INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/160/BNG **Mine code : 30KAR03110**

(i) Name of the Inspecting Officer and ID No. : **S19**) **SANDEEP KUMAR SINGH**

(ii) Designation : Assistant Controller Mine

(iii) Accompaning mine Official with Designation : Sri M.T. Jagadeesh, Sr.Manager and Shri P.V. R. Pras

(iv) Date of Inspection : 25/06/2021

(v) Prev.inspection date : 11/09/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KARADIKOLLA**

(b) Registration NO. : **IBM/197/2011**

(c) Category : A Fully Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : KARNATAKA

District : BELLARY

Village : BAVIHALLI

Taluka : SANDUR

Post office : BAVIHALLI

Pin Code :

FAX No. : 0832-2521012 (F),

E-mail : mines@chowgule.co.in

Phone : 0832-2525000 (O), 888886

(f) Police Station : SANDUR

(g) First opening date : 31/05/1968

(h) Weekly day of rest : SUN

2. Address for correspondance : M/s Chowgule & Co. Pvt. Ltd
264, COLLEGE ROAD,
WARD III,HOSPET, BELLARY, KARNATAKA-583201.

3. (a) Lease Number : KAR0170

(b) Lease area : 459.73

(c) Period of lease : 20

(d) Date of Expiry : 22/09/1983

4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee	:	CHOWGULE AND CO LTD Chowgule House, Mormugao Harbour Goa-403 803 SOUTH GOA GOA Phone:0832-2521010 FAX :0832-2521011 /12
Owner	:	Nathan R Chowgule MD Chowgule & Co. Pvt. Ltd. CHOWGULE HOUSE MORMUGAO HARBOUR SOUTH GOA SOUTH GOA GOA Phone: 0832 2521010 FAX : 0832 2521011/1
Agent	:	Sanjay R. Chakraborty C/o Chowgule & Company Pvt. Ltd. Chowgule House, Mormugao Harbour Goa SOUTH GOA GOA Phone: 0832-2521010 FAX : 0832-2521011 /1

Mining Engineer

Name	:	B.Sanand,Full Time
Qualification	:	B.E &2nd Class
Appointment/ Termination date	:	09/11/2015

Geologist

Name	:	S.M.HEGDE,Full Time
Qualification	:	M TECH APPLIED GEOLOGY
Appointment/ Termination date	:	11/08/2018

Manager

Name	:	PRV Prasad
Qualification	:	DIP.IN.MINING&1st class
Appointment/ Termination date	:	12/11/2015

6. Date of approval of Mining Plan/Scheme of Mining :

Renewal under rule 22 MCR1960	17/02/1993
Renewal under rule 22 MCR1960	05/11/2003
Mining Scheme rule 12 MCDR1988	06/12/2013
MP review under 17(1) MCR 2016	07/12/2017
MP modif under 17(3) MCR 2016	07/02/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	7 Nos. of boreholes amounting to 210 m proposed for the year 2017-18	12 nos. of boreholes amounting to 433 m carried out during year 2017-18.	Exploration carried out by M/s SGS.
1b	Exploration over lease area for geological axis 1 or 2	No proposals	NIL	_
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned	Nil	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	35.112 ha mineralized area covered under G-1, 1.788 ha under G-2.	G-1-35.112 ha, G-2-1.788 ha Non mineralized area-66.78 ha	As reported in SDF 2019-20.
1e	Balance reserve as on 01/04/20	12.997 million tonnes as on 1.01.2019 with 12.202 million tonnes with grade +35-65 % and 0.795 million tonnes with grade +45-65 %.	11.876 million tonnes as on 01.04.2021	As reported by the Lessee.
1f	General remarks of inspecting officers on geology, exploration etc	-	-	No backlog on Exploration. For the Year 2020-21, there are no exploration proposals.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks

2a	Location of development w.r.t.lease area	Location of working: Central block- N 1676531 to 1676384 E 661968 to 662273	Location of working: Central block- N 1676531 to 1676384 E 661968 to 662273	As per the proposal.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil -no proposal. Separate benches proposed in OB & mineral. (Bench height 5-7m proposed for both OB & Mineral)	Top soil - NIL Separate benches maintained for Both OB and Mineral. 6m Bench height maintained for both OB & mineral.	As per the proposal. Topmost RL- 1005 Bottom most RL- 985 mRL. Benches in overburden-2 nos. Benches in Ore-4 nos.
2c	Stripping ratio or ore to OB ratio	1: 0.68 (in Cum)	1:0.81 (in Cum)	Ore- 499965 tons~155703 cum (Avg B.D-3.211 t/m3) OB- 299888 tons~127666 Cum (Avg B.D-2.349 t/m3)
2d	Quantity of topsoil generation in m3	No proposals	Nil	-
2e	Quantity of overburden generation in m3	106,400 m^3	127,666 m^3	-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Development carried out within the proposed extent as per the proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One (Central Block)	One (Central Block)	-
3b	Quantity of ROM mineral production proposed	500,000 tons	499,965 tons	NIL

