

CC/KKR Mines/DEE/2023-24/01-394
19.01.2024



To
O/o. District Environmental Engineer,
Tamil Nadu Pollution Control Board,
No.4/326, Trichy main road,
Near by RTO office, Keelapalur Post,
Ariyalur District – 621 707.

Sub: CFO Compliance report for 2023-24 - Reg.

Ref: 1. Chettinad Cement Corporation Private Ltd, Karuppur Keelapalur Lime Stone Mines
- Air Consent Order No. 1904228391954 dt. 06.11.2019 & Water Consent Order No.
1904128391954 Dt. 06.11.2019
2. Our File No.: ARY 0640 / Red Small

Sir,

With reference to the above consent order, we would like to submit our consent order compliance conditions report for Chettinad Cement Corporation Private Ltd Karuppur Keelapalur Lime Stone Mines along with required Annexures for your kind perusal.

Kindly acknowledge the receipt of this letter.

Thanking you,

For Chettinad Cement Corporation Private Limited


R.P. Muthiah
Vice President [Works]

Encl: Annexures

Van .

Chettinad Cement Corporation Private Limited

Ariyalur Trichy Road, Keelapalur Post,
Ariyalur Dist - 621707, Tamilnadu, India.

T + 91 4329 250009

F + 91 4329 250011, 250013

CIN : U93090TN1962PTC004947

Regd.Office : Chettinad Towers,
603, Anna Salai, Chennai - 600 006.

T + 91 44 2829 2727, 42951800 (100 lines)

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Chettinad Cement Corporation Private Limited

Ariyalur Trichy Road, Keelapaluvur -621707

Ariyalur (Dt)

KARUPPUR KEELAPALUR LIMESTONE MINES (26.145 HECTARES)

Compliance report for the conditions specified in the CONSENT FOR OPERATION AIR,
Consent Order No. 1904128391954 Dated: 06.11.2019.

No.	Special Additional Conditions	Status of Compliance
1	This consent to operate is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained	Conditions noted
1.0	1. Product Details: Mining of Limestone and Marl over an extent of 26.145 Hectares [0.66 MTPA Limestone and 0.1 MTPA Marl]	Production quantity is compiling as per proposal only and is not exceeded.
1.0	By-Product Details:	No by product during Mining operations will be generated.
1.0	Intermediate Product Details:	No intermediate product during Mining operations.
2	This consent to operate is valid for operating the facility with the below mentioned emission/noise sources along with the control measures and/or stack. Any change in the emission Source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent/Amendment has to be obtained.	Conditions noted
I	Point source emission with stack :	No Stack installed in the Mining area.
II	Fugitive or Noise Emission sources: Mines area and Haul road	Water tanker engaged for wetting of haul road to arrest the fugitive emission. Operator will be sitting inside the closed cabin with wearing Ear plug or ear muff.(Annexure-1)

3a.	The emission shall not contain constituents in excess of the tolerance limits as laid down hereunder	As mining activities only involved. Hence there is no emission in mining premises.
3b.	The Ambient Air in the industrial plant area shall not contain constituents in excess of the tolerance limits prescribed below	Periodic ambient air quality monitoring being carried out and parameter are well within the limit and report enclosed in Annexure-2
3c.	The Ambient Noise Level in the industrial plant area shall not exceed the limits prescribed below: Limits in L.eq.-dB(A) Day Time 55 Night Time 45 in the Residential Area	Periodic ambient noise level monitoring being carried out and parameter are well within the limit and report enclosed in Annexure-2
4	All units of the Air pollution control measures shall be operated efficiently and continuously so as to achieve the standards prescribed in Sl. No.3 above	Noted. All air pollution control measures are operated efficiently and continuously.
5	The occupier shall not change or alter quality or quantity or the rate of emission or replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in change in quality and/or quantity of emissions without the previous written permission of the Board.	Noted. No changes will be done without written permission of the board
6	The occupier shall maintain log book regarding the stack monitoring system or operation of the plant or any other particulars for each of the unit operations of air pollution control systems to reflect the working condition which shall be furnished for verification of the Board officials during inspection	No stack is installed hence not applicable.
7	The occupier shall at his own cost get the samples of emission/air/noise levels collected and analyzed by the TNPC Board Laboratory once in every 6 months/once in a year/periodically for the parameters as prescribed	Air and Noise samples are collected and analyzed at our own cost in the TNPCB laboratory and report has enclosed in Annexure-2

