not carrying out at regions having a slope greater than 45°

Condition 21

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

√ Compliance

Mining area has covered by thick green belt and this will reduce sound amplifications produced during mining activities. The noise level is keeping within the prescribed standards given by CPCB/KSPCB.

≻ Condition 22

The workers on the site should be provided with the required protective equipment such as ear muffs, helmets, etc.

√ Compliance

The project team has provided personal protective devices such as earmuffs, ear plugs, helmet etc. to all workers at the site.

≻ Condition 23

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

√ Compliance

From the entire project area, storm water is channelizing in to an excavated pit and stored the storm water in it. During this storage all the debris/slit in the storm water are sedimented in to the bottom of the pit. Overflow from the storm water collected pit is opened in to Garland drains which entering to the main stream.

➤ Condition 24

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

√ Compliance

Trucks are covered with tarpaulin sheets after loading to control dust emissions during transportation,. Different other precautions also set down to control dust emissions are; trucks are not overloading and the loads are maintained to the body level etc.

Condition 25

The proponent should plant at least 5 times of the loss that has been occurred while clearing the land for the project.

√ Compliance

We have been planting trees at least 5 times of the loss that has been occurred while clearing the land for the project since the starting of the project.

➤ Condition 26

Disposal of spend oil from diesel engines should be as specified under relevant rules/regulations.

√ Compliance

Disposal of spent oil from diesel engines is carrying out under relevant rules/regulations.

> Condition 27

Explosive should be stored in magazines in isolated place specified and approved by the Explosive Department.

√ Compliance

Explosives are storing in magazines built in an isolated place specified and approved by the Explosives Department. A photograph showing the magazine is enclosed as Annexure 8.

Condition 28

A minimum 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.

✓ Compliance

Distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures are providing.

Condition 29

100 m buffer distance should be maintained from forest boundaries.

√ Compliance

Not applicable, no forest boundary within 200m distance.

> Condition 30

Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.

√ Compliance

Consent from Kerala State Pollution Control Board under Water and Air Act(s) has obtained before started the mining activity. Consent Order from Kerala State Pollution Control Board is attached as Annexure 9.

➤ Condition 31

All other statutory clearances should be obtained as applicable by project proponents from the respective competent authorities including that blasting and storage of explosives.

√ Compliance

All statutory approvals required for the quarrying activity is obtained for the project. The details regarding the same along with the copy of the statutory approvals are enclosed as Annexure 10 and 11. Details of statutory approvals are given below.

S1. No.	Annexure	Statutory approvals
1	10	License to possess: (c) for use, explosives of class1, 2, 3, 4, 5, 6 or 7.
2	11	License from Panchayat

➤ Condition 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 environmental parameters/impacts are assessed, based on which only the E.C. 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.

√ Compliance

Would be complied

> Condition 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 the provisions of the Environmental (Protection) Act, 1986 to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

Would be complied

Condition 34

The stipulation by the statutory authorities under different acts and notifications should be complied with including the Water (Prevention and Control of Pollution) Act 1974, The Air (Prevention and Control of Pollution) Act, 1981, The Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006.

√ Compliance

Would be complied

Condition 35

The project Proponent should advertise in at least two local news papers widely circulated in the region one of which (both the advertisement and the news paper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environmental Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaa.kerala.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 the Authority as confirmation.

√ Compliance

Regarding the accordance of environmental clearance to the quarrying activity has advertised in two local newspapers and the copy of the same was submitted to SEIAA Kerala. The copies of the advertisements are provided at Annexure 12 & 13. Details of the newspaper advertisements are given below.

S1.	Annexure	Name of the Newspaper and edition	Dated	
No.				
1	12	Mangalam	30/0-8/2016	
2	13	Kerala Kaumadi	30/0-8/2016	

Condition 36

A copy of the clearance letter shall be send by the proponent to concerned Grama panchayat/ District panchayat/ Muncipality/ 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 environmental clearance order has submitted to Panchayat office. There is no suggestion/representation received so far from anybody. The environmental clearance order and compliance report has uploaded in the Company website.

Condition 37

The proponent shall submit half yearly reports on the status of compliance of the stipulated E.C. 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 E.C. conditions, including result of monitored data on website and shall and update the same periodically. It shall simultaneously be send to the respective Regional office, of MOEF, Govt. of India and also to the State Environmental Impact Assessment Authority (SEIAA) office.

√ Compliance

Sixth Compliance Report is being submitted to Department of Environment and Climate change, Govt. of Kerala and Regional Office of MoEF, Govt. of India both in hard copy as well as soft copy (CD).

> Condition 38

The details of environmental clearance should be prominently displayed in a metallic board of 3ft x 3ft with green background and yellow letters of Times New Roman font of size of 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 the environmental clearance prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman fond was installed. The photographs showing the metallic board is given in Annexure 14.

