

**COMPLIANCE REPORT
TO
THE CONDITIONS
OF**

**ENVIRONMENTAL CLEARANCE ORDER
NO: 58/SEIAA/KL/7586/2012**

BY
**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)
FOR
BUILDING STONE QUARRY
(MINOR MINERAL MINING) PROJECT**

AT
**SURVEY NO. 168
KARUKUTTY VILLAGE & PANCHAYATH, ALWAYE,
ERNAKULAM DISTRICT, KERALA.**

BY
**M/S PLANTERS AGGREGATES,
ERNAKULAM DISTRICT, KERALA.**

(July - December, 2014)

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INTRODUCTION

M/s Planters aggregates Quarry project is situated at survey no. 168 at Karukutty Village & Panchayath, Alwaye, Ernakulam District, Kerala. The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 15.13.2013. Six monthly 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 July 2014 – December 2014 is being submitted.

COMPLIANCE REPORT

(SPECIFIC CONDITIONS)

PART A

PART - A – SPECIFIC CONDITIONS**Condition I**

The storm water drainage channels and drainage line to the existing pond in the site and its exit from the site should be made fully functional.

Compliance:

The storm water from entire project area is channeled to the existing pond in the site through well maintained channels and drainage lines. The project made it sure that the storm water exit from the site is without quarry wastes. The storm water drainage and its exit from the site are fully functional at all time. The photographs showing the rain water collection pond and drainage in the project area is attached at Plate No. 1.

Condition II

The depth of the mining should be restricted to the 30m level as agreed in the proposal.

Compliance:

In the conceptual phase of quarry project, the exploration of mineral is from 145 – 30m RL. Mining depth will maintain as 30 m as agreed in the proposal.

COMPLIANCE REPORT

(GENERAL CONDITIONS)

PART B

PART – B – GENERAL CONDITIONS**Condition I**

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

Compliance:

The Rain Water Harvesting (RWH) system is implemented and properly maintained in the project area. Rain water from entire land area is collected in the existing pond which is situated in the lowest level of project area through channels and drainages. Rain water is mainly used for irrigation purpose, watering of plants, wetting of roads and sprinkler system for dust suppression. Two concrete tanks are also used for collecting rain water and its efficient utilization. The photograph showing the rain water collection pond in the project area is attached at Plate No. 1.

Condition II

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

Compliance:

An Environmental Monitoring Cell (EMC) was formed with Mr. Saji Vadakkekara (proprietor of Planters Aggregates) as head and made functional. Meeting of monitoring cell is arranged every month and discussed the status of the compliance of the specific and general conditions contained in the Environmental Clearance (EC) order. As part of monitoring the sound levels, ambient air and water are monitored through a NABL accredited laboratory and the monitored results are well within the permissible limits. The results are given at annexure No. 10, 11, & 12. The details of monitoring cell are given below.

TABLE 1 ENVIRONMENTAL MONITORING CELL (EMC)

Sl. No.	Post	Name
1.	Head of monitoring cell (proprietor)	Saji Vadakkekara
2.	Head in charge (Environmental)	Davis George
3.	Senior Environmental Officer	Reji K. Paul
4.	Asst. officer of Environment, Health and safety at site	Kamalkanth
5.	Environmental consultant	M/s Environmental Engineers & Consultants Pvt. Ltd. A1-198, Janak Puri, New Delhi
6.	Address of Environmental Laboratory	Standards Environmental & Analytical Laboratories, KJ Tower, Udyogamandal, EKM

Condition III

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

Compliance:

There is natural vegetation including trees, shrubs and climbers in the sides of the tarred road and open parking areas. The name and family of flora is given below in table number 2. The project is intending to plant suitable avenue trees along either side of the tarred road and open parking areas, where there is less vegetation. The photographs showing the natural vegetation is attached at Plate No. 2.

TABLE 2 Details of the natural vegetation existing along the road side is as follows

Sl. No.	Scientific Name	Common Name	Family	Habit
1.	<i>Tectona grandis</i>	Thekku	Verbenaceae	Tree
2.	<i>Tabernaemontana alternifolia</i>	Kunnanpala	Apocynaceae	Tree
3.	<i>Chromolaena odorata</i>	Communist-pacha	Compositae	Shrub
4.	<i>Mangifera indica</i>	Mavu	Anacardiaceae	Tree
5.	<i>Ziziphus oenopolia</i>	Thodalli	Rhamnaceae	Climber

□ Condition IV

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

Compliance:

As part of energy conservation, solar energy generation and utilization the project installed solar street lights near to the office and magazine area. The photograph of the solar street lights is attached at Plate No. 3

Condition V

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

Compliance:

To contain dust emissions, the project installed sprinklers in the side of service road and the same is using effectively. The photograph of the sprinklers is attached at Plate No. 4

Condition VI

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

Compliance:

The project converted a slope land in to benches by systematically dumping the overburden. To prevent soil erosion this has covered with a coir mat and planted grass. As part of eco - restoration, the project is intending to plant various trees and medicinal plant on the prepared benches. The photograph of benches covered by coir mat is attached at Plate No. 5

Condition VII

Corporate social responsibility agreed upon by the proponent should be implemented

Compliance:

The project carried out many activities under corporate social responsibility, such as treatment support, promotion of sports, aid for constructing houses and toilets, promotion of environment etc. The documentary evidence showing the Corporate Social Responsibility (CSR) expenditure incurred from 01/08/2014 to 31/12/2014 is attached at Annexure No. 2.

