

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/VOC/LST-7.MDS

Mine code : 38TMN15045

- (i) Name of the Inspecting : S011) SALIL SANDIP KUJUR
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri. Jagadeesh Babu. GM-Mines, K. Saravanan. AGM-Min
Official with
Designation
- (iv) Date of Inspection : 19-OCT-20
- (v) Prev.inspection date : 26-FEB-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : SIVALARPATTI
- (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 : SIVALARPATTI
- Taluka : VILATHIKULAM
- Post office : PUDUR
- Pin Code :
- FAX No. : 04562-256268
- E-mail : adminrn@madrascements.co.in
- Phone : 04562-256201, 201 & 203
- (f) **Police Station** : R R NAGAR
- (g) **First opening date** : 01-JUN-95
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : SIVALARPATTI LST MINE
PUDUR POST
VIRUDUNAGAR
3. (a) **Lease Number** : TMN1203
- (b) **Lease area** : 150.11
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 21-MAY-15
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
 Ramasamiraja
 Nagar, Virudhnagar, Chennai-
 626204 VIRUDHUNAGAR TAMIL
 NADU
 Phone: 04562 256201 -
 FAX : 04562 256268

Agent : S.Ramalingam
 Ramasamiraja Nagar,
 Virudhnagar Pin:626204
 VIRUDHUNAGAR TAMIL NADU
 Phone: 04562 256201 - 203
 FAX : 04562 256268

Mining Engineer

Name : M.D.Massom Basha, Full Time
 Qualification : B.E(Mining)
 Appointment/ : 09-SEP-12
 Termination date

Geologist

Name : L.Venkatarama Subramanian, Full Time
 Qualification : M.Sc Geology
 Appointment/ : 31-JUL-13
 Termination date

Manager

Name : K. Nagendran
 Qualification : BE.MINING
 Appointment/ : 17-MAR-07
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	23-SEP-89
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	22-JAN-03
		Modif.approved Mining Scheme	05-AUG-04
		Mining Scheme rule 12 MCDR1988	31-JAN-07
		Mining Scheme rule 12 MCDR1988	29-NOV-11
		Modif.approved Mining Scheme	28-FEB-14
		MP modif under MCR 1960	02-JUL-15
		MP modif under MCR 1960	16-DEC-16

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NA	NIL
1b	Exploration over lease area for geological axis 1 or 2	NIL	NA	NIL,Area fully explored upto G1 Level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NIL	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	ML Area explored by TRCL & GIEM TO G1 CATEGORY.	Exploration is being carried out for proving of Limestone at Bottom level.
1e	Balance reserve as on 01/04/20	4.30 Mil.Tons	4.30 Mil.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 - 30.20 to 37 & ML-8 to 9.10	As per the Proposal ML - 30.20 to 37 & ML-8 to 9.10 ARE WORKED	NIL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	2019-20 Pit 1A-Benches OB-7,Limestone-1 Pit 2-Benches OB-7,Limestone-1 2020-21 Pit 1A-Benches OB-7,Limestone-2 Pit 2-Benches OB-7,Limestone-1	2019-20 Pit 1A-Benches OB-7,Limestone-1 Pit 2-Benches OB-7,Limestone-1 2020-21 Pit 1A-Benches OB-7,Limestone-2 Pit 2-Benches OB-7,Limestone-1 AS PER PLAN IS MADE AND OPERATED.	Separate benches are maintained in OB and Mineral.

2c	Stripping ratio or ore to OB ratio	1 : 2.02	1 : 2.02	NIL
2d	Quantity of topsoil generation in m3	NIL	NIL	NIL
2e	Quantity of overburden generation in m3	487650	485734	As per proposal.
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	2 No. of Pits ML - 30.20 to 37 & ML-8 to 9.10	2 No. of Pits ML - 30.20 to 37 & ML-8 to 9.10	As per the Proposal
3b	Quantity of ROM mineral production proposed	689995	686378	As per the Proposal
3c	Recovery of sailable/usable mineral from ROM production	90 %	90 %	As per the Proposal
3d	Quantity of mineral reject generation	NIL	NA	ROM Limestone transported to Common Crushing Plant. No beneficiation activities involved within ML
3e	Grade of mineral rejects generation and threshold value declared.	<35 CaO	<35 CaO	NIL
3f	Quantity of sub grade mineral generation.	NA	NA	NIL
3g	Grade of sub grade mineral generation	NIL	NIL	NIL