Condition 39

The proponent should provide notarized affidavit (indicating the number and date of environmental clearance proceedings) that all the conditions stipulated in the E.C. shall be scrupulously followed.

√ Compliance

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed has submitted to Department of Environment and climate change.

Condition 40

No change in mining technology and scope of work should be made without prior approval of the SEIAA, No further expansion or modifications in the mines shall be carried out without prior approval of the SEIAA, as applicable.

✓ Compliance

We will not make any change in mining technology and scope of work without prior approval of the SEIAA and further expansion or modifications in the mines will not be carried out without prior approval of the SEIAA.

Condition 41

The project proponent shall ensure that no natural water course and/or water recourses shall be obstructed due to any mining operations. Necessary safe guard measures to protect the first order streams if any, originated from the mine lease shall be taken.

√ Compliance

We ensure that no natural water course and/or water recourses has not obstructed due to any mining operations. There is no first order streams originated from the mine lease.

Condition 42

Monitoring of Ambient Air Quality to be carried out based on the notification 2009, as amended from the time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points and transfer points to reduce fugitive emission.

√ Compliance

We are carrying out monitoring of Ambient Air Quality based on the notification 2009, as amended from the time to time by the Central Pollution Control Board. Water sprinkling has installed at places via loading and unloading points and transfer points to reduce fugitive emission. Copy of the Ambient Air Quality is enclosed as Annexure 15.

Condition 43

The top soil, if any, shall be temporarily be stored at earmarked site(s) only for the top soil shall be used for land reclamation and plantation. The overburden generated during the mining operation shall be stacked at earmarked dump site(s) only. The maximum height of the dump shall not exceed 8m and width 20m and overall slope of the dump shall be maintained to 45°. The O.B. dump 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 the stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated area should continue until the vegetation become self-sustaining.

√ Compliance

The top soil has been storing at earmarked site(s) and it will be only used for land reclamation and plantation. The overburden generated during the mining operation also stacking at earmarked dump site only. The maximum height of the dump will not exceed 8m and width 20m and overall slope of the dump will be maintained to 45°. The O.B. dump will be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, we will use geo textiles undertaken for the stabilization of the dump. The entire

excavated area will be backfilled. We will monitor and manage the rehabilitated area until the vegetation become self-sustaining.

Condition 44

Catch drains and siltation ponds of appropriate site shall be constructed around the mine working mineral and O.B. dumps to prevent runoff 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 desilted particularly after monsoon and maintained properly.

√ Compliance

Siltation ponds and catch drains has provided around the mine working, mineral and O.B. dumps to prevent runoff water and flow of sediments directly into the river and other water bodies. The water so collected will be utilized for watering the mine area, roads, green belt development etc. The drains will be regularly desilted particularly after monsoon and maintained properly.

➤ Condition 45

Effective safe guard measures such as regular water sprinkling shall be carried out in critical areas porn to air pollution and having high levels of PM_{10} and PM_{25} such as haul road loading and uploading points and transfer points. It shall be ensure that the Ambient Air Quality Parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

√ Compliance

Effectual safe guard measures such as regular water sprinkling is carrying out in critical areas porn to air pollution and having high levels of PM_{10} and PM_{25} such as haul road loading and uploading points and transfer points. It will be ensuring that the Ambient Air Quality Parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

Condition 46

Fugitive dust emission from all the sources should be controlled regularly. Water spraying arrangements on haul roads, loading and unloading at transfer points. Should be provided and properly maintained.

Fugitive dust emission from all the sources is controlling regularly. Water spraying arrangements on haul roads, loading and unloading at transfer points has arranged and properly maintained.

Condition 47

Measures should be taken for the control of Noise level below 85 DBA in the work environment.

√ Compliance

Different measures have taken for the control of noise level below 85 DBA in the work environment. We have been checking the Ambient Sound level periodically and the copy of the same as enclosed as Annexure 16.

Condition 48

A separate Environment Management Cell with suitable qualified personal should be setup under the control of a senior executive who will directly report to the head of the organization.

√ Compliance

A separate Environment Management Cell with suitable qualified personal will be setup shortly under the control of a senior executive who will directly report to the head of the organization.

Condition 49

The funds earmarked for the Environmental protection measures and CSR activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environmental Impact Assessment Authority (SEIAA) office.

√ Compliance

The amount earmarked for the Environmental protection measures and CSR activities are keeping in separate account and will not diverted for other purpose. We will reports year wise expenditure to the State Environmental Impact Assessment Authority (SEIAA) office.

➤ Condition 50

The regional office of MOEF and CC located at Bangalore shall monitor compliance of the stipulated conditions. The project Authorities should extent full co-operation to the officer (s) of the regional office by furnishing the requisite data/information/monitoring reports.

√ Compliance

We will extent full co-operation to the MOEF officer (s) of the regional office by furnishing the requisite data/information/monitoring reports.

