

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

Mining Plan Modification REPORT

Goa regional office

Mine file No : Goa/Fe/9

Mine code : 30GOA01054

- (i) Name of the Inspecting : **SP01**) **SURESH PRASAD**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri R.B.Singh, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 22/08/2017
- (v) Prev.inspection date : 07/02/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PALE DONGAR (31/1953)**
- (b) **Registration NO.** : **IBM/197/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : GOA
- District : NORTH GOA
- Village : PALE
- Taluka : BICHOLIM
- Post office : AMBEGAL
- Pin Code : 403105
- FAX No. : 0832-513818
- E-mail : export@chowgulegoa.com
- Phone : 0832-513831,512158,513857,!
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : Pale Iron Ore Mine of M/s Chowgule & Co. Ltd.
correspondance : At-Pale, Tq-Bicholim
Goa-403105
3. (a) Lease Number : GOA0029
- (b) Lease area : 83.97
- (c) Period of lease :
- (d) Date of Expiry : 22/11/2027
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : CHOWGULE & CO. LTD.
 Marmugao Harbour Chowgule
 House Vasco-da-gama SOUTH
 GOA GOA
 Phone:0832-343228,343223
 FAX :

Owner : V.V.Chowgule
 Chowgule House Mormugao
 Harbour, Vasco-da-gama
 SOUTH GOA GOA
 Phone: 521010 (O)
 FAX : 0832-521013

Agent : R.P. Alvenkar
 M/s Chowgule & Co. Ltd.
 Mines Central Office Post-
 Pale NORTH GOA GOA
 Phone: 372230
 FAX : 0832-372228

Mining Engineer
 Name : PURUSHOTHAMAN R.,Full Time
 Qualification : B.E (MINING)
 Appointment/ : 04/09/2004 05/12/2009
 Termination date

Mining Engineer
 Name : Sanjay Chakraborty,Full Time
 Qualification : BE Mining , FCMM
 Appointment/ : 05/07/1999 17/01/2004
 Termination date

Mining Engineer
 Name : RAJEEV KUMAR,Full Time
 Qualification : AMIE(Mining), 2nd Class Mines Manger Cer
 Appointment/ : 19/01/2004 04/09/2004
 Termination date

Geologist
 Name : S.M. HEGDE,Full Time
 Qualification : M.SC (GEOLOGY)
 Appointment/ : 17/04/2000
 Termination date

Manager
 Name : S.B. HALDANKAR
 Qualification : DIP MINING.FCC
 Appointment/ : 23/06/2001 02/04/2007
 Termination date

Manager
 Name : Suresh Mani
 Qualification : Dip. in Mining, FCMM
 Appointment/ : 12/04/2001 23/06/2001
 Termination date

Manager

Name : SANJAY R.CHAKRABORTY
 Qualification : B.E (MINING),FCMMR
 Appointment/ : 14/02/2008
 Termination date

Manager

Name : RAKESH BAHADUR SINGH
 Qualification : B.E.(Mining), Nagpur Univ., Maharashtra
 Appointment/ : 25/01/2010
 Termination date

Manager

Name : AMRIT L. SABLE
 Qualification : DIP MINING, FCMM
 Appointment/ : 02/04/2007 14/02/2008
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	29/11/2002
Plan/Scheme of Mining		Modif.approved Mining Scheme	21/10/2004
		Renewal under rule 24 MCR1960	11/04/2007
		MP modif under MCR 1960	01/09/2015
		MP modif under 17(3) MCR 2016	08/03/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Nil	nil	not proposed.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Not applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2		NA	
1e	Balance reserve as on 01/04/20		2.670 MT	reserve as on 1.4.2017
1f	General remarks of inspecting officers on geology, exploration etc			No proposal for exploration in the AY.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1458-N1087/ W69-E257 N639-N403/ E216-E306	N1458-N1087/ W69-E257 N639-N403/ E216-E306	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil available OB Benches - 8 Nos. & ROM Benches - 9 Nos.	No top soil available OB Benches - 8 Nos. & ROM Benches - 9 Nos.	
2c	Stripping ratio or ore to OB ratio	1:1.2.1	1:1.05	
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	381,883 M3 895,000 Tons	312,925 M3 732,243 Tons	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	satisfactory
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2nos.	two	
3b	Quantity of ROM mineral production proposed	0.740MT	0.6967MT	
3c	Recovery of sailable/usable mineral from ROM production	80%	75-80%	
3d	Quantity of mineral reject generation	nil	nil	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	Threshold vAlue 45%Fe for normal ore.
3f	Quantity of sub grade mineral generation.	nil	nil	
3g	Grade of sub grade mineral generation	nil	nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical	Mechanical	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	nil	nil	
3j	Provision of drilling and blasting in mineral benches	nil	nil	

