

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/TCR/LST/-5,Mds

Mine code : 38TMN14020

- (i) Name of the Inspecting : **K08**) **G.SORNADURAI KANNAN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Thiru. Raja Ranjith Singh - GM - Mines
Official with
Designation
- (iv) Date of Inspection : 30/12/2023
- (v) Prev.inspection date : 09/02/2023

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PERIANGALUR**
- (b) **Registration NO.** : **IBM/929/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : TAMIL NADU
District : ARIYALUR
Village : PERIANGALUR
Taluka : ARIYALUR
Post office :
Pin Code : 621704
FAX No. : 04329-235111
E-mail : s.makesh@dalmiacement.com
Phone : (04329) 22004
- (f) Police Station : ARIYALUR
- (g) First opening date : 08/09/1965
- (h) Weekly day of rest : SUN
2. Address for : DALMIA CEMENT (BHARAT) LIMITED
correspondance : DALMIAPURAM-621651
3. (a) Lease Number : TMN0109
(b) Lease area : 70.01
(c) Period of lease : 20
(d) Date of Expiry : 07/09/1985
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : DALMIA CEMENT (BHARAT) LIMITED
 TIRUCHIRAPALLI TAMIL
 NADU
 Phone:
 FAX :

Owner : T. VENKATESAN
 Dy. Managing Director
 Dalmia Cement (B) Ltd
 CHENNAI CITY TAMIL NADU
 Phone: 044-28279933, 9
 FAX : 044-28276508

Agent : S.Makesh
 Dalmiapuram
 TIRUCHIRAPALLI TAMIL NADU
 Phone: 04329-235123
 FAX : 04329-235123

Mining Engineer

Name : C.Manikandan, Full Time
 Qualification : BEMining Engineering
 Appointment/ : 24/05/2021
 Termination date

Geologist

Name : K.Jayanthan, Full Time
 Qualification : MSc Applied Geology
 Appointment/ : 18/06/2020
 Termination date

Manager

Name : E. Vasudevan
 Qualification : B.TECH WITH FIRST CLASS
 Appointment/ : 03/12/2012
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	04/02/1998
Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	09/09/2003
	:	Modif.of approved Mining Plan	31/12/2003
	:	Mining Scheme rule 12 MCDR1988	18/05/2011
	:	Mining Scheme rule 12 MCDR1988	09/02/2015
	:	MP modif under 17(3) MCR 2016	04/05/2018
	:	MP review under 17(1) MCR 2016	11/12/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Boreholes has been proposed during 2022-23.	No Boreholes has drilled during 2022-23.	No Boreholes has drilled during 2022-23.
1b	Exploration over lease area for geological axis 1 or 2	No additional exploration was proposed during 2022-23 in the lease area for Geological axis - 1	No additional exploration was carried out in the lease area for Geological axis - 1 during 2022-23	Entire lease area 70.01 hectares are under G-1 category.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal for exploration during 2022-23	No Exploration during 2022-23.	So far 27 boreholes have been drilled in the lease upto 2022-23. Total expenditure towards exploration is 12 Lakhs
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration was not proposed during 2022-23.	No Exploration has been carried out during 2022-23.	Entire area has been explored under G-1 category with 200m X 200m grid interval.
1e	Balance reserve as on 01/04/20	Limestone as on 01.04.2023 Proved Mineral Reserves (111) = 5246688 tons Feasibility Mineral Resources (211) = 5110000 tons Pre-Feasibility Mineral Resources (221) = 3490000 tons	Limestone as on 01.04.2023 Proved Mineral Reserves (111) = 5806513p tons Feasibility Mineral Resources (211) = 5110000 tons Pre-Feasibility Mineral Resources (221) = 3490000 tons	The available grade of Limestone in this lease area is Cement Grade.
1f	General remarks of inspecting officers on geology, exploration etc	It is part of Cretaceous formations	Limestone deposits are of sedimentary origin of marine transgressional series of Maestrichtian age.	Limestone is yellowish colour and shallow marine sedimentary deposit.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During 2022-23, there is no proposal for development.	No development carried out.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No Proposal	Nil	Nil
2c	Stripping ratio or ore to OB ratio	1 : 0.00	1 : 0.00	Due to no OB waste, Stripping Ratio is zero.
2d	Quantity of topsoil generation in m3	No proposal of topsoil generation during 2022-23	No topsoil has generated during 2022-23.	Nil
2e	Quantity of overburden generation in m3	There is no proposal of OB generation.	No OB has generated during 2022-23.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	During 2022-23, there is no proposal for development.	No OB has generated during 2022-23.	Due to no OB waste, Stripping Ratio is zero.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production was proposed in from Pit-1.	Productions are not carried out per in proposal area.	Violation has pointed out under Rule 11(1)
3b	Quantity of ROM mineral production proposed	The total target of Limestone production is 1152180 tons during 2022-23.	Achieved Limestone Production is 797168 tons during 2022-23.	Violation has been issued under Rule 11(1).
3c	Recovery of sailable/usable mineral from ROM production	100% Recovery	100% Recovery	Nil
3d	Quantity of mineral reject generation	There is no Mineral Reject generation	There is no Mineral Reject generation	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Nil	Nil

