

<b>INDIAN BUREAU OF MINES</b> <b>MINERAL DEVELOPMENT AND REGULATION DIVISION</b> <b>MCDR INSPECTION REPORT</b> <b>Chennai Regional Office</b>		
<b>Mine file No. TN/ALR/LST-34.MDS</b>		<b>Mine code - 38TMN38052</b>
(i)	Name of the inspecting officer & Designation	<b>Kumeresh A, Senior</b> Assistant Controller of Mines
(ii)	Accompanied mine official and designation	Shri N.Jaya Bharata Reddy, General Manager(Mines) Shri C.Mesvin,Sr.Manager(Mines)
(iii)	Date of inspection	25.11.2024
<b>PART-I: General Information</b>		
1. (a)	Mine Name	Periyathirukonam Limestone Mine
(b)	Registration Number	IBM/613/2011
(c)	Category	A
(d)	Type of Working	Opencast
(e)	Postal Address State District Village Taluka Post Office Pin Code FAX No. E-mail Phone	M/s. The India Cements Limited, Coromandal Towers, 93, Santhome High Road, Karapagam Avenue, Raja Annamalai Puram, Chennai - 600 028 Phone No: 044-28572100 Fax No: 04329 248248 Email id: <a href="mailto:palanikumaresan.m@indiacements.co.in">palanikumaresan.m@indiacements.co.in</a>
(f)	Police Station	Periyathirukonam, Reddipalayam and Edaiyattankudi
(g)	First opening date	11.07.2018
(h)	Weekly day of rest	Scattered
2.	Address for correspondence	V.M.Mohan The India Cements Limited Coromandal Towers, 93,Santhome High Road, Karpagam Avenue,Chennai-600 028 044-28572100 Fax-044-28526311 <a href="mailto:mines@indiacements.co.in">mines@indiacements.co.in</a> Date of appointment:01.11.2023
3. (a)	Lease Number	Not Available
(b)	Lease Area	8.14 Ha
(c)	Period of lease	50 Years
(d)	Date of expiry	09.01.2067
4.	Mineral worked	Limestone
5.	Name and address of the  Lessee:	  M/s. The India Cements Limited

<p>Owner:</p>	<p>V.M.Mohan, Coromandal Towers, 93,Santhome High Road, Karpagam Avenue,Chennai-600 028 044-28572100 Fax-044-28526311 <u><a href="mailto:mines@indiacements.co.in">mines@indiacements.co.in</a></u></p>
<p>Agent:</p>	<p>T.Balasubramanian The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248221 Email id: <a href="mailto:balasubramanian.t@indiacements.co.in">balasubramanian.t@indiacements.co.in</a> Fax:04329-248248 Date of appointment:11.07.2018</p>
<p>Manager:</p>	<p>T.Balasubramanian The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248221 Email id: <a href="mailto:balasubramanian.t@indiacements.co.in">balasubramanian.t@indiacements.co.in</a> Fax:04329-248248 Date of appointment:11.07.2018</p>
<p>Engineer:</p>	<p>T.Aravindkumar B.E(Mining) ,SCC&amp; Experience-6 Years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-8870551262 Email id: <a href="mailto:aravinkumar.t@indiacements.co.in">aravinkumar.t@indiacements.co.in</a> Fax:04329-248248 Date of appointment: 01.07.2024</p>
<p>Geologist:</p>	<p>Yes, Appointed Geologist: K.Bhaskar M.Sc(Geology) ,&amp; Experience-27 Years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-9942994734,9442866023 Date of appointment:15.10.2018</p>

6	Date of Approval of Mining Plan/Modified Mining Plan with five – year period and specific condition in approval letter, if any.	TN/ALR/LST/ROMP-1619.MDS ,Dated:08.12.2020
	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five – year period and specific condition in approval letter, if any.	MP under 16(1) of MCR 2016-12/04/2017 MP modification under 17(3) MCR 2016

**PART-II : OBSERVATION / COMMENTS OF INSPECTING OFFICER****EXPLORATION**

S. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	Nil	Nil	The total mining lease area has already been explored and the requirement of G1 level has been met.
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1	29 exploration boreholes were drilled with total merage of 907.30m with 200m*200m grid interval, during the year 2016.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not applicable	Not applicable	Exploration carried out by Dept.of Geology & Mining, Govt.of Tamilnadu, Guindy, Chennai.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserves as on 01.04.2024 (111 Category)	7.25 Million tonnes	7.45 Million tonnes	Nil
1f	General comments of inspecting officer on geology, exploration etc.	-	-	Geology & Exploration of the mine were found satisfactory.