3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	No proposals	nil	-
3e	Grade of mineral rejects generation and threshold value declared.	No proposals	Nil	-
3f	Quantity of sub grade mineral generation.	No proposals	nil	nil
3g	Grade of sub grade mineral generation	No proposal	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Only Crushing & Screening proposed.	Crushing & screening carried out.	Jaw Crusher-120 tons/hour Cone Crusher-90 tons/hour Screen=220tons/hour
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	no proposal	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting Proposed	Drilling & Blasting Carried out wherever hard formation encountered	Drilling carried out with wagon drill 100 mm dia. Slurry Explosive used in conjunction with Electric detonators.
3k	Provision of mining machineries in mineral benches	Excavator-7 nos. Tipper-9 cum-20 nos. Water tanker-8000 litres-3 nos. Wheel loader-5 nos. Dozer- 1no.	Excavator-7 nos. (2.6 cum, 1.6 cum, 0.9 cum) Tipper- 16 tons-16 nos. Water tanker-8000 litres-4 nos. Wheel loader- 5 nos. Dozer-1 N0	As reported by the Lessee during inspection.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height of 5 to 7 m proposed for both mineral and OB.	Bench Height of 6 m maintained for both mineral and OB	No of benches in OB-2, No of Benches in Mineral-4
3m	Total area covered under excavation/pits	23.072 ha till end of plan period	23.072 ha	Including area under backfilling. As reported by the Lessee during inspection.
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.50 (in tons)	1: 0.50 (in tons)	Ore- 499965 tons OB- 299888 tons
3o	Total area put in use under different heads at the end of year	i)Mining-23.072 ha ii)OB- 15.42 ha iii)Infrastructure & roads & plants-5.03 ha iv) Mineral storage-7.792 ha	i)Mining-23.072 ha ii)OB- 14.588 ha iii)Infrastructure & roads & plants-4.78 ha iv)Mineral storage-6.455 ha	For Mining, area under backfilling is also included. As reported by the Lessee during inspection.
3p	Production of ROM mineral during the last five year period as applicable	2016-17-3,80,000 2017-18-3,80,000 2018-19-500,000 2019-20-500,000 2020-21-500,000	2016-17-379,938.26 2017-18-379,969.69 2018-19-499,930.57 2019-20-499,967.46 2020-21-499,965.81	Nil
3q	General remarks of inspecting officers on method of mining etc.	-	-	The Mining activities were carried out as per the proposal.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil-NIL Over Burden-Separate dumping proposed Mineral reject-not proposed	Top soil -Nil OB is backfilled at earmarked area at North Block No mineral reject generated.	No Top soil/Mineral reject generated.

4b	Location of topsoil, OB and mineral reject dumps	OB dump- AD-6 Northing: 1676148 to 1675880 Easting:662469 to 662665 (Within Lease). No proposal for OB dumping on the waste dump AD-6 for the year 2020-21. For the year 2020-21 backfilling proposed in the exhausted portion of the mine pit - North block.	OB dump- AD-6 Northing: 1676148 to 1675880 Easting:662469 to 662665 (Within Lease). For the year 2020-21 the OB generated was backfilled as per the proposal in the North block.	No topsoil, mineral reject generation.
4c	Number of dumps within lease area and outside of lease area	Within lease - 5 nos. of dumps within Lease [ID1, ID2, ID3, AD5 & AD6]	Within lease - 5 nos. of dumps within Lease [ID1, ID2, ID3, AD5 & AD6]	5 nos. dumps within Lease are dead & inactive dumps.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	3 dumps within UPL (ID-1, ID-2 & AD-5)	3 dumps within UPL (ID-1, ID-2 & AD-5). ID-3 & AD-6 outside UPL.	As per the Geological plan.
4e	Number of active and alive dumps.	No active dump.	Nil	-
4f	Number of dead dumps.	Within lease - Dead dumps - 5no.s ID-1, ID-2, ID-3, AD-5 & AD-6	Within lease - Dead dumps - 5no.s ID-1, ID-2, ID-3, AD-5 & AD-6.	Nil
4g	Number of dumps established.	No proposals	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Total- 601 m Retaining Wall & 457 m garland drain proposed for dump ID-1, AD-5 & AD-6 till 2019-20 of the plan period.	Retaining wall and Garland drain construction all along the dump carried out as per proposal	nil

4i	Length of Retaining wall or garland drain all along dumps	Total- 601 m Retaining Wall & 457 m garland drain proposed for dump ID-1, AD-5 & AD-6 till 2019-20 of the plan period.	Retaining wall and Garland drain construction all along the dump carried out as per proposal [Cumulative length of Retaining wall 3266 M & Garland drain 3578m. As reported by Lessee during inspection	Adequate retaining wall and garland drainage arrangement provided. [Cumulative length of Retaining wall 2250M & Garland drain 3578m. As reported by Lessee during inspection
4j	Number of settling ponds	No proposals	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	For the year 2020-21 no proposal for OB dumping on the waste dump. Only backfilling proposed in the exhausted portion of the mine pit - North block and OB dumping was carried out in the backfilled area as per the proposal.

