

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

**Mining Plan Modification REPORT**

**Bangalore regional office**

**Mine file No :** KNT/BLR/FE-494/BNG

**Mine code :** 30KAR03185

- (i) Name of the Inspecting : 277 ) GANGADHAR BHAKAT  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Sundraraja M.V, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 16/12/2022
- (v) Prev.inspection date : 12/10/2022

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : RAMA IRON ORE MINE
- (b) **Registration NO.** : IBM/432/2011
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : KARNATAKA
- District : BELLARY
- Village : RAMGHAD
- Taluka : SANDUR
- Post office : SHUSHEELANAGAR
- Pin Code : 583152
- FAX No. : 08817199500
- E-mail : SUNIL.SINGH@JSW.IN
- Phone : 9449598135, 08395-245939
- (f) **Police Station** : SANDUR
- (g) **First opening date** : 15/01/2020
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : RAMGHAD VILLAGE, SUSHEELA NAGAR POST  
SANDUR TALUK  
BALLARI DISTRICT, KARANATAKA
3. (a) **Lease Number** : ML No.0009
- (b) **Lease area** : 32.56 Ha.
- (c) **Period of lease** : 50 Years
- (d) **Date of Expiry** : 12/12/2069
4. **Mineral worked** : IRON ORE Main

## 5. Name and Address of the

Lessee : JSW STEEL LIMITED  
 JSW Mining office, Near  
 Talur Cross Vidyanagar  
 Post, Toranagallu Sandur,  
 Bellary BELLARY KARNATAKA  
 Phone:9448286155  
 FAX :

Owner : Jayant Acharya ,Dy. Managing Director  
 JSW Mining Office, Near  
 Talur Cross Vidyanagar  
 (Post), Toranagallu, Sandur  
 Taluk,Bellary-Dist BELLARY  
 KARNATAKA  
 Phone:  
 FAX :

Agent : SUNIL KUMAR SINGH  
 JSW steel Ltd., Vijayanagar  
 works, Vidyanagar Po,  
 Bellari, Karnataka BELLARY  
 KARNATAKA  
 Phone: 9449598135  
 FAX : 08395250132/142

## Mining Engineer

Name : Karthik Gujjal,Full Time  
 Qualification : B.E(Mining)  
 Appointment/ : 22/02/2021  
 Termination date

## Geologist

Name : Karani Singh,Full Time  
 Qualification : M.Sc (Geology)  
 Appointment/ : 16/12/2019  
 Termination date

## Manager

Name : Sundra Raja MV  
 Qualification : Diploma(Mining)  
 Appointment/ : 15/06/2020  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : MP under 16(1) of MCR 2016 31/05/2017  
 MP modif under 17(3) MCR 2016 18/02/2021

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	NIL
1b	Exploration over lease area for geological axis 1 or 2	NIL	NIL	14 RC Boreholes with total depth of 673m were drilled in the year 19-20. 8 RC Boreholes of depth 410m are proposed in FY 22-23.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NIL	14 RC Boreholes were drilled by Rocktech Enterprises
1d	Balance area to be explored to bring Geological axis in 1 or 2	7.55 Ha	7.55 Ha	G1- 24.70 Ha G2- 0.31 Ha G3- 0.36 Ha G4- 7.19 Ha
1e	Balance reserve as on 01/04/20	Geological Resources- 31.02 MMT Minable Reserves- 26.00 MMT as on 01.04.22	Geological Resources- 31.02 MMT Minable Reserves-26.00 MMT as on 01.04.22	Average grade (HIO) 58.8% Fe content.
1f	General remarks of inspecting officers on geology, exploration etc			14 RC Boreholes up to 673m depth of exploration carried out during the year 2019-20.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E 657721 to E 658127 N 1671889 to N 1672430	E 657735 to E 658098 N 1671910 to N 1672420	For year 2021-22
		Section- S1-S1' to S6- S6'	Section- S1-S1' to S6-S6'	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Ore Benches-10 Waste- 7	Ore Benches-10 Waste- 7	No topsoil generated during the 2021-22.
2c	Stripping ratio or ore to OB ratio	1: 0.05 in Tonnes	1: 0.04 in Tonnes	
2d	Quantity of topsoil generation in m3	No Proposal	Nil.	No topsoil generated during the 2021-22.
2e	Quantity of overburden generation in m3	21,470 m3	17,900 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development work carried out within the proposed location.