**DEVELOPMENT**

S. No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	Proposed area of working between section line 200N-800N and 200E-1000E and working RL=25.0m to 12.0m	Actual area of working between section line 200N-800N and 200E-800E and working RL=25.0m to 15.0m	Within proposed area
2b	Separate benches in topsoil, overburden and minerals (Rule 13 of MCDR-2017)	Yes , one topsoil bench,one overburden bench, three limestone benches.	Yes , one topsoil bench,one overburden bench, three limestone benches.	Separate bench for topsoil and overburden are being maintained.
2c	Stripping ratio or ore to OB ratio	1:0.55	1:0.26	Lithological variation of the formation and mine working in opened up area.
2d	Quantity of topsoil generation in m3	191123	70669.69	Lithological variation of the formation and mine working in opened up area.
2e	Quantity of overburden generation in m3	196906	79909.29	Lithological variation of the formation
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.	--	--	The development of the pit was found satisfactory.

**EXPLOITATION**

S. No.	Item	Proposals	Actual Work	Remarks
3a	Number of Pit proposed for production	One , 320m*620m* 27m	One , 370m*500m*27 m	Only one pit, as proposed.
3b	Quantity of ROM mineral production proposed	1334163 Ts	1032890.18 Ts	Deviation due to lithological variation of the formation
3c	Recovery of salable/usable mineral from ROM production	1200746 Ts (90%)	1003679.18 Ts (98%)	Deviation due to lithological variation of the formation
3d	Quantity of mineral reject generation	133416 Ts/66708 m3 (10%)	29211 Ts/14605.50 m3 (2%)	Deviation due to lithological variation of the formation
3e	Grade of mineral rejects generation and threshold value declared.	SiO2 >18.0%	SiO2 >18.0%	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	Not applicable
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanical Method	Mechanical Method	As per plan
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No	No	Beneficiation study done.
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting Proposed	Minimum drilling and blasting is being carried out.	As proposed
3k	Provision of mining machineries in mineral benches	Back hoe-2,Rock breaker-1, Excentric Brekaer-1, Front end loader-1, Tipper-10, Dozer-1, Rock Drill-1, Air Compressor-1 Water Tanker-1. pump-2	Back hoe-2,Rock breaker-1, Excentric Brekaer-1, Front end loader-1, Tipper-10, Dozer-1, Rock Drill-1, Air Compressor-1 Water Tanker-1. pump-2	As per proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in RoMP	Top soil-3m, Overburden-5m, Limestone-5m	Top soil-3m, Overburden-5m, Limestone-5m	As per proposal
3m	Total area covered under excavation/pits	27.21.5 ha	22.07.0 ha	Mine working in opened up area.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.55	1:0.26	
3o	Total area put in use under different heads at the end of year	2019-20=1333880.00 Ts 2020-21=1667668.00 Ts 2021-22=1278029.00 Ts 2022-23=1278630.00 Ts 2023-24=1334162.00 Ts	2019-20=804875.44 Ts 2020-21=910675.55 Ts 2021-22=979212.30 Ts 2022-23=1152950.24 Ts 2023-24=1032890.18 Ts	Within proposed limits

3p	Production of ROM mineral during the last five-year period as applicable	2018-19:1333580 Ts	2018-19:432574.54 Ts	Within proposed limits.
		2019-20 :1333880 Ts	2019-20 : 804875.44 Ts	
		2020-21 : 1667668 Ts	2020-21:910675.55 Ts	
		2021-22 : 1278029 Ts	2021-22 : 979212.30 Ts	
		2022-23 : 1278630 Ts	2022-23 : 1152950.24 Ts	
		2023-24=1334162.00 Ts	2023-24=1032890.18 Ts	
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found satisfactory.

**SOLID WASTE MANAGEMENT-DUMPING**

S. No.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Planned for Back filling	utilized for Back filling	As proposed
4b	Location of topsoil, OB and mineral reject dumps	Overburden and mineral reject are planned for back filling, Topsoil planned to spread over the backfilled area.	Overburden and mineral reject are planned for back filling, Topsoil planned to spread over the backfilled area.	Nil
4c	Number of dumps within lease area and outside of lease area	No external dump	No external dump	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	Nil
4e	Number of active and alive dumps.	Nil	Nil	Nil
4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	NA	NA	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Nil	Garland drain and earthen bund are already made for a length of about 4060 m.
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	Nil
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	--	--	--

**SOLID WASTE MANAGEMENT-BACKFILLING**

S. No.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Backfilling Proposed	Backfilling carried out	Nil
5b	Area under backfilling of mined out area	2.25.0 Ha	1.80.0 Ha	Less mineral reject generation led to shortfall of filling area.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Yes	Yes	Utilized for plantation work
5d	Total area fully reclaimed and rehabilitated	0.25.0 Ha	0.45.0 Ha	Additional greenbelt developed
5e	General remarks of inspecting officers on backfilling and reclamation etc	--	--	--

