

H&P Granites

6/530 Mankadu,
Kummil P.O Kollam – Dist -691536

Ph.07559945903, 9447267121
Email:handpgranites@gmail.com

H&P/ENV/Compliance/2018-19/03

Date: 02.12.2019

To

1. State Environment Impact Assessment Authority (SEIAA) Kerala
K.S.R.T.C Bus Terminal Complex,
4th Floor Thampanur,
Thiruvananthapuram – 695 001
2. The Additional Principal Chief Conservator of Forests (C)
Ministry of Environment, Forests & Climate Change,
4th Floor, E & bF Wing, Kendriya Sadan,
Koramangala, Bangalore -560 034
Karnataka State

Sir,

Sub: Environment Compliance report

Please find enclosed the Six Monthly Compliance report in respect of M/s. H & P Granites (Ref. Environmental Clearance No. 1087/EC3/SEIAA/2016 dated:29.11.2017) for the period from April 2019 to September 2019 for your ready reference. It may kindly be noted that the above report have already been sent by email (seacseiaakerala@gmail.com and rosz.bng-mefcc@gov.in) to your respective offices for record.

Thanking you,

Yours faithfully,



FOR H&P GRANITES
(Patil Somnath Laxman)
Mines Manager

Encl: as above

COMPLIANCE REPORT
Of
M/s. H & P GRANITES
6/530, Kondody
Village: Kummil, Taluk: Kottarakkara
District: Kollam, State: Kerala
For the period 1st April 2019 to 30th September 2019

SPECIFIC CONDITIONS:

Sr. No.	Conditions	Precautions Taken
1	The three buildings located within 100m distance of the project site as reported by the inspection team should be demolished and an affidavit to this effect should be submitted before the issuance of EC.	Three buildings are already demolished
2	Catch water drains to be provided to channelize storm water and suitable mechanism for clarification before water is let out into the valley.	Water drains are provided in the quarry, through which water will collect in RWH Structure and the overflow of which is again collected in the Settling Pond, from settling pond the clean water is let out into the valley

3	Dedicated RWH structure may be provided in the lower part to enhance water availability.	RWH structure provided
4	If any rare, endemic and threatened plant species are noticed, they shall be properly protected insitu or transplanted to a suitable site inside the lease area.	If any such species found, care shall be taken to protect it

Item No.	Stipulations in EC	Status of Compliance	Remarks
G-1	Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR,	In quarrying area Rain Harvesting is implemented as all the rain water is collected in the pit.	
G-2	Environment Monitoring Cell as Agreed under the affidavit filed by the proponent should be formed and made functional.	Environment Monitoring Cell is constituted as below: 1. Mr.Patil somnath Laxman as Mines Manager 2. Mr.Mainikar Karan Mine as Foreman 3. Mr.Saneesh Mullackal as member and we are reporting to Mr. Harish G. Nair, Managing Partner	
G-3	Suitable avenue trees should be planted along either side of tarred road and open parking areas, if any, inclusive of approach road and internal roads.	Planted Trees	
G-4	Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.	Solar energy likely to be extend to possible areas in Quarry	
G-5	Sprinklers shall be installed and used in the project site to contain dust emissions.	All access road to the quarry provided with automatic sprinklers and water tanker is also available	
G-6	Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.	Eco-restoration shall be done at our cost as and when necessary and also during the course of Mine Closure	
G-7	At least 10 percent out of the total excavated pit area should be retained as water storage areas and the Remaining area should be reclaimed with 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	The deep portion of the working pit and settling pond shall be kept for rain water storage which in turn will recharge the surrounding water table and the remaining area should be reclaimed with overburden and suitable indigenous plant species shall be planted	
Item No.	Stipulations in EC	Status of Compliance	Remarks
G-8	Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented in tune with the conditions specified in the Companies Act, 2013.	CSR as agreed is being implemented and the details of amount spent during this six months (April 19 to September 19) is enclosed for reference	
G-9	The lease area shall be fenced off with barbed wires to a	The entire lease boundary is properly fenced	

	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.	with Barbed wire with concrete pillars. All necessary sign boards are erected at suitable places.	
G-10	Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per Stipulations of Explosive Department	Blasting operations are always preceded after Siren only, followed by removing all machineries & persons from blasting zone. Blasting Time board is fixed at the entrance of quarry.	
G-11	Control measures on noise and vibration prescribed by KSPCB should be implemented.	Regular monitoring of Noise level is being conducted and overall noise level is kept under permitted level	
G-12	Quarrying activities should be limited to day time as per KSPCB guidelines.	Quarrying operations is restricted to day light	
G-13	Blasting should be done in a controlled manner as specified by the regulation of explosives Department or any other concerned agency.	Controlled blasting is being carried out by using Electronic delay detonators and also by restricting the number of holes blasted in a round	
G-14	A licensed person should supervise/control the blasting operations.	Mine Foreman/Mine Mate/Blaster (Certified by the Director General of Mines Safety) will supervise the blasting operations in the quarry	
G-15	Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials	Access roads are of interlocking bricks and are widened by same interlocking bricks & are properly maintained besides regular watering to avoid dust generation during transport of vehicles	
G-16	Overburden materials should be managed within the site and used for reclamation of mine pit as per mined closure plan/ specific conditions.	Overburden and Topsoil are placed in the designated area	