3f	Quantity of sub grade mineral generation.	There is proposal of 603200 tons of High ferruginous Limestone Generation for 2022-23	No High ferruginous Limestone Generation during 2022-23.	Violation has been issued under Rule 11(1).
3g	Grade of sub grade mineral generation	+10% Fe ₂ O ₃	+10% Fe ₂ O ₃	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method	Mechanised method	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Beneficiation Study is Proposed	Nil	Outside the lease area beneficiation plant is present.
3j	Provision of drilling and blasting in mineral benches	Proposal of drilling & blasting	Drilling & Blasting are done as per proposal.	Rock breakers are used for production.
3k	Provision of mining machineries in mineral benches	Excavators Tippers Dozer	As per proposal the machineries are there during inspection.	Available machinery are shown in Annual Returns
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	In 2022-23, Bench height of 6m was proposed in Mineral.	As per proposal benches are formed.	Nil
3m	Total area covered under excavation/pits	53.48 hect area is proposed for excavation during 2022-23	53.48 hect areas are under excavation.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.00	1 : 0.00	Due to no OB waste, Stripping Ratio is zero.
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2023. Mines = 53.48 hect Others = 15.09 hect	Land use Pattern as on 01.04.2023. Mines = 53.48 hect Others = 15.09 hect	Landuse pattern is same as per proposal except mines area.

3p	Production of ROM mineral during the last five year period as applicable	ROM 2022-23 = 1152180 tons 2021-22 = 1000202 tons 2020-21 = 800930 tons 2019-20 = 1249154 tons 2018-19 = 1051079 tons	ROM 2022-23 = 797168 tons 2021-22 = 798542 tons 2020-21 = 797777 tons 2019-20 = 796153 tons 2018-19 = 781957 tons	Violation issued for not achieving the ferruginous limestone quantity.
3q	General remarks of inspecting officers on method of mining etc.	Production was proposed from Pit-1.	Achieved ROM Production is 797168 tons during 2022-23 against proposal of 1152180 tons.	Ferruginous limestone has not been excavated and violation has been issued.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is no proposal for dumping during 2022-23	No Dumping formed	Nil
4b	Location of topsoil, OB and mineral reject dumps	There is no proposal for dumping during 2022-23	No Dumping formed	Nil
4c	Number of dumps within lease area and outside of lease area	No Proposal	Nil	Old existing dump is present within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposal	Nil	Southern part of the lease area.
4e	Number of active and alive dumps.	Active Dump= 1 Alive Dump = Nil	Active Dump= 1 Alive Dump = Nil	Nil
4f	Number of dead dumps.	No Proposal	Nil	Nil
4g	Number of dumps established.	No Dumps have been established.	No Dumps have been established.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal	Garland drains are constructed.	Garland drainage has made along the safety barrier.

4i	Length of Retaining wall or garland drain all along dumps	No Proposal	100m of Garland drainage has been constructed.	Garland drainage has made along the safety barrier.
4j	Number of settling ponds	No proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	There is no proposal for dumping during 2022-23	Garland drains are constructed.	Garland drainage has made along the safety barrier.

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.	No proposal for backfilling during 2022-23	No backfilling has done during 2022-23	Nil
5b	Area under backfilling of mined out area	No Proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No Proposal	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	There is no proposal for backfilling during 2022-23	The mine was not worked upto the proved depth and no backfilling were proposed during 2022-23.	No backfilling has done during 2022-23.

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).	It should be on or before 1st July every year.	Submitted for the year 2022-23.	Submitted within time limit.

