

**INDIAN BUREAU OF MINES  
MINERAL DEVELOPMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Chennai Regional Office**

<b>Mine file No. TN/ALR/LST-19.MDS</b>		<b>Mine code 38TMN24038</b>
(i)	Name of the inspecting officer, designation	Shri Matiul Islam, Asst. Controller of Mines
(ii)	Date of inspection:	07.09.2024
(iii)	Accompanied mine official and designation	N.Jaya Bharata Reddy, General Manager(Mines)
<b>Part I - General Information</b>		
1	Name of the Mine	Adanakurichi Limestone Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	17.58.0 Ha (Non forest Land)
3	Mine code	38TMN24038
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/613/2011
5	Name of the lessee, Address, phone, email and fax number	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: palanikumaresan.m@indiacements.co.in
6	Village	Alathiyur
7	Taluka/Mandal	Sendurai
8	District	Ariyalur
9	Pin code	621730
10	State	TamilNadu
11	Post office	Cement Nagar
12	Nearest police station	Dalavoi
13	Nearest Railway station	Echengadu
14	Date of opening of Mine	21-06-2000
15	Weekly day of rest	Scattered
16	Period of Lease	50 Years (as per MMDR Amendment)
17	Lease Expiry	27-10-2049
18	Name of the Nominated Owner with Address, phone, email, fax number and Date of appointment	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
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	T.Balasubramanian The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248221 Email id: balasubramanian.t@indiacements.co.in Fax:04329-248248 Date of appointment:21.02.2013
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	K.Rathinavel The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-04329-248206/9942994637 Email id: rathinavel.k@indiacements.co.in Fax:04329-248248

		Date of appointment:01.07.2024
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	A.Aravindan B.E(Mining) ,FCC& Experience-9 Years The India Cements Limited Dalavoi Works Cement Nagar-Post,Ariyalur -District, PIN- 621730 Phone-9790610733 Email id: aravindan.a@indiacements.co.in Fax:04329-248248 Date of appointment:01.09.2023
22	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes, Appointed
23	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-1573.MDS ,Dated:11/11/2019
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Nil
25	Mineral(s) granted in lease and proved for mining	Limestone
26	Method of Mining(Opencast,Underground)	Opencast
27	Category (Fully Mechanised, Others or Manual)	"A" category Fully Mechanised
28	Captive/Non Captive	Captive Purpose

**EXPLORATION**

SL.NO	ITEMS	PROPOSED	ACTUAL	REMARKS
1a	Backlog of previous year	Nil	Nil	Lease area already fully expored upto G-1 level.
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	18 Exploration borehole drilled so far with total meterage of 393.40 m.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	Not applicable	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Lease area already fully expored upto G-1 level.
1e	Balance reserve as on 01/04/2024	0. 710 Million tonnes	0.860 Million tonnes	More reserves than proposed due to less depletion than propsoed in the past
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Geology & Exploration of the lease were found satisfactory.

**DEVELOPMENT**

2a	Location of development w.r.t.lease area	Proposed area of working between section line ML-100N to 600N and 200E to 500E. RL 15.0 to 11.0 m	Auctual area of working between section line ML-100N to 400N and 200E to 500E. RL 31.0 to 29.0 m	As proposed
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	res , one topsoil bench, one overburden bench, two ore benches	res , one topsoil bench, one overburden bench, two ore benches	Separate bench for topsoil and overburden are being maintained.
2c	Stripping ratio or ore to OB ratio	1:0.21	1:0.00	Violation pointed for deviation from proposed development
2d	Quantity of topsoil generation in m3	0	0	Nil
2e	Quantity of overburden generation in m3	19650	0	Violation pointed for deviation from proposed development