Item No.	Stipulations in EC	Status of Compliance	Status of Compliance
G-17	Height of benches should not exceed 5 m and width should not be less than 5 m.	Height and width of the benches are maintained as stipulated in EC document	
G-18	Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.	Blasting mats are provided wherever necessary to avoid fly rocks	
G-19	Maximum depth of mining from general ground level at site shall not exceed 10m.	Since the quarry recently started it is within stipulated depth	
G-20	No mining operations should be carried out at places having a slope greater than 45°.	Mining operations are carried out as per the Approved Mining Plan	
G-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.	Thick vegetation of trees and total covering of the crusher is done to suppress sound amplifications.	
G-22	The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.	All workers are provided with personal protective equipments such as Helmet, safety shoes and other items as prescribed by DGMS	
G-23	Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.	Quarry area is provided with garland drains so that all storm water is diverted in the pit and from there it is diverted to settling pond. Other areas are provided with drains to divert the water to the main drainage.	
G-24	The transportation of minerals should be done in covered trucks to contain dust emissions.	Water is sprinkled on the loaded trucks with pipe and Transportation trucks are provided with thick tarpaulin covers to avoid dust problem	
G-25	The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.	All the areas other than the quarry operational are provided with thick plantation.	

Item No.	Stipulations in EC	Status of Compliance	Remarks
G-26	Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.	Spent/burnt oil released from machinery/vehicles are disposed in a specified manner of State Pollution Control Board	
G-27	Explosives should be stored in magazines in isolated place specified and approved by Explosive Dept.	Approved Explosive Magazine is located in the isolated place and all explosive material is kept in Magazine.	
G-28	A Minimum buffer distance of 100 m from the boundary of the quarry to the nearest dwelling unit or other structure , not being any facility for mining shall be provided	A clear 100 meters buffer zone is maintained all along the lease boundary	
G-29	100 m buffer distance should be maintained from forest boundaries.	-Not applicable-	
G-30	Consent from Kerala State Pollution, Control Board under Water and Air (Acts) should have been obtained before initiating mining activity.	Consent from Kerala State Pollution Control Board under Air and Water Act is obtained and is valid till 28/11/2022	
G-31	All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.	Petroleum & Explosives Safety Organisation (PESO) Formerly-Department of Explosives has given license for use of Explosives from magazine	

Item No.	Stipulations in EC	Status of Compliance	Remarks
G-32	In the case of any change in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/ impacts as assessed, based on which only the E.C is issued. The projects would require a fresh appraisal by this authority, for which the proponent shall apply and get the approval of the Authority	Planning to change the scope and approached SEIAA for approval.	
G-33	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.	Any additional safeguard measures issued shall be followed and implemented	
G-34	The stipulations by Statutory Authorities under different Acts and Notifications should be complied with including the provisions of 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.	All stipulations are being complied with	

Item No.	Stipulations in EC	Status of Compliance	Remarks
G-35	<p>The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.</p>	-Complied with -	
G-36	<p>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 Environmental clearance shall also be put on the website of the company by the proponent.</p>	Environment Clearance letter along with the conditions stipulated is submitted to Village panchayat.	

Item No.	Stipulations in EC	Status of Compliance	Remark
G-37	The proponent shall submit half yearly reports on the status of compliance of the stipulated EC Conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the Status of compliance of the stipulated EC conditions, including results of monitored data on their website. It shall Sent to the Regional office of MoEF., Govt. of India and also to the STATE Environment Impact Assessment Authority (SEIAA) Office	Compliance reports being sent to SEIAA –Kerala Office and Regional office of MoEF –Bangalore	
G-38	The details 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. Signboard with extent of lease area and boundaries shall be depicted at the entrance of quarry, visible to the public	Details are displayed in front of Office	
G-39	The proponent should provide notarized affidavit (indicating number and date of environmental clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously fallowed	-Complied-	
G-40	No change in mining technology and scope of working should be made without prior approval of the SIEAA, No further expansion or modification in the mine shall be carried out without prior approval of the SIEAA, as applicable.	-Shall be complied-	
G-41	Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended places loading and unloading points & transfer point to reduce fugitive emissions.	Monitoring of Ambient Air Quality is being carried out regularly and results are enclosed	