Condition VIII

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

Compliance

To prevent the falling of animals/ human/dumping of garbage's etc, barbed metal wire fencing was installed around the mining area at 5ft height. The photograph of the barbed metal wire fencing is attached at Plate No. 6.

Condition IX

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

Compliance:

Warning alarms were installed in the project area. It is working properly prior to the blasting. The blasting time is fixed between 6.00 AM to 6:00 PM. A danger board is also installed which gives information about the blasting time. The photograph showing the danger area, blasting time sign board etc are provided at Plate No. 7.

Condition X

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

Compliance:

At present access road to the quarry is maintained under sprinkler system to control the dust emission during transportation of the materials. The access road is newly constructed and it yet be tarred. The tarring or lying tails shall be complied. The photograph showing the access road to the quarry is provided at Plate No. 8.

Condition XI

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

Compliance:

The overburden and top soil excavated from the quarry is dumping in to two old quarries as part of reclamation. This portion will be utilized for planting various saplings. The photographs showing overburden material should be managed within the site is attached at Plate No. 5 & 9.

Condition XII

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

Compliance:

The project is maintaining the height and width of benches of the quarry with 5m. The minerals are exploring under the supervision of qualified persons so that the benches are made properly. The copy of certificates of second class manager and mines mate are attached at Annexure No 6 & 7. The photograph showing the height of benches is attached at Plate No. 10.

Condition XIII

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

Compliance:

Mats to prevent fly rock during blasting will be arranged shortly.

□ Condition XIV

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

Compliance:

The exploration of mineral will be maintained as 30 m as agreed in the proposal.

□ Condition XV

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

Compliance:

Acoustic enclosure is provided to reduce sound amplification. The crusher unit is encircled by green belt. The hollow brick covering maintain the noise level as per CPCB standards. The photograph showing the crusher unit is attached at plate No. 27.

□ Condition XVI

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

Compliance:

Assurance in the form of affidavit was already submitted to SEIAA Kerala along with the application for Environmental Clearance. The copy of the affidavit is attached at Annexure No. 9.

□ Condition XVII

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

Compliance:

Storm water drains are provided within the lower slopes of project site to channelize the storm water to the storm water collection pond

□ Condition XVIII

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

Compliance:

Storm water from entire project area is collected through channels and directed to the existing pond in the site. The debris/slit in the storm water may sediment at the bottom of pond. The silt can collect in summer season by using excavator. The flooded water from the pond is released only through the top area and the outlet of the outward channel is protecting with steel mesh to trap the floating debris. This arrangement will prevent the passage of waste from the site to the mainstreams. The photograph showing the rain

water collection pond in the project area and silt trap arrangement is attached at Plate No. 13

☐ **Condition XIX**

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

Compliance:

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

Name of the Statutory approval	Name of the Statutory authority	Approval Number & Date
"Consent to Operate"	Kerala State Pollution Control Board	File No. 964872 Dated : 10/04.2015
Explosive License	Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)	E/SC/KL/22/751(E33224) 29/05/2014
License for quarry operations	Karukutty Gram Panchayat	B3.20/14-15 dated:1/04/2014

☐ **Condition XX**

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

Compliance:

Shall be complied.

☐ **Condition XXI**

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

Compliance:

Shall be complied.

☐ **Condition XXII**

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

Compliance:

Shall be complied.

☐ **Condition XXIII**

The project proponent should advertise in at least two local newspapers widely circulated in the region. One of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Department of Environment and climate change, Govt. of Kerala and may also be seen on the website of the authority at www.seiaaKerala.org. The advertisement should be made within 10 days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the office of this authority as confirmation.

Compliance:

An advertisement in two news paper regarding the accordance of environmental clearance to the quarrying activity was given within stipulated period and the copy of the same was submitted to SEIAA. The copy of newspaper advertisement is provided at Annexure No. 08.

□ Condition XXIV

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

Compliance:

A copy of the environmental clearance letter was submitted to Karukutty Grama Panchayat office on 26/11/2013. Its inward no. is 7405/13. There were no suggestions/representations received while processing the proposal. The environmental

clearance order is uploaded in the website of the company and it can be seen in the website www.plantergroup.com.

☐ **Condition XXV**

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

Compliance:

Shall be complied.

☐

Condition XXVII

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

Compliance:

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

fond was installed. The photograph showing the sign board containing specific conditions is provided at Plate No. 14.

□

Condition XXVII

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

Compliance:

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed was submitted to State Environmental Impact Assessment Authority. The copy of affidavit submitted at SEIAA is attached at Annexure No. 09.

PLATE 1



Rain water collection Pond exist in the project site

PLATE 2



The natural vegetation maintained along the roadside

PLATE 3



Solar street lights installed near to the magazine

PLATE 4



Sprinklers Installed in the project area

PLATE 5



Benches made by over burden and covered by coir mat

PLATE 6



Barbed metal wire fencing with a height of 5 meter

PLATE 7



Device for alarm prior to the blasting



Sign board mentioned danger and time of blasting

PLATE 8



Internal access road to the quarry site

PLATE 9



Over burden managed within the site

PLATE 10



Minerals explored with bench system of 5 m width and height

PLATE 11



Crusher unit existing in the project site

PLATE 12



The drain line maintained in the project site

PLATE 13



Slit trap to prevent quarry wastes entering in to the main stream

PLATE 14



ANNEXURE 1



Proceedings of the State Environment Impact Assessment Authority Kerala

Preside: Dr. A.C. Mathuramangalam, Chairman, Prof. (Dr.) K.P. Jay, Member, Sri. James Varghese IAS, Member Secretary