8	Any upset condition in any of the plants of the factory which is, likely to result in increased effluent discharge and result in violation of the standards mentioned in Sl. No.3 above shall be reported to the Member Secretary / Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.	Condition noted
9	The occupier shall always comply and carryout the order/directions issued by the Board in this Consent Order and from time to time without any negligence. The occupier shall be liable for action as per provisions of the Act in case of non-compliance of any order/directions issued.	Condition noted

No.	Additional Conditions	Status of Compliance
1	The unit shall operate and maintain the APC measures efficiently and continuously so as to bring the quality of emission to the AAQ/ Emission standards prescribed by the Board.	Regular and Periodical water sprinkling on the haul roads carried out to arrest the dust generation during the movement of vehicles and to achieve the ambient air quality standards prescribed by the Board.(Annexure-3)
2	The unit shall operate the water sprinklers effectively to suppress the dust emission during mining and vehicle movements	We are operating water tankers for water sprinkling purpose for effective dust suppression during mining and vehicle movements.(Annexure-3)
3	The haul roads in the mines shall be adequately water sprayed using water tankers at regular intervals.	Regular and Periodical water sprinkling on the haul roads carried out to arrest the dust generation during the movement of vehicles .(Annexure-3)
4	The unit shall comply with all the conditions mentioned in the Environmental Clearance issued by State Environment Impact Assessment Authority Chennai vide Lr. No.	Complying all the conditions stipulated in the Environmental Clearance issued by SEIAA, Chennai.

	SEIAA-TN/F.NO.3000/2013/EC.40/1 (a) /ARY/2016 dated 27/04/2016	
5	Thick green belt with native species shall be developed in the 50 m safety distance in the land area in the periphery.	Native species like Pungan, Vembu, rain tree etc., planted as part of Green belt development and continued in a systematic manner. (Annexure-4)
6	Peripheral plantations shall be raised as wind belts to minimize the dry tailings being air-borne and to prevent the soil erosion.	Peripheral plantations raised all along the lease boundary as wind belts to minimize the air-borne dust .
7	The unit shall ensure that transport vehicle shall be leak proof and properly covered with tarpaulin so as to prevent spillages which may generate air borne dust.	Limestone loaded vehicle will move from mines premises after it is covered with tarpaulin properly (Annexure-5)
8	The unit shall not use "use and throwaway plastics' such as plastic sheets used for food wrapping, spreading on dining table etc., plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets, plastic straw, plastic carry bags and plastic flags irrespective of thickness, within the industry premises. Instead unit shall encourage use of ecofriendly alternative such as banana leaf, arecanut palm, stainless steel, glass, porcelain plates/cups/cloth bag, jute bag etc.,	We shall not use throw away plastics as mentioned by the Board. And we will use ecofriendly alternatives such as banana leaf, arecanut palm, stainless steel, glass, porcelain plates/cups/cloth bag, jute bag etc. We regularly giving Plastic Ban Awareness talk for Employees & Workers . (Annexure-6)

M.R. Venkatesan

M.R. Venkatesan

General Manager – Mines

gnd

Operator wearing PPE & NOISE LEVEL MONITORING



NOISE LEVEL MONITORING






Tamil Nadu Pollution Control Board
Ambient Air Quality Survey Report

Report No:31/AAQS/2023-2024 Dated: 17.07.2023

- 1.Name and Address of the Industry : M/s.Chettinad Cements Corporation Private Limited,
Karuppur -Keelapalur Limes Stone Mine,
Keelapalur Village,Ariyalur TK,
Ariyalur TK,
Ariyalur District.
- 2.Date of Survey : 17.07.2023
- 3.Duration of Survey : Eight Hours
- 4.Category : Red/ Small
- 5.Consent Order No. : 1904228391954

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	28	37		39	70
Weather Condition	Partially Cloudy		Rain Fall (mm)	Nil	
Predominant Wind Direction	SW to NE		Mean Wind Speed (Km/hr)	13.0	

Sl. No	Location of Sampling Stations	From Source			Pollutants in $\mu\text{g}/\text{m}^3$		
		Dire.	Dist. (m)	Ht. from gl (m)	PM ₁₀	SO ₂	NO ₂
1.	On the top of scaffolding near NE boundary of the mines	NE	700	2.0	74	10.1	14.8
2.	On the top of scaffolding near SE boundary of the mines	SE	500	2.0	65	9.0	13.0
3.	On top of scaffolding near SW boundary of the mines	SW	200	2.0	58	7.0	10.4
4.	On top of scaffolding near NW boundary of the mines	NW	700	2.0	60	8.2	11.0


Environmental Scientist,


Assistant Director,
AEL, TNPCB, Trichy-15.