Item No.	Stipulations in EC	Status of Compliance	Remark
G-42	Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended places loading and unloading points & transfer point to reduce fugitive emissions.	Monitoring of Ambient Air Quality for fugitive emissions is being carried out regularly	
G-43	The Top soil, if any, shall temporarily to be stored at earmarked sites, only. For the topsoil shall be used for land reclamation and plantation. The over burden generated during the mining operations shall be stacked at earmarked dump site only. the maximum height of the dumps shall not exceed 8 m and width 20m and overall slope of the dumps shall be maintained to 45°. the OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.	Topsoil is stored separately and will be using during plantation. Dump is maintained as per the Approved Mining Plan	
G-44	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilizing for watering the mine area. Roads, green belt development t etc. the drains shall be regularly desilted particularly after monsoon and maintained properly.	Catch drains and siltation ponds are provided to arrest the eroded material	

Item No.	Stipulations in EC	Status of Compliance	Remark
G-45	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM ₁₀ and PM _{2.5} such as haul road, Loading and unloading points and transfer points-it shall be ensured that the ambient air quality parameters conform to the norms prescribed by the central pollution control board in this regard.	Two water tanker of 10 K capacity is kept in quarry area and water is sprinkled on regular basis	
G-46	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained	Haul roads and transfer points are regularly watered to avoid dust generation	
G-47	Measures should be taken for control of noise levels below 85 dBA in work environment.	Proper maintenance of machineries/vehicles are practiced to minimize the noise levels	
G-48	A separate environmental management cell with suitable qualified personal should be set-up under the control of a senior Executive, who will report directly to the head of the organization.	Environmental Management cell is constituted under the Mines Manager who will report directly to the Managing partner	
G-49	The funds earmarked for environmental protection measures and CSR activities should be kept in separate account and should be reported to the state environment authority(SEIAA) office	The funds are provided as and when required for CSR activities maintaining of separate account shall be done in due course	
G-50	The Regional Office of MOEF&CC Located at Bangalore shall extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data /information /monitoring reports	-Shall be complied-	
G-51	Any appeal against this 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	-Will comply with any outcome of NGT	

Item No.	Stipulations in EC	Status of Compliance	Remark
G-52	Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of the this clearance and attract action under the provisions of Environment (protection)Act,1986	No data is concealed and no false/fabricated data is furnished to the authority as per our knowledge and belief	
G-53	The SEIAA may revoke or suspend the order, for on implementation of any of the specific or this implementation of any of the above conditions is not satisfactory .The SEIAA reserves the right to alter /modify the above conditions or stipulate any further conditions in the interest of environment protection.	Will accept is case of any such violations of the provision of EC	
G-54	The above conditions shall prevail notwithstanding anything to the contrary in consistent ,or simplified, contained in any other permit, license on consent given by other authority for the same project .	-Not applicable-	
G-55	This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala whichever is earlier.	-Accepted-	
G-56	The Environmental Clearance will be subject to the final Order of the courts of the in any pending litigation related to the land or project, in any court of law.	-Will abide by the verdict -	
G-57	The mining operation shall be restricted to above ground water table and it should not intersect ground water table.	The mining activities are restricted to the area of above general ground water table and will not intersect Ground water table	

G-58	All vehicles used for transportation and within the mines shall have PUC certificate from authorized pollution talking Centre .washing of all vehicles shall be inside the lease area ‘	This is being strictly implemented	
G-59	Project proponent should obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	Shall be obtained whenever necessary	
G-60	Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.	There is no stream in and around Lease area	
G-61	Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and corrective measures, if needed.	Occupational health surveillance will be carried out.	


FOR H&P GRANITES
(Patil Somnath Laxman)
Mines Manager

ANNEXURE-1

M/s. H & P GRANITES

6/530, Kondody, Kummil. P.O,
Kottarakkara Taluk
Kollam District
Tel. No. +91 9447267121