Subj: SEIAA/ Kerala - Proposed quarry project in Survey No. 168 at Karukutty Village, Karukutty Panchayath, Alwaye Taluk, Ernakulam District, Kerala by M/s Planters Aggregates - Environmental Clearance under HIA Notification 2006 accorded - Orders issued

Environmental Clearance

No. SEIAAKL/7586/2012

dated, Thiruvananthapuram 15-03-2013

ORDER

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

It is interalia, noted that the project comes under the Category B, Activity 1(a) of Schedule of EIA Notification 2006. The proposed project site falls within 10° 6'N and 76° 25' E. The proposed project is for quarrying of 2,38,000 TPA of building granite stone from an area of 4.4032 hectare of land. The expected life of mine will be 6 years. The proposed activity involves about 75 % of the pit area for exploiting granite building stone. At the end of life of mine the reclaimed area will be suitably planted and the remaining void at lower levels of excavated pit will be utilized as water storage/ground water recharge and will be utilized for domestic/agricultural purposes. The proposed project does not involve any underground mining activities. The mining will be done by open cast semi mechanized method of mining. The bench height and width proposed is 5 m. The exploitation of mineral is being done from 145-30 m RL in conceptual phase. A total quantity of 24,000 m³ of top soil from two pits will be removed during the mining operations. The top soil excavated from the quarry shall be dumped separately at predetermined place and subsequently will be utilized in spreading over reclaimed areas for plantation. The top soil will be utilized for green belt development/plantation and will also be utilized for filling the low lying areas or adjacent quarry site. The sewage of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The daily water requirement of 5 KLD will be met from storm water / bore well. There will be fugitive emissions generated by regular material handling, transportation, loading, unloading, etc. that are proposed to be managed by regular water sprinkling on haul road, green belt development, avoiding overloading of vehicles and limiting the speed of the vehicles. Excavated material is transported to the crusher located at a distance of 0.15 km from the quarry site for further processing.

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

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Annexure

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

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

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2011 of Ministry of Environment and Forests, Govt. of India, published as Gazette extraordinary No. 2074 on 3-11-2011, hereby accord necessary Environmental Clearance for the above project as per powers vested with it under the provisions of Environment Impact Assessment Notification - 2006 and subsequent amendments and also under the provisions of the Ministry of Environment and Forests, Government of India, and further subject to strict compliance of the following specific conditions, and the general conditions contained in the Annexure, which shall also form a part of this document.

1. Storm water drainage channels and drainage line to the existing pond in the site and its exit from the site should be made fully functional.
2. The depth of mining should be restricted to the 30 m level as signed in the proposal.
3. Compliance of the above conditions will be monitored by the Directorate of the Department of Environment and Climate Change, Government of Kerala or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Government of India located at Bangalore. Necessary support for entry and inspection should be provided by the project proponent to the staff of the Directorate and Ministry for monitoring purposes.

The given address of correspondence of the Authorized Signatory of the project is:- Mr. Saji Vadakkakara, Proprietor, M/s Planters Aggregates, Palissery, Ezhatumangalam P.O., Ernakulam, Kerala - 683577; Telephone No: 0484-2439166, 2439167; E-mail: plantersgroup@yahoo.com

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

Sd/-
James Varghese IAS
Member Secretary, SEIAA
and Principal Secretary to Government
Environment Department

To

Mr. Saji Vadakkakara
Proprietor
M/s Planters Aggregates
Palissery, Ezhatumangalam P.O.
Ernakulam, Kerala - 683577.

Copy to:

1. The Principal Secretary, Environment Dept., Government of Kerala, Secretariat
2. The Director, Dept. of Environment and Climate Change, Govt. of Kerala, Turn - 24,
3. IA-Division, Monitoring Cell, MoEF, Paryavaran Bhavan, UGO Complex, Lodhi Road, New Delhi-110003
4. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangla, Bangalore-560034
5. Chairman and Members of SEIAA Kerala
6. Chairman, SEAC Kerala
7. Website uploading
8. Steel file

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- (xix) All other statutory clearances should have been obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- (xx) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xxi) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (xxii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- (xxiii) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters 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.seiakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the office of this Authority as confirmation.
- (xxiv) A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/ Corporation/ Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- (xxv) The proponent shall submit six monthly 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 MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.
- (xxvi) The conditions of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.
- (xxvii) The proponent should provide affidavit that all the conditions stipulated in the EC shall be scrupulously followed.