> Condition 51

Any appeal against the Environmental 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.

√ Compliance

There is no appeal against this Environmental Clearance with the National Green Tribunal.

Condition 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 the withdrawal of this clearance and attract action under the provision of Environmental Protection Act, 1986.

√ Compliance

We agreed

> Condition 53

The SEIAA may revoke, or suspend the order for non implementation of any of the specific or this implementation of any of the conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further conditions or stipulate any further conditions in the interest of Environmental Protection.

√ Compliance

We agreed

Condition 54

The above conditions shall prevail not withstanding anything to the contrary in consistent or simplified, contained in any other permit, license on consent given by any other authority for any other project.

√ Compliance

We agreed

Condition 55

The order is valid for a period of 5 years or the expiry date of mining lease period issued by the Government of Kerala, whichever is earlier.

√ Compliance

We agreed

Condition 56

The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.

√ Compliance

There is no pending litigation related to the land or project, in any court of law regarding this project.

> Condition 57

The mining operation shall restrict to above ground water table and it should not intersect ground water table.

√ Compliance

We carried out mining only above the ground water table only and it will not intersect ground water table.

Condition 58

All vehicles used for transportation and within the mine shall have 'PUC' certificate from authorized pollution taking center. Washing of all vehicles shall be in the lease area.

All vehicles have been washing within in the lease area. Every vehicles using for the transportation and within the mine have obtained 'PUC' certificate from authorized pollution taking center.

Condition 59

Project proponent should obtain necessary prior permission of the competent authorities for withdrawal of requisite quantity of surface water and ground water for the project.

√ Compliance

We will obtain necessary prior permission of the competent authorities for withdrawal of requisite quantity of surface water and ground water for the project.

Condition 60

Regular monitoring of flow rates and water quality upstream and down streams of the spring and perennial nallahs flowing in and around the mining lease area shall be carried out and reported in the six monthly reports to the SEIAA.

√ Compliance

We are carrying out the water quality analysis regarding the water bodies around the lease area. Copy of the water quality reports enclosed as Annexure 17. There is no spring and perennial nallahs flowing in and around the mining lease area.

Condition 61

Occupational Health surveillance programme of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures if needed.

√ Compliance

We are carrying out Occupational Health surveillance programme of the workers periodically to monitor any contractions due to exposure to dust and take corrective measures if needed in connection with Mines Vocational Training.

ANNEXURE 1





Photograph showing the barbed metal wire fencing erected around the mining area

ANNEXURE 2





Photographs showing the top soil and OB storage area

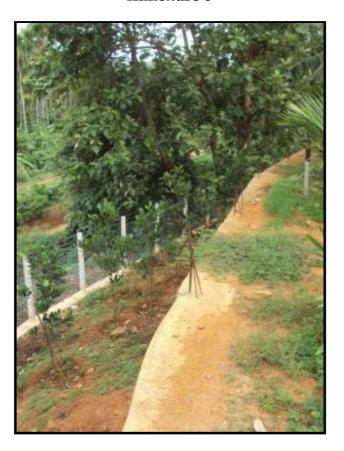




Photograph showing access road maintained by paving granite stone



Photograph showing the rain water harvesting tank





Tree saplings planted near to the project area

Annexure No.5a



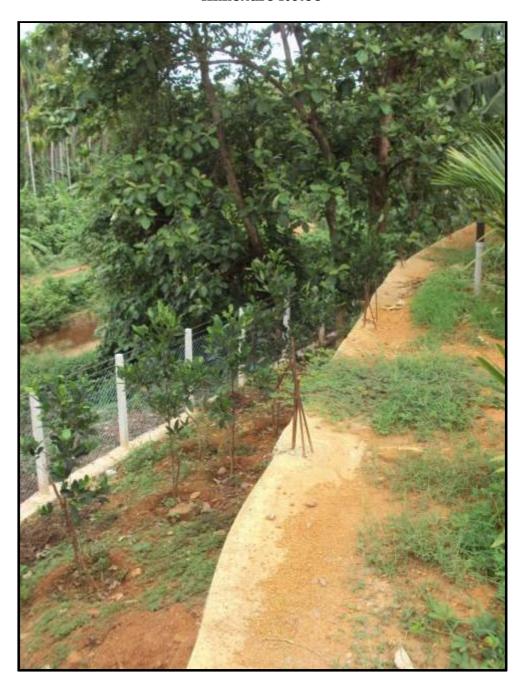
Photograph showing solar panel installed in the project area