DETAILS OF EXPENDITURE UNDER CORPORATE SOCIAL RESPONSIBILITY FROM
APRIL 2019 to SEPTEMBER 2019

SR. NO.	DATE	PARTICULARS	AMOUNT	REMARKS
1	02.04.2019	SWANTHANAVEDHI	1,000	
2	05.04.2019	SREE AYIRAVILLY MAHADEVA TEMPLE	8,000	
3	07.04.2019	DALITH SEVA SAMITHY	500	
4	07.04.2019	NOORUL HUDHA MASJID	30,000	
5	09.04.2019	GOVT HIGHER SECONDARY SCHOOL KUMMIL	25,000	
6	15.04.2019	SREE AYIRAVILLY MAHADEVA TEMPLE	3,000	
7	18.04.2019	SREE ARDHANAAREESHWARA KESHTRA TRUST	600	
8.	03.05.2019	GLOBAL MISSION CHARITABLE SOCIETY	500	
9	18.05.2019	SREE AYIRAVILLY MAHADEVA TEMPLE	70,000	
10	08.05.2019	PACHAYIL SREE BADRAKALI TEMPLE	5,000	
11	15.05.2019	SREE AYIRAVILLY MAHADEVA TEMPLE	3,000	
12	20.05.2019	SREE APPOPPAN NADA TEMPLE	500	
13	21.05.2019	KARUNALAYAM	500	
14	31.05.2019	AKHILA KERALA BAKTHI SAMRAKSHANA SAMITHY	250	
15	04.06.2019	KERALA FOREST PROTECTIVE STAFF ASSOCIATION	7,000	

16	06.06.2019	GOVT L.P SCHOOL MUTHAYIL	5,000	
17	16.06.2019	SREE AYIRAVILLY MAHADEVA TEMPLE	3,000	
18	20.06.2019	ARPITHA CHARITABLE TRUST	1,000	
19	28.06.2019	ELAVUMKONAM SREE DARMASASTHA TEMPLE	5,000	
20.	29.06.2019	AMBEDKAR SEVA SAMITHY	300	
21.	03.07.2019	GOVT LPS MUTHAYIL	5,000	
22..	09.07.2019	RAMARASSERI SREE ARDHANARISWARA KSHETRAM BHARATHANOR	700	
23..	17.07.2019	SREE AYIRAVILLY TEMPLE NADAPARA ,KUMMIL	5,000	
24.	18.07.2019	DURGADAS SAMSKARIKA SAMITHY CHADAYAMANGALAM	4,000	
25.	31.07.2019	SREE AYIRAVILLY KSHETRAM NADAPARA , KUMMIL	5,000	
26.	02.08.2019	GOVT LPS MUTHAYIL	5,000	
27.	23.08.2019	SREEKRISHNA JAYANDHI	1,000	
28.	27.08.2019	'PADHEYAM" YOUTH CONGRES KSU CHADAYAMANGALAM	2,000	
29.	30.08.2019	KERALA FOREST SPORTS&GAMES MEET -2019	7,000	
30.	30.08.2019	DISASTER RELIEF FUND	30,000	
31.	02.09.2019	SREE AYIRAVILLY KSHETRAM NADAPARA , KUMMIL	1,000	
32.	02.09.2019	ONAM CELEBRATION MANIYANMUKKU JUNCTION	20,000	
33.	03.09.2019	SAMANWAYA GRANDHASALA ARTS &SPORTS CLUB , KUMMIL	10,000	
34.	03.09.2019	GANESOLSAVAM 2019, ARYANAD ,	500	

		THIRUVANANTHAPURAM		
35.	04.09.2019	DONATION FOR EDUCATION FINANCIALLY UNSOUNDED STUDENT	10,000	
36.	04.09.2019	DONATION FOR EDUCATION , DONATION TO NURSARRY SCHOOL NADAPARA	15,000	
37.	04.09.2019	GOVT HIGHER SECONDARY SCHOOL KUMMIL	25,000	
38.	04.09.2019	GOVT LPS MUTHAYIL	5,000	
39.	04.09.2019	PATTIKAJATHI KSHEMA SAMITHY	5,000	
40.	05.09.2019	KADAKKAL FEST 2019	35,000	
41.	06.09.2019	DAYA TRUST FOR CHARITY , CHINGELI , KADAKKAL P,O , KOLLAM	8,000	
42.	07.09.2019	EVM BOYS , ILAVUMKONAM	2,000	
43.	07.09.2019	YUVA JWALA ARTS&SPORTS CLUB , CHANDAKUNNU, PANGODU	1,500	
44.	16.09.2019	KANSHIRAM SENA (KRS)	200	
45.	16.09.2019	SREE AYIRAVILLY KSHETRAM NADAPARA , KUMMIL	3,000	
46.	18.09.2019	NAMO BHARATH WOMENS CLUB	500	
47.	24.09.2019	NSS KARAYOGAM KUMMIL	5,000	
48.	26.09.2019	MISBAHUL HUDA ARABIC COLLAGE & HAYATHUSUNNA DARUL AITHAM ORPHANAGE	2,500	
49.	29.09.2019	ARPITHA CHARITABLE TRUST , ANCHAL	2,000	
50.	29.09.2019	MANGOD HOSPITAL JANAKEEYA VIKASANA SAMITHY	1,50,000	
51.		Water supply to Kummil Village	3,24,000	
TOTAL			8,59,050	

Financial assistance extended to the house owners for repair & renovation of their houses around quarry area (Non-Recurring)

