

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/497/BNG

Mine code : 30KAR03189

- (i) Name of the Inspecting : **S011**) **K.SRINIVAS**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Shir Vallibasha Sab, Mine Manager, Shri Natraj, Geolog
Official with
Designation
- (iv) Date of Inspection : 28-DEC-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DHARMA 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 : SUSHEELANAGARA
Pin Code :
FAX No. :
E-mail : sunil.singh@jsw.in
Phone : 9449598135
- (f) Police Station : Sandur
- (g) First opening date : 25-SEP-20
- (h) Weekly day of rest : SUN
2. Address for : Ramghad Village, Susheelanagar Post
correspondance Sandur, Bellary
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

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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10RC boreholes with 980m meterage for the year 2020-21	In Form-I, 15RC and 7 core boreholes proposed. Drilling is under progress at the time of inspection.	The date of commencement of drilling is 11.7.2022. ML executed on 30.07.2020.
1b	Exploration over lease area for geological axis 1 or 2	No proposals	Nil	No proposal for the year 2021-22.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	No proposal for the year 2021-22.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	G-1- 11.29 Ha G-2- 0.23 Ha G-3- 3.86 Ha	Mineralised Area- 15.38ha Non mineralized Area-24.20ha
1e	Balance reserve as on 01/04/20	-	-	Reserves of Iron ore as on 1.4.2022: 15416505t
1f	General remarks of inspecting officers on geology, exploration etc	-	-	There are no proposals for exploration for the year 2021-22. The proposed exploratory drilling of the previous year 2020-21 is in progress.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Section A1-A1' to D- D'	The development carried out as proposed.	Further, it is noticed during the inspection that five benches developed in the Southeastern part of the ML area without approved proposal. Violation pointed out.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil benches proposed and separate benches for Mineral and OB proposed.	No top soil benches and separate benches for Mineral and OB maintained.	-
2c	Stripping ratio or ore to OB ratio	1: 0.50 (in tonnes)	1: 0.41(in tonnes)	Iron ore : Ore:179928t Waste: 73908t
2d	Quantity of topsoil generation in m3	No proposal	nil	-
2e	Quantity of overburden generation in m3	44711m3	36954m3	Iron ore : Ore:179928t Waste: 73908 t
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	It is noticed that five benches developed in the Southeastern part of the ML area without approved proposal. Violation has been pointed out.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1Pit	One pit	-
3b	Quantity of ROM mineral production proposed	179928t	179928t	-
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	No proposal	nil	-
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	nil	-

3f	Quantity of sub grade mineral generation.	No proposal	nil	-
3g	Grade of sub grade mineral generation	No proposal	nil	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method for segregation	Mechanised method for segregation	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 and Blasting is proposed for mineral benches.	Drilling and Blasting has been carried out for production purpose.	106(2)(B) Permission obtained from DGMS as per MMR, 1961.
3k	Provision of mining machineries in mineral benches	Mining Machineries proposed- Excavators- 1 Tippers- 5 Drill-1 Back hoe Loaders -1 Front end loader-1 Water tanker-2 Crusher-1	Machinery deployed: Excavators- 3 Tippers- 5 Drill-1 Back hoe Loaders -1 Front end loader-3 Water tanker-2 Crusher-1	106(2)(B) Permission obtained from DGMS as per MMR, 1961.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height- 7m Bench Width- 8m	Bench Height- 7m Bench Width- 8m	-
3m	Total area covered under excavation/pits	20.62 Ha (At the end of the plan period)	20.62Ha	-
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.50 (in tonnes)	1: 0.41(in tonnes)	Iron ore : Ore:179928t Waste: 73908 t

3o	Total area put in use under different heads at the end of year	Mine Working- 20.62 Ha Dumping - 12.77ha Roads -2.35ha Infrastructure -1.33 Mineral storage- 2.62 Ha Others-3.89H (At the end of the plan period)	Mine Working- 20.62 Ha Dumping -12.77ha Roads -2.35ha Infrastructure-1.33 Mineral storage- 1.44 Ha Others-5.07H	-
3p	Production of ROM mineral during the last five year period as applicable	2020-21:179928t 2021-22 : 179928t	2020-21:179928t 2021-22 : 179928t	Mine operation started in 2020-21(25.9.2020)
3q	General remarks of inspecting officers on method of mining etc.	-	-	There is no change in method of mining.

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 carried out.	-
4b	Location of topsoil, OB and mineral reject dumps	OB dump proposed in AD2 (Northwestern part of mining lease area).	Overburden Dumping carried out in AD2 (Northwestern part of mining lease area).	-
4c	Number of dumps within lease area and outside of lease area	Within Lease Area- 7 Outside lease- NIL	Within Lease Area- 7 Outside lease- NIL	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	A part of ID4 comes under UPL as per AMP.	A part of ID4 comes under UPL as per AMP.	-
4e	Number of active and alive dumps.	2(AD1 and AD2)	2(AD1 and AD2)	-
4f	Number of dead dumps.	5	5	-

4g	Number of dumps established.	Nil	Nil	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & Garland drain maintenance proposed.	Retaining wall & Garland drain are being maintained.	-
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall & Garland drain maintenance proposed.	Retaining wall & Garland drain are being maintained.	-
4j	Number of settling ponds	No proposal	nil	-
4k	Specific comments of inspecting officer on waste dump management	-	-	There are no specific comments on waste dump management.

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	-
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.	-	-	No backfilling proposals for the year 2021-22.

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 under rule 26(2) of MCDR, 2017 before 1st July of every year.	Submitted on 30.6.22	Mine started on 25.09.2020.
6b	Area available for rehabilitation (ha) .	0.516Ha	1.82ha	-
6c	afforestation done (ha).	0.516Ha	1.82ha 7090 saplings within the lease area.	-
6d	No. of saplings planted during the year	1290 saplings within the lease area.	7090 saplings within the lease area.	ID1, ID2 and AD2 and Avenue Plantation near main haulage road.
6e	Cumulative no .of plants	2580saplings	7090 saplings within the lease area.	-
6f	Any other method of rehabilitation	No proposal	nil	-
6g	Cost incurred on watch and care during the year	No proposal	nil	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	nil	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	nil	-

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	nil	-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	nil	-
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)	Environment monitoring is proposed for Core and Buffer Zone.	Environment monitoring is being carried out monthly in Core and Buffer Zone.	All the environmental parameters observed to be within the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	There are no specific proposals for the year 2021-22 in PMCP.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

7a	ROM Mineral dispatch or grade-wise sorting within lease area	size wise sorting is proposed within lease area.	size wise sorting is done within lease area.	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Sorting	Mechanical Sorting	Dry Crushing & Screening
7c	Different grade of mineral sorted out at mines.	Grade wise sorting is proposed.	Grade wise sorting is done in lease area.	-
7d	Any beneficiation process at mines	No proposal	nil	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	There are no specific comments on Mineral Conservation and beneficiation issues.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	nil	No top soil generated. Most of the area is broken up.
8b	Concurrent use or storage of topsoil	No proposal	nil	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for Overburden proposed.	Separate dumping of Overburden carried out.	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	nil	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	nil	-
8g	Survival rate	80%	80%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to control airborne dust.	Water tankers are deployed to control the airborne dust on haul roads and screening plant.	2 nos. of water tanker each of 8000 liters capacity.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	There is no change in aesthetic beauty in and around mines.

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 November, 2022 on 09.12.2022 A.R for the year 2021-22 submitted on 30.6.2022.	-	Mine Started on 25.09.2020.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manjunath, Mining Engineeer Som Nath Biswas, Geologist Vallibashasab, Manager	Appears to be correct.	-

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mine Working- 20.62 Ha Dumping - 12.77ha Roads -2.35ha Infrastructure -1.33 Mineral storage- 1.44 Ha Others-5.07H	Appears to be correct.	-
9d	Scrutiny of Annual return on afforestation	7090saplings within the ML with 80% survival rate.	Appears to be correct.	-
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Appears to be correct	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	O/S -5782 Production of Iron ore - 179928t C/S -0.000 t	Appears to be correct	-
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production-Rs 1038/tonne. Av. Ex- mine price - Rs 3845.41/tonne	Appears to be correct.	-
9h	Scrutiny of Annual return on fixed assets	Fixed Assets- Rs182372006/-	Appears to be correct	-
9k	Scrutiny of Annual return on mining machineries	Machinery deployed: Excavators- 3 Tippers- 5 Drill-1 Back hoe Loaders -1 Front end loader-3 Water tanker-2 Crusher-1	Appears to be correct	-

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)	13-FEB-23			
MCDR17	Rule 31(4)	13-FEB-23			

Date :

(K.SRINIVAS)

Indian Bureau of Mines