

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

MCDR inspection REPORT

Goa regional office

Mine file No : KNT/BJP/LST-79/GOA

Mine code : 38KAR26060

- (i) Name of the Inspecting : **K07**) **KRISHNENDU CHATTERJEE**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : S/SHRI. SAGAR YADAV, MINING ENGINEER & G.S.N.MURTHY,
Official with
Designation
- (iv) Date of Inspection : 05-JAN-22
- (v) Prev.inspection date : 09-MAR-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HEBBAL (ML NO. 2493)**
- (b) **Registration NO.** : **IBM/5676/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BAGALKOT**
- Village : **HEBBAL**
- Taluka : **MUDHOL**
- Post office :
- Pin Code :
- FAX No. : **NA**
- E-mail : **minerals.ganga578@gmail.com**
- Phone : **9449579690**
- (f) **Police Station** : **Lokapur**
- (g) **First opening date** : **06-DEC-06**
- (h) **Weekly day of rest** : **TUE**
2. **Address for** : **APMC YARD**
- correspondance** : **MUDHOL-587313**
: **DIST-BAGALKOT, KARNATAKA STATE**
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : **DOLOMITE** Associated
- : **LIMESTONE** Main

5. Name and Address of the

Lessee : KALLAPPA H SABARAD
 APMC YARD MUDHOL BAGALKOT
 KARNATAKA
 Phone:
 FAX :

Owner : KALLAPPA H. SABARAD
 APMC YARD MUDHOL BAGALKOT
 KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : Yadav Sagar Shrikant, Full Time
 Qualification : BE-MINING
 Appointment/ : 20-MAR-21
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	27-SEP-04
Plan/Scheme of Mining		Modif.of approved Mining Plan	16-JAN-08
		Mining Scheme rule 12 MCDR1988	26-AUG-11
		Mining Scheme rule 12 MCDR1988	10-MAR-16
		MP modif under 17(3) MCR 2016	13-DEC-17
		MP review under 17(1) MCR 2016	14-JAN-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration proposal in 2020-21.	Nil during 2020-21	
1b	Exploration over lease area for geological axis 1 or 2	G1 proposed	G1: 4.86 Ha.	Entire ML area was explored by the lessee under G1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil during 2020-21	Earlier exploration was carried out by M/s Geotech Exploration, Nagpur.
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1 proposed	G1 achieved for entire ML area.	
1e	Balance reserve as on 01/04/20		1.86 million tonnes of Limestone (UNFC Cat. 111) & 0.1 million tonnes of Dolomite (UNFC Cat. 111). Quality of Limestone +35 to 48.14% CaO; Dolomite quality: 15% to 19.43% MgO	As on 01.04.2021
1f	General remarks of inspecting officers on geology, exploration etc		Entire ML area was explored by the lessee under G1 level by drilling with 9 nos. of core boreholes. Total meterage drilled was 285m.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	1790480 N to 1790690 N, E 536050 E to 536220 E	1790480 N to 1790690 N, E 536050 E to 536220 E	No change in location.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in ore proposed.	Separate benches ore maintained.	

2c	Stripping ratio or ore to OB ratio	1:0.05	1:0.09	by volume
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	2316 m3	725 m3	BD of waste : 2 tonnes/m3
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		OB Waste consists of mainly by intercalated waste within Limestone ROM domain.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit proposed.	Single pit.	Dimension of pit: 220m x 160m x 20m.
3b	Quantity of ROM mineral production proposed	110,000 tonnes of Limestone & 10,000 tonnes of Dolomite	20,000 tonnes of Limestone. No Dolomite production is reported in 2020-21	
3c	Recovery of sailable/usable mineral from ROM production	95% recovery of ROM proposed.	91% recovery of ROM in Limestone in F.Y. 2020-21.	Recovery was less than projected due to more interstitial waste generation within Limestone ROM domain.
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable.	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not applicable.	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised (OTFM) mining proposed.	Mechanised (OTFM) mining operation.	
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	Proposed to drill by jack hammer and blasting using slurry and UNFO	Carried out as per proposal	
3k	Provision of mining machineries in mineral benches	Hydraulic excavator and tipper combination proposed.	Hydraulic excavator and tipper combination	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3m bench height proposed.	Average bench height 3m is maintained	
3m	Total area covered under excavation/pits	3.78 Ha. at the end of F.Y. 2021-22.	3.52 Ha.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.05	1:0.09	
3o	Total area put in use under different heads at the end of year	Area under mining: 3.78Ha. Dump: 0.20 Ha. Infrastructure & Road: 0.05 Ha.	Area under mining: 3.52 Ha Dump: 0.15 Ha. Infrastructures & Road: 0.05 Ha.	Actual area mentioned as per submitted AR of F.Y 2020-21.

3p	Production of ROM mineral during the last five year period as applicable	Limestone 2016-17: 120,000 2017-18: 106,000 2018-19: 110,000 2019-20: 110,000 2020-21: 110,000 (in tonnes) Dolomite 2016-17: 10,000 2017-18: 10,000 2018-19: 10,000 2019-20: 10,000 2020-21: 10,000 (in tonnes)	Limestone 2016-17: 56,500 2017-18: 57,000 2018-19: 40,000 2019-20: 42,000 2020-21: 20,000 (in tonnes) No production of Dolomite has been reported during last five years.	As stated by the lessee representative, Limestone production was less due to low market demand.
3q	General remarks of inspecting officers on method of mining etc.		As stated by the lessee representative, Limestone production in 2020-21 was less due to lack of market demand.	