SR. NO.	PARTICULARS	APROX. AMOUNT	VILLAGE
1.	Mrs. Mini Mol (Building Material supply)	80,000	Kummil Village
Total		80,000	


FOR H&P GRANITES
(Patil Somnath Laxman)
Mines Manager



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

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

Client Name & Address	Certificate No:	PL/AMB/RT/9030/2019
M/s.H and P Granites 6/530,Mankada Kummil P.O.	Date of issue:	24/10/2019
	Date of monitoring	17/10/2019 10.00 Hrs to 18/10/2019 10.00 Hrs
	Date of sample received:	19/10/2019
	Date of analysis	19/10/2019
	Monitoring Location	M/s.H and P Granites Re.Survey. No.s-465/04pt,465/05,481/01-1, 481/01-2,482/02,482/02-2,482/02- 3,482/04,482/05,482/06,483/04 Village-Kummil Panchayath: Kummil Taluk- Kottarakkara District- Kollam, Kerala
	Sample description	Ambient air – Near East Side Boundary
	Sample code given by client	Nil

SL NO	PARAMETERS	TEST METHOD	RESULTS	LIMITS
01	Particulate Matter (PM ₁₀)	IS 5182 Part 23 2006 RA 2012	49.8 µg/m ³	100 µg/m ³
02	Particulate Matter (PM _{2.5})	CPCB	25.5 µg/m ³	60 µg/m ³
03	Sulphur dioxide	IS 5182 Part 2 2001 RA 2017	7.1 µg/m ³	80 µg/m ³
04	Nitrogen dioxide	IS 5182 Part 06 2006 RA2017	5.8 µg/m ³	80 µg/m ³

The results are related only to the sample collected for analysis. This certificate shall not be reproduced except in full and without the written permission with authorized signatory	For and on behalf of POLUCHEM LABORATORIES (P) LTD.  AUTHORIZED SIGNATORY
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SREEJA
QUALITY MANAGER
POLUCHEM LABORATORIES (P) LTD.



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For and on behalf of
POLUCHEM LABORATORIES (P) LTD.

AUTHORIZED SIGNATORY

SREEJA RAMESH
QUALITY MANAGER
POLUCHEM LABORATORIES (P) LTD.



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	Date of sample received:	19/10/2019
	Date of analysis	19/10/2019
	Monitoring Location	M/s.H and P Granites Re.Survey. No.s-465/04pt,465/05,481/01-1, 481/01-2,482/02,482/02-2,482/02- 3,482/04,482/05,482/06,483/04 Village-Kummil Panchayath: Kummil Taluk- Kottarakkara District- Kollam, Kerala
	Sample description	Ambient air – Near East Side Boundary
	Sample code given by client	Nil

SL NO	PARAMETERS	TEST METHOD	RESULTS	LIMITS
01	Particulate Matter (PM ₁₀)	IS 5182 Part 23 2006 RA 2012	49.8 µg/m ³	100 µg/m ³
02	Particulate Matter (PM _{2.5})	CPCB	25.5 µg/m ³	60 µg/m ³
03	Sulphur dioxide	IS 5182 Part 2 2001 RA 2017	7.1 µg/m ³	80 µg/m ³
04	Nitrogen dioxide	IS 5182 Part 06 2006 RA2017	5.8 µg/m ³	80 µg/m ³

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For and on behalf of
POLUCHEM LABORATORIES (P) LTD.

AUTHORIZED SIGNATORY

SREEJA K. K.
QUALITY MANAGER
POLUCHEM LABORATORIES (P) LTD.



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CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

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TEST REPORT

Page 01 of 01

Client Name & Address	Certificate No:	PL/RT/SD/9031/2019
M/s.H and P Granites 6/530,Mankada Kummil P.O.	Date of issue:	24/10/2019
	Date of monitoring	17/10/2019 10.00 Hrs to 18/10/2019 10.00 Hrs
	Monitoring Location	M/s.H and P Granites Re.Survey. No.s-465/04pt,465/05,481/01-1, 481/01-2,482/02,482/02-2,482/02- 3,482/04,482/05,482/06,483/04 Village-Kummil Panchayath: Kummil Taluk- Kottarakkara District- Kollam, Kerala
	Sample Description	Ambient Sound Level (Leq)
Monitoring Location	Monitoring Time	Results
Near East side boundary	12.00 Hrs	48.7 dB (A)
	13.00 Hrs	47.3 dB (A)
	14.00 Hrs	48.6 dB (A)
	15.00 Hrs	47.4 dB (A)
	16.00 Hrs	46.2 dB (A)
	17.00 Hrs	48.3 dB (A)
	18.00 Hrs	45.8 dB (A)
	19.00 Hrs	44.4 dB (A)
	20.00 Hrs	40.1 dB (A)
	21.00 Hrs	39.4 dB (A)
	22.00 Hrs	38.3 dB (A)
	23.00 Hrs	36.6 dB (A)
	00.00 Hrs	35.5 dB (A)
	01.00 Hrs	34.6 dB (A)
	02.00 Hrs	34.3 dB (A)
	03.00 Hrs	33.3 dB (A)
	04.00 Hrs	35.3 dB (A)
	05.00 Hrs	38.6 dB (A)
	06.00 Hrs	39.2 dB (A)
	07.00 Hrs	40.2 dB (A)
	08.00 Hrs	41.3 dB (A)
	09.00 Hrs	42.9 dB (A)
	10.00 Hrs	44.3 dB (A)
	11.00 Hrs	49.4 dB (A)
Leq (Day time)		47.6 dB (A)
Leq (Night time)		35.4 dB (A)