Sd/-
Member Secretary, SEIAA Kerala

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ANNEXURE 2

<p>S.N. ആർട്സ് & സ്പോർട്സ് ക്ലബ്, പാലിശ്ശേരി പാലിശ്ശേരി പി.ഒ. Reg. No. ER 779/86 നമ്പർ: 878 രസീത് തീയതി: 04/09/14 പേര്: M/s Planters Aggregates തുക (അക്ഷരത്തിൽ)..... രൂപയിൽ കിട്ടി ബോധിപ്പിക്കുന്നു. സെക്രട്ടറി</p> <table border="1"> <thead> <tr> <th></th> <th>Rs.</th> <th>Ps.</th> </tr> </thead> <tbody> <tr> <td>പ്രവേശന ഫീസ്</td> <td>3000</td> <td>00</td> </tr> <tr> <td>മാസവരി</td> <td></td> <td></td> </tr> <tr> <td>സംഭാവന</td> <td></td> <td></td> </tr> <tr> <td>മറ്റിനം</td> <td></td> <td></td> </tr> <tr> <td>ആകെ</td> <td>3000</td> <td>00</td> </tr> </tbody> </table>		Rs.	Ps.	പ്രവേശന ഫീസ്	3000	00	മാസവരി			സംഭാവന			മറ്റിനം			ആകെ	3000	00	<p>Karukudy Grama Panchayat RECEIPT 11404101869 21-Aug-2014 148256 Saji Vadakkera Planters Aggregates Palisseri (Voluntary Contributions / Donations) Panchayat's Distress Relief Fund 2014-15/F 50000.00 Rnd.Off(0.00) Total : 50000.00 Fifty Thousand Rupees Only pradeeksha relief fund Counter No. & Staff : 4 : Front office ALIAS Secretary</p>
	Rs.	Ps.																	
പ്രവേശന ഫീസ്	3000	00																	
മാസവരി																			
സംഭാവന																			
മറ്റിനം																			
ആകെ	3000	00																	
<p>ജനത ലൈബ്രറി ആർട്സ് & സ്പോർട്സ് ക്ലബ് കരയാംപറമ്പ് Reg. No. EKM/TC/842/2012 കെട്ടിട പുനർനിർമ്മാണ ഫണ്ട് സംഭാവന കൃപണം നമ്പർ 38 തീയതി: 13.9.14 ശ്രീ/ശ്രീമതി..... പക്കൽ നിന്നും രൂപ നമ്പർയും കൈപ്പറ്റിയിരിക്കുന്നു. ₹ 7400/- ബാബു മണിയംകുഴി ആൽബി വർഗ്ഗീസ് ബോധിപ്പിക്കുക പ്രസിഡന്റ് സെക്രട്ടറി പ്രധാനി</p>	<p>ശ്രീനാരായണ ആർട്സ് & സ്പോർട്സ് ക്ലബ് സാഹിത്യോത്സവം - 2014 പാലിശ്ശേരി നമ്പർ: 106 സംഭാവന രസീത് തീയതി: 13/12/14 ശ്രീ/ശ്രീമതി: Planters Aggregates പക്കൽ നിന്നും രൂപ സംഭാവനയായി തുകയും കൈപ്പറ്റിയിരിക്കുന്നു. ₹ 3000/- കൺവീനർ</p>																		
<p>നമ്മുടെ പാലിശ്ശേരിയിലെ കേരള സർവ്വകലാശാല പാലിശ്ശേരി ശാഖയിൽ കലാ - മത്സര കമ്മിറ്റി അടങ്കൽ പരിഹരിക്കാൻ പലതരം ആവശ്യങ്ങൾ ചിട്ടയായി സഹായിച്ചിട്ടുണ്ട്. ഇതിൽ 8125/- രൂപ കൂടുതൽ രസീത് നൽകി സർവ്വകലാശാലയ്ക്ക് മടപ്പാക്കിയിരിക്കുന്നു. രേഖ - 501250.00 K തീയതി - 26/11/2014 രേഖ - Sign</p>	<p>നമ്മുടെ പാലിശ്ശേരിയിലെ കേരള സർവ്വകലാശാല പാലിശ്ശേരി ശാഖയിൽ കലാ - മത്സര കമ്മിറ്റി അടങ്കൽ പരിഹരിക്കാൻ പലതരം ആവശ്യങ്ങൾ ചിട്ടയായി സഹായിച്ചിട്ടുണ്ട്. ഇതിൽ 8125/- രൂപ കൂടുതൽ രസീത് നൽകി സർവ്വകലാശാലയ്ക്ക് മടപ്പാക്കിയിരിക്കുന്നു. രേഖ - 501250.00 K തീയതി - 26/11/2014 രേഖ - Sign</p>																		

Receipts of activates under CSR

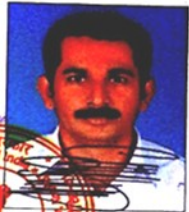

ANNEXURE 3

Page 1 of 1

LICENCE FORM LE-3
(See article 3(a) to (d) of Part I of Schedule IV of Explosives Rules, 2008)

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

Licence No. : E/SC/KL/22/751(E33224)
Annual Fee Rs:2000/-

1. Licence is hereby granted to : **Saji Vadakkaekara (Occupier : Saji Vadakkaekara)**
Vadakkekara House, Mangattoor, Kolencherry, Ernakulam, Town/Village
District-, State-, Pincode - 682311

2. Status of licensee : **Individual**

3. Licence is valid only for the following purpose : possess for use of **Safety Fuse, Ordinary Detonator, Nitrate Mixture, Electric Detonators,**

4. (a) Licence is valid for the following kinds and quantity of explosives:

Sr. No.	Name and Description	Class & Division	Sub-division (If any)	Quantity at any one time
1.	Nitrate Mixture	2,0	0	150 Kg.
2.	Electric Detonators	6,3	0	2500 Nos.
3.	Safety Fuse	6,1	0	2500 Mtrs
4.	Ordinary Detonator	6,3	0	2500 Nos.

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

5. The licensed premises shall conform to the following drawing(s):
Drawing No : E/SC/KL/22/751(E33224) dated : 27/12/2005

6. The licensed premises are situated at following address:
Survey No(s). 168 , Town/Village : Karukutty
Police Station : Karukutty
PinCode : Phone : District : ERNAKULAM State : Kerala
E-Mail : Fax :

7. The licensed premises consist of following facilities : **T and G type portable magazine and D type portable magazine**

8. 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) Drawings (showing site, constructional and other details) as stated in serial No. 5 above.
 (2) Conditions and Additional Conditions of this licence signed by the licensing authority.
 (3) Distance Form DE-2

9. This licence shall remain valid till **31st day of March 2007**

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.