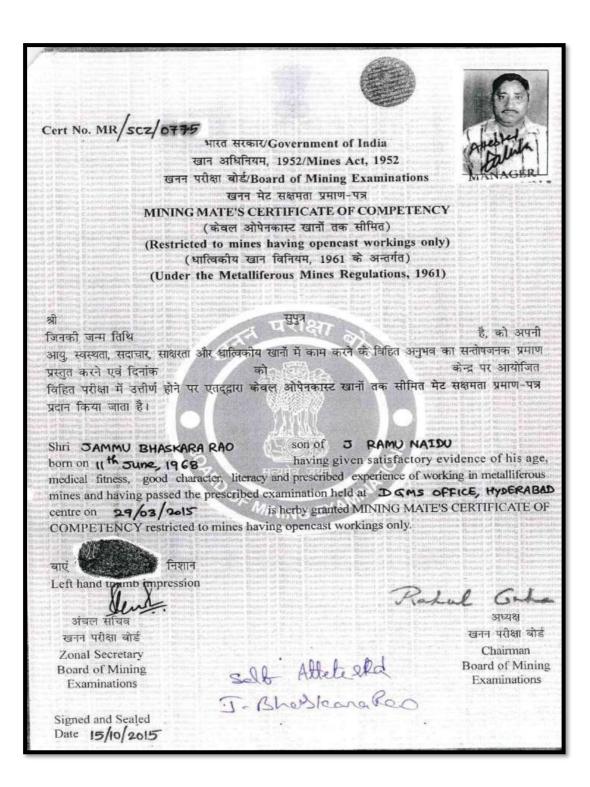
Annexure No.5b



Photograph showing the fixed sprinklers installed along the road side

Annexure No.5c







The photograph showing bench type mining

Annexure 8







KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/TSR/IC/7170/2016

Date of issue :28/10/2018

INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No: PCB/DO/TSR/R1/ICO/5494/2018

Ref: 1) Your online application no. 8488945 dated 27.07.2018

2) Consent No. PCB/DO/TSR/F/ICO/5494/2016 issued on 14.06.2016 valid up to 31.10.2018

The 'Integrated Consent to Operate' issued as per reference above to M/s RUDRA GRANITES, KUNDUKAD P.O., KARUVANKADU, THRISSUR-680028 is hereby renewed up to 08/08/2021 and issued to M/s RUDRA GRANITES, KUNDUKAD P.O., KARUVANKADU, THRISSUR-680028. 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	31.10.2023	
2	Annual Fee	Rs 2800/-	
3	Fee remitted	Rs 14,000/-	

II. Stack Details

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

III. CONDITIONS

- 3.1 Application for renewal of consent shall be submitted online (krocmms.nic.in) two months in advance of the date of expiry of validity of the consent. Late application will be accepted only with fine as applicable.
- 3.2 This consent is granted on the basis of the affidavit furnished by the applicant. On notice of non compliance with Board's norms, consent issued will be revoked.
- 3.3 An additional amount of Rs. 323/- shall be remitted as DD drawn in favour of Kerala state pollution

control board towards fee arrears, as per G.O.(P) No. 2/2017/Envt. dated 04.11.2017 with in one month from the date of issue of this consent.

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

SUSEELA NAIR V A Digitally signed by SUSEELA NAIR V A Date: 2018.10.28 21:38:26 +05'30'

DATE:28/10/2018

SIGNATURE & SEAL OF ISSUING AUTHORITY ENVIRONMENTAL ENGINEER



SRI.DINESH MON N.T, NEENDUTHALAKKAL HOUSE, P. O. KUNDUKAD, MUTTIKKAL, KARUVANKADU. THRISSUR-680028

- 1. This digitally signed document is legally valid as per the Information Technology Act 2000
- 2. For verifying this document please go to krocmms.nic.in and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.

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

अनुजन्ति सं. (Licence No.) : E/SE/KL/22/1(E84010) वाषिक फीस रुपए (Annual Fee Rs): 2400/-

1. Licence is hereby granted to
Shri NT Dineshmon (河旬河市 / Occupier: NT Dineshmon), Neenduthalakkal House Muttikkal
Kundukadu P.O. Thrissur ,kUNDUKADU, Town/Village - KILLANNUR, District-THRISSUR,
State-Kerala, Pincode - 680028

License Photo v

को अन्ज्ञप्ति अन्दत्त की जाती है।

2. अनुजय्तिधारी की प्रास्थिति | Status of licensee : Individual

अनुजन्ति निम्नलिखित प्रयोजनों के लिए
 विधिमान्य है।
 Licence is valid only for the following purpose.
 possess for use of Nitrate Mixture, Safety Fuse,
 Electric and/or Ordinary Detonators, - के उपयोग के
 लिए

4- अनुजन्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है। Licence is valid for the following kinds and quantity of explosives: -- (क) (a)

F. Sr. No.				मात्रा किसी एक समय में Quantity at any one time
1	Nitrate Mixture	2.0	0	100 Kg.
-1-	Safety Fuse	6,1	0	1100 Mtrs
3.	Electric and/or Ordinary Detonators		0	1000 Nos.