*End of the Report *

For Poluchem Laboratories (P) Ltd.

Authorized Signatory

SREEJA P. S.

QUALITY MANAGER

POLUCHEM LABORATORIES (P) LTD.

ANALYSIS OF AMBIENT AIR, STACK EMISSION, SOUND, LIGHT, WATER, EFFLUENT, SOIL, SPICES, FOOD
TEA, OIL, FERTILISERS, BASIC CHEMICALS, PESTICIDE RESIDUES, HEAVY METALS AND MICROBIOLOGY



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TEST REPORT

Page 01 of 01

Client Name & Address	Certificate No:	PL/RT/SD/9031/2019
M/s.H and P Granites 6/530,Mankada Kummil P.O.	Date of issue:	24/10/2019
	Date of monitoring	17/10/2019 10.00 Hrs to 18/10/2019 10.00 Hrs
	Monitoring Location	M/s.H and P Granites Re.Survey. No.s-465/04pt,465/05,481/01-1, 481/01-2,482/02,482/02-2,482/02- 3,482/04,482/05,482/06,483/04 Village-Kummil Panchayath: Kummil Taluk- Kottarakkara District- Kollam, Kerala
	Sample Description	Ambient Sound Level (Leq)
Monitoring Location	Monitoring Time	Results
Near East side boundary	12.00 Hrs	48.7 dB (A)
	13.00 Hrs	47.3 dB (A)
	14.00 Hrs	48.6 dB (A)
	15.00 Hrs	47.4 dB (A)
	16.00 Hrs	46.2 dB (A)
	17.00 Hrs	48.3 dB (A)
	18.00 Hrs	45.8 dB (A)
	19.00 Hrs	44.4 dB (A)
	20.00 Hrs	40.1 dB (A)
	21.00 Hrs	39.4 dB (A)
	22.00 Hrs	38.3 dB (A)
	23.00 Hrs	36.6 dB (A)
	00.00 Hrs	35.5 dB (A)
	01.00 Hrs	34.6 dB (A)
	02.00 Hrs	34.3 dB (A)
	03.00 Hrs	33.3 dB (A)
	04.00 Hrs	35.3 dB (A)
	05.00 Hrs	38.6 dB (A)
	06.00 Hrs	39.2 dB (A)
	07.00 Hrs	40.2 dB (A)
	08.00 Hrs	41.3 dB (A)
	09.00 Hrs	42.9 dB (A)
	10.00 Hrs	44.3 dB (A)
	11.00 Hrs	49.4 dB (A)
Leq (Day time)		47.6 dB (A)
Leq (Night time)		35.4 dB (A)

*End of the Report *

For Poluchem Laboratories (P) Ltd.

Authorized Signatory

SREEJA RAMESH
QUALITY MANAGER

POLUCHEM LABORATORIES (P) LTD.

ANALYSIS OF AMBIENT AIR, STACK EMISSION, SOUND, LIGHT, WATER, EFFLUENT, SOIL, SPICES, FOOD
TEA, OIL, FERTILISERS, BASIC CHEMICALS, PESTICIDE RESIDUES, HEAVY METALS AND MICROBIOLOGY