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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit proposed for Production.	Production is carried out from 1 pit	-
3b	Quantity of ROM mineral production proposed	940,000 Tonnes	940,000 Tonnes	-
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	-
3d	Quantity of mineral reject generation	NIL	NA	-
3e	Grade of mineral rejects generation and threshold value declared.	NIL	NA	-
3f	Quantity of sub grade mineral generation.	NIL	NA	-
3g	Grade of sub grade mineral generation	NIL	NA	-

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Dry Crushing and screening 250 TPH.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such beneficiation study carried out.	-
3j	Provision of drilling and blasting in mineral benches	Provision of drilling & blasting is made in mineral benches.	Drilling & blasting carried out by combination of slurry explosive and Nonel detonator.	106 (2) (B) Permission Obtained from DGMS as per MMR 1961. Upto 40 % of the total material handled requires blasting.
3k	Provision of mining machineries in mineral benches	Machineries proposed Excavator- 5 Rock Breaker-1 Tippers - 20, Hydraulic Drill - 1 wheel loader - 5	Machineries deployed Excavator- 4 Rock Breaker- 1 Tippers - 14 Hydraulic drill - 1 wheel loader - 5	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench height maximum 8m & bench width minimum 8m.	Maintained bench height & width as per approved proposal.	-
3m	Total area covered under excavation/pits	15.36 Ha (as on 1.04.2022)	15.83 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.05 in Tonnes	1: 0.04 in Tonnes	

3o	Total area put in use under different heads at the end of year	Total area in the plan period: "Mining- 15.36 Ha "Roads -0.91 Ha "Infrastructure - 0.39 Ha "Waste Dumps-0.45 Ha "Green Belt - 2.28 Ha "R & R structures - 0.11 Ha "Mineral Storage- 2.19 Ha "Others - 10.62 Ha	Total area as of " Mining- 15.83 Ha " Roads - 0.91 Ha " Infrastructure - 0.39 Ha "Waste Dumps-0.45 Ha "Green Belt - 2.28 Ha "R & R structures - 0.11 Ha "Mineral Storage- 2.17 Ha "Others - 10.42 Ha	-
3p	Production of ROM mineral during the last five year period as applicable	"2019-20: 940,000 "2020-21: 940,000 "2021-22: 940,000 ( in tonnes)	"2019-20: 595,094.6 "2020-21: 939,800.0 "2021-22: 940,000.0 (in tonnes)	Mine operations started in 2019-20.
3q	General remarks of inspecting officers on method of mining etc.			Mining operation carried out by deploying excavator & tipper combination with dip hole blasting.

## 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 overburden is proposed.	Separate dumping of overburden is being carried out.	-
4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposed location: E 657638 to E 657709 N 1672880 to N 1672973	OB Dump location: E 657609 to E 657693 N 1672830 to N 1672960	-

4c	Number of dumps within lease area and outside of lease area	1 Active Dump (WML)	1 Active Dump (WML)	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Parts of active dump are within UPL.	Parts of active dump are within UPL.	-
4e	Number of active and alive dumps.	Active dump-1	Active dump-1	-
4f	Number of dead dumps.	NIL	NA	-
4g	Number of dumps established.	NIL	NA	-
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal.	Nil.	Lessee has constructed R& R structures as per Approved R&R Plan.
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Nil.	List of R& R structures constructed before commencement: Retaining wall: TW1: 340m TW2: 100m Garland Drain: GD1:447m GD2: 110m.
4j	Number of settling ponds	No proposal.	NIL	SST-1 has been constructed before commencement.
4k	Specific comments of inspecting officer on waste dump management			Lessee has constructed all R& R structures before commencement of mining operations.

#### 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	No area is completely mined out during this plan period.

5b	Area under backfilling of mined out area	No proposal.	NIL	No area is completely mined out during this plan period.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal.	NIL	No Topsoil Generation.
5d	Total area fully reclaimed and rehabilitated	No proposal.	NIL	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Mineral has not exhausted from the pit.

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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.	PMCP Report for Year 2021-22 is submitted on 28.06.22.	-
6b	Area available for rehabilitation (ha) .	No proposal.	NA	-
6c	afforestation done (ha).	Proposed in Safety Zone- 0.62 Ha	Achieved 0.406 Ha	Safety Zone is completely covered in vegetation; hence plantation along Haulage Road and Magazine area has been carried out.
6d	No. of saplings planted during the year	Proposed 100 Nos of sapling.	Carried out 816 Nos.	Safety Zone is completely covered in vegetation; hence plantation along Haulage Road and Magazine area has been carried out.