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 proposed during the year 2020-21 at North block exhausted part.	Backfilling carried out during the year 2020-21 at North block exhausted part.	-
5b	Area under backfilling of mined out area	1.74 Ha proposed in the extent N-1676848 to 1676652, E-661241 to 661457 930mrL & 915 mrL. 250,000 Tonnes of OB proposed for backfilling.	Backfilling carried out in 1.630 Ha within the proposed extent. 930mrL & 915 mrL 299,888 Tonnes of OB generated used for backfilling	-

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal for generation of top soil.	Nil	No top soil generation.
5d	Total area fully reclaimed and rehabilitated	No proposals	Nil	Backfilling of the north block exhausted pit in progress. Full reclamation & rehabilitation will be carried out after backfilling is completed.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling carried out in Northern pit within the proposed extent as per the proposal.

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 before 1st of July every year.	Yet to be submitted	Nil
6b	Area available for rehabilitation (ha) .	0.70 ha for afforestation on waste dump (AD-5)	Afforestation carried out in 0.38 ha of waste dump only.	Violation issued.
6c	afforestation done (ha).	0.70 ha for afforestation on waste dump (AD-5)	Afforestation carried out in 0.38 ha of waste dump only.	Violation issued.
6d	No. of saplings planted during the year	1750 nos. of saplings to be planted in 0.70 ha of waste dump	941 nos. of saplings planted in 0.38 ha of waste dump only.	Violation issued.
6e	Cumulative no .of plants	196051 nos. of plants till 2020-21	196461 nos. of plants till 2020-21	Nil
6f	Any other method of rehabilitation	Geotextile cover on AD-6 dump over the area 2.75 ha.	Geotextile cover carried out on dump as per the proposal	Nil

6g	Cost incurred on watch and care during the year	Rs 24,50,000 proposed. For dump management.	Rs. 33.78 lakhs costs incurred for dump management (Including Geo textile & Afforestation on dumps).	As reported by the Lessee during inspection.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.74 Ha proposed for backfilling	1.63 ha backfilling carried out in North pit.	North block
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	250,000 tons of waste/OB proposed for backfilling.	299,888 tons of waste/OB generated used for backfilling	North block.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposals	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposals	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposals	nil	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposals	nil	nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposals	nil	nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposals	nil	nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring four seasons on Air, Water and Noise in core & buffer zone proposed	Environmental monitoring for air, water & noise carried out in both core & buffer zone. Environmental monitoring report for Quarter, March-May 21 available during inspection. All parameters within limit.	-
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	The proposal for 2020-21 mentions 1750 nos. saplings to be planted over an extent of 0.70 ha in waste dump AD-5 against which only 941 nos. of saplings have been planted for the year 2020-21.	Violation issued.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Crushing & Screening proposed	Crushing & screening carried out.	Jaw Crusher-120 tons/hour Cone Crusher-90 tons/hour Screen=220tons/hour
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grade wise sorting proposed	nil	Nil
7c	Different grade of mineral sorted out at mines.	No proposal	nil	nil
7d	Any beneficiation process at mines .	No proposal	nil	nil

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	Only Crushing & screening carried out within the Lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Prposals	nil	nil
8b	Concurrent use or storage of topsoil	No proposals	nil	nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for OB/waste rock	Separate dump for OB/waste rock maintained	No mineral reject generation.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	1.74 Ha. of exhausted portion of North block proposed to be backfilled with OB/Waste	1.63 Ha of exhausted portion of North block backfilled with OB/waste.	nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Dump afforestation/ Geo textile.	Part of the dumps afforested and covered with Geo-textile/coir mat.	(Dump AD-5 & AD-6)
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	196051 nos. of plants till 2020-21	196461 nos. of plants till 2020-21	nil
8g	Survival rate	Not mentioned	90% (WML)	As reported by the Lessee.

8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed. (Water tanker-8000 litres- 3 nos.	Water sprinkling carried out to control dust. (Water tanker-8000 litres- 4 nos.	nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	The aesthetic beauty in and around the mines looks very good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return Submitted up to. May'21 on 10.06.2021 Annual Return submitted up to 2019-2020 on 30.06.2020	-	nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	AR for 2020-21 Yet to be submitted	AR for 2020-21 Yet to be submitted	nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	AR for 2020-21 Yet to be submitted	AR for 2020-21 Yet to be submitted	nil
9d	Scrutiny of Annual return on afforestation	AR for 2020-21 Yet to be submitted	AR for 2020-21 Yet to be submitted	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	AR for 2020-21 Yet to be submitted	AR for 2020-21 Yet to be submitted	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	AR for 2020-21 Yet to be submitted	AR for 2020-21 Yet to be submitted	nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	AR for 2020-21 Yet to be submitted	AR for 2020-21 submitted	Yet to be	nil
9h	Scrutiny of Annual return on fixed assets	AR for 2020-21 Yet to be submitted	AR for 2020-21 submitted	Yet to be	nil
9k	Scrutiny of Annual return on mining machineries	AR for 2020-21 Yet to be submitted	AR for 2020-21 submitted	Yet to be	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)	06/07/2021	24/08/2021			

Date :

(**SANDEEP KUMAR SINGH**)

Indian Bureau of Mines