

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

MCDR INSPECTION REPORT

Goa regional office

Mine file No : GOA/FE/9/1

Mine code : 30GOA01079

- (i) Name of the Inspecting : **K03**) **G. S. KANNAN**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : S/Shri. R.B.Singh, Mines Manager and S.M.Hedge, Geol
Official with
Designation
- (iv) Date of Inspection : 10/12/2016
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KUNTICHEM TOLLEM**
- (b) **Registration NO.** : **IBM/197/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **GOA**
- District : **NORTH GOA**
- Village : **PONOCEM**
- Taluka : **SATTARI**
- Post office : **PISSURLEM**
- Pin Code :
- FAX No. : **0832-2521011**
- E-mail : **ccl@chowgule.co.in**
- Phone : **0832-5632016 5632017**
- (f) **Police Station** : **PALE**
- (g) **First opening date** :
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VILLAGE: PALE, TQ: BICHOLIM**
correspondance : **DIST: NORTH GOA**
: **GOA 403105**
3. (a) **Lease Number** : **GOA0030**
- (b) **Lease area** : **66.76**
- (c) **Period of lease** :
- (d) **Date of Expiry** : **21/11/2027**
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

Geologist

Name : S.M. HEGDE, Full Time
 Qualification : M.SC (GEOLOGY)
 Appointment/ : 20/09/2016
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	25/09/2003
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	11/04/2007
	:	MP modif under MCR 1960	01/09/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil. There is no Proposal for 2015-2016	3 Boreholes has proposed during 2016-2017. Yet not started till December 2016.
1b	Exploration over lease area for geological axis 1 or 2	There is no Proposal for Exploration	Nil	Exploration over the lease area is under G-2.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20	Reserves & Resources as on 01.04.2016 Proved Mineral Reserves (111) = 1.089 Million Tons Indicated Mineral Resources (332) = 1.116 Million Tons	Reserves & Resources as on 01.04.2016 Proved Mineral Reserves (111) = 1.133 Million Tons Indicated Mineral Resources (332) = 1.116 Million Tons	Because of Less production achieved, reserves not changed
1f	General remarks of inspecting officers on geology, exploration etc	Nil	Nil	Exploration has to be done in closer intervals for Converting G-2 to G-1

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N-340 to N-680 E-310 to E-460	N-340 to N-680 E-310 to E-460	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no Topsoil Bench Proposal. Total 8 Benches in Waste and 4 Benches in Mineral Proposed.	There is no Topsoil Bench. Total 1 Benches in Waste and 1 Benches in Mineral achieved.	
2c	Stripping ratio or ore to OB ratio	1 : 2.35	1 : 0.82	
2d	Quantity of topsoil generation in m3	No Proposal	No generation of Topsoil	There is no Topsoil existing in Mines
2e	Quantity of overburden generation in m3	52,122 Cu.m/ 1,19,880 Tons proposed for 2015-2016	2,260 Cu.m/ 5,200 Tons only achieved	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Nil	Nil	Mines Falls in Bicholim-Pale Type of Deposit, Ore body is South-Easterly plunging anticline

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit	One Pit	
3b	Quantity of ROM mineral production proposed	50, 7800 Tons	6,370 Tons	
3c	Recovery of saleable/usable mineral from ROM production	95% from Mines	95% from Mines	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	
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	Dry Screening was Proposed for Gradewise Production. Processing Plant is Located at adjoining Lease area.	Electric operated Mechanical Screen plant are in use for Gradewise production	
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	No Proposal	Drilling and Blasting are not carried out and Ripper Dozer is used for excavation.	
3k	Provision of mining machineries in mineral benches	Backhoe Excavator - 2 Ripper Dozer - 1 Tipper - 175 W/ Loader - 2 Dozer - 1 Water Tanker - 1	W/ Loader - 1 Dozer - 1 Water Tanker - 1	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 7m was proposed in Waste & Ore.	Bench height of 7m was in Waste & Ore.	
3m	Total area covered under excavation/pits	3.10 Hect	0.25 Hect.	Total 18.48 hect area is covered under pit and 2015-2016 proposed only 3.10hect for Excavation
3n	Ore to OB ratio for the pit/mine during the year.	1 : 2.35	1 : 0.82	

3o	Total area put in use under different heads at the end of year	Land use Pattern on 01.04.2016 Area under Mining = 18.48 hect Reclaimed & Rehabilitated = 2.50 Hect Reclaimed & Rehabilitated = 2.50 Hect Waste Dump = 6.54 Hect Road = 0.68 Hect	Land use Pattern on 01.04.2016 Area under Mining = 18.48 hect Reclaimed & Rehabilitated = 2.50 Hect Waste Dump = 6.54 Hect Road = 0.68 Hect
3p	Production of ROM mineral during the last five year period as applicable	2015 - 2016 = 50,780 Tons 2014 - 2015 = Nil 2013 - 2014 = Nil 2012 - 2013 = 1,00,000 Tons 2011 - 2012 = 2,50,000 Tons	2015 - 2016 = 6,370 Tons 2014 - 2015 = Nil 2013 - 2014 = Nil 2012 - 2013 = 78,840 Tons 2011 - 2012 = 2,39,716 Tons
3q	General remarks of inspecting officers on method of mining etc.	Nil	Nil