**PROGRESSIVE MINE CLOSURE PLAN**

S. No.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26 (2)	Yes	Annual report on PMCP submitted along with Annual Return	Submitted in time
6b	Area available for rehabilitation (ha).	2.25.0Ha	1.80.0 Ha	Less due to less waste generation
6c	Afforestation done (ha).	0.25.0Ha	0.45.0 Ha	Additional greenbelt developed
6d	No. of saplings planted during the year	300 nos	500Nos	Additional greenbelt developed
6e	Cumulative no. of plants	12500 Nos	12700 Nos	Nil
6f	Any other method of rehabilitation	Backfilling & Afforestation	Backfilling & Afforestation	Nil
6g	Cost incurred on watch and care during the year	Rs 4.00 Lakhs	Rs 4.00 Lakhs	Rs 4.00 Lakhs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D)	180m*120m*17m	405m*45m*7.0m	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	793644 Ts	286119.23 Ts	Deviation due to lithological variation of the formation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation backfilled area	300 nos (0.25.0 Ha)	500 nos (0.45.0 Ha)	Additional greenbelt developed
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable	Not applicable	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	No area available
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA	No area available
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	No area available
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes	Regularly monitoring



6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			
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**MINERAL CONSERVATION**

S. No.	Item	Proposals	Actual Work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes	Yes	Nil
7b	Method of grade wise mineral sorting i.e. manual or mechanical.	Mechanical Method	Mechanical Method	Nil
7c	Different grade of mineral sorted out at mines.	Lumps and fines	Lumps and fines	Nil
7d	Any beneficiation process at mines	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral Conservation & beneficiation issues	-	-	-

**ENVIRONMENT**

S. No.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separately removed & utilized	Separately removed & utilized	Nil
8b	Concurrent use or storage of topsoil	Concurrent usage is proposed	Concurrently used to spread over the backfilled area.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent usage is proposed	Concurrent used for back filling	Nil
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Yes	Yes	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	12200+300=12500	12200+500=12700	Nil
8g	Survival rate	>90%	>90%	Nil
8h	Water sprinkling on roads to control airborne dust	Yes	Nil	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	--	--	The aesthetic beauty in and around mines area was found

				satisfactory.
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**COMPLIANCE UNDER RULE-45**

S. No.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager: E.Mohan (01.08.2023), Mining Engineer:E.Mohan (01.08.2023) & Geologist:K.Bhaskar (15.10.2018)	Provided in part-I	Presently,Mine Manager: C.Mesvin (01.07.2024), Mining Engineer: T.Aravind kumar (01.07.2024), & Geologist:K.Bhaskar (15.10.2018)
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already Exploited and abandoned by Opencast mining = 2.96.5 (ii) Covered under (O-C) workings = 15.50.0 (iii) Reclaimed-rehabilitated = 8.75.0 (iv) Used for waste disposal = 0.00.0 (v) Occupied by plant ,buildings, residential, welfare building and roads = 1.25.0 (vi) Used for any other purpose (Specify) Green belt & Peripheral bund =4.30.0 (vii) work done under progressive mine closure plan during the year = 0.000	Provided in part-I, Sl.No-12 (i) Already Exploited and abandoned by Opencast mining = 2.40.5 (ii) Covered under (O-C) workings = 14.46.5 (iii) Reclaimed-rehabilitated = 5.200 (iv) Used for waste disposal = 0.00.0 (v) Occupied by plant ,buildings, residential, welfare building and roads = 1.25.0 (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 4.20.0 (vii) work done under progressive mine closure plan during the year = 0.000	
9d	Scrutiny of Annual return on afforestation	Area=0.25.0 Ha, Nos-300	Area=0.45.0 Ha, Nos-500, Provided in part-V, Para-5	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	133416 Ts (Planned quantity)	Actual=29211 Ts ,Provided in part-V, of 3	OK

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM=1334162 Ts(Planned)	Actual ROM=1003679.18 Provided in part-VI, Para-2	OK
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex.Mine Price=Rs.218.33, Production cost=Rs=218.33	Provided in part VI-3(ii) and Part-VII. Ex.Mine Price=Rs.218.33 Production Cost=Rs.218.33	
9h	Scrutiny of Annual return on fixed assets	1292173040	1292173040	Provided in part -II (A) Jointly for 7 Leases
9i	Scrutiny of Annual return on mining machineries	Back hoe-2,Rock breaker-1, Excentric Brekaer-1, Front end loader-1, Tipper-10, Dozer-1, Rock Drill-1, Air Compressor-1 Water Tanker-1. pump-2	Mentioned in part -V, Sec-5/6/8/9.	No comments

Details of violations observed during current inspection and compliance position of violations pointed out					
Violation observed			Show cause position		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on
11(1)	04.12.2024	07.01.2025	11(1)	7.01.2025	04.02.2025

Date:

**(KUMERESH A)**  
**Sr.Asst.Controller of Mines**  
 Indian Bureau of Mines