INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT AND REGULATION DIVISION

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/427/BNG **Mine code : 30KAR03139**

(i) Name of the Inspecting Officer and ID No. : **S21) H M Shivakumar**

(ii) Designation : Assistant Mining Engineer

(iii) Accompaning mine Official with Designation : Mr Vishwajit Ghosh (GM- Mines),Mr. VVN. Raju. Geologi

(iv) Date of Inspection : 29/04/2023

(v) Prev.inspection date : 09/03/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **IYLI GURUNATHAPPA**

(b) Registration NO. : **IBM/463/2011**

(c) Category : A Fully Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : KARNATAKA
District : BELLARY
Village : RAMGAD
Taluka : SANDUR
Post office : SUSHEELANAGAR
Pin Code : 583119
FAX No. : 08394-232444
E-mail : iylimine@rmml.in, sathyapra
Phone : 08394-232002 / 232003

(f) Police Station : SANDUR

(g) First opening date : 24/02/2006

(h) Weekly day of rest : SUN

2. Address for correspondance : Shri Shrenik Baldota,ED,M/s RMMPL
Baldota enclave, AHB road,
Hospet - 583 203.

3. (a) Lease Number : KAR1567
(b) Lease area : 20.23
(c) Period of lease : 50
(d) Date of Expiry : 23/02/2026

4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : RAMGAD MINERALS & MINING(P) LTD
Baldota Enclave, Abheraj
Baldota Road Hospet BELLARY
KARNATAKA
Phone:08394-232002
FAX :08394-232333

Owner : K. Prabhudevappa,
BELLARY KARNATAKA
Phone: 08394-232002
FAX :

Agent : MEDA VENKATAIAH
RAMGAD MINERALS & MINING(P)
LTD Baldota Enclave,
Abheraj Baldota Road,
Hospet BELLARY KARNATAKA
Phone: 08394-232002
FAX : 08394-232333

Mining Engineer
Name : DEBESH GOVINDA DAS..,Full Time
Qualification :
Appointment/ Termination date : 22/07/2021

Geologist
Name : VeeraVenkata Narashima Raju,Full Time
Qualification : M.Sc-Geology
Appointment/ Termination date : 01/08/2016

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

Renewal under rule 24 MCR1960	11/12/2004
Mining Scheme rule 12 MCDR1988	17/08/2009
Mining Scheme rule 12 MCDR1988	21/02/2014
Modif.approved Mining Scheme	23/05/2016
MP modif under 17(3) MCR 2016	21/03/2018
Modif.approved Mining Scheme	20/07/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	-	-	-
1b	Exploration over lease area for geological axis 1 or 2	-	-	-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1-Nil G2- Nil G3-Nil	G1-14 Ha G2- 6.23 Ha G3-Nil	Mineralized area of 14 Ha was already Fully explored during the previous years and 6.23 Ha of Unexplored areas were explored last year. Hence balance area to be explored to bring to Geological axis in 1 and 2 is nil.
1e	Balance reserve as on 01/04/20	18.394MMT	18.51317 MMT	
1f	General remarks of inspecting officers on geology, exploration etc		The Mining Lease consists of Hematitic Iron ore band having a length of 430 m, average width 170 m and the average depth of 65m. Hematitic Siliceous Iron ore is also exposed at fringes of iron ore in the NE boundary of lease area with an average depth of 60m. Out of 20.23 Ha lease area 14 Ha is proved Mineralized and 6.23 Ha as non-mineralized.	The entire lease has been explored under G1 level of exploration as per the Geological Study report prepared in accordance with the provision of Rule 12(4) of MCDR, 2017 and submitted by the lessee vide letter No. IGIOM/GR/DMG & IBM/2022-23 dated 05/01/2023.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks

2a	Location of development w.r.t.lease area	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	Location of the developments is as per the proposals and within the lease area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Maintaining separate benches for O/B and Mineral	Separate benches are maintained for O/B and Mineral	1 bench in waste 7 benches in Mineral. Waste generated is Back-filled into the mined out pit as per the proposal.
2c	Stripping ratio or ore to OB ratio	Proposed: 1)Ore: 630000 Tons OB: 121161 Tons S/R 1:0.19	Achieved: Ore: 510830 Tons Waste: 84925 Tons S/R 1: 0.17 (Overall)	It is reported that due to the MPAP limit by CEC for the FY 2022-23, ore production of only 510,830 tons was achieved. The proposed quantity is compiled from the two approved documents for the Reporting year and Proposals reviewed for the period.
2d	Quantity of topsoil generation in m3	-	-	No top soil is proposed or generated during the reporting year.
2e	Quantity of overburden generation in m3	Proposed: 1)Ore: 630000 Tons OB: 121161 Tons S/R 1:0.19	Achieved: Ore: 510830 Tons Waste: 84925 Tons S/R 1: 0.17 (Overall)	It is reported that due to the MPAP limit by CEC for the FY 2022-23, ore production of only 510,830 tons was achieved. The proposed quantity is compiled from the two approved documents for the Reporting year and Proposals reviewed for the period.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The mine is being worked with one pit. However, they have divided it into A & B blocks. The pit is developed by forming 1 bench in over burden and 7 benches in the mineral suitable to the type of Iron Ore Reef deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit divided into A & B Blocks	Single pit divided into A & B Blocks	
3b	Quantity of ROM mineral production proposed	630,000 Tons	5,10,830 Tons	It is reported that due to MPAP limit by CEC , ore production of 5,10,830 tons was done during 2022-23
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	100% recovery was proposed and achieved.
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	<35%	-	No Mineral rejects.
3f	Quantity of sub grade mineral generation.	-	-	No sub grade Mineral generated.
3g	Grade of sub grade mineral generation	-	-	No sub grade Mineral generated.