(ख) किसी एक कर्लेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए]
(b) Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3(b) and (c)]:

5. निम्नतिखित रेखाचित्र (रेखाचित्राँ) से अनुजय्त परिसर की पुष्टि होती है। The licensed premises shall conform to the following drawing(s):

रेखाचित्र क. (Drawing No.) E/SE/KL/22/1 : (E84010) दिनांक (Dated) 15/11/2018

- 6. अनुजन्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:
 Survey No. 1244/1 , ग्राम (Town/Village): Killannur पुलिस याना (Police Station): Viyyur
 जिला (District) THRISSUR राज्य (State) Kerala पिनकोड (Pincode) 680028
 द्रमाष (Phone) 9744766116 ई. मेल (E-Mail) rudragranite@gmail.com फैक्स (Fax)
- 7. अनुजन्ति परिसर मैं निम्नलिखित सुविधाएं अंतर्विष्ट हैं। : Portable Magazines D Type No.706 and E type No.956 The licensed premises consist of following
- अनुज्ञप्ति समय समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक नियम, 2004 के उपबंधों, शर्तों और अतिरिक्त शर्तों और निम्निलिखित उपावध्दों 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.

 उपर्युक्त क्रम सं. 5 मैं यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हए)। Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

- 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.

9. यह अनुजप्ति तारीख 31 मार्च 2018 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2018.

यह अनुज़िन्त, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग व के प्रति निर्दिष्ट सेट VII के अधीन तथा उपवर्णित इस अनुजम्ति की शर्तों का अधिक्रमण करने या यदि अनुजम्त परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहत की जा सकती है.

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 - 31/10/2014

उप मुख्य विस्फोटक नियंत्रक | Dy. Chief Controller of

Explosives Ernakulam

Amendments:

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 18/07/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 08/08/2018

Amendment in Drawings/Facilities/Premises dated: 08/08/2018

Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 15/11/2018

नवीनीकरण के पृष्ठांकन के लिए स्थान Space for Endorsement of Renewal

छप मुख्य विश्फोटक नियंत्रक Deputy Chief Controller of Explosive: georgeory Emakulam

नवीकरण की तारीख	समाप्ति की तारीख	अनुजापन प्राधिकारी के हस्ताक्षर और स्टाम्प
Date of Renewal	Date of Expiry	Signature of licensing authority and stamp
20/02/2018	31/03/2023	Sd/- 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.



ലൈസൻസി താഴെ പറയുന്ന വൃവസ്ഥകൾ അനുസരിക്കേണ്ടതാകുന്നു.