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Violation pointed for deviation from proposed development
<b>EXPLOITATION</b>				
3a	Number of pit proposed for production	One , 500m*220m* 34m	One , 500m*220m* 34m	As proposed
3b	Quantity of ROM mineral production proposed	220501 Ts	59885.50 Ts	Violation pointed for deviation from proposed exploitation.
3c	Recovery of sailable/usable mineral from ROM production	209476Ts (95% from ROM)	59885.50 Ts (100%)	Violation pointed for deviation from proposed exploitation.
3d	Quantity of mineral reject generation	11025 Ts/4794 m3	0.00Ts/0.00 m3	Violation pointed for deviation from proposed exploitation.
3e	Grade of mineral rejects generation and threshold value	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 / Mechanised 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 was done in Initial period.
3j	Provision of drilling and blasting in mineral benches	No	No	Non-conventional mining without drilling & blasting practised.
3k	Provision of mining machineries in mineral benches	Surface Miner-1/ Tipper-5,	Surface Miner-1/ Tipper-5,	As per proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Top soil-2m, Overburden-5m, Limestone-5m	Top soil-2m, Overburden-5m, Limestone-5m	Suitable
3m	Total area covered under excavation/pits	12.16.0 ha	12.16.0 ha	As proposed
3n	Ore to OB ratio for the pit/mine during the year.	1:0.21	1:0.00	Violation pointed for deviation from proposed development & exploitation.
3o	Production of ROM mineral during the last five year period as applicable	2019-20=502332 Ts 2020-21=236992 Ts 2021-22=237406 Ts 2022-23=237451 Ts 2023-24=220501 Ts	2019-20=178567.24 Ts 2020-21=165212.60 Ts 2021-22=56868.58 Ts 2022-23=107049.42 Ts 2023-24=59885.50 Ts	Within limits
3p	Area used in diiferent purpose	Area under mining-12.16.0, Overburden-1.66.0, Infrastructure-0.10.0, Roads-1.50.0,	Area under mining-12.16.0, Overburden-1.66.0, Infrastructure-0.10.0, Roads-1.50.0,	Within limits
3q	General remarks of inspecting officers on method of mining etc.	-	-	Violation pointed for deviation from proposed exploitation.
<b>SOILD WASTE MANAGEMENT-DUMPING</b>				
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No dumping proposed	No dumping carried out	As proposed
4b	Location of topsoil, OB and mineral reject dumps	Western side of ML Dump1: 75 to 125E/ 25 to 575N Southern side of ML Dump2: 100 to 475E / 25 to 75 N	Western side of ML Dump1: 75 to 125E/ 25 to 575N Southern side of ML Dump2: 100 to 475E / 25 to 75 N	As proposed
4c	Number of dumps within lease area and outside of lease area	Two dumps within ML	Two dumps within ML	As proposed
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side of UPL	Out side of UPL	As proposed