Tamil Nadu Pollution Control Board

Ambient Noise Level Survey Report of Analysis

Report No: 31/AAQS/2023-2024 Dated: 17.07.2023

1.	Name of the Industry	M/s.Chettinad Cements Corporation Private Limited,		
2.	Address of the Industry	Karuppur-Keelapalur Limes Stone Mine, Keelapalur Village, Ariyalur TK, Ariyalur District.		
3.	Date of Survey	14.07.2023		
4.	Consent Order No.	1904228391954		
5.	Category	Red/Small		
Type of Survey		Ambient	Time of Survey	Day
Meteorological Conditions		Calm		

Logging Parameters

Instrument Used	Casella	Serial No.	0499485
Logging Interval	10 Minutes in each Point	Measuring Range	50-110dB(A)
Weighting	"A"	Time Weighting	Fast
Sound Incidence	Random	Time of Survey in Hrs.	14.00 to 15.30

Sl No	Location	Duration (m)	Distance (m)	Direction	Sound Level -dB(A)		
					L _{eq}	L _{Min}	L _{Max}
1.	Near NE boundary of the mines	10	700	NE	46.2	44.3	53.7
2.	Near Eastern side of the mines	10	400	E	48.7	45.1	56.4
3.	Near SE corner of the mines	10	500	SE	51.5	46.3	58.2
4.	Near SW boundary of the mines	10	200	SW	47.2	42.6	55.7
5.	Near NW boundary of the mines	10	700	NW	43.7	39.2	51.4

[Signature]
Environmental Scientist,

[Signature]
Assistant Director,
AEL, TNPCB, Trichy-15.

Dust Suppression



Green Belt Development





TRANSPORTATION OF MINERAL



**Karuppur Keelapalur Lime Stone Mines [26.145 Ha]
Compliance of Notification published by MoEF&CC on 12.08.2021**

Plastic Ban Awareness for Karuppur Keelapalur Mines Employees & Workers



Distribution of Cloth bag, Steel plate and steel glass pack for Karuppur Keelapalur Mines Workers



Chettinad Cement Corporation Private Limited

Ariyalur Trichy Road, Keelapaluvur -621707

Ariyalur (Dt)

KARUPPUR KEELAPALUR LIMESTONE MINES (26.145 HECTARES)

**Compliance report for the conditions specified in the CONSENT FOR OPERATION
WATER , Consent Order No. 1904128391954 Dated: 06.11.2019.**

No.	Special Conditions	Status of Compliance
1	This consent to operate is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained	Noted.
1.0	Product Details: Mining of Limestone and Marl over an extent of 26.145 Hectares [0.66 MTPA Limestone and 0.1 MTPA Marl]	Production quantity is compiling as per proposal only and is not exceeded.
1.0	By-Product Details:	No by product during Mining operations.
1.0	Intermediate Product Details:	No intermediate product during Mining operations
2	This consent to operate is valid for operating the facility with the below mentioned permitted outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained	Noted.
1	Trade Effluent & Disposal	No Trade Effluent will be generated during Mining activity. Hence, not applicable.
2	The effluent discharge shall not contain constituents in excess of the tolerance Limits as laid down hereunder.	No Trade Effluent will be generated during Mining activity. Hence, not applicable.