- കേരള പഞ്ചായത്ത് രാജ് ആകടും അതേ തുടർന്നുള്ള ചട്ടങ്ങളും ബൈലകളും അനുസരിച്ചു പ്രവർത്തിക്കേണ്ടതാകുന്നു.
- മതാഴിൽ സ്ഥലവും അതിലുള്ള സാധനസാമഗ്രികളും പഞ്ചായത്തധികാരികൾക്കോ/സെക്രട്ടറി അധികാരപ്പെടുത്തുന്ന മറ്റ് ഉദ്യോഗസ്ഥർക്കോ പരിശോധിക്കുന്നതിന് ലൈസൻസി വേണ്ട സൈകര്യം നൽകേണ്ടതും അവർ ആവശ്യപ്പെട്ടാൽ ഈ ലൈസൻസ് കാണിക്കേണ്ടതുമാണ്.
- എത് സ്ഥലത്തിന്റെ കാര്യത്തിൽ ലൈസൻസ് നൽകിയിരിക്കുന്നവോ ആ സ്ഥലത്ത് എല്ലാവരും കാണത്തക്ക — വിധത്തിലുള്ള ഒരു ഭാഗത്ത് ലൈസൻസി തന്റെ പേരും, ലൈസൻസിന്റെ നമ്പരും ഉദ്ദേശവും കാണിക്കുന്ന ഒരു അടയാളപ്പലക വച്ചിരിക്കേണ്ടതാണ്.
- 4 പഞ്ചായത്തിൽ നിന്നും അനുവാദം ലഭിച്ചശേഷമല്ലാതെ തൊഴിൽ സ്ഥലം മാറ്റാൻ പാടില്ലാത്തതും തൊഴിൽ നിർത്തുന്ന പക്ഷം വിവരം മുൻകൂട്ടി പഞ്ചായത്തിൽ അറിയിക്കേണ്ടതുമാകുന്നു.
- തോഴിൽ സ്ഥലവും പരിസരങ്ങളും വൃത്തിയായും സാംക്രമികരോഗാണുക്കൾ ഉണ്ടാക്കാത്ത വിധത്തിലും പെറത്തിന്റെ വച്ചിട്ടുള്ള ഭക്ഷണപദാർത്ഥങ്ങൾ ഈച്ച,അണൂക്കൾ,പൊടി മുതലായവയുടെ ശല്യം ഉണ്ടാകാത്ത വിധത്തിലും സൂക്ഷിക്കേണ്ടതാണ്.
- േ ഒരോ പ്രവർത്തിദിവസത്തിന്റെയും ഒടുവിൽ സ്ഥലം വൃത്തിയാക്കേണ്ടതാണ്.
- 7 ആ സ്ഥലത്തിന്റെയോ പരിസരത്തിന്റെയോ, ഏതെങ്കിലും ഭാഗത്ത് വീഴുകയോ നിക്ഷേപിക്കുകയോ ചെയ്യുന്ന ചപ്പുചവറോ, മൃഗങ്ങളുടെ അവശിഷ്യങ്ങളോ മറ്റ് പദാർത്ഥമോ ശേഖരിച്ച്, സെക്രട്ടറിക്ക് തൃപ്തികരമായ രിതിയിൽ നിക്കം ചെയ്യിക്കേണ്ടതാണ്.
- ലൈസൻസി ഏതൊരു കെട്ടിടത്തിന്റെയും ചൂഖരുകളുടെ അകവശത്തിന്റെ എതൊരു ഭാഗവും മേൽപറഞ്ഞ പരിസരത്തിലുള്ള തറയും നടപ്പാതയും അവിടെ തെറിച്ചുവിഴാനിടയുള്ള ഏതെങ്കിലും ദ്രാവകമോ, മാലിന്യമോ, ചപ്പുചവറോ, അസഹ്യവും, ഉപഭ്രവകരവുമാ ഏതെങ്കിലും പദാർത്ഥമോ അവിടെ ചയിക്കുന്നത് തടയത്തക്കവിധം എപ്പോഴും നന്നായി കേടുപാട് തിർത്ത് നിലനിർത്തേണ്ടതാണ്.
- 9 ലൈസൻസി മേൽപറഞ്ഞ സ്ഥലത്തോ, പരിസരത്തോ അതോടു ചേർന്നോ ഉള്ള എതൊരു ഓവുചാലും, അഴുക്കുജലം കളയൂന്നതിനുള്ള ഉപകരണവും എപ്പോഴും നന്നായി കേടുപാട് തിർത്ത് വയ്പിക്കേണ്ടതാണ്.
- 10 അയിത്തം ആചരിക്കുന്ന കടകളുടെ ലൈസൻസ് റദ്ധുചെയ്യുന്നതാണ്.
- എതെങ്കിലും തരത്തിലുള്ള താക്ക് രോഗമോ കുഷ്ഠ രോഗമോ വ്രണമോ പകർച്ച വ്യാധികളോ ഉള്ള യാതൊരാളും കച്ചവടം നടത്തുന്നതിന് ഉപയോഗിക്കുന്ന സ്ഥലത്തും പരിസരത്തും പ്രവർത്തിക്കുവാൻ പാടില്ലാത്തതാകുന്നു.
- 12 50 മൈക്രോണിൽ കുറവുള്ള പ്ലാസ്റ്റിക്കുകളും മറ്റ് നിരോധിത പ്ലാസ്റ്റിക് ഇനങ്ങളും ഉൽപ്പാദിപ്പിക്കുകയോ ശേഖരിക്കുകയോ വിൽക്കുകയോ കൈകാര്യം ചെയ്യുകയോ ചെയ്യാൻ പാടില്ല.
- 13 സ്ഥാപനത്തിന്റെ ബോർഡിൽ സ്ഥലനാമം മലയാളത്തിലും ഇംഗ്ലീഷിലും രേഖപ്പെടുത്തേണ്ടതാണ്.
- 14 20 സീറ്റിൽ കുടുതലുള്ള എല്ലാ ഹോട്ടലുകൾക്കും റെസ്റ്റോറന്റുകൾക്കും ടോയ്ലറ്റ് സൗകര്യം ഏർപ്പെടുത്തേണ്ടതാണ്.
- ന്ത്രം നിരോധിത ഉൽപന്നങ്ങളായ പാൻമസാല, ഗൂഡ്ഖ തുടങ്ങിയവ സംഭരിച്ചുവയിക്കുവാനോ വിൽക്കുവാനോ പാടില്ല.
- 16 ബാലവേല അനുവദിക്കാൻ പാടില്ല.

7 മുകളിൽ കാണിച്ചിരിക്കുന്ന വ്യവസ്ഥകളുടെ ലംഘനം ഈ ലൈസൻസ് റദ്ദ് ചെയ്യപ്പെടുന്നതിന് കാരണമാകുറവുന്നതാണ്

SECKE INKI

മുളങ്കുൻൻൻഗ്രായ്പ്പ് പ്രദേശം പ്രദേശം

N.B:- ഈ ലൈസ്ൽസ് ആവസാന്ദ്രൂണ തിയതിക്ക് 30 ദിവസം മുമ്പ് ലൈസൻസ് പുതുക്കുന്നതിനുള്ള അപേക്ഷ സമർച്ചിരുടുണ്ട്.ഇാണ്.





