

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/RP/LST-5.MDS

Mine code : 38TMN30002

- (i) Name of the Inspecting : **J103**) **V. Jaya Krishna Babu**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : **P.JADISHBABU,GM(MINES) & L.VENKATARAMASUBRAMANIAN, DGM**
Official with
Designation
- (iv) Date of Inspection : 12/03/2019
- (v) Prev.inspection date : 12/02/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PANDALGUDI**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : TAMIL NADU
District : VIRUDHUNAGAR
Village : PANDALGUDI
Taluka : ARUPPUKOTTAI
Post office : PANDALGUDI
Pin Code : 626113
FAX No. : 04562-256268
E-mail : adminrn@madrascements.co.in
Phone : 04562-256201 / 256202
- (f) Police Station :
- (g) First opening date : 03/10/1960
- (h) Weekly day of rest : SUN
2. Address for : M/s. MADRAS CEMENTS LIMITED
correspondance : RAMASAMY RAJA NAGAR POST
VIRUDUNAGAR DISTRICT - 626204
3. (a) Lease Number : TMN0020
- (b) Lease area : 11.65
- (c) Period of lease : 20
- (d) Date of Expiry : 17/03/2018
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 : J.KANNAN,Full Time
 Qualification : BE (MINING)
 Appointment/ : 25/07/2018
 Termination date

Geologist

Name : R.SENTHILKUMARAN,Full Time
 Qualification : MSC (GEO)
 Appointment/ : 01/04/2012
 Termination date

Manager

Name : S.KESAVAN
 Qualification : MSC(GEO)
 Appointment/ : 01/04/2015
 Termination date

6. Date of approval of Mining : Mining Scheme rule 12 MCDR1988 25/08/2006
 Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 25/08/2006
 Mining Scheme rule 12 MCDR1988 25/08/2006
 Mining Scheme rule 12 MCDR1988 14/10/2011
 Mining Scheme rule 12 MCDR1988 14/10/2011
 Mining Scheme rule 12 MCDR1988 18/11/2011
 Mining Scheme rule 12 MCDR1988 04/03/2016
 Mining Scheme rule 12 MCDR1988 16/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	No backlog .	The area was fully explored.
1b	Exploration over lease area for geological axis 1 or 2	66.50 Hc	66.50 HC.	The area was explored by DDH holes to ameterage of 7379 mts.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NIL	No amount spend during the year 2018-19.
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	Total mineralised area already explored .
1e	Balance reserve as on 01/04/20	Balance mineable reserves as on 01/04/2018 are 3.88 Million tonnes.	As on feb.2019 the reserves are 3.61 million tonnes ,depleting the production of 2018-19 (upto Feb.)	NIL
1f	General remarks of inspecting officers on geology, exploration etc	--	--	Sufficient exploration was done, and mine is working foe several decades and overbody behaviour was well established.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	ML 40-44	Between ML 40-44 in PIT 5 & 5a.	The workings are confined to the area proposed.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	YES.	Separate benches are maintained in Topsoil,OB and Mineral.	NIL
2c	Stripping ratio or ore to OB ratio	1:2.45	1:2.30	Nearer to the proposals.
2d	Quantity of topsoil generation in m3	NIL	NIL	No topsoil generation during the year.

2e	Quantity of overburden generation in m3	224700 tonnes	214337 tonnes.	Nearer to the proposals.
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	Proposed workings in pit No.5 during the period 2018-19.	As per proposal.	NIL
3b	Quantity of ROM mineral production proposed	305438 tonnes	266524 tonnes	production on lower side due to low off take from the plant.
3c	Recovery of sailable/usable mineral from ROM production	90%	90%	No segregation at mine head, beneficiation plant was out side the ML.
3d	Quantity of mineral reject generation	30544 tonnes.	26652 tonnes.	Less development work.
3e	Grade of mineral rejects generation and threshold value declared.	Less than 35 CaO	Less than 35 CaO	Threshold value maintained.
3f	Quantity of sub grade mineral generation.	NIL	NIL	No subgrade mineral generation.
3g	Grade of sub grade mineral generation	NIL	NIL	No subgrade mineral generation.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised methods proposed.	Mechanised methods of mineral segregation/benificiation techniques adopted at crushing plant situated out side ML.	Mineral conservation is practised.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal given.	No proposal during the plan period.	This mine is working for long back and deposit is well established for it's quality and grades.
3j	Provision of drilling and blasting in mineral benches	Deephole drilling and blasting is proposed with 115mm dia .holes and blasting delay detonators and high explosives.	As per proposal .	NIL.
3k	Provision of mining machineries in mineral benches	YES.	Bench height and width is facilitate moving of Mining machinery.	Bench height is 9m and width 9-12 m. maintained.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	YES.	Suitable bench heights maintained as proposed.	NIL.
3m	Total area covered under excavation/pits	40.48 Hc	40.48 Hc.	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1:2.45	1:2.30	Due to less production and development work.
3o	Total area put in use under different heads at the end of year	45.48 Hc	45.48 Hc.	NIL
3p	Production of ROM mineral during the last five year period as applicable	2014-15 - 305556 tonnes 2015-16 - 305556 -do- 2016-17 - 305250 -do- 2017-18 - 305500 -do- 2018-19 - 305438 -do-	2014-15 - 116338 tonnes 2015-16 - 189346 -do- 2016-17 - 293341 -do- 2017-18 - 304602 -do- 2018-19 - 266520 -do-	Actual production lacking behind the proposed quantities.
3q	General remarks of inspecting officers on method of mining etc.	--	--	Satisfactory.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	propesd to carry out on existing dumps.	Dumping carried out separately on existing OB dump.	NIL
4b	Location of topsoil, OB and mineral reject dumps	OB dump between ML40-42.	As per proposals.	NIL
4c	Number of dumps within lease area and outside of lease area	Total 15 dumps old and current dumps .	Dumps were exist. Old dumps stabilisation and terracing is noticed during inspection.	NIL. Old dumps with boulders noticed.
4e	Number of active and alive dumps.	2	2	NIL
4f	Number of dead dumps.	13	13	NIL
4g	Number of dumps established.	3	3	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposals.	NIL	NIL
4i	Length of Retaining wall or garland drain all along dumps	No proposal during the period 2018-19.	NIL.	NIL
4j	Number of settling ponds	1 no.	1no.	NIL
4k	Specific comments of inspecting officer on waste dump management	--	--	Satisfactory.Lesse e was advised to carry out more afforestation work.

