

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/TNL/LST-38.MDS

Mine code : 38TMN29002

- (i) Name of the Inspecting : S011) SALIL SANDIP KUJUR
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : MR JAGDEESH BABU-GM, MR SENTHIL KUMAR & OTHERS
Official with
Designation
- (iv) Date of Inspection : 18-OCT-20
- (v) Prev.inspection date : 27-FEB-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : MELVENKATESWARAPURAM
- (b) **Registration NO.** : IBM/638/2011
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : TAMIL NADU
- District : THOOTHUKUDI (TUTICORIN)
- Village : SENNAYAMPATTI
- Taluka : VILATHIKULAM
- Post office : PUDUR
- Pin Code :
- FAX No. : 04562 - 256268
- E-mail : adminrn@madrascements.co.in
- Phone : 04562 - 256201, 202 & 203
- (f) **Police Station** :
- (g) **First opening date** : 27-JUN-85
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : MADRAS CEMENTS LIMITED
RAMASAMYRAJA NAGAR
VIRUDUNAGAR - 626204
3. (a) **Lease Number** : TMN1199
- (b) **Lease area** : 103.54
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 28-JUL-03
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : MADRAS CEMENTS LIMITED
 Auras Corporate Center Vth
 Floor, 98 A Dr.Radha
 Krishnan salai, Mylapore
 CHENNAI CITY TAMIL NADU
 Phone:044-28478666
 FAX :044-28478676

Owner : P.R.VENKETRAMA RAJA
 98-A,AURAS CORPORATE CENTRE
 RADHAKRISHNAN
 SALAI,MYLAPORE CHENNAI
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

Agent : S. RAMALINGAM
 Executive Director(Mines)
 NLC Ltd.,Administrative
 Office, Block-26, Neyveli-3
 CUDDALORE TAMIL NADU
 Phone: 04142-228376
 FAX : 04142-228376

Mining Engineer

Name : R.DINESH,Full Time
 Qualification : B.E., MINING
 Appointment/ : 23-JUN-15
 Termination date

Geologist

Name : R.RENGARAJAN,Full Time
 Qualification : MSC(GEO)
 Appointment/ : 09-JUN-17
 Termination date

Geologist

Name : C.KARUNAKARAN,Full Time
 Qualification : MSc GEOLOGY
 Appointment/ : 16-AUG-19
 Termination date

Manager

Name : R.DINESH
 Qualification : BE(MINING)
 Appointment/ : 23-JUN-15
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	25-SEP-90
		Renewal under rule 22 MCR1960	18-FEB-03
		Mining Scheme rule 12 MCDR1988	26-SEP-08
		Mining Scheme rule 12 MCDR1988	06-JUN-13
		MP modif under MCR 1960	18-MAY-15
		MP review under 17(1) MCR 2016	03-NOV-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	No backlog in Exploration.	No backlog in Exploration.
1b	Exploration over lease area for geological axis 1 or 2	41.72 Ha	41.72 Ha	Fully Explored Cumulative drilling of DDH(Core Holes)- 2998.15 mts & DTH- 1942.50 mts
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	Entire area already explored by TRCL & GIEM	Sufficient exploration was already carried out by the Lessee.
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NA	NIL
1e	Balance reserve as on 01/04/20	6.51Mil.Tons	6.51Mil.Tons	NIL
1f	General remarks of inspecting officers on geology, exploration etc	-	-	SATISFACTORY

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	ML - 15 to 17.5	ML - 15 to 17.5	As per Proposal
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Western Block- Benches- 2019-20 OB-5, Limestone-1 Benches- 2020-21 OB-5, Limestone-2	Yes. As per the Proposal Western Block-Benches- 2019-20 OB-5, Limestone-1 Benches- 2020-21 OB-5, Limestone-2	Separate benches are maintained in OB and Mineral as per plan.
2c	Stripping ratio or ore to OB ratio	1:1.62	1:1.61	Almost same.
2d	Quantity of topsoil generation in m3	nil	nil	nil

2e	Quantity of overburden generation in m3	404300	280819	Less development due to Less production.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	satisfactory

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 No. of Pit ML - 15 to 17.5 (Western Block)	1 No. of Pit ML - 15 to 17.5 As per Proposal	nil
3b	Quantity of ROM mineral production proposed	714544 Tonnes	498845 Tonnes	Less Production due to the delay in obtaining of EC and Consent to Operate from TNPCB for expansion of Limestone production.
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	nil
3d	Quantity of mineral reject generation	nil	na	nil,ROM Limestone transported to Common Crushing Plant at Pandalgudi. No beneficiation activities involved within MLB
3e	Grade of mineral rejects generation and threshold value declared.	<35 CaO	<35 CaO	nil
3f	Quantity of sub grade mineral generation.	nil	nil	nil
3g	Grade of sub grade mineral generation	na	na	nil

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	nil	nil	No beneficiation activities are involved within the Lease Area
3j	Provision of drilling and blasting in mineral benches	YES. Deep hole drilling and blasting is proposed.	Deep hole drilling and blasting is practiced . Holes are drilled upto 10 m depth with a spacing of 3.5-4 m .	Controlled blasting by using STD, NTD & Electronic Detonators are being used as recommended by study Conducted through Anna University
3k	Provision of mining machineries in mineral benches	yes,FRONT END LOADER 3.000 CUM- 1, BACK HOE 0.900 CUM - 1, TIPPER 12.000 CUM -4 BLAST HOLE DRILL 115 MM - 1, AIR COMPRESSOR 400 CUM/min-1	yes machine are used FRONT END LOADER 3.000 CUM- 1, BACK HOE 0.900 CUM - 1, TIPPER 12.000 CUM -4 BLAST HOLE DRILL 115 MM -1, AIR COMPRESSOR 400 CUM/min-1	as per plan.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9 m height benches proposed both in Ore and OB.	9 m height benches proposed both in Ore and OB.	maintained as per plan.
3m	Total area covered under excavation/pits	22.05Ha	22.05Ha	nil
3n	Ore to OB ratio for the pit/mine during the year.	1:1.62	1:1.61	nil

3o	Total area put in use under different heads at the end of year	<p>LAND USE PATTERN as on 01.04.2019</p> <p>Sl No Head Extent in Ha.</p> <p>1 Area under mining 22.05</p> <p>2 Storage of top soil 1.03</p> <p>3 Waste Dump site 4.58</p> <p>4 Mineral Storage Nil</p> <p>5 Infrastructure (Workshop / Building) 0.05</p> <p>6 Roads 0.20</p> <p>7 Railways Nil</p> <p>8 Tailing pond Nil</p> <p>9 Effluent treatment plant Nil</p> <p>10 Mineral Separation plant Nil</p> <p>11 Town ship area Nil</p> <p>12 Others (Garland drains, settling Tank, etc.,) 7.30</p> <p>GRAND TOTAL(Used) 35.21</p> <p>Unused area 63.41</p> <p>Grand Total 98.62</p>	<p>LAND USE PATTERN as on 01.04.2019</p> <p>Sl No Head Extent in Ha.</p> <p>1 Area under mining 22.05</p> <p>2 Storage of top soil 1.03</p> <p>3 Waste Dump site 4.58</p> <p>4 Mineral Storage Nil</p> <p>5 Infrastructure(Workshop / Building) 0.05</p> <p>6 Roads 0.20</p> <p>7 Railways Nil</p> <p>8 Tailing pond Nil</p> <p>9 Effluent treatment plant Nil</p> <p>10 Mineral Separation plant Nil</p> <p>11 Town ship area Nil</p> <p>12 Others (Garland drains, settling Tank, etc.,) 7.30</p> <p>GRAND TOTAL(Used) 35.21</p> <p>Unused area 63.41</p> <p>Grand Total 98.62</p>	nil
3p	Production of ROM mineral during the last five year period as applicable	<p>2015-16=7,19,625</p> <p>2016-17=7,26,950</p> <p>2017-18=7,26,950</p> <p>2018-19=7,14,250</p> <p>2019-20=7,14,544</p> <p>2020-21=7,13,000</p>	<p>2015-16=99,782</p> <p>2016-17=1,00,727</p> <p>2017-18=1,00,827</p> <p>2018-19=1,00,462</p> <p>2019-20=4,98,845</p> <p>2020-21=2,18,632 (production upto sep-2020)</p>	<p>Production proposals are not achieved due to the delay in obtaining Environmental Clearance from MoEF for the expanded production capacity.</p>

3q General remarks - - -satisfactory
of inspecting
officers on
method of mining
etc.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Existing Dump to be used in OB	Dumping carried out separately on existing OB dump. and no ts is generated.	nil
4b	Location of topsoil, OB and mineral reject dumps	OB Dump ML-7 to ML-10 Location: N 90 17' 43" E 780 10' 30"	OB Dump ML-7 to ML-10 Location: N 90 17' 43" E 780 10' 30"	as per plan.
4c	Number of dumps within lease area and outside of lease area	6	6	6 nos are maintained.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of Ultimate Pit Limit	Outside of Ultimate Pit Limit	nil
4e	Number of active and alive dumps.	2	2	nil
4f	Number of dead dumps.	3	3	nil
4g	Number of dumps established.	1	1	nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Inactive Sides of Dump area covered by Garland Drain & earthen bund.	Dimension of Garland Drain. 1200 m x 2 m x 2 m
4i	Length of Retaining wall or garland drain all along dumps	1	Inactive Sides of the Dump area covered by Garland Drain with earthen bunds.Dimension of Garland Drain. 1200 m x 2 m x 2 m	nil

4j	Number of settling ponds	3	3 Nos.	Settling Pond Dimension Settling Pond Dimension 1 - 90 m x 50 m x 3 m 2 - 60 m x 40 m x 3 m 3 - 60 m x 40 m x 3 m
4k	Specific comments of inspecting officer on waste dump management	-	-	satisfactory

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	na	nil	nil, All Benches are Still Active. Backfilling not at this stage.
5b	Area under backfilling of mined out area	nil	nil	nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	na	na	nil
5d	Total area fully reclaimed and rehabilitated	nil	nil	nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	satisfactory

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Periodically Submitted	Yes Submitted	nil
6b	Area available for rehabilitation (ha) .	nil	nil	nil
6c	afforestation done (ha).	nil	na	nil
6d	No. of saplings planted during the year	1000	7850Nos	nil
6e	Cumulative no .of plants	na	7850Nos in current year, Sofar 21410 No. of Saplings Planted by covering 17.84 Ha.	7850Nos saplings planted
6f	Any other method of rehabilitation	na	na	nil
6g	Cost incurred on watch and care during the year	nil	na	nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	na	na	nil, All Benches are Still Active
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	na	na	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	na	All Benches are Still Active	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	-	All Benches are Still Active	All Benches are Still Active, at the end of the life of mine water hasvesting pond will be made

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	na	na	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 Nos	7850Nos	Location of the Afforested area as follows Lat: N 9* 19' 04'' Long: E78* 08' 53''
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Plantation with 1000 Nos of Neem, Pungai & Vagai Sapplings.	Plantation with 7850 Nos of Neem, Pungai & Vagai Sapplings.	Sofar 21410 No. of Sapplings Planted by covering 17.84 Ha.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	na	nil	nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodically Monitored	Quarterly environment monitoring data submitted. All the parameters are under permissible limit.	Environmental Monitoring Report Periodically submitted to Indian Bureau of Mines. all data are within limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	satisfactory

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	nil	na	nil, No mineral sorting at pit level. Entire ROM is being transported to beneficiation plant located outside the ML area at Pandalgudi.

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	na	na	nil
7c	Different grade of mineral sorted out at mines.	na	na	nil, No segregation of mineral at mine head.
7d	Any beneficiation process at mines .	nil	nil	Beneficiation plant located outside ML area at Pandalgudi.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	satisfactory.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	nil	na	nil, Top Soil is being Stacked Separately and utilized for garland plantation and plantation on waste dump.
8b	Concurrent use or storage of topsoil	nil	nil	nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps proposed for OB and waste.	Separate dumps proposed for OB and waste is maintained	nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	na	nil	nil, as all benches are active.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	nil	na	nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1000 Nos	7850 Nos	Sofar 21410 No. of Saplings Planted by covering 17.84 Ha.
8g	Survival rate	90%	80%	nil
8h	Water sprinkling on roads to control airborne dust	10 KL Water Tanker used for water sprinkling on haul roads and transit points	Water tanker deployed for the purpose as proposed.	nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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	given,Details furnished in Annual Return 2019-2020.	Shri. R.Dinesh (Mining Engineer) & Shri. C.Karunakaran (Geologist)	present during the inspection.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	22.050 Ha. Under current workings, 8.36.0 Ha. for waste disposal, 0.250 Ha for office etc, 67.96 Ha virgin and green belt area as per AR 2019-20.	Details are matching	nil
9d	Scrutiny of Annual return on afforestation	7850 No of Plants as per Annual Return-2019-20	Plantation covered in 6.54 Ha	So-far 21410 No. of Saplings Planted by covering 17.84 Ha.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	nil	No mineral reject generated during the period under review.	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	498845.120 tonnes of ROM production reported as per 2019-20	498845.120 tonnes of ROM production reported as per 2019-20.	nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price @ Rs.516.34	It is captive mine, Ex.mine price and cost of production checked and found correct.	nil
9h	Scrutiny of Annual return on fixed assets	Rs.995300 shown as fixed asset value in AR 2019-20.	The details given are reasonable. No additions in year 2019-20.	nil
9k	Scrutiny of Annual return on mining machineries	FRONT END LOADER 3.000 CUM- 1, BACK HOE 0.900 CUM - 1, TIPPER 12.000 CUM -4 BLAST HOLE DRILL 115 MM - 1, AIR COMPRESSOR 400 CUM/min-1	Deployment of machinery found.	nil

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(SALIL SANDIP KUJUR)

Indian Bureau of Mines