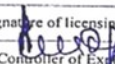
The Date: 27/12/2005

Sd/-
Joint Chief Controller of Explosives
South Circle, Chennai

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 20/01/2011
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 30/06/2011
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/02/2013

Endorsement for renewal of licence:

Date of Renewal	Date of Expiry	Signature of licensing authority
29/05/2014	31/03/2016	 Dy. Chief Controller of Explosives, Ernakulam എൻ. 34 മുഖ്യ വിസ്ഫोटക് നിയന്ത്രി For Deputy Chief Controller of Explosives എറണാകുളം / Ernakulam

Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

29-05-2014

License to possess and use of Explosives

ANNEXURE 4

FILE NO : 964872

Date of issue : 10/04/2015



KERALA STATE POLLUTION CONTROL BOARD

CONSENT TO

OPERATE/AUTHORISATION/REGISTRATION

ISSUED UNDER

Water (Prevention & Control of Pollution) Act, 1974
Air (Prevention & Control of Pollution) Act, 1981

&

Environment (Protection) Act, 1986

TO

M/s M/S.PLANTERS AGGREGATES OWNED BY SAJI VADAKKEKARA
PALISSERY
EZHATTUMUGHAM.PO
ANGAMALY
ERNAKULAM
ALUVA
683577
Taluk: ALUVA
District: ERNAKULAM I

Consent No. : R15ERRCTOA964872

Valid Upto : 31/03/2016

I. GENERAL

1	VALIDITY	31/03/2016
2	Name and Address of the establishment	M/S.PLANTERS AGGREGATES OWNED BY SAJI VADAKKEKARA PALISSERY EZHATTUMUGHAM PO ANGAMALY ERNAKULAM ALUVA 683577 ALUVA ERNAKULAM I
3	Communication	Telephone :0484-2439166 Fax :- E-mail:plantersgroup@yahoo.com
4	Occupier Details	SAJI VADAKKEKARA VADAKKEKARA MANGATTOOR KOLENCHERY PO ERNAKULAM DIST KERALA 682311 PIN
5	Survey Number	168
6	Village	KARUKUTTY
7	Taluk	ALUVA
8	District	ERNAKULAM I
9	Panchayat /Municipality/ Corporation & Ward	KARUKUTTY PANCHAYATH
10	Category	RED
11	Scale	Small
12	Annual fee	RS.6560/-
	Fee remitted	Rs.22960/-
13	Capital Investment(Rs in Lakhs)	46.0
14	Water Consumption	200 l/day
15	Effluent Generation	NA
16	Mode of Disposal of Treated Effluent	NA
17	Effluent Treatment Details	NA
18	RAW MATERIAL	PRODUCTS
	RUBBLES @500 Metric Tonnes	BUILDING STONE @500 Metric Tonnes

2. GENERAL CONDITIONS

2.1

This integrated Consent/Authorization is granted subject to the power of the Board to review and make variation in or revoke after any of the conditions as the Board deems fit.

2.2 This consent, unless withdrawn earlier and subject to condition no.2.1, shall be valid upto : 31/03/2016. For renewal of the consent in case of continuance of discharge/operation of the industry, application in the prescribed form shall be submitted to the through the web portal of the Board for Online Consent Management & Monitoring System on or before . Late application will be accepted only with a fine / late fee as applicable.

2.3 The applicant shall comply with the instructions that the Board may issue from time to time regarding the prevention and control of air, water, land and sound pollution.

2.4 No change or alteration of the industrial plant is to be made without the prior written permission of the Board. Any change in the particulars furnished and/or in the identity of the occupier/authorized agent is to be intimated to the Board forthwith.

2.5 If operations are done with backup power, the generator shall have adequate capacity to run all associated pollution control devices.

2.6 In case of process disturbance / failure of pollution control equipments, the respective units shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

2.7 In case of discharge / apprehended discharge of any water / air pollutant or hazardous waste due to any accident or other unforeseen act or event, it shall be immediately intimated to the Board and the consentee / authorisee shall make all possible efforts to mitigate / prevent / remediate the discharge.

2.8 Arrangements for collection, segregation, storage, handling and disposal of solid waste including garbage shall be provided and maintained properly.

2.9 E-waste shall be disposed in an environmentally sound manner. The following details shall be submitted to the Board on or before 31/12/2015 every year.

Sl.NO.	Particulars of e-waste	Quantity of e-waste disposed in the previous year	Quantity of e-waste proposed to be disposed in the current year	Mode of disposal
1	NA	NA	NA	NA

2.10 Periodical reports as detailed below shall be submitted to the respective District Office of the Board.

Statutes	Details	Mode of collection and analysis	Periodicity		Form No.
			Analysis	Submission	
NA	NA	NA	NA	NA	NA

2.11 Energy and water conservation measures shall be adopted as far as possible.

2.12 Renewable sources of energy such as solar energy shall be utilized for lighting and heating wherever possible.

3. CONDITIONS AS PER

The Water(Prevention and Control of Pollution)Act, 1974

3.1 In case of generation of trade effluent from the industry, Effluent Treatment Plant (ETP) consisting of treatment units having adequate capacity as listed under item 1.17 shall be functional at all times during the operation of the industry. Additional facilities required, if any, to achieve the standards laid down by the Board u/s 17(1)(g) of the Water Act shall also be made along with.

3.2 There shall be easy access to each and every effluent treatment unit and the final outlet for inspection and drawing of effluent samples.