3	The effluent discharge shall not contain constituents in excess of the tolerance Limits as laid down hereunder.	No Trade Effluent will be generated during Mining activity. Hence, not applicable.
4	All units of the sewage and Trade effluent treatment plants shall be operated efficiently and continuously so as to achieve the standards prescribed in SI No.3 above or to achieve the zero liquid discharge of effluent as applicable	No Trade Effluent will be generated during Mining activity. Hence, not applicable.
5	<p>The occupier shall maintain the Electro Magnetic Flow Meters/water Meters installed at the inlet of the water supply connection for each of the purposes mentioned below for assessing the quantity of water used and ensuring that such meters are easily accessible for inspection and maintenance and for other purposes of the Act.</p> <p>a. Industrial Cooling, Spraying in mine pits or boiler feed.</p> <p>b. Domestic purpose.</p> <p>c. Process.</p>	Mining Pit water used for Plantation as well as dust control purpose.
6	The occupier shall maintain the Electro Magnetic Flow Meters with computer recording arrangement for measuring the quantity of effluent generated and treated for the monitoring purposes of the Act.	No trade effluent is generated at any stage of Mining activity.
7	Log book for each of the unit operations of ETP have to be maintained to reflect the working condition of ETP along with the readings of the Electro Magnetic Flow Meters installed to assess effluent quantity and the same shall be furnished for verification of the Board officials during inspection	No trade effluent is generated at any stage of Mining activity.
8	The occupier shall at his own cost get the samples of effluent/surface ater/ground water collected in and around the unit by Board officials and analyzed by the TNPC Board Laboratory periodically.	Periodically water samples were collected and analyzed and records being maintained.(Annexure-2)

9	<p>Any upset condition in any of the plants of the factory which is, likely to result in increased effluent discharge and result in violation of the standards mentioned in Sl. No.3 above shall be reported to the Member Secretary / Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.</p>	<p>Noted. And will be complied if applicable.</p>
10	<p>The occupier shall always comply and carryout the order/directions issued by the Board in this Consent Order and from time to time without any negligence. The occupier shall be liable for action as per provisions of the Act in case of noncompliance of any order/directions issued.</p>	<p>Noted. And will be complied if applicable.</p>
11	<p>The occupier shall develop adequate width of green belt at the rate of 400 numbers of trees per Hectare</p>	<p>Being complied and We have developed greenery with native plants accordingly. (Annexure-3)</p>
12	<p>The occupier shall provide and maintain rain water harvesting facilities.</p>	<p>We have maintained adequate rain water harvesting pit.</p>
13	<p>The occupier shall ensure that there shall not be any discharge of effluent either treated or untreated into storm water drain at any point of time</p>	<p>No effluent discharge to storm water.</p>
14	<p>In the case of zero liquid discharge of effluent units, the occupier shall adhere the following conditions as laid under.</p> <p>i). The occupier shall ensure zero liquid discharge of effluent, thereby no discharge of untreated / treated effluent on land or into any water bodies either inside or outside the premises at any point of time.</p> <p>ii) The occupier shall operate and maintain the Zero liquid discharge treatment components comprising of Primary,</p>	<p>No effluent discharge due to Mining activities and no effluent discharge to storm water.</p>

	<p>Secondary and tertiary treatment systems at all times and ensure that the RO permeate/Evaporator condensate shall be recycled in the process and the final RO reject shall be disposed off with the reject management system ensuring zero liquid discharge of effluents in the premises.</p> <p>iii) The occupier shall operate and maintain the reject management system effectively and recover the salt from the system which shall be reused in the process if reusable or shall be disposed off as ETP sludge.</p> <p>iv) In case of failure to achieve zero discharge of effluents for any reason, the occupier shall stop its production and operations forthwith and shall be reported to the Member Secretary/Joint Chief Environmental Engineer-Monitoring and the concerned District/Assistant Environmental Engineer of the Board by e-mail immediately and subsequently by Post with full details of such upset condition.</p> <p>v) The occupier shall restart the production only after ascertaining that the Zero discharge treatment system can perform effectively for achieving zero discharge of effluents</p>	
	Additional Conditions:	Compliance Status
1	The unit shall treat and dispose the sewage generated from the unit through septic tank followed by soak pit	<p>We are having the proper septic arrangement in our mines office for treat and dispose the sewage.</p> <p>Septic Tank 1 unit constructed with the dimensions (in meters) 5.6X2.15X1.3.</p> <p>Dispersion Trench 1 unit constructed with the dimensions (in meters)3.0X2.4X1.0 for the disposal of 4.5 KLD sewage.(Annexure-1)</p>
2	The unit shall ensure that no trade effluent shall be generated from the unit's activities.	Noted. And will be complied.
3	The unit shall comply with all the conditions	Noted. And will be complied.