Annexure 14



Photograph showing the details of the environmental clearance order prominently displayed in a metallic board



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104 Phone: 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

WWW.

TEST REPORT

Page 01 of 01

Client Name & Address	Certificate No:	PL/AMB/RT/5020/2020
	Date of issue:	24/07/2020
	Date of monitoring	18/07/2020 10.00 Hrs to 19/07/2020 10.00 Hrs
Dineshmon N T	Date of sample received:	20/07/2020
Ruudra Granites	Date of analysis	20/07/2020
Kundakad P.O Karuvankad Thrissur	Monitoring Location	Quarry Owned by Mr. Dineshmon N T Sy No: 1244/1-P Village: Killanoor Panchayath: Mulakunnathukavu Taluk: Thrissur District: Thrissur, Kerala
	Sample description	Ambient air -West Side
19	Sample code given by client	Nil

SL NO	PARAMETERS	TEST METHOD	RESULTS	Limit as per NAAQS
01	Particulate Matter (PM ₁₀)	IS 5182 Part 23 2006 RA 2012	37.2μg/m ³	100 μg/m ³
02	Particulate Matter (PM _{2.5})	СРСВ	16.1 μg/m ³	60 μg/m ³
03	Sulphur dioxide	IS 5182 Part 2 2001 RA 2017	<1 μg/m³	80 μg/m ³
04	Nitrogen dioxide	IS 5182 Part 06 2006 RA2017	<1 μg/m ³	80 μg/m ³

Note: NAAQS-National Ambient Air Quality Standards

* End of the Report*

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AUTHORIZED SIGNATORY



TEST REPORT

Page 01 of 01

Client Name & Address	Certificate No:	PL/RT/SD/5023/2020	
	Date of issue:	24/07/2020	
	Date of monitoring	18/07/2020 10.00 Hrs to 19/07/2020 10.00 Hrs	
Dineshmon N T Ruudra Granites Kundakad P.O Karuvankad Thrissur	Monitoring Location	Quarry Owned by Mr. Dineshmon N T Sy No: 1244/1-P Village: Killanoor Panchayath: Mulakunnathukavu Taluk: Thrissur District: Thrissur, Kerala	
	Sample Description	Ambient Sound Level (Leq)	
Monitoring Location	Time	Results	
	10.00 Hrs	50.1 dB (A)	
	11.00 Hrs	49.3 dB (A)	
	12.00 Hrs	48.2.dB (A)	
	13.00 Hrs	48.9 dB (A)	
	14.00 Hrs	45.3 dB (A)	
	15.00 Hrs	46.1 dB (A)	
	16.00 Hrs	44.2 dB (A)	
	17.00 Hrs	44.9 dB (A)	
	18.00 Hrs	42.5 dB (A)	
	19.00 Hrs	42.8 dB (A)	
	20.00 Hrs	38.2 dB (A)	
	21.00 Hrs	36.2 dB (A)	
West Side	22.00 Hrs	35.3. dB (A)	
	23.00 Hrs	32.1dB (A)	
	00.00 Hrs	33.5 dB (A)	
	01.00 Hrs	32.8 dB (A)	
	02.00 Hrs	33.8 dB (A)	
	03.00 Hrs	37.9 dB (A)	
	04.00 Hrs	39.3 dB (A)	
	05.00 Hrs	41.2 dB (A)	
	06.00 Hrs	40.5 dB (A)	
	07.00 Hrs	43.5 dB (A)	
	37.000.000.0000		
	08.00 Hrs	44.8 dB (A)	
an analysis of a constant	09.00 Hrs	47.5 dB (A)	
eq (Day time)		48.4 dB (A)	
eq (Night time)	#End of the F	33.2dB (A)	

*End of the Report *

For Poluchem Laboratories (P) Ltd.

Authorized Signator



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY
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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/SW/5028/2020

