

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KRL/PAL/LST/1/BNG

Mine code : 38KRL08001

- (i) Name of the Inspecting : **S011**) **K.SRINIVAS**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Sri Sony, Mining Engineer and Sri Venkatachalam, Mana
Official with
Designation
- (iv) Date of Inspection : 17/06/2022
- (v) Prev.inspection date : 23/01/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PANDARATHU**
- (b) **Registration NO.** : **IBM/4265/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KERALA**
- District : **PALAKKAD**
- Village : **PUDUSSERY**
- Taluka : **PALAKKAD**
- Post office : **WALAYAR**
- Pin Code : **678624**
- FAX No. : **0491-2862230 (F)**
- E-mail : **jtkmcl@yahoo.com,ro@malaba**
- Phone : **0491-2862220 (O),944600476!**
- (f) **Police Station** : **WALAYAR**
- (g) **First opening date** : **04/06/1980**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **MALABAR CEMENTS LTD.,**
correspondance **MALABAR CEMENTS LTD , WALAYAR POST, PALAKKAD,**
KERALA-678624.
3. (a) **Lease Number** : **KRL0003**
- (b) **Lease area** : **245.69**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **22/12/2023**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : MALABAR CEMENTS LTD
 WALAYAR POST, PALAKKAD,
 PALAKKAD KERALA
 Phone:0491-2862373
 FAX :0491-2862230

Owner : K. PADMAKUMAR
 M/s MALABAR CEMENTS LIMITED
 WALAYAR DIST-PALAKKAD
 PALAKKAD KERALA
 Phone: 0491-2862373
 FAX : 0491-2862230

Agent : JOSEPH FRANCIS
 WALAYAR DIST-PALAKKAD
 PALAKKAD KERALA
 Phone: 0491-2862373; 09446004748
 FAX : 0491-2862230

Mining Engineer

Name : SONNY KURIA KOSE, Full Time
 Qualification : B.E.MINING
 Appointment/ : 12/12/2005
 Termination date

Manager

Name : JOSE THOMAS
 Qualification :
 Appointment/ : 01/02/1986
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	09/11/1995
Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	29/05/2002
	:	Mining Scheme rule 12 MCDR1988	21/04/2006
	:	Mining Scheme rule 12 MCDR1988	28/11/2011
	:	Mining Scheme rule 12 MCDR1988	10/03/2016
	:	MP review under 17(1) MCR 2016	03/02/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10 boreholes with max.500m meterage	10 boreholes have been drilled with 500m meterage	The 10 boreholes of last plan period backlog.
1b	Exploration over lease area for geological axis 1 or 2	5 boreholes of total Meterage 200 Mts proposed for the year 2021-22.	No exploration has been carried out.	The violation has been issued.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	The lessee	Not specified	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	G1-30.90ha G2-204.04	Exploration of backlog carried out.
1e	Balance reserve as on 01/04/20	Reserves as on 1.4.2021 is 8754734 tonnes	Grade- above 34%CaO	Reserves tonnes as on 1.4.2022 is 8355715 tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	-	-	The proposed exploration work has not been carried out for the year 2021-22. The violation has been issued.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Northing: 1200766 to1201073 Easting: 693462 to 693843	Development carried out within the proposed area.	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed for OB and Mineral.	Benches maintained as per the proposals	-
2c	Stripping ratio or ore to OB ratio	1 : 0.48 (in tonnes)	1: 0.19 (in tonnes)	Ore :399019t Waste :79776t

2d	Quantity of topsoil generation in m3	No proposal	Nil	No top soil generated.
2e	Quantity of overburden generation in m3	107396 m3	29546 cu.m	79776t of waste generated. The violation issued.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	The development has not been carried out as per the proposals. The violation has been pointed out for less development for the year 2021-22. It is observed during the inspection that the mining operations are being carried out in the absence of valid accorded EC and FC. It is reported during the inspection that the same are under process. In this regard, the correspondence was already made with the State Government, Kerala during the last inspection.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	One Pit	-
3b	Quantity of ROM mineral production proposed	599998 tonnes	399019 tonnes	The violation issued for less production.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	No proposal	nil	-

3e	Grade of mineral rejects generation and threshold value declared.	No proposal	nil	-
3f	Quantity of sub grade mineral generation.	No proposal	nil	-
3g	Grade of sub grade mineral generation	No proposal	nil	-
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal. Only crushing and screening proposed	Crushing of ROM carried out.	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	nil	-
3j	Provision of drilling and blasting in mineral benches	Deep hole Drilling and blasting proposed	Deep hole drilling and blasting carried out.	Drills of 100mm dia. Blasting carried out using slurry explosive in conjunction with delay electric detonators.
3k	Provision of mining machineries in mineral benches	Excavator and Tipper combination proposed	HydraulicExcavator 2.7cum. -3 Back hoe 1.0cum -1 Drill 100mm - 4 Tipper 35tons -9 Tipper 10tons-1 Water Tanker 27000lt -1 Dozer -3 Crusher 400tph-1 Crusher 250tph-1	nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of benches in OB and Limestone - 9m.	Height of benches in OB and Limestone - 9m.	nil
3m	Total area covered under excavation/pits	30.90 ha at the end of the plan period(2025-26)	30.90 ha	As per the Annual Return 2021-22
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.48 (in tones)	1: 0.19 (in tones)	Ore :399019 t Waste :79776 t