	mentioned in the Environmental Clearance issued by State Environment Impact Assessment Authority Chennai vide Lr.No.SEIAA-TN/F.NO.3000/2013/EC.40 /1(a)/ARY/2016 dated 27/04/2016	
4	Thick green belt with native species shall be developed in the 50 m safety distance in the land area in the periphery.	Thick green belt with native species like Pungan, Vembu, rain tree etc., have developed in the 50 m safety distance of the Mining lease area.(Annexure-3)
5	Peripheral plantations shall be raised as wind belts to minimize the dry tailings being air -borne and to prevent the soil erosion.	Thick green belt with native species like Pungan, Vembu, rain tree etc., have developed in the 50 m safety distance of the Mining lease area. (Annexure-3)
6	Wherever practicable, the mine water shall be utilized for irrigation and to the plantation raised to stabilize the mine waste dumps	Mine water collected in pits will be used for greenbelt development and nearby irrigation purposes based on the need. (Annexure -4)
7	The unit shall not use "use and throwaway plastics' such as plastic sheets used for food wrapping, spreading on dining table etc., plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets, plastic straw, plastic carry bags and plastic flags irrespective of thickness, within the industry premises. Instead unit shall encourage use of eco-friendly alternative such as banana leaf, arecanut palm, stainless steel, glass, porcelain plates/cups/cloth bag, jute bag etc.,	We shall not use throwaway plastics as mentioned by the Board. And we will use eco-friendly alternatives such as banana leaf,arecanut palm, stainless steel, glass, porcelain plates/cups/cloth bag, jute bag etc.,(Annexure-5)

M. R. Venkatesan

M.R. Venkatesan

General Manager – Mines

Amh

Septic Tank

Septic tank Size: 5.6 X 2.15 X 1.3



Dispersion Trench Size: 3 X 2.4 X 1



MONITORING THE WATER QUALITY





SMS LABS SERVICES PRIVATE LIMITED

TEST REPORT



TC-6118

Report No : QEN-23070306-11

Page 1 of 2
Report Date : 22 Jul 2023

Customer Name : M/s. CHETTINAD CEMENT CORPORATION PVT LTD ,(Karuppur Keelapalur LS Mines)
 Customer Address : Ariyalur Works, Trichy- Ariyalur Road, Keelapalur, Ariyalur Dist-621707.
 Sample Name : Water Sample Quantity : 5 Ltr+100 mL
 Sample Description : Mines Sump Water Sampling Date : 17 Jul 2023
 Reference : Test Request Form Date 18.07.2023 Sample Received on : 18 Jul 2023
 Sample Drawn By : Laboratory Test Started on : 18 Jul 2023
 Sample Location : Mines Pit Area Test Completed on : 22 Jul 2023
 Sample Procedure : SMSLA/EN/SOP/001, SMSLA/MB/SOP/06

TEST RESULTS

S.NO	Parameter	Test Method	Unit	Results
Biological				
1	Total Coliforms	IS 15185	Per 100mL	Absent
Chemical				
2	Nitrate Nitrogen	IS 3025 (Part 34)	mg/L	3.2
3	Silica as SiO ₂	IS 3025 (Part 35)	mg/L	8.0
4	Sodium as Na	IS 3025 (Part 45)	mg/L	18
Clause 4, Table 1 Organoleptic And Physical parameters				
5	Colour	IS 3025 (Part 04)	Hazen	5.0
6	Odour	IS 3025 (Part 05)	--	Agreeable
7	pH Value	IS 3025 (Part 11)	--	7.64
8	Total Dissolved Solids	IS 3025 (Part 16)	mg/L	311
9	Turbidity	IS 3025 (Part 10)	NTU	0.9
Clause 4, Table 2 General Parameters Concerning Substances Undesirable In Excessive Amounts				
10	Ammonia (as Total Ammonia-N)	IS 3025 (Part 34)	mg/L	BLQ(LOQ:0.03)
11	Anionic Detergents (as MBAS)	Annex K of IS 13428	mg/L	BLQ(LOQ:0.05)
12	Boron	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.025)
13	Chloride (as Cl)	IS 3025 (Part 32)	mg/L	94
14	Copper	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
15	Fluoride as F	IS 3025 (Part 60)	mg/L	BLQ(LOQ:0.1)

D. Karthik
 D. KARTHIK
 Microbiologist

R. Prabhu
 R. PRABHU
 Senior Chemist

Laboratory Address: 39/6, Thiruvallur High Road, Puduchatram Post, Thirumazhisai Vm, Poonamallee Taluk, Chennai - 600124.