3.3 The characteristics of effluent after treatment shall conform to the following tolerance limits:

Sl.NO.	Characteristics	Unit	Tolerance Limit
1	NA	NA	NA

- | | | | |
|------------|--|-----------------------|--|
| Collection | | Transportation | |
| Reception | | Storage | |
| Treatment | | Reprocessing/Disposal | |

(ii) Type, quantity and mode of storage/collection/treatment/disposal of hazardous wastes shall be as follows:

Sl.No.	Hazardous Waste	Schedule Category	Quantity Tonne/year
Mode of			
Storage		Disposal	

5.3 Records of Hazardous Wastes generated, if any, shall be maintained in FORM-3.

5.4 The occupier shall ensure that the hazardous wastes are transported to authorized recycler/facility in accordance with the provisions of the Rules.

6. ADDITIONAL CONDITIONS

1.No quarrying activities shall be done within 100 m from residences/public building/rivers/Road having regular vehicular traffic.

2.This consent to operate is issued in compliance with judgement dated 18/12/2014 in WP(c)no-25367/2014 and judgement dated 23/03/2015 in WP(c)31148/2014 and 32 other WP(c)s.

3.No Quarrying activities shall be carried out between 6 pm to 6 am.

DATE: 10/04/2015

OFFICE SEAL

Copy To: The Chief Environmental Engineer, Regional Office, Emakulam

ENVIRONMENTAL ENGINEER
SIGNATURE & SEAL OF ISSUING AUTHORITY
Sebastine Willington
Assistant Environmental Engineer

Consent to Operate from Kerala Pollution Control Board

ANNEXURE 5

<p>നമ്പർ B3-20/14-15</p> <p>1994 ലെ കേരളാ പഞ്ചായത്ത് രാജ് ആക്ട് (1994 ലെ 13) 232, 233, 234, 254 എന്നീ വകുപ്പുകൾ പ്രകാരവും അതേ ആക്ടുകളുടേതുപോലെയുള്ള ചട്ടങ്ങളും അനുസരിച്ചു കൊടുത്ത</p> <p>ലൈസൻസ്</p>	
ലൈസൻസുടമസ്ഥന്റെ പേരും മേൽവിലാസവും	<p>സമ്ര വിടേക്കർ</p> <p>വിടേക്കർ (H)</p> <p>Planters Aggregates</p>
എന്താവശ്യത്തിന് ലൈസൻസ് അനുവദിച്ചു എന്ന്	കരിങ്കൽ ക്ലിൻ ന്യൂനത
കെട്ടിടത്തിന്റെ നമ്പരും വാർഡ് നമ്പരും	B1.No.7-168
ലൈസൻസിന്റെ കാലാവധി	2014-15 മെയ് 31
ലൈസൻസ് ഫീസ്	4000 രൂപ - പൈസ
റിമാർക്സ്	Rt No: 4000 $\frac{104541}{28/2/14}$
<p>1/4/14</p> <p>GLM-34 K / 2000</p>	<p>സെക്രട്ടറി</p> <p>Secretary</p> <p>Karukutty Gram Panchayat</p> <p>(ഒറ്റപ്പാലം)</p>

<p>നമ്പർ B3-21/14/15</p> <p>1994 ലെ കേരളാ പഞ്ചായത്ത് രാജ് ആക്ട് (1994 ലെ 13) 232, 233, 234, 254 എന്നീ വകുപ്പുകൾ പ്രകാരവും അതേ ആക്ടുകളുടേതുപോലെയുള്ള ചട്ടങ്ങളും അനുസരിച്ചു കൊടുത്ത</p> <p>ലൈസൻസ്</p>	
ലൈസൻസുടമസ്ഥന്റെ പേരും മേൽവിലാസവും	<p>സമ്ര വിടേക്കർ</p> <p>വിടേക്കർ (H)</p> <p>Planters Aggregates</p>
എന്താവശ്യത്തിന് ലൈസൻസ് അനുവദിച്ചു എന്ന്	<p>Manufacturing granule aggregates</p> <p>& m. sand 518 HP</p>
കെട്ടിടത്തിന്റെ നമ്പരും വാർഡ് നമ്പരും	X/283 B
ലൈസൻസിന്റെ കാലാവധി	2014-15 മെയ് 31.
ലൈസൻസ് ഫീസ്	9680 രൂപ - പൈസ
റിമാർക്സ്	Rt No: $\frac{104542}{28/2/14}$
<p>1/4/14</p> <p>GLM-34 K / 2000</p>	<p>സെക്രട്ടറി</p> <p>Secretary</p> <p>Karukutty Gram Panchayat</p> <p>(ഒറ്റപ്പാലം)</p>