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized methods proposed.	Mechanized methods of mineral segregation/ beneficiation techniques adopted at crushing plant situated outside ML.	Mineral conservation is practiced.
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 in working since 1995 and deposit is well established for it's quality and grades.
3j	Provision of drilling and blasting in mineral benches	YES	As per proposal	Deep hole drilling and blasting is proposed and blasting with delay detonators and explosives are done.
3k	Provision of mining machineries in mineral benches	BACK HOE 0.900 CUM - 1, BACK HOE 1.000 CUM - 2,DOZER 3.000 HP, TIPPER 30.000 CUM -8 BLAST HOLE DRILL 115 MM -1, AIR COMPRESSOR 400 CUM/min-1	To do drilling & blasting in the working benches and excavation BACK HOE 0.900 CUM - 1, BACK HOE 1.000 CUM - 2,DOZER 3.000 HP, TIPPER 30.000 CUM -8 BLAST HOLE DRILL 115 MM -1, AIR COMPRESSOR 400 CUM/min-1 are used	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 and are maintained.	Bench height and width suitable for mechanized method and machinery deployed.
3m	Total area covered under excavation/pits	48.70ha	48.70ha	nil
3n	Ore to OB ratio for the pit/mine during the year.	1:2.02	1:2.02	As per proposal.

3o	Total area put in use under different heads at the end of year	LAND USE PATTERN as on 01-04-2020 Sl. No Head Extent in Ha. 1 Area under mining 48.700 2 Storage of top soil 1.960 3 Overburden/dump 8.500 4 Mineral Storage Overburden/dump 8.500 5 Infrastructure(Workshop / Building) 0.750 6 Roads 4.500 7 Railways - 8 Green belt 32.600 9 Tailing pond (Workshop / Building) 0.750 10 Effluent treatment plant 4.500 11 Mineral Separation plant - 12 Town ship area - 13 Others (Garland drains, settling Tank, etc.,) 3.1	LAND USE PATTERN as on 01-04-2020 Sl. No Head Extent in Ha. 1 Area under mining 48.700 2 Storage of top soil 1.960 3 Overburden/dump 8.500 4 Mineral Storage - 5 Infrastructure(Workshop / Building) 0.750 6 Roads 4.500 7 Railways - 8 Green belt 32.600 9 Tailing pond - 10 Effluent treatment plant - 11 Mineral Separation plant - 12 Town ship area - 13 Others (Garland drains, settling Tank, etc.,) 3.1	nil
3p	Production of ROM mineral during the last five year period as applicable	2015-16=6,89,763 2016-17=6,89,999 2017-18=6,89,997 2018-19=6,89,998 2019-20=6,89,995 2020-21=6,89,725	2015-16=6,54,931 2016-17=6,89,866 2017-18=6,89,750 2018-19=6,88,805 2019-20=6,86,378 2020-21=2,78,649 (upto Sep'2020)	All production quantities nearer to the proposal and within limit.

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	Dumping carried out separately on existing OB dump.	nil
4b	Location of topsoil, OB and mineral reject dumps	OB Dump ML-25.5 to ML-34.5 Location: N 90 19' 25" E 780 08' 44"	OB Dump ML-25.5 to ML-34.5 Location: N 90 19' 25" E 780 08' 44"	As per Proposal
4c	Number of dumps within lease area and outside of lease area	Inside ML-3 Nos Partly Outside ML- 6 Nos	Inside ML-3 Nos Partly Outside ML-6 Nos	nil, partly outside are formed lond back.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of Ultimate Pit Limit	Yes within the Ultimate Pit Limit	Yes. Maintained
4e	Number of active and alive dumps.	3	3	nil
4f	Number of dead dumps.	3	3	nil
4g	Number of dumps established.	3	3	3 dumps are stabilized
4h	Whether Retaining wall or garland drain all along dumps are there.	nil	5 Nos of Garland Drains are maintained. (Length-8700 m)	nil
4i	Length of Retaining wall or garland drain all along dumps	nil	garland drains are made, South Block: 1) 1300 m X 1.5 m X 1.0 m 2) 2200 m X 1.5 m X 1.0 m 3) 2900 m X 1.5 m X 1.0 m 4) 1800 m X 1.5 m X 1.0 m North Block: 1) 500 m X 1.5 m X 1.0 m	nil