6e	Cumulative no .of plants	-	981 Nos.	In year 2019-20, 500 Nos. of saplings were planted outside lease area.
6f	Any other method of rehabilitation	No proposal.	Engineering Measures for Surface Water and Dump Management as per Approved R&R Plan have been implemented.	Engineering Measures for Surface Water and Dump Management as per Approved R&R Plan have been implemented.
6g	Cost incurred on watch and care during the year	No proposal.	Cost of Plantation inside the lease area- 1.42 Lacs.	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal.	NIL	No area is completely mined out in this plan period.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	NIL	No area is completely mined out in this plan period.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal.	NIL	No area is completely mined out in this plan period.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	NIL	No area is completely mined out in this plan period.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal.	NIL	No area is completely mined out in this plan period.

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal.	NIL	-
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal.	NIL	-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal.	NIL	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular Environmental Monitoring of Core and Buffer zone proposed.	Environmental Monitoring of Core and Buffer zone carried out by M/s Ecomen Laboratories.	All the environmental monitoring parameters were observed to be within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Pit has not matured for backfilling.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within lease area.	Grade wise sorting is done within lease area.	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposed mechanical method for grade wise shorting of mineral.	Mechanical method adopted for grade-wise shorting of mineral.	Dry Crushing and Screening Method Plant Capacity- 250 TPH.
7c	Different grade of mineral sorted out at mines.	Yes	58%>Fe?55% 60%>Fe?58% 62%>Fe?60%	-

7d	Any beneficiation process at mines	No Proposal	nil	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Dry screening and crushing is being carried out for grade-wise shorting of mineral.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	No Topsoil generated during the year 2021-22.	Working already broken up area..
8b	Concurrent use or storage of topsoil	No proposal.	NA	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden is proposed.	Separate dumping of overburden is being carried out.	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	NA	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	NA	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Safety Zone is completely covered in Vegetation. Proposed plantation in Safety Zone- 100 Nos.	Plantation along Haulage Road and Magazine area has been carried out. Achieved plantation in 2021-22- 816 Nos.	-

8g	Survival rate	Not Specified.	95%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road is proposed to control airborne dust.	Water tankers have been deployed for sprinkling on roads to control airborne dust.	No. of Water Tankers:4 Capacity:10000 Liter
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty observed in and around the mine office.

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#### 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 November, 2022: Submitted on 08.12.2022  A.R. Submitted up to FY 2021-22: Submitted on 28.06.2022		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Karthik Gujjal Geologist- Karani Singh Shekhawat Manager- Sundra Raja M V	Appear to be correct.	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Working: 15.30 Ha Waste Dump: 0.45 Ha Infrastructure : 1.30 Ha Others: 15.51 Ha Total Area: 32.56 Ha	Appear to be correct.	-

9d	Scrutiny of Annual return on afforestation	Plantation Within the Mining Lease - 816 nos. Survival Rate: 95%	Gap filling avenue plantation.	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral Reject Generation.	Appear to be correct.	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock- 0.01 T Production: 9,40,000.00 T Closing Stock- 0.05 T		-
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price & Cost of production: Lumps 58%>Fe?55% - 1008.0 ?/T 60%>Fe?58%- 1008.0 ?/T 62%>Fe?60%- 1008.0 ?/T Fines 58%>Fe?55%- 1008.0 ?/T 60%>Fe?58%- 1008.0 ?/T	Used for Captive consumption.	-
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs. 489360995.0 Depreciation on Fixed Assets: Rs. 40058873.0	Appear to be correct.	-

9k	Scrutiny of Annual return on mining machineries	Air Compressor-1 Back Hoe - 1 Crusher-2 Dozer- 1 Motor Grader-1 Rock Drill- 1 Tipper-14 Water Tanker (10 kl)-4 Wheel Loader- 4 Shovel- 5 Jeep/Tractor- 3 Generator -4 Explosive Van- 1 Water Tanker (1.5 kl)-1	Appear to be correct.	-
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**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

**Date :**

**(GANGADHAR BHAKAT)**

Indian Bureau of Mines