3k	Provision of mining machineries in mineral benches	yes	yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m	Observed irregular shape in places.	Issued violation for correction of benches as observed.
3m	Total area covered under excavation/pits	49.5451 Ha.	49.5451 Ha.	
3n	Ore to OB ratio for the pit/mine during the year.	1:1.21	1:1.05	
3o	Total area put in use under different heads at the end of year	83.8771 ha.	83.8771 ha.	
3p	Production of ROM mineral during the last five year period as applicable	2012-13: 900,000 Tons 2013-14 - NIL 2014-15- NIL 2015-16: 603,220 Tonnes 2016-17 740,545 Tonnes	2012-13: 159,888 Tons 2013-14 - NIL 2014-15- NIL 2015-16: 91,674 Tonnes 2016-17 696,704Tonnes	Operation was suspended by DMG, Goa, during the year 2013-14 and 2014-15.
3q	General remarks of inspecting officers on method of mining etc.			Observed irregular shape and merged benches. The same were pointed out.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	YES	YES	No proposal for top soil and MR.
4b	Location of topsoil, OB and mineral reject dumps	No proposal	No proposal	
4c	Number of dumps within lease area and outside of lease area	1 no. within ML and lno. outside ML	1 no. within ML and lno. old dump outside ML	Dead and rehabilitated

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Located outside ultimate pit limit.	Located outside ultimate pit limit.	
4e	Number of active and alive dumps.	nil	nil	backfilling proposed
4f	Number of dead dumps.	2 NOS.	2 NOS.	
4g	Number of dumps established.	2 NOS.	2 NOS.	
4h	Whether Retaining wall or garland drain all along dumps are there.		yes	
4i	Length of Retaining wall or garland drain all along dumps	Existing retaining wall maintenance 408m trench	Existing retaining wall maintenance 450m trench	Dump no.1 retaining wall 900m & 1360m trench; dump no.2 2650m & 9060m trench.
4j	Number of settling ponds	Existing settling pond desilting	Existing settling pond desilting	Total 22 nos settling ponds
4k	Specific comments of inspecting officer on waste dump management			Observed that backfilling area were not properly updated in the surface plan.

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.	Full extraction of mineral before backfilling.	Full extraction of mineral before backfilling.	
5b	Area under backfilling of mined out area	2.43 Ha.	2.00 Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	nil	nil	
5d	Total area fully reclaimed and rehabilitated			

5e	General remarks of inspecting officers on backfilling and reclamation etc.	backfilling area not updated properly in the suarface plan.
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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).	YES	YES	
6b	Area available for rehabilitation (ha) .			back filling area not matured for rehabilitaion.
6c	afforestation done (ha).	gap filling	gap filling	No additional area proposed.
6d	No. of saplings planted during the year	3000Nos.	3000Nos.	
6e	Cumulative no .of plants	881,000 nos.	881,000 nos.	as reported.
6f	Any other method of rehabilitation	nil	nil	
6g	Cost incurred on watch and care during the year			
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	200MX300MX 20M	200MX300MX 20M	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Waste filling	Waste filling	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	nil	nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	nil	nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	nil	nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	nil	nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	nil	nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	nil	nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	yes	yes	Monitoring carried out in season wise.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Backfilling area not matured for rehabilitation and reclamation.

 Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM, mineral for processing	ROM, mineral for processing	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Yes	Yes	
7d	Any beneficiation process at mines	yes	yes	Screening/Washing plants available at mine.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Screening/Washing plants installed at mine.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	na	
8b	Concurrent use or storage of topsoil	nil	nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB backfilling in the pit.	OB backfilling in the	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB backfilling in the pit.	OB backfilling in the	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Dump afforestation	Dump afforestation	old Dump no.1 & 4 afforested and stabilized.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)			cummulative 881,000 nos.
8g	Survival rate	65%	65%	
8h	Water sprinkling on roads to control airborne dust	yes	yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Old dump were rehabilitated with plantation and with aesthetic beauty.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	yes	yes	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		appointed ME and Geologist	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		provided	
9d	Scrutiny of Annual return on afforestation		given	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	nil	not generated.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	furnished	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	furnished	
9h	Scrutiny of Annual return on fixed assets	furnished	
9k	Scrutiny of Annual return on mining machineries	furnished	

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)	31/08/2017	21/11/2017			
MCDR17	Rule 45(1)	31/08/2017				

Date :

(SURESH PRASAD)

Indian Bureau of Mines