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Page 01 of 01

Client Name & Address	Certificate No:	PL/RT/SD/9031/2019
M/s.H and P Granites 6/530,Mankada Kummil P.O.	Date of issue:	24/10/2019
	Date of monitoring	17/10/2019 10.00 Hrs to 18/10/2019 10.00 Hrs
	Monitoring Location	M/s.H and P Granites Re.Survey. No.s-465/04pt,465/05,481/01-1, 481/01-2,482/02,482/02-2,482/02- 3,482/04,482/05,482/06,483/04 Village-Kummil Panchayath: Kummil Taluk- Kottarakkara District- Kollam, Kerala
	Sample Description	Ambient Sound Level (Leq)
Monitoring Location	Monitoring Time	Results
Near East side boundary	12.00 Hrs	48.7 dB (A)
	13.00 Hrs	47.3 dB (A)
	14.00 Hrs	48.6 dB (A)
	15.00 Hrs	47.4 dB (A)
	16.00 Hrs	46.2 dB (A)
	17.00 Hrs	48.3 dB (A)
	18.00 Hrs	45.8 dB (A)
	19.00 Hrs	44.4 dB (A)
	20.00 Hrs	40.1 dB (A)
	21.00 Hrs	39.4 dB (A)
	22.00 Hrs	38.3 dB (A)
	23.00 Hrs	36.6 dB (A)
	00.00 Hrs	35.5 dB (A)
	01.00 Hrs	34.6 dB (A)
	02.00 Hrs	34.3 dB (A)
	03.00 Hrs	33.3 dB (A)
	04.00 Hrs	35.3 dB (A)
	05.00 Hrs	38.6 dB (A)
	06.00 Hrs	39.2 dB (A)
	07.00 Hrs	40.2 dB (A)
	08.00 Hrs	41.3 dB (A)
	09.00 Hrs	42.9 dB (A)
	10.00 Hrs	44.3 dB (A)
	11.00 Hrs	49.4 dB (A)
Leq (Day time)		47.6 dB (A)
Leq (Night time)		35.4 dB (A)

*End of the Report *

For Poluchem Laboratories (P) Ltd.

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TEA, OIL, FERTILISERS, BASIC CHEMICALS, PESTICIDE RESIDUES, HEAVY METALS AND MICROBIOLOGY



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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/9033/2019

Date of Issue: 24/10/2019

Name & address of customer

: M/s.H and P Granites
6/530,Mankada
Kummil P.O.

Project Site

: M/s.H and P Granites
Re.Survey. No.s-465/04pt,465/05,481/01-1,
481/01-2,482/02,482/02-2,482/02-3,482/04,482/05,482/06,483/04
Village-Kummil
Panchayath: Kummil
Taluk- Kottarakkara
District- Kollam, Kerala

Sample description

: Drinking Water

Location of sampling

: Borewell Water –South East Side

Date of sample collected

: 18/10/2019

Date of sample received

: 19/10/2019

Date of analysis started

: 19/10/2019

Date of completion of analysis

: 23/10/2019

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012
Color	IS 3025 (P) 04 – 1983 RA2017	4 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983 RA2017	Agreeable	Agreeable
Turbidity	IS 3025 (P) 10 – 1984 RA2017	BDL	1 NTU
pH	IS 3025 (P) 11 – 1983 RA 2017	4.80	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 16 – 1984 RA2017	35.75 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983 RA2014	7.92 mg/l	200 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986 RA2014	BDL	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	14.5 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	2.38 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	0.48 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	BDL	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	4.40 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

For Poluchem Laboratories (P) Ltd.

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Continuation of Test Certificate No: 9033/2019

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	50	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

For Poluchem Laboratories (P) Ltd.

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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/9033/2019

Date of Issue: 24/10/2019

Name & address of customer

: M/s.H and P Granites
6/530,Mankada
Kummil P.O.

Project Site

: M/s.H and P Granites
Re.Survey. No.s-465/04pt,465/05,481/01-1,
481/01-2,482/02,482/02-2,482/02-3,482/04,482/05,482/06,483/04
Village-Kummil
Panchayath: Kummil
Taluk- Kottarakkara
District- Kollam, Kerala

Sample description

: Drinking Water

Location of sampling

: Borewell Water –South East Side

Date of sample collected

: 18/10/2019

Date of sample received

: 19/10/2019

Date of analysis started

: 19/10/2019


Date of completion of analysis

: 23/10/2019

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012
Color	IS 3025 (P) 04 – 1983 RA2017	4 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983 RA2017	Agreeable	Agreeable
Turbidity	IS 3025 (P) 10 – 1984 RA2017	BDL	1 NTU
pH	IS 3025 (P) 11 – 1983 RA 2017	4.80	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 16 – 1984 RA2017	35.75 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983 RA2014	7.92 mg/l	200 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986 RA2014	BDL	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	14.5 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	2.38 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	0.48 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	BDL	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	4.40 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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Continuation of Test Certificate No: 9033/2019

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	50	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

For Poluchem Laboratories (P) Ltd.

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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/9033/2019

Date of Issue: 24/10/2019

Name & address of customer : M/s.H and P Granites
6/530,Mankada
Kummil P.O.