Name & address of customer

Date of Issue: 24/07/2020 : M/s. Dineshmon N T

Rudra Granites Kundukad P.O

Karuvankad, Thrissur

Project Site

: Quarry Owned by Mr. Dinesh Mohan

Sy No: 1244/1P Village: Killannoor

Panchayath: Mulakunnathukavu

Taluk: Thrissur District: Thrissur ,Kerala

Sample drawn by

: Poluchem Laboratory Sample Collector : Water Sample

Sample description

: BorewellWater- Outside- South side

Location of sampling
Date of sample collected

: 20/07/2020 : 21/07/2020 : 23/07/2020

Date of analysis started Date of completion of analysis

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012	
Color	IS 3025 (P) 04 - 1983 RA2017	15 Hazen Unit	5 Hazen Unit	
Odour	IS 3025 (P) 05 - 1983 RA2017	Agreeable	Agreeable	
Turbidity	IS 3025 (P) 10 - 1984 RA2017	8 NTU	1 NTU	
pH	IS 3025 (P) 11 - 1983 RA 2017	6.56	6.5 – 8.5	
Total Dissolved Solids	1S 3025 (P) 16 - 1984 RA2017	182 mg/l	500 mg/I	
Total Hardness as CaCO ₃	IS 3025 (P) 21 - 1983 RA2014	89.6 mg/l	200 mg/l	
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 - 1986 RA2014	62.5 mg/l	200 mg/l	
Residual Chlorine	IS 3025 (P) 26 - 1986 RA2014	BDL	0.2 mg/l	
Chloride as Cl	IS 3025 (P) 32 - 1988 RA2014	18.5 mg/l	250 mg/l	
Calcium as Ca	IS 3025 (P) 40 - 1991 RA2014	25.2 mg/l	75 mg/l	
Magnesium as Mg	IS 3025 (P) 46 - 1994 RA2014	6.3mg/l	30 mg/l	
Total Iron as Fe	IS 3025 (P) 53 - 2003 RA2014	0.87 mg/l	0.3 mg/l	
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	6.8 mg/l	200 mg/l	
Fluoride as F	IS 3025 (P) 60 -2008 RA 2013	BDL	1.0 mg/l	

Note: BDL - Below Detection Level

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Page 02 of 02

Parameters tested	Test method	Results	Acceptable Limits As per IS-10500-2012	
Selenium as Se	IS 3025 (P)56 -2003 RA2014	BDL	0.01 mg/l	
Arsenic as As	IS 3025(P) 37- 1988 RA2014	BDL	0.01 mg/l	
Copper as Cu	IS 3025(P) 42- 1992 RA2014	BDL	0.05 mg/l	
Manganese as Mn	IS 3025(P) 59-2006 RA2017	BDL	0.1 mg/l	
Cadmium as Cd	IS 3025(P) 41- 1992 RA2014	BDL	0.003 mg/l	
Chromium as Cr	IS 3025 (P)52 - 2003 RA2014	BDL	0.05 mg/l	
Zinc as Zn	IS 3025 (P)49 - 1994 RA2014	BDL	5 mg/l	
Mercury as Hg	IS 3025(P) 48 - 1994 RA2014	BDL	0.001 mg/l	
Cyanide as CN	IS 3025(P)27-1986 RA2014	BDL	0.05 mg/l	
Lead as Pb	IS 3025(P) 47- 1994 RA2014	BDL	0.01 mg/l	
Aluminum as Al	IS 3025(P) 55-2003 RA2014	BDL	0.03 mg/l	
Boron as B	IS 3025(P) 57-2005 RA2017	BDL	0.5 mg/l	

Note: BDL - Below Detection Level

MICROBIOLOGY ANALYSIS

Parameters tested	Unit	Test method	Results	Acceptable Limit As per IS – 10500-2012
Coliforms	MPN/100ml	IS 1622: 1981 RA 2009	Absent	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

For Poluchem Laboratories (P) Ltd.

Authorized sign

* End of the report*

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TEST REPORT

Client Name & Address	Certificate No:		SE 2011	
	Date of issue:	PL/RT/SO/50	029/2020	
Dineshmon N T Ruudra Granites Kundakad P.O Karuvankad Thrissur	Date of monitoring	24/07/2020 19/07/2020		
	Monitoring Location	Quarry Owned by Mr. Dineshmon N T Sy No: 1244/1-P Village: Killanoor Panchayath: Mulakunnathukavu Taluk: Thrissur District: Thrissur, Kerala		
	Sample Description Soil		320,70,000	
Parameter	Test Me	thod	Results	
pН	IS 2720(Part25)-1973		5.85	
Electrical Conductivity	IS 14767:2000	ORA2016	98 μS/cm	
Potassium as K	EPA 305	0 B	42 mg/kg	
Phosphorus as P	IS 10158 :1982	RA 2014	32 mg/kg	
Nitrogen as N	IS 14684: 1999	RA 2014	95 mg/kg	
Organic Carbon	IS2720(Part 2	2)-1972	0.52 %	
Calcium	EPA 3050	В	56 mg/kg	
Magnesium	EPA 3050	В	31 mg/kg	
Chloride	UEPA921	12	74 mg/kg	
Sulphate	IS 2720 Part27:1977		102 mg/kg	

For Poluchem Laboratories (P) Ltd.

End of the Report

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ANNEXURE NO-19

List of CSR activities Carried out are given below:

Sl. No	Item	Amount	Check No
1.	Collectors Corona Fund	1,00,000/-	049038
2.	Chief Minister Disaster Relief Fund	3,00,000/-	362099
3.	Financial support to Mr. Ramadevan, for liver transplantation	1,00,000/-	048917
4.	Financial support to Mr. Jagatheeshan for Construction of House	50,000/-	049048