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.	NIL	No backfilling proposal during the plan period 2018-19.	NIL
5b	Area under backfilling of mined out area	NIL	NIL	No proposals given.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	No topsoil generation.
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	--	--	No proposals given for back filling and reclamation during the year under review.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Sumitted.	Checked ,found satisfactory.	NIL.
6b	Area available for rehabilitation (ha) .	NIL	NIL	NIL
6c	afforestation done (ha).	NIL	NIL	Mine is advanced stage (Pit no.5)
6d	No. of saplings planted during the year	3600	4250	More than proposed saplings planted.
6e	Cumulative no .of plants	NIL	NIL	NIL
6f	Any other method of rehabilitation	NIL	NIL	NIL
6g	Cost incurred on watch and care during the year	NIL	NIL	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal.	NIL	Mine workings are not matured for backfilling in pit no.5.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	NIL	Mine workings are not matured for backfilling in pit no.5.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposals given during the year.	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal given.	NIL	mine (pit no-5) is in advancing stage.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	proposed over 3.5 Hc area by plantation of 3600 plants	Afforestation done over an area 3.5 hc on barren land in the ML area by planting 4250 plants.	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	3.36 hc	3.50 Hc.	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	Afforestation was carried out over barren lands in the lease area covering 3.5 Hc, by planting 4250 plants.	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly environment monitoring reports submitted.	Reports checked, all the parameters are within the limits.	NIL.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	--	--	Satisfactory.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No sorting of ROM grade wise at pit head.	Entire Rom is transported to primary crusher out side the ML and then to cement pant	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No separation at mine head.	Mechanical metohds adopted.	Rom transported to crusher located out side ML ,having State of Art Technology to separate high Fe,Silica content Limestone for Quality purpose.
7c	Different grade of mineral sorted out at mines.	No proposal .	No grade wise separation at mines, but done at screenplant/crusher at out side ML.	NIL
7d	Any beneficiation process at mines .	NO.	No beneficiation at mines.	NIL
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)	No proposal during the year.	No top soil removal.	Workings on lower benches.
8b	Concurrent use or storage of topsoil	YES.	YES.	No topsoil removal during 2018-19.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	YES. Proposed to carry out on existing dumps.	As per proposal.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposals given.	Mine (pit no 5) is in advancing stage.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal during the year.	NIL.	3.50 hc baren area was rehabilitated by way of afforestation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3600 plants proposed.	4250 saplings planted.	NIL.
8g	Survival rate	80%	80%	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	--	--	Satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted.	Monthly returns submitted regularly. AR 2018-19 yet to submit. (Time limit is on or before 1st July 2019).	AR 2017-18 submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	AR for the year 2018-19 is yet to submit.	J.Kannan BE(Mining) is mining engineer and R.Senthilkumaran is Geologist employed under rule 42.	Both were present during inspection.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR 2017-18 .	Checked and found satisfactory.	NIL
9d	Scrutiny of Annual return on afforestation	As per AR 2017-18 5500 saplings planted with in ML and 1200 out side ML.	During the inspection the plantation was seen.	Survival rate is 70%.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No waste rock removal during 2017-18.		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Details given.	304602 tonnes of ROM produced during 2017-18.	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Details furnished.	Ex-mine price and cost of production checked and found reasonable.	Satisfactory.
9h	Scrutiny of Annual return on fixed assets	Details given.	Rs.49420300 was shown as value of Fixed assets.	Satisfactory.
9k	Scrutiny of Annual return on mining machineries	FRONT END LOADER 3.2 CUM - 1 FRONT END LOADER 1.8 CUM - 1 BACK HOE 2.5CUM - 1 BACK HOE 0.9 CUM - 1 TRUCK 15.000 TONNE - 6 BLAST HOST DRILL 115 MM - 1 AIR COMPRESSOR 400 CUM/MN - 1	The deployment of machinery was found during the inspection.	Machinery is sufficient.

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 :

(V. Jaya Krishna Babu)

Indian Bureau of Mines