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method adopted: (ROM produced is segregated in to saleable products of lumps (10 to 40mm) and fines (-10mm) by crushing and screening process to obtain saleable products:	As per proposal	A 250 TPH Screening plant with 40mm and 10mm decks is deployed
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA	
3j	Provision of drilling and blasting in mineral benches	After Completion of drilling operation, as per the requirement, the blasting plan will be implemented. In this process, normally slurry explosives will be filled in drilled holes and blasted by using delay detonators, card relays.	As per proposal	Controlled blasting techniques are followed to enhance safety and also to reduce ground vibrations.
3k	Provision of mining machineries in mineral benches	Excavator -2.1 Cub Meter -02 Tipper - 7nos Drilling Machine -01 no	Excavator -2.1 Cub Meter -01 Tipper - 4 nos Drilling Machine -01 no	Machinery used for Excavation.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches in Mineral &waste : 9 m Width of the benches in Mineral & Overburden: 10m.	As per proposal.	Height of the benches is suitable for method of the mining proposed.
3m	Total area covered under excavation/pits	10.71 Ha	10.71 Ha	Out of 13.21Ha excavation, 2.50 Ha is backfilled.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.16	1:0.17	Over all S/R (Ore 510830 tons and Development 84925 tons)
3o	Total area put in use under different heads at the end of year	Mining 10.71 Roads 0.28 Infrastructure (Admin building)/Workshop etc 0.35 OB/Waste dump(Back filling) 2.50 Others (Biodiversity, Green Belt, Unbroken area & Others) 3.91 Waste dump area Reclaimed (ID-1.2.3.& AD-1) 2.48 Total 20.23	Mining 10.71 Roads 0.28 Infrastructure(Admin building)/Workshop etc 0.35 OB/Waste dump(Back filling) 2.50 Others (Biodiversity, Green Belt, Unborken area & Others) 3.91 Old Waste dump area reclaimed (ID-1.2.3.& AD-1) 2.48 Total 20.23	
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 0.50 2019-20: 0.50 2020-21: 0.50 2021-22: 4.99 2022-23: 6.30 (in million tons)	2018-19: 0.50 2019-20: 0.50 2020-21: 0.50 2021-22:0.489270 2022-23: 0.510830 (in million tons)	

3q	General remarks of inspecting officers on method of mining etc.	The mine is operated by open pit mining which is fully mechanized and winning with excavator & Tipper combination which is observed to be a suitable method of mining for the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	All the waste generated is backfilled in A-Block.	As per proposal	No top soil or mineral reject generated and all the waste generated is backfilled in A-Block as per proposal.
4b	Location of topsoil, OB and mineral reject dumps	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	There is one fully stabilized old dump is present within lease area. Currently waste all the waste generated is backfilled in A-Block as per proposal
4c	Number of dumps within lease area and outside of lease area	One fully stabilized old dump is present within lease area & No dumps outside lease area.	One fully stabilized old dump is present within lease area & No dumps outside lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	E 654800 - E 655130 to N 1676315 - N 1676545 (WGS 84)	Waste generated is backfilled in A-Block as per proposal
4e	Number of active and alive dumps.	1	1	Backfilling Dump is the only active dump
4f	Number of dead dumps.	1	1	Fully stabilized dumps.

4g	Number of dumps established.	1	1	
4h	Whether Retaining wall or garland drain all along dumps are there.	As per R&R proposal	As per R&R proposal	Construction at the toe of the Back filling dump
4i	Length of Retaining wall or garland drain all along dumps	Toewall 110m length Garland drain 110m length	Toewall 110m length Garland drain 110m length	Construction at the toe of the Back filling dump (Including backlog of 50m of FY 2021-22).
4j	Number of settling ponds	-	-	Settling pond SST-1 which was constructed earlier near Toe wall-1 area is being maintained in good condition.
4k	Specific comments of inspecting officer on waste dump management			One old dead dump is fully stabilized and the active back filling (dump) is satisfactorily managed by construction of all the proposed engineering structures for its stability.