Note: Test results relate only to the items tested. Test Report shall not be reproduced in full or part without the approval of SMS Labs. Non-Perishable remnant samples will be disposed 15 days from the date of receipt unless otherwise agreed with the customer except in case of regulatory samples, which will be retained for a specific period as per regulatory requirements; while perishable and environmental remnant samples will be disposed consequently upon completion of testing. Samples are not drawn by laboratory unless or otherwise stated. A satisfactory test report in no way implies that a product so tested is approved by NABL. The laboratory's responsibility under this report is limited to proven willful negligence and will in no case be more than the invoiced amount. The Laboratory accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.



S.NO	Parameter	Test Method	Unit	Results
16	Free Residual Chlorine	IS 3025 (Part 26)	mg/L	BLQ(LOQ:0.1)
17	Iron (as Fe)	IS 3025 (Part 53)	mg/L	BLQ(LOQ:0.05)
18	Magnesium Hardness as CaCO ₃	IS 3025 (Part 46)	mg/L	45
19	Manganese	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
20	Mineral Oil	IS 3025 (Part 39)	mg/L	BLQ(LOQ:1.0)
21	Nitrate (as NO ₃)	APHA 23rd Edition:4500 NO ₃ B 2017	mg/L	9.2
22	Phenolic Compound (as C ₆ H ₅ OH)	IS 3025 (Part 43)	mg/L	BLQ(LOQ:0.001)
23	Selenium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
24	Sulphate (as SO ₄)	IS 3025 (Part 24)	mg/L	26
25	Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23)	mg/L	122
26	Total Hardness (as CaCO ₃)	IS 3025 (Part 21)	mg/L	109
Clause 4, Table 3 Parameters Concerning Toxic Substances				
27	Arsenic	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
28	Cadmium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
29	Chromium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
30	Cyanide (as CN)	IS 3025 (Part 27)	mg/L	BLQ(LOQ:0.01)
31	Lead	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)
32	Mercury	EPA 200.8	mg/L	BLQ(LOQ:0.0005)
Others				
33	Calcium Hardness (as CaCO ₃)	IS 3025 (Part 40)	mg/L	64
34	Conductivity @ 25°C	IS 3025 (Part 14)	µS/cm	536
35	Phenolphthalein Alkalinity (as CaCO ₃)	IS 3025 (Part 23)	mg/L	BLQ(LOQ:2.0)
36	Total suspended solids (TSS)	IS 3025 (Part 17)	mg/L	BLQ(LOQ:2.0)
Physical				
37	Appearance	APHA 23rd Edition:2110	--	Clear

Note:BLQ: Below Limit of Quantification LOQ: Limit of Quantification.

/***** End of the Report *****/

K. Prakash
K. PRAKASH
Senior Chemist

R. Prabu
R. PRABHU
Senior Chemist

Laboratory Address: 39/6, Thiruvallur High Road, Puduchatram Post, Thirumazhisai Via, Poonamallee Taluk, Chennai – 600124.

Note: Test results relate only to the items tested. Test Report shall not be reproduced in full or part without the approval of SMS Labs. Non-Perishable remnant samples will be disposed 15 days from the date of receipt unless otherwise agreed with the customer except in case of regulatory samples, which will be retained for a specific period as per regulatory requirements; while perishable and environmental remnant samples will be disposed consequently upon completion of testing. Samples are not drawn by laboratory unless or otherwise stated. A satisfactory test report in no way implies that a product so tested is approved by NABL. The laboratory's responsibility under this report is limited to proven willful negligence and will in no case be more than the invoiced amount. The Laboratory accepts no liability with regard to the origin or source from which the sample(s) is/ are said to be extracted.



SMS LABS SERVICES PRIVATE LIMITED

TEST REPORT



TC-6118

Report No : QEN-23070306-12 to 13

Page 1 of 2
Report Date : 22 Jul 2023

Customer Name : M/s. CHETTINAD CEMENT CORPORATION PVT LTD .(Karuppur Keelapalur LS Mines)
 Customer Address : Ariyalur Works, Trichy- Ariyalur Road, Keelapalur, Ariyalur Dist-621707
 Sample Name : Water
 Sample Description : Ground Water
 Reference : Test Request Form Date 18.07.2023
 Sample Drawn By : Laboratory
 Sample Procedure : SMSLA/EN/SOP/001, SMSLA/MB/SOP/06

Sample Quantity : 5 Ltr +200 mL
 Sampling Date : 17 Jul 2023
 Sample Received on : 18 Jul 2023
 Test Started on : 18 Jul 2023
 Test Completed on : 22 Jul 2023