3o	Total area put in use under different heads at the end of year	Area under Mining - 30.90ha Waste dump - 31.27ha Infrastructure & Roads - 12.74ha Mineral storage - & Mineral Separation plant - 4.6ha Green belt - 8.19ha at the end of the plan period(2025-26)	Area under Mining - 30.90ha Waste dump - 27.24ha Infrastructure & Roads - 12.74ha Mineral storage - & Mineral Separation plant - 3.30ha Green belt - 8.0ha at the end of the plan period(2021-22)	As reported in AR 2021-22.
3p	Production of ROM mineral during the last five year period as applicable	2017-18 : 600000 2018-19 : 600000 2019-20 : 600000 2020-21 : 600000 2021-22 : 599998 (in tonnes)	2017-18: 450421 2018-19 : 315174 2019-20 : 416362 2020-21: 369056 2021-22 : 399019 (in tonnes)	-
3q	General remarks of inspecting officers on method of mining etc.	-	-	The violation has been pointed out for less production envisaged against the proposed for the year 2021-22.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of Overburden proposed.	OB dumping carried out in the earmarked area.	No top soil generated.
4b	Location of topsoil, OB and mineral reject dumps	OB dump-E - 693758 to 693955 N-1200650 to 1200742	The dumping of waste carried out in the proposed area.	nil

4c	Number of dumps within lease area and outside of lease area	1 OB dump within the mining lease.	1 OB dump within the mining lease.	nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB dump proposed outside the UPL	OB dump is outside the UPL	nil
4e	Number of active and alive dumps.	One OB dump within the lease.	One OB dump within the lease	nil
4f	Number of dead dumps.	nil	nil	nil
4g	Number of dumps established.	No proposal	nil	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain all along dump proposed.	The retaining wall and garland drain not present at the toe of the waste dump as proposed.	The violation has been issued.
4i	Length of Retaining wall or garland drain all along dumps	200m Retaining wall and 200m garland drain all along dump proposed for the year 2021-22.	200m Retaining wall and 200m garland drain all along dump not constructed.	Violation issued.
4j	Number of settling ponds	No proposals	nil	-
4k	Specific comments of inspecting officer on waste dump management	-	-	The construction of 200m Retaining wall and 200m garland drain all along dump has not been carried out. The violation has been pointed out.

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 proposals	nil	-
5b	Area under backfilling of mined out area	No proposals	nil	-

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposals	nil	-
5d	Total area fully reclaimed and rehabilitated	No proposals	nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	No proposals for backfilling hence no specific comments.

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).	To be submitted the annual report on PMCP under Rule26(2	Annual PMCP Report for the year 2021-22 submitted on 23.04.2022	-
6b	Area available for rehabilitation (ha) .	0.05	0.05	As reported by the lessee.
6c	afforestation done (ha).	0.05	0.05	As reported by the lessee.
6d	No. of saplings planted during the year	15	15	As reported by the lessee.
6e	Cumulative no .of plants	Not specified	nil	nil
6f	Any other method of rehabilitation	No proposal	nil	-
6g	Cost incurred on watch and care during the year	No proposal	nil	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	nil	-

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	nil	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	nil	-
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	nil	-
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	nil	-
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	nil	-
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	nil	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring proposed for Air, Water, Dust, Ground water & Noise.	Environment monitoring carried out for Air, Water, Dust, Ground water & Noise.	All the environmental parameters within limit

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	The PMCP proposals have been implemented in the mine as per the proposed.
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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 proposal for grade wise sorting. Only crushing and screening proposed.	Crushing of ROM carried out.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Nil	-
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	-
7d	Any beneficiation process at mines	No proposal	Nil	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	No specific comments.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	-
8b	Concurrent use or storage of topsoil	No proposal	Nil	-

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping proposed for waste.	Separate waste dump maintained.	No generation of fines and rejects.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 no. of plants(Safety zone & Area within ML area)	500 no. of plants(Safety zone & Area within ML area)	-
8g	Survival rate	85%	80%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to control airborne dust.	Water sprinkling on haul roads proposed to control airborne dust.	A water tanker of 27000 liters capacity used for water sprinkling.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	There is no change in aesthetic beauty in and around mines area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly Returns submitted up to May, 2022 . Annual Return submitted for the year 2021-2022.	-	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri Mohanachandran ,Geologist Sri Sony Kuriyakose, Mining Engineer Sri Jose Thomas, Manager	Appears to be correct	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining - 30.90ha Waste dump - 27.24ha Infrastructure &Roads-12.74ha Mineral storage - &Mineral Separation plant - 3.30ha Green belt - 8.0ha	Appears to be correct	-
9d	Scrutiny of Annual return on afforestation	500 saplings within lease area	Appears to be correct.	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Appears to be correct	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	O/S -4138t Production - 399019t C/S - 4974t	Appears to be correct	-
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production- Rs979.53/tonne . Ex-pricemine- Rs979.53/tonne	Appears to be correct.	This mine is captive mine.

9h	Scrutiny of Annual return on fixed assets	Details of Fixed Assets given.	Appears to be correct	-
9k	Scrutiny of Annual return on mining machineries	HydraulicExcavator 2.7cum. - 3 Back hoe 1.0cum -1 Drill 100mm - 4 Tipper 35tons -9 Tipper 10tons- 1 Water Tanker 27000lt -1 Dozer -3 Crusher 400tph-1 Crusher 250tph-1	Appears to be correct	-

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)	11/07/2022		MCDR17 Rule 11(1)	11/07/2022	30/01/2023
Rule 46	11/07/2022	02/09/2022	MCDR17 Rule 11(1)	11/07/2022	
MCDR17 Rule 11(1)	11/07/2022				
MCDR17 Rule 46(a)	11/07/2022	02/09/2022			

Date :

(K.SRINIVAS)

Indian Bureau of Mines