Project Site : M/s.H and P Granites
Re.Survey. No.s-465/04pt,465/05,481/01-1,
481/01-2,482/02,482/02-2,482/02-3,482/04,482/05,482/06,483/04
Village-Kummil
Panchayath: Kummil
Taluk- Kottarakkara
District- Kollam, Kerala

Sample description : Drinking Water

Location of sampling : Borewell Water –South East Side

Date of sample collected : 18/10/2019

Date of sample received : 19/10/2019

Date of analysis started : 19/10/2019

Date of completion of analysis : 23/10/2019

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012
Color	IS 3025 (P) 04 – 1983 RA2017	4 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983 RA2017	Agreeable	Agreeable
Turbidity	IS 3025 (P) 10 – 1984 RA2017	BDL	1 NTU
pH	IS 3025 (P) 11 – 1983 RA 2017	4.80	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 16 – 1984 RA2017	35.75 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983 RA2014	7.92 mg/l	200 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986 RA2014	BDL	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	14.5 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	2.38 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	0.48 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	BDL	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	4.40 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

For Poluchem Laboratories (P) Ltd.

Authorized signatory

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POLUCHEM LABORATORIES (P) LTD.



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Page 02 of 02

Continuation of Test Certificate No: 9033/2019

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	50	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

For Poluchem Laboratories (P) Ltd.

Authorized Signatory

* End of the report*

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CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/9032/2019

Date of Issue: 24/10/2019

Name & address of customer

: M/s.H and P Granites
6/530,Mankada
Kummil P.O.

Project Site

: M/s.H and P Granites
Re.Survey. No.s-465/04pt,465/05,481/01-1,
481/01-2,482/02,482/02-2,482/02-3,482/04,482/05,482/06,483/04
Village-Kummil
Panchayath: Kummil
Taluk- Kottarakkara
District- Kollam, Kerala

Location of sampling

: Openwell Water –Out Side-South East Side

Date of sample collected

: 18/10/2019

Date of sample received

: 19/10/2019

Date of analysis started

: 19/10/2019

Date of completion of analysis

: 23/10/2019

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012
Color	IS 3025 (P) 04 – 1983 RA2017	6 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983 RA2017	Agreeable	Agreeable
Turbidity	IS 3025 (P) 10 – 1984 RA2017	2 NTU	1 NTU
pH	IS 3025 (P) 11 – 1983 RA 2017	5.43	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 16 – 1984 RA2017	154 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983 RA2014	38.7 mg/l	200 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986 RA2014	10.3 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	25.4 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	10.3 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	4.25 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	0.28 mg/l	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	35.5 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

For Poluchem Laboratories (P) Ltd.

Authorized signatory

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QUALITY MANAGER
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CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

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Continuation of Test Certificate No: 9032/2019

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	23	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

For Poluchem Laboratories (P) Ltd.

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TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/9032/2019

Date of Issue: 24/10/2019

Name & address of customer

: M/s.H and P Granites
6/530,Mankada
Kummil P.O.

Project Site

: M/s.H and P Granites
Re.Survey. No.s-465/04pt,465/05,481/01-1,
481/01-2,482/02,482/02-2,482/02-3,482/04,482/05,482/06,483/04
Village-Kummil
Panchayath: Kummil
Taluk- Kottarakkara
District- Kollam, Kerala

Location of sampling

: Openwell Water –Out Side-South East Side

Date of sample collected

: 18/10/2019

Date of sample received

: 19/10/2019

Date of analysis started

: 19/10/2019

Date of completion of analysis

: 23/10/2019

Parameters tested	Test method	Results	Acceptable Limit As Per IS 10500-2012
Color	IS 3025 (P) 04 – 1983 RA2017	6 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983 RA2017	Agreeable	Agreeable
Turbidity	IS 3025 (P) 10 – 1984 RA2017	2 NTU	1 NTU
pH	IS 3025 (P) 11 – 1983 RA 2017	5.43	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 16 – 1984 RA2017	154 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983 RA2014	38.7 mg/l	200 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986 RA2014	10.3 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	25.4 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	10.3 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	4.25 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	0.28 mg/l	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 24 – 1986 RA2009	35.5 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

For Poluchem Laboratories (P) Ltd.

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Continuation of Test Certificate No: 9032/2019

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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

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Coliforms	MPN/100ml	IS 1622: 1981 RA 2009	23	Absent
E coli	Present or Absent/100ml	IS 1622: 1981 RA 2009	Absent	Absent

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TEST REPORT

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Ref.No. PL/RT/OW/9032/2019

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Residual Chlorine	IS 3025 (P) 26 – 1986 RA2014	BDL	0.2 mg/l
Chloride as Cl ⁻	IS 3025 (P) 32 – 1988 RA2014	25.4 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991 RA2014	10.3 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994 RA2014	4.25 mg/l	30 mg/l
Total Iron as Fe	IS 3025 (P) 53 – 2003 RA2014	0.28 mg/l	0.3 mg/l
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Fluoride as F	IS 3025 (P) 60 -2008 RA 2013	BDL	1.0 mg/l

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Continuation of Test Certificate No: 9032/2019

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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
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