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.	Proposed for back filling in mined out area	Back filling is under progress in Mined out area of A- block as per proposal.	
5b	Area under backfilling of mined out area	2.50 Ha	2.50 Ha	As per the proposals.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	No top soil is generated during the RY.

5d	Total area fully reclaimed and rehabilitated	-	-	Backfilling and terracing work in A-block is under progress.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Backfilling of waste into mined out pit and its terracing in Ablock is under progress as proposed and not fully matured for reclamation. During the site inspection it is observed that, back filling is in progress from the Top RL along the slope of the mined out area. Owing to safety and stability issues, In the Mining Plan scrutiny, it is suggested to lessee to carry out backfilling from bottom RLs with suitable terracing and proposals of stabilizing the same by way of plantation and other means	Also advised to ensure (i) Slope angle not be more than the angle of repose of backfilling material. (ii) Effective compacting to be regularly carried out in order to avoid water percolation into the pores leading to instability of the backfilled mass. (iii) Ensure that on the terraces or at the foot portion no water gets stagnated during any point of the proposed period.

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).	June-2023	Yet to be submitted	It is reported that The Annual report on PMCP will be submitted within the due date in the month of June 2023.
6b	Area available for rehabilitation (ha) .	-	-	-
6c	afforestation done (ha).	Gap filling plantation at the rate of 500 plants/Ha	1 ha	Gap filling plantation done on Inactive old dump and green belt areas.
6d	No. of saplings planted during the year	500 Plants/Ha	1270 saplings	Gap filling plantation done on Inactive old dump and green belt areas.

6e	Cumulative no .of plants		1,74,860 saplings	Cumulative plantation so far both in inside and outside the lease area given appears to be correct.
6f	Any other method of rehabilitation	NA	NA	
6g	Cost incurred on watch and care during the year	1.00 Lakhs	1.23 Lakhs	As reported.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Backfilling is proposed in mined out area of A-Block, proposed spread out area is 3.8 Ha.	Back filling is under progress at the proposed area.	Void dimension L 206m B 185m D 60m
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	42070 Cu.m of void proposed to be backfilled with waste.	42465.5 Cu.m (84925tonnes of waste) is filled in the voids of mined out pit.	As per the proposals.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	
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	NA	NA	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	-	-	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring Proposed in core and buffer zone Core zone: 1 No Buffer zone: 4 Nos	Carried out in core and buffer zones as per proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance &progressive closure operations are satisfactorily carried out as per the proposals.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	6,30,000 tons	5,10,830 Tons	5,10,830 Tons achieved (As per the Annual production limit by CEC)
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Screening	Mechanical Screening	By deploying 250 TPH Screening plant with 40 mm and 10mm deck sizes, we are sorting the mineral into 0-10mm (Fines) and 10-40mm (Lumps) products.

7c	Different grade of mineral sorted out at mines.	Lumps 58-60 % Fe and 60-62 % Fe Fines 58-60% Fe and Fines 55-58% Fe	Lumps 58-60 % Fe and 60-62 % Fe Fines 58-60% Fe and Fines 55-58% Fe	Product grades during the Assessment period 2022-23.
7d	Any beneficiation process at mines.	No proposal	No proposal	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			The entire ore produced is suitably blended and sold thereby taking care of Mineral Conservation and beneficiation of ore does not arise.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	NA	
8b	Concurrent use or storage of topsoil	No Proposal	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste rock generated is backfilled in thedesignated backfill area of A-block	Complied	No minerals rejects produced
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling is proposed in the mined out area of A-Block	Backfilling is under progress at the proposed area	Mined out pit is being backfilled with waste as proposed with and intention to bring back the land to its original use to the extent possible.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	Mined out pit is being backfilled with waste as proposed with and intention to restore the excavated pit portion to the extent possible and is in progress.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Base line information needs to be maintained	Base line year wise plantation data available	It is reported that so far more than 1.74 lakhs plants planted both inside and outside the lease and appears to be correct.
8g	Survival rate	-	84% (Inside) 74% (Outside)	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on roads to control	Water sprinkling proposed on roads to control airborne dust	4 No.s of 8KL water tankers is deployed for the suppression of airborne dust on Haul Roads.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is good in and around the mine with the plantation carried out by the lessee as well as natural thick forest in the surroundings.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Returns submitted up to 31.03.2023 Annual Returns Under process		Submitted AR is committed to be submitted within the due date in the Month of June 2023.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	AR for the year 2022-23 is yet to be submitted.	Mining Engineer: Sri. Debesh Gobinda Das&Geologist: Sri. V.V.N. RAJU were present on the day of inspection.	AR for the year 2022-23 is yet to be submitted.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9d	Scrutiny of Annual return on afforestation	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9h	Scrutiny of Annual return on fixed assets	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.
9k	Scrutiny of Annual return on mining machineries	AR for the year 2022-23 is yet to be submitted.		AR for the year 2022-23 is yet to be submitted.

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

Date :

(**H M Shivakumar**)

Indian Bureau of Mines