License from Gram Panchayat

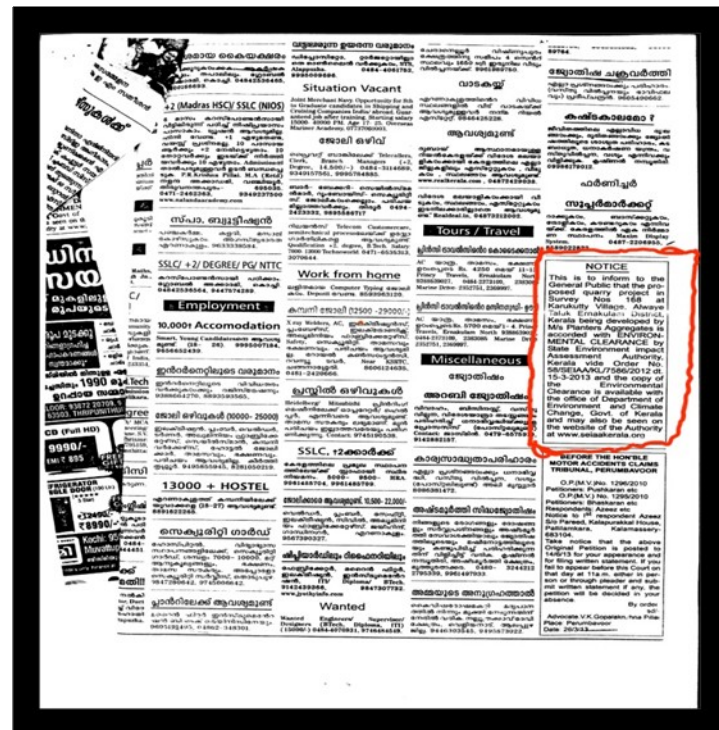
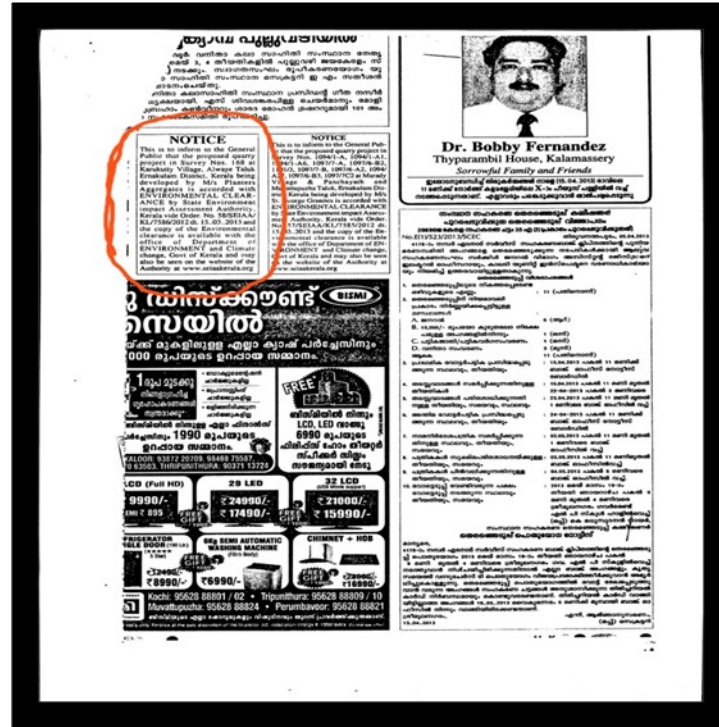
ANNEXURE 6



Certificate of second class manager

ANNEXURE 7





Advertisement in two news paper

ANNEXURE 9



കേരളം KERALA

AFFIDAVIT

X 340969

I, Saji Vadakkekara authorised signatory of Planters Aggregates having its correspondence office at Palissery, Ezhattumugham, Ankamaly, Ernakulam, Kerala, 683577 Pin- Do hereby affirm and confirm as follows.

1). That The Planters Aggregates, Proposed quarry project in Survey No 168 at Karukutty Village & Panchayath and Alwaye Taluk, Ernakulam District, Kerala.

2). That the EC proceedings number and date are 58/SEIAA/KL/7586/2012 dt.15-03-2013

3). That all conditions stipulated in the environment Clearance would be scrupulously followed.



DEPONENT

I hereby affirm that the above statements are true to the best of my knowledge and belief and nothing material has been cancelled therein.

901

100

1st N/13 day 9 April 2013

Saji Vadakkekara
Vadakkakara house
Kolenchery

KUMARI JAYA.N.
ADVOCATE & NOTARY
Reg.No. 106 / 97 / EKM.
KOLENCHERY - 682 311
KERALA - INDIA

Affidavit

ANNEXURE 10

**TEST REPORT**

TEST CERTIFICATE NO: SEANN/1412/R248

Date: 03.01.2015

Name and address of the customer	: M/s Planters Aggregates Karukutty, Aluva Ernakulam District Sy No : 168, Block - 1 Village : Karukutty Panchayath: Karukutty Taluk : Aluva District : Ernakulam State : Kerala
Source of sample	: Ambient sound level
Location of monitoring	: Near East side boundary
Date of monitoring	: 30.12.2014 11.00 Hrs to 31.12.2014 11.00 Hrs

Daytime	Result	Nighttime	Result
06.00 Hrs	37.3 dB (A)	23.00 Hrs	38.1 dB (A)
07.00 Hrs	39.7 dB (A)	00.00 Hrs	36.5 dB (A)
08.00 Hrs	42.4 dB (A)	01.00 Hrs	37.3 dB (A)
09.00 Hrs	45.9 dB (A)	02.00 Hrs	36.9 dB (A)
10.00 Hrs	49.3 dB (A)	03.00 Hrs	38.0 dB (A)
11.00 Hrs	51.4 dB (A)	04.00 Hrs	38.2 dB (A)
12.00 Hrs	52.4 dB (A)	05.00 Hrs	37.0 dB (A)
13.00 Hrs	53.8 dB (A)	RESULT	
14.00 Hrs	51.1 dB (A)		
15.00 Hrs	52.7 dB (A)	Ambient sound level (Leq) Daytime	49.2 dB (A)
16.00 Hrs	50.6 dB (A)		
17.00 Hrs	51.4 dB (A)		
18.00 Hrs	48.3 dB (A)		
19.00 Hrs	45.2 dB (A)	Ambient sound level (Leq) Nighttime	37.4 dB (A)
20.00 Hrs	41.9 dB (A)		
21.00 Hrs	41.0 dB (A)		
22.00 Hrs	39.6 dB (A)		

End of ReportFor and on behalf of
Standard S Environmental & Analytical Laboratories