TEST RESULTS

S.NO	Parameter	Test Method	Unit	Sample Locations	
				Keelapalur Village	Keelaiyur Village
Biological					
1	Total Coliforms	IS 15185	Per 100mL	Absent	
Chemical					
2	Sodium as Na	IS 3025 (Part 45)	mg/L	52	61
Clause 4, Table 1 Organoleptic And Physical parameters					
3	Colour	IS 3025 (Part 04)	Hazen	5.0	
4	Odour	IS 3025 (Part 05)	--	Agreeable	
5	pH Value	IS 3025 (Part 11)	--	7.60	7.73
6	Total Dissolved Solids	IS 3025 (Part 16)	mg/L	508	580
7	Turbidity	IS 3025 (Part 10)	NTU	0.3	0.6
Clause 4, Table 2 General Parameters Concerning Substances Undesirable In Excessive Amounts					
8	Anionic Detergents (as MBAS)	Annex K of IS 13428	mg/L	BLQ(LOQ:0.05)	
9	Boron	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.025)	
10	Chloride (as Cl)	IS 3025 (Part 32)	mg/L	128	155
11	Copper	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
12	Fluoride as F	IS 3025 (Part 60)	mg/L	0.2	0.2
13	Free Residual Chlorine	IS 3025 (Part 26)	mg/L	BLQ(LOQ:0.1)	
14	Iron (as Fe)	IS 3025 (Part 53)	mg/L	0.08	0.11
15	Manganese	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	

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S.NO	Parameter	Test Method	Unit	Sample Locations	
				Keelapalur Village	Keelaiyur Village
16	Mineral Oil	IS 3025 (Part 39)	mg/L	BLQ(LOQ:1.0)	
17	Nitrate (as NO ₃)	APHA 23rd Edition:4500 NO ₃ B 2017	mg/L	9.0	8.4
18	Phenolic Compound (as C ₆ H ₅ OH)	IS 3025 (Part 43)	mg/L	BLQ(LOQ:0.001)	
19	Selenium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
20	Sulphate (as SO ₄)	IS 3025 (Part 24)	mg/L	40	49
21	Total Alkalinity (as CaCO ₃)	IS 3025 (Part 23)	mg/L	130	160
22	Total Hardness (as CaCO ₃)	IS 3025 (Part 21)	mg/L	124	138
Clause 4, Table 3 Parameters Concerning Toxic Substances					
23	Arsenic	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
24	Cadmium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
25	Chromium	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
26	Cyanide (as CN)	IS 3025 (Part 27)	mg/L	BLQ(LOQ:0.01)	
27	Lead	IS 3025 (Part 65)	mg/L	BLQ(LOQ:0.001)	
28	Mercury	EPA 200.8	mg/L	BLQ(LOQ:0.0005)	
Others					
29	Appearance	APHA 23rd Edition:2110 2017	--	Clear	
30	Calcium Hardness (as CaCO ₃)	IS 3025 (Part 40)	mg/L	79	89
31	Conductivity @ 25°C	IS 3025 (Part 14)	µS/cm	847	967
32	Magnesium Hardness (as CaCO ₃)	IS 3025 (Part 46)	mg/L	45	49
33	Nitrite (as NO ₂)	IS 3025 (Part 34)	mg/L	BLQ(LOQ:0.01)	
34	Phenolphthalein Alkalinity (as CaCO ₃)	IS 3025 (Part 23)	mg/L	BLQ(LOQ:2.0)	
35	Silica as SiO ₂	IS 3025 (Part 35)	mg/L	16	24
36	Total suspended solids (TSS)	IS 3025 (Part 17)	mg/L	BLQ(LOQ:2.0)	
37	Free Ammonia as NH ₃	IS 3025 (Part 34)	mg/L	BLQ(LOQ:0.03)	

Note:BLQ: Below Limit of Quantification LOQ: Limit of Quantification.

/***** End of the Report *****/

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Green Belt Development





Rain Water Harvesting



**Karuppur Keelapalur Lime Stone Mines [26.145 Ha]
Compliance of Notification published by MoEF&CC on 12.08.2021**

Plastic Ban Awareness for Karuppur Keelapalur Mines Employees & Workers



Distribution of Cloth bag, Steel plate and steel glass pack for Karuppur Keelapalur Mines Workers

