

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

**MCDR inspection REPORT**

**Bangalore regional office**

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

**Mine code :** 30KAR03185

- (i) Name of the Inspecting : **S006** ) **SURESH PRASAD**  
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Sundraraja M.V, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 12/10/2022
- (v) Prev.inspection date : 20/09/2021

**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** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
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 : DR. VINOD NOWAL  
 DY.MANAGING DIRECTOR, M/S  
 JSW STEEL LIMITED, NANDI  
 IRON ORE MINE, BELLARY  
 BELLARY KARNATAKA  
 Phone: 9448286155  
 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	-
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	Geological Resources of 32.45 MMT and Minable Reserves of 27.43 MMT was reported as on 12.11.20 as per the Modification to the Approved Mining Plan)
1f	General remarks of inspecting officers on geology, exploration etc			14 RC boreholes were drilled in 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  Section- S1-S1' to S6- S6'	E 657735 to E 658098 N 1671910 to N 1672420  Section- S1-S1' to S6-S6'	For year 2021-22

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Ore Benches-10 Waste- 7	Ore Benches-10 Waste- 7	No Topsoil Generation
2c	Stripping ratio or ore to OB ratio	1: 0.05 in Tonnes	1: 0.04 in Tonnes	As per field geology
2d	Quantity of topsoil generation in m3	No Proposal	No Top Soil Generation	No Topsoil Generation
2e	Quantity of overburden generation in m3	21,470 m3	17,900 m3	As per field geology
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of pit is observed as per the approved proposal.

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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 and Nonel detonator.	106 (2) (B) Permission Obtained from DGMS as per MMR 1961. Around 40 % of the total material handled requires blasting.
3k	Provision of mining machineries in mineral benches	Provision of mining machineries made 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	Bench width- 8m Bench Height- 8m	Bench width- 8m Bench Height-8m	-
3m	Total area covered under excavation/pits	15.36 Ha (as per the approved mining Plan for Plan Period)	15.30 Ha (as on 01.04.22)	-
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.05 in Tonnes	1: 0.04 in Tonnes	As per field geology

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- 0.70 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 01.04.2022: " Mining- 15.30 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 - 10.95 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 is proposed to be carried out and carrying by deploying tipper and excavator combination with dip holes blasting.

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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 Proposal: 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	1 Active Dump	-
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.	Proposed in Approved R&R Plan	Constructed as per field Conditions	-
4i	Length of Retaining wall or garland drain all along dumps	Nil	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	Nil	Nil	SST-1 has been constructed before commencement
4k	Specific comments of inspecting officer on waste dump management			The contents found to be satisfactory.

#### 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.	NIL	NA	No area is completely mined out during this plan period.
5b	Area under backfilling of mined out area	NIL	NA	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)	NIL	NA	No Topsoil Generation
5d	Total area fully reclaimed and rehabilitated	NIL	NA	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area has been demineralized therefore, backfilling is not envisaged.

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).	Submission of Annual report on PMCP under rule 23E (2).	Annual PMCP Report for Year 2021-22 is submitted to IBM Office on 28.06.22	-
6b	Area available for rehabilitation (ha) .	NIL	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 in Safety Zone- 100	Achieved in lease area - 816	
6e	Cumulative no .of plants	-	981	In year 2019-20, 500 saplings were planted outside lease area.
6f	Any other method of rehabilitation	Implementation of Engineering Measures for Surface Water and Dump Management as per Approved R&R Plan.	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	Not Specified	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	Nil	NA	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	NA	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Nil	NA	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	NA	-
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Nil	NA	-
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Nil	NA	-
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Nil	NA	-

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	NA	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular Environmental Monitoring of Core and Buffer zone is proposed.	Environmental Monitoring of Core and Buffer zone is being carried out on regular basis.	Monitoring Agency- Ecomen Laboratories Parameters which are being Monitored: " Ambient Air Quality " Ambient Noise " Surface Water Quality " Dust Fall Measurement " Noise Monitoring (Personal Exposure) " Stack Monitoring " Personal Dust Monitoring " Fugitive Dust Monitoring " Ground Water Quality
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			As pit is not matured for backfilling and R&R. The PMCP and their operation are basically concentrated on green belt development and monitoring of environmental parameters

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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.	Mechanical	Mechanical	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	No beneficiation process in mines	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Dry screening and crushing is being carried out to get the desired output grade/size of the minerals.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Topsoil Generation.	No Topsoil generated during operations.	Proposed Working Area is already broken.
8b	Concurrent use or storage of topsoil	Nil	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	Nil	NA	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	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	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			Good aesthetic beauty observed in and around the mine office premises.

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Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to September 2022: Submitted on 08.10.22  A.R. Submitted up to FY 21-22 Submitted on 28.06.22	Submitted as per the provision.	
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	Information as verified in field.
9d	Scrutiny of Annual return on afforestation	Plantation Within 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	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	Material is being use for captive consumption of plant.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: ?. 489360995.0 Depreciation on Fixed Assets: ?. 40058873.0	In order.

9k	Scrutiny of Annual return on mining machineries	Air Compressor-1 Back Hoe Loader- 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	Air Compressor-1 Back Hoe Loader- 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
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**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 :****(SURESH PRASAD)**

Indian Bureau of Mines