Authorized Signatory

LAIJU P. N.
Quality Manager**Standard S Environmental & Analytical Laboratories**
'B' Grade Laboratory - Approved by Kerala State Pollution Control BoardK. J. Tower (above SBI Eloor Branch), Kuttikattukara P.O., Udyogamandal, Ernakulam - 683 501
Tel: 0484-2546660, 93 87 27 24 02, E-mail: seaalab@gmail.com

Scanned by CamScanner

Result of ambient sound level**ANNEXURE 11**

**TEST REPORT**

TEST CERTIFICATE NO: SEANN/1412/R246

Date: 03.01.2015

Name and address of the customer	: M/s Planters Aggregates Karukutty, Aluva Ernakulam District Sy No : 168, Block - 1 Village : Karukutty Panchayath: Karukutty Taluk : Aluva District : Ernakulam State : Kerala
Source of sample	: Ambient Air
Location of monitoring	: Near East side Boundary
Date of monitoring	: 30.12.2014 12.00 hrs to 31.12.2014 12.00 hrs
Sample code	: SEANN/1412/S186
Date of analysis started	: 31.12.2014
Date of analysis completed	: 02.01.2015

Parameters	Test Method	Result	NAAQ Standard
Particulate matter (PM ₁₀)	IS 5182 (Part 23)	64.3 µg/m ³	100 µg/m ³
Particulate matter (PM _{2.5})	CPCB	30.8 µg/m ³	60 µg/m ³
Sulphur dioxide (SO ₂)	IS 5182 (Part 6)	5.4 µg/m ³	80 µg/m ³
Nitrogen dioxide (NO ₂)	IS 5182 (Part 10)	3.1 µg/m ³	80 µg/m ³

For and on behalf of
Standard's Environmental & Analytical Laboratories

Authorized Signatory

End of Report**Standard's Environmental & Analytical Laboratories**

'B' Grade Laboratory - Approved by Kerala State Pollution Control Board

K. J. Tower (above SBI Eloor Branch), Kuttikattukara P.O., Udyogamandal, Ernakulam - 683 501

Tel: 0484-2546660, 93 87 27 24 02, E-mail: seaalab@gmail.com

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Result of ambient air**ANNEXURE 12**

Standard^S

Environmental Monitoring

TEST REPORT

TEST CERTIFICATE NO: SEANN/1412/R247

Date: 03.01.2015

Name and address of the customer : M/s Planters Aggregates
 Karukutty, Aluva
 Ernakulam District
 Sy No : 168, Block - 1
 Village : Karukutty
 Panchayath: Karukutty
 Taluk : Aluva
 District : Ernakulam
 State : Kerala

Sample drawn by : Self
 Description of sample : Water
 Source of sample : Borewell
 Date of sample collected : 31.12.2014
 Sample code : SEANN/1412/S185
 Date of analysis started : 31.12.2014
 Date of analysis completed : 02.01.2015

Parameters Tested	Test Method	Result	Requirement (Acceptable Limit) IS 10500 - 2012)
Colour	IS 3025 (Part 4)	3 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (Part 5)	Unobjectionable	Unobjectionable
Taste	IS 3025 (Part 7)	Agreeable	Agreeable
Turbidity	IS 3025 (Part 10)	Below Detection Level	1 NTU
pH Value	IS 3025 (Part 11)	6.61	6.5 - 8.5
Total Dissolved Solids	IS 3025 (Part 15)	167 mg/l	500 mg/l
Total Hardness (as CaCO ₃)	IS 3025 (Part 21)	80.90 mg/l	200 mg/l
Calcium (as Ca)	IS 3025 (Part 40)	41.20 mg/l	75 mg/l
Magnesium (as Mg)	IS 3025 (Part 46)	7.50 mg/l	30 mg/l
Chloride (as Cl)	IS 3025 (Part 32)	27.80 mg/l	250 mg/l

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TEST CERTIFICATE NO: SEANN/1412/R247

Continued.....

Parameters Tested	Test Method	Result	Requirement (Acceptable Limit) IS 10500 - 2012)
Iron (as Fe)	IS 3025 (Part 53)	0.12 mg/l	0.3 mg/l
Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23)	43.0 mg/l	200 mg/l
Fluoride (as F)	IS 3025 (Part 60)	0.08 mg/l	1 mg/l
Sulphate (as SO ₄)	IS 3025 (Part 24)	31.20 mg/l	200 mg/l
Arsenic (as As)	APHA 3111B	Below Detection Level	0.01 mg/l
Copper (as cu)	APHA 3111B	Below Detection Level	0.05 mg/l
Manganese (as Mn)	APHA 3111B	Below Detection Level	0.01 mg/l
Cadmium (as Cd)	APHA 3111B	Below Detection Level	0.003 mg/l
Chromium (as Cr)	APHA 3111B	Below Detection Level	0.05 mg/l
Zinc (as Zn)	APHA 3111B	Below Detection Level	5 mg/l
Mercury (as Hg)	APHA 3111B	Below Detection Level	0.001 mg/l
Cyanide (as CN)	APHA 3111B	Below Detection Level	0.05 mg/l
Lead (as Pb)	APHA 3111B	Below Detection Level	0.01 mg/l
Aluminium (as Al)	APHA 3111B	Below Detection Level	0.03 mg/l
Total coliform bacteria	IS 1622 - 1981	6.2	Shall not be detectable in any 100 ml sample
E - Coli	IS 1622 - 1981	Absent	Shall not be detectable in any 100 ml sample

For and on behalf of
Standard* Environmental & Analytical Laboratories

Authorized Signatory

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End of Report

LAIJU P. N.
Quality ManagerStandard^S Environmental & Analytical Laboratories

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Result of water