4e	Number of active and alive dumps.	Active -Nil & Alive-2	Active -Nil & Alive-2	As proposed
4f	Number of dead dumps.	Two	Two	As proposed
4g	Number of dumps established.	Two	Two	Stablised with plantations.
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil	Garland drain with earthen bund already made in past.
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	1200 m long garland drain with earther bund already existing.
4j	Number of settling ponds	No proposal	Nil	2 nos settling pond already
4k	Specific comments of inspecting officer on waste dump	-	-	Waste dump management was found satisfactory.
<b>SOLID WASTE MANAGEMENT-BACKFILLING</b>				
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Back filling proposed in mined out area	Back filling not carried out	Violation pointed out for deviation from backfilling proposals.
5b	Area under backfilling of mined out area	0.20.0 Ha	0.0 Ha	Violation pointed out for deviation from backfilling proposals.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	No proposal	Nil
5d	Total area fully reclaimed and rehabilitated	0.20.0 Ha	0.20.0 Ha	Afforestations carried out on previously backfilled area.
5e	General remarks of inspecting officers on backfilling and reclamation etc	-	-	Violation pointed out for deviation from backfilling proposals.
<b>PROGRESSIVE MINE CLOSURE PLAN</b>				
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Yes, submitted to IBM	Along with Annual Return
6b	Area available for rehabilitation (ha) .	0.20.0 Ha	0.20.0 Ha	As proposed
6c	Afforestation done (ha).	0.20.0 Ha	0.20.0 Ha	As proposed
6d	No. of saplings planted during the year	300 Nos	300 Nos	As proposed
6e	Cumulative no .of plants	11793 Nos.	11793 Nos	As proposed
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs0.75 Lakhs	Rs 0.75 Lakhs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D)	66m*34m*13m	Nil	Violation pointed out for deviation from backfilling proposal
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	66m*34m*13m	Nil	Violation pointed out for deviation from backfilling proposal
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	300 nos	300 Nos	As proposed
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Periodic monitoring carried out	All parameters within norms
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Violation pointed out for deviation from backfilling proposal
<b>MINERAL CONSERVATION</b>				
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes, Size based sorted.	Yes	As proposed
7b	Method of gradewise mineral sorting i.e. manual or mechanical.	Mechanical Method	Mechanical Method	As proposed
7c	Different grade of mineral sorted out at mines.	Lumps and fines	Lumps and fines	As proposed
7d	Any beneficiation process at mines	No proposal	Nil	Nil
7e	General remarks of inspecting officer on Mineral Conservation & beneficiation issues	-	-	No issues were observed with mineral conservation. Entire ROM generated was consumed. No beneficiation was proposed or carried out within the lease.
<b>ENVIRONMENT</b>				
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	Nil
8b	Concurrent use or storage of	No proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent usage is proposed	Nil	Violation pointed out for deviation from development & backfilling proposals
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original	Yes	Nil	Violation pointed out for deviation from development & backfilling proposals
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Nil	Violation pointed out for deviation from development & backfilling proposals
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	11,493 numbers afforestation existing	300 numbers saplings planted during he year	11,793 numbers cumulative afforestation
8g	Survival rate	>90%	>90%	As proposed
8h	Water sprinkling on roads to control airborne dust	Yes	Water tanker deployed	As proposed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Aesthetic beauty in and around mines area was found satisfactory.
<b>COMPLIANCE UNDER RULE-45</b>				
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager:R.Balamurugan(01.08.2023 ), Mining Engineer:A.Aravindan (01.09.2023) & Geologist:K.Surya (10.05.2023)	Presently, Mine Manager:K.Rathinavel (01.07.2024), Mining Engineer:A.Aravindan (01.09.2023) & Geologist:K.Surya (10.05.2023)	Notices of recent appointment & termination of Mine Manger received.

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 = 1.400 Ha (ii) Covered under (O-C) workings = 6.715 Ha (iii) Reclaimed-rehabilitated = 4.045 Ha (iv) Used for waste disposal = 1.66.0 Ha (v) Occupied by plant ,buildings, residential, welfare building and roads = 0.80.0 Ha (vi) Used for any other purpose (Specific) Green belt & Peripheral	Provided in part-I, Sl.No-12	Nil
9d	Scrutiny of Annual return on afforestation	Area=0.20.0 Ha, Nos-300	Provided in part-V, Para-5	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Actual Rejects =0.0 Ts	Provided in part-V, of 3	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Cement grade ore closing stock - 1,01,926.73 tonnes	Provided in part-VI,Sl 3(ii)	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex.Mine Price=Rs.352.75 Production cost=Rs=352.75	Provided in part VI-3(ii) and Part-VII	Nil
9h	Scrutiny of Annual return on fixed assets	Rs 1,29,21,73,040/-	Provided in part -II (A)	Nil
9i	Scrutiny of Annual return on mining machineries	Surface Miner-1 &Tipper-5,	Mentioned in part -V, Sec-6	Nil

**Details of violations observed during current inspection and compliance position of violations pointed out:-**

Violation observed		Show cause position		
Rule	Issued on	Compliance on	Issued on	Compliance on
11(1)	03-10-2024			
<b>Date:</b>				<b>(Matiul Islam)</b> Indian Bureau of Mines