6b	Area available for rehabilitation (ha) .	No Proposal	Nil	Nil
6c	afforestation done (ha).	No Proposal	Nil	Nil
6d	No. of saplings planted during the year	No Proposal	Nil	Nil
6e	Cumulative no .of plants	No Proposal	Nil	Nil
6f	Any other method of rehabilitation	No Proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	No Proposal	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No Proposal	Nil	Nil
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	150 saplings proposed in safety zone for 2022-2023	Total 300 saplings has achieved during 2022-23 along safety zone.	Cumulatively 8232 saplings have been planted till date.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Proposed 0.10 hect in safety zone for 2022-23	0.30 hect achieved in safety zone area during 2022-23	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Green Belt development along 7.5m safety barrier.	Plantation has been done as per proposal along the safety barrier.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Bi-Annually Survey	Environment monitoring is carried out through Government as well as private agency.	Lessee is conducting Environmental monitoring and all are within permissible limit
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	150 saplings have proposed during 2022-23 along safety barrier.	Total 300 saplings has achieved during 2022-23 along safety barrier.	Plantation has been done as per proposal along the safety barrier.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	The total target of Limestone production is 1152180 tons during 2022-23.	Achieved Limestone Production is 797168 tons during 2022-23.	Violation has been issued under Rule 11(1).
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	There is no proposal for grade wise mineral sorting in the lease area.	Entire ROM is useable.	The available grade of Limestone in this lease area is cement grade.
7c	Different grade of mineral sorted out at mines.	The Limestone of the lease area varies from 35% CaO.	The Limestone of the lease area is 35% CaO	Grade of High ferruginous Limestone is Fe2O3 +6%

7d	Any beneficiation process at mines .	Crushing & Screening process at outside the lease area	Inside the lease area there is no beneficiation process.	Entire ROM is useable
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	The available grade of Limestone in this lease area is cement grade.	797168 tons of ROM has been achieved during 2022-23 against 1152180 tons of proposal.	Entire ROM is useable and blended with high grade limestone to get the desired plant feed materials.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of topsoil generation during 2022-23	No topsoil has generated during 2022-23.	Nil
8b	Concurrent use or storage of topsoil	No Proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	There is no proposal for dumping during 2022-23	No Dumping formed	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No backfilling has been proposed during 2022-23	No backfilling has done during 2022-23	The mine was not worked upto the proved depth and no backfilling were proposed during 2022-23.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No backfilling has been proposed during 2022-23	No backfilling has done during 2022-23	The mine was not worked upto the proved depth and no backfilling were proposed during 2022-23.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	150 saplings have proposed during 2022-23 along safety barrier.	Total 300 saplings has achieved during 2022-23 along safety barrier.	Plantation has been done as per proposal along the safety barrier.

8g	Survival rate	No Proposal in document	85%	Same has shown in annual return
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Daily Water tanker is spraying water on roads side to control airborne dust.	During Inspection, water sprinkling on mines roads has been noticed.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Scanty vegetation, bushes, neem are observed in lease area	There is no prominent river or stream running in this area.	Outside lease area, seasonal nalla is running.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR Submitted up to = November 2023 AR Submitted up to = 2022-23	Returns are submitted within time limit.	Both Annual & Monthly returns are submitted in online
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Full time Mining Engineer & Mining Geologist has shown	During inspection Mining Engineer, Geologist is present.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use Pattern as on 01.04.2023. Mines = 53.48 hect Others = 15.09 hect	Landuse Pattern is filled as per approved Mining Plan	Nil
9d	Scrutiny of Annual return on afforestation	Lessee has planted 300 saplings during 2022-23.	Plantation has been done as per proposal along the safety zone.	Cumulatively 8232 saplings have been planted till date in inside lease area.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Proposal in the document	There is no Mineral Rejects Generation	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Limestone stock as on 01.04.2023 ROM opening stock = 881618 tons ROM closing stock = 1429571 tons	Limestone Production is 797168 tons during 2022-23.	It is captive mine of M/s. Dalmia Cements (Bharat) Limited.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production & Ex. Mine price has shown	It is captive mine of M/s. Dalmia Cements (Bharat) Limited.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed Assets is given for group of mines.	Fixed Assets is filled	Nil
9k	Scrutiny of Annual return on mining machineries	Machineries details given	As available in field	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
MCDR17	Rule 11(1)	01/01/2024			

Date :

(G.SORNADURAI KANNAN)

Indian Bureau of Mines