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 Topsoil, Mineral Rejects OB Proposed to backfilled	There is no Dump for Topsoil & Mineral Rejects OB was used for Strengthening of Road	
4b	Location of topsoil, OB and mineral reject dumps	There is no Topsoil & Mineral Rejects OB to be Backfilled in Exhausted Pits	There is no Topsoil & Mineral Rejects OB was Backfilled in Exhausted Pits N-350 to S-300 and E-3180 to E-500	

4c	Number of dumps within lease area and outside of lease area	There are two dumps within Lease area. However backfilling was Proposed during 2015-2016	There are two dumps within Lease area. Both the dumps have been matured and established by plantation. Backfilling was Carried out during 2015-2016
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Existing Dump is inside UPL	Existing Dump is inside UPL
4e	Number of active and alive dumps.	Two dumps	There is no active Dumps and both dumps are planted and they are alive.
4f	Number of dead dumps.	Two Dumps	Two dead dumps are there within Lease area
4g	Number of dumps established.	Nil	Two dumps have been established
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes
4i	Length of Retaining wall or garland drain all along dumps	Arrestor Wall - 235m Treach - 500m	These Protective Measures constructed earlier and maintenace work carried out every year
4j	Number of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Nil	Old Dumps are established. backfilling is carried out in Mined out Pit

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.	Backfilling is proposed in Mined out area 1.60 Hect	0.05 Hect only done for strenghting of Road	
5b	Area under backfilling of mined out area	N-70 to N-240 E-335 to E-410	N-70 to N-240 E-335 to E-410	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Pit is already developed and Topsoil generation is not Planned	Pit is already developed and Topsoil generation is not there during 2015-2016
5d	Total area fully reclaimed and rehabilitated	1.60 hect Proposed	0.05 hect achieved
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Nil	Nil

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 on or before 1st July of Every Year	As per Prescribed it not submitted.	
6b	Area available for rehabilitation (ha) .	Proposal was to backfilled in continuation of existing backfilled area	Due to less development quantity it is not achieved	
6c	afforestation done (ha).	No Proposal for planation during 2015-2016	Nil	
6d	No. of saplings planted during the year	No Proposal for planation during 2015-2016	Nil	
6e	Cumulative no .of plants	Nil	Nil	
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	Nil	Nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Void available for temporary backfilling is 150m X 170m x 30m.	Backfilling is carried out in 30m X 10m x 10m.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Tailing disposal in pit was not proposed.	Tailing disposal in pit not carried out
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation 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)	Quarterly environment monitoring is required and report has to be sent to IBM Regional office.	Quarterly environment monitoring is carried out through own as well as private agency.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Nil	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	As per approved mining plan proposed ROM was classified as Powdery ore +60% Fe, Lowgrade Ore +45% Fe & Siliceous Ore +35% Fe.	The ROM ore was dispatched to Pale Mine for dry screening and thereafter gradewise production and despatch is reported	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical processing i.e. dry screening was proposed for grade-wise production.	The ROM ore was dispatched to Pale Mine for dry screening and thereafter gradewise production and despatch is reported	
7c	Different grade of mineral sorted out at mines.	Gradewise Production of Powdery ore +60% Fe, Lowgrade Ore +45% Fe & Siliceous Ore +35% Fe was proposed in approved mining plan	Low Grade ore only has been produced during 2015-2016	
7d	Any beneficiation process at mines .	Mechanical processing i.e. dry screening was proposed for grade-wise production.	The ROM ore was dispatched to Pale Mine for dry screening.	

7e General remarks Nil Nil
of inspecting
officer on
Mineral
conservation and
beneficiation
issues

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	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal was to temporary backfill the waste inside the pit due to nonavailabilit y of other area for dumping and mineral is persisting in the pits.	Temporary backfilling is started during the year for 0.05 hect	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Existing Dump is restored with plantation and temporary backfilling is started in pit. The mining lease will remain in operation upto 2027.	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Existence of plantation is there on slopes of the dump, along the road and other part of lease area. Additional plantation is not proposed during the year.	Additional plantation is not carried out during the year 2015-16.
8g	Survival rate	No proposal.	Survival rate is around 60 to 70% for previous plantation
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Water sprinkling on road is observed during the inspection.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Surrounding area beyond lease area is greenery and lessee has carried out plantation on dump, along road etc.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Both Annual & Monthly returns are submitting in online system.	Annual Returns has been referred back to the lessee for invalid information.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist were shown	As per Annual return all are appointed	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pit 49.545 hect, Backfilled 22.00 hect, Dump 10.04 hect, Infrastructure 2.292 hect	Land use pattern as per approved modified mining plan and AR are Not coinciding.	Its advice to rectifiy and give correct data and re-submit the A.R
9d	Scrutiny of Annual return on afforestation	Nil	Nil	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Proposal	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stack = 6370 tons Grade -50 to 52%	Mines started working in low grade area
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	ROM has stocked and there is no Sales. Ex.Mine Price is Zero	Nil
9h	Scrutiny of Annual return on fixed assets	AR of 2015-2016 is having Fixed assests detail is given for lands, industrial building and machineries and own capital source of finance. It is common for Pale mine.	It is common for Pale mine.
9k	Scrutiny of Annual return on mining machineries	Backhoe Excavator, Wheel Loader & Pump	Mining machineries are common for Pale Mine

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
Rule 13(1)	16/12/2016				
Rule 27(4)	16/12/2016				

Date :**(G. S. KANNAN)**

Indian Bureau of Mines