4j	Number of settling ponds	5	5	5 nos are maintained.
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.	Not Applicable	Not Applicable	nil
5b	Area under backfilling of mined out area	Not Applicable	Not Applicable	All Benches are Still Active
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	nil	nil	nil
5d	Total area fully reclaimed and rehabilitated	na	na	nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	satisfactory

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).	Periodically Submitted	Yes Submitted	nil
6b	Area available for rehabilitation (ha) .	nil	na	nil, All Benches are Still Active

6c	afforestation done (ha).	nil	4680 No. of Sapplings planted covering 3.90 Ha in Dump Plantation.	nil
6d	No. of saplings planted during the year	nil	4680 No. of Sapplings planted covering 3.90 Ha in old Dump Plantation.	nil
6e	Cumulative no .of plants	-	Sofar 37600 No. of Neem, Pungai & Vagai Sapplings Planted by covering 32.60 Ha. And 4680 No. of Sapplings planted covering 3.90 Ha in Dump Plantation.	-
6g	Cost incurred on watch and care during the year	nil	nil	nil, only water tractor for sapling is deloyed.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	nil	nil	nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	na	nil	All Benches are Still Active
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	nil	nil	All Benches are Still Active
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	na	na	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	na	nil	nil

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	450 Nos	5270 Nos Location of the Afforested area as follows Lat: N 9* 19' 50'' Long: E78* 08' 25''	Location of the Afforested area as follows Lat: N 9* 19' 50'' Long: E78* 08' 25''
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.28 Ha	4.40 Ha	nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation with 450 Nos.	Plantation with 5270 No of Sapplings.	Sofar 37600 No. of Neem, Pungai & Vagai Sapplings Planted by covering 32.60 Ha. And 4680 No. of Sapplings planted covering 3.90 Ha in Dump Plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodically Monitored	All the para -meters are under permissible limit.	Environmental Monitoring Report Periodically submitted.
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	nil	No mineral sorting at pit level. Entire ROM is being transported to beneficiation plant located outside the ML area.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	na	na	nil

7c	Different grade of mineral sorted out at mines.	nil	nil	nil, No segregation of mineral at mine head.
7d	Any beneficiation process at mines	nil	nil	Beneficiation plant located outside ML area.
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	nil	nil Top soil is not utilized during the Year 2019-2020
8b	Concurrent use or storage of topsoil	OB Dump ML-25.5 to ML-34.5 Location: N 90 19' 25" E 780 08' 44"	OB Dump ML-25.5 to ML-34.5 Location: N 90 19' 25" E 780 08' 44"	Separate dumps are provided as per approved Mining Plan
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	nil	na	nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	na	na	Not at this Stage
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	na	na	nil, Old dumps are being terraced for stabilization

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Nil Proposal	4680 Nos	Sofar 37600 No. of Neem, Pungai & Vagai Sapplings Planted by covering 32.60 Ha. And 4680 No. of Sapplings planted covering 3.90 Ha in Dump Plantation.
8g	Survival rate	90%	80%	SATISFACTORY
8h	Water sprinkling on roads to control airborne dust	YES	WATER SPRINKLERS ARE USED.	Water Tanker is being used for Dust Suppression
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	Shri.K.Saravan an (Mining Engineer), Shri.L.Venkata rama Subramanian (Geologist)	Shri.K.Saravanan (Mining Engineer), Shri.L.Venkatarama Subramanian (Geologist)	PRESENT AT SITE
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	48.700 Ha. Under current workings, 10.460 Ha. for waste diposal, 5.250 Ha for office etc, 85.700 Ha virgin and green belt area as per AR 2019-20.	Details are matching	NIL

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	48.700 Ha. Under current workings, 10.460 Ha. for waste diposal,5.250 Ha for office etc,85.700 Ha virgin and green belt area as per AR 2019-20.	DETAILS ARE MATCHING.	NIL
9d	Scrutiny of Annual return on afforestation	0.30 Ha (450 Nos)	4.00 Ha (9950 Nos)	Sofar 37600 No. of Neem, Pungai & Vagai Sapplings Planted by covering 32.60 Ha. And 4680 No. of Sapplings planted covering 3.90 Ha in Dump Plantation.
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	686378.36 tonnes of ROM production reported as per 2019-20	686378.36 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.550.83	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.32815000 shown as fixed asset value in AR 2019-20.	satisfactory	nil
9k	Scrutiny of Annual return on mining machineries	BACK HOE 0.900 CUM - 1, BACK HOE 1.000 CUM - 2, DOZER 3.000 HP, TIPPER 30.000 CUM -8 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