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 OB waste is proposed.	Separate dumping of OB waste.	
4b	Location of topsoil, OB and mineral reject dumps	OB dumping proposed at north eastern side of the ML area.	OB dump is located at north eastern side of the ML area. No mineral reject dump is located within the ML area.	Earlier top soil was stacked and utilized for plantation along 7.5m safety barrier zone.
4c	Number of dumps within lease area and outside of lease area	One dump within ML area proposed.	One active dump within ML area	Temporary dumping.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Inside UPL.	Inside UPL.	Entire ML is mineralized; proposed for re-handling at conceptual stage.

4e	Number of active and alive dumps.	One active dump proposed.	One active dump.
4f	Number of dead dumps.	No proposal.	Nil
4g	Number of dumps established.	No proposal	Not applicable.
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed.	Safety bund constructed along the active dump.
4i	Length of Retaining wall or garland drain all along dumps	Not specified.	60m of retaining wall and garland drain constructed.
4j	Number of settling ponds	No proposal	Nil
4k	Specific comments of inspecting officer on waste dump management		One active dump is located at north eastern side of the ML area (near BP-3); retaining wall is constructed along the toe of the dump to prevent escape of material.

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	Nil as the mine pit was not matured for backfilling.	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Mine pit was not matured for backfilling since mineral persists at the bottom of mine workings.
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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).	Proposed	Submitted for F.Y. 2020-21 on dated 16.08.2021.	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	0.037 Ha. during 2020-21.	Cumulative 0.185 Ha. along the safety barrier zone.	
6d	No. of saplings planted during the year	50 nos.	50 nos. along the safety barrier zone and 100 nos. outside the ML area.	
6e	Cumulative no .of plants	Not specified.	Apprx. 500 nos. along the safety barrier zone	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	Rs. 5000/-	No change	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed.	Environmental monitoring is carried out periodically and parameters are found within stipulated limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP compliance & progressive closure operations are found to be carried out as per the approved proposals.

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 dispatch proposed after sizing and sorting.	ROM & grade wise dispatch after sizing and sorting.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual sorting and sizing of ROM.
7c	Different grade of mineral sorted out at mines.	Proposed for all +34% CaO.	BF grade limestone dispatch reported during 2020-21.
7d	Any beneficiation process at mines	No proposal	Nil except manual sorting and sizing.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		ROM/ grade wise mineral being dispatched from the mine after sizing and sorting of ore. BF grade Limestone of 24,908 tonnes were dispatched form the mine during 2020-21.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No top soil generation during 2020-21.	Top soil was earlier stacked and utilized for plantation purpose.
8b	Concurrent use or storage of topsoil	No proposal	No top soil generation during 2020-21.	Top soil earlier used for plantation along the safety barrier zone.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for OB waste proposed.	Separate dumping of OB waste carried out.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Mine pit is not matured for backfilling.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed during conceptual stage.	Not applicable as of now.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposed	Apprx. 500 nos. along the safety barrier zone.
8g	Survival rate	Not specified.	60 to 70%
8h	Water sprinkling on roads to control airborne dust	Proposed	Water tanker arrangement for water sprinkling on mine roads has been made.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Aesthetic beauty around the mining area is good and impact on environment is less due to small scale mining operation.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. Submitted up to Dec. 2021 & A.R. Submitted up to 2020-2021	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Geologist: Shri D S. Malakai Manager: Shri M. Bhimareddy. Name of the Mining Engineer is furnished as Nil	Mining Engineer and Manager: Shri Yadav Sagar Shrikant. Geologist: Shri D S. Malakai	Notice of appointment for mining engineer in Form-I is submitted dated 15.11.2021.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining: 3.5 Ha. Dump: 0.15 Ha. Infrastructure and Road: 0.05 Ha	Area under mining: 3.52 Ha Dump: 0.15 Ha. Infrastructures & Road: 0.05 Ha.	

9d	Scrutiny of Annual return on afforestation	50 nos. within ML.	50 nos. inside ML area.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No mineral reject generation during 2020-21	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Limestone ROM Nil. Graded ore closing Stock of BF grade Limestone: 33272.019 tonnes	Actual was also same at that time as per mine dispatch register.	No dolomite production and dispatch is reported in 2020-21.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex- Mine Price for BF grade Limestone is reported as: Rs. 540/tonne Production Cost: Rs. 321.94/ tonne	Some of the invoices were checked during inspection.	
9h	Scrutiny of Annual return on fixed assets	Net closing balance is furnished as Rs. 1800,000/-	Net closing balance and estimated market value are mentioned in AR.	
9k	Scrutiny of Annual return on mining machineries	Shovel: 1 no. Tipper: 1 no. Compressor: 1 no. Water Tanker: 1 no.	No change.	

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 35(2)	14-JAN-22			

Date :

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines