

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

I/20172/2023

**MCDR inspection REPORT
Bangalore regional office**

Mine file No : KNT/BLR/FE/490/BNG

Mine code : 30KAR03181

- (i) Name of the Inspecting : **S19**) **SANDEEP KUMAR SINGH**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Mr. Anurag Mishra, AVP (Mines), Mr. Chitranjan Kumar (
Official with
Designation
- (iv) Date of Inspection : 16-JUN-23
- (v) Prev.inspection date : 21-OCT-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **TUNGA IRON ORE MINES**
- (b) **Registration NO.** : **IBM/432/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : KARNATAKA
District : BELLARY
Village : HITTANAHALLI
Taluka : SANDUR
Post office : TARANAGAR
Pin Code : 583275
FAX No. : 02242863000, 02242861000
E-mail : sunil.singh@jsw
Phone : 9448286155, 08395-245956
- (f) Police Station : BANNIHATTI
- (g) First opening date : 25-JAN-18
- (h) Weekly day of rest : SUN
2. Address for : ITTANAHALLI VILLAGE, TARANAGAR
correspondance : SANDUR TALUK, BALLARI DISTRICT- 583119
3. (a) Lease Number : **ML No. 0004**
- (b) Lease area : **32.68 Ha**
- (c) Period of lease : **50 Years**
- (d) Date of Expiry : **16.01.2068**
4. Mineral worked : IRON ORE Main

I/20172/2023

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 : T. Varaprasad,Full Time
 Qualification : B. E.(Mining)
 Appointment/ : 11-SEP-22
 Termination date

Geologist

Name : RAGHAVENDRA S DESAI,Full Time
 Qualification : M.Sc, APPLIED GEOLOGY
 Appointment/ : 16-JAN-18
 Termination date

Manager

Name : CHITRANJAN KUMAR
 Qualification : FCC
 Appointment/ : 15-APR-22
 Termination date

6. Date of approval of Mining	:	MP under 16(1) of MCR 2016	17-FEB-17
Plan/Scheme of Mining	:	MP review under 17(1) MCR 2016	09-FEB-22
	:	Modif.approved Mining Scheme	09-FEB-22
	:	MP review under 17(1) MCR 2016	09-FEB-22

I/20172/2023

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	11 Nos of exploratory boreholes proposed with total meterage of 550 Metres.	12 Nos of exploratory boreholes drilled with total meterage of 490 Metres.	It is observed during inspection that the geological plan and sections were not updated incorporating details of the recent drilled 12 nos exploratory boreholes for the year 2022-23. Violation issued under Rule 32 of MCDR 2017.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned	Rs. 41,11,568 /- expenditure incurred for exploration.	Expenditure as reported by Lessee during inspection.
1d	Balance area to be explored to bring Geological axis in 1 or 2	G-1- 16.40 ha Non mineralized area-16.28 ha	G-1- 16.40 ha Non mineralized area- 16.28 ha	. It is observed during inspection that the geological plan and sections were not updated incorporating details of the recent drilled 12 nos exploratory boreholes for the year 2022-23. Violation issued under Rule 32 of MCDR 2017

I/20172/2023

1e	Balance reserve as on 01/04/20	4,413,526 tonnes of iron ore as on 1.12.2021(3,4 45,674 tons of iron ore with avg Fe grade 57.92 % & 967,582 tons with avg Fe grade 38.46 %. (As per the approved document)	4,108,759 tons of iron ore as on 1.04.2023.	As reported by Lessee during inspection.
1f	General remarks of inspecting officers on geology, exploration etc			It is observed during inspection that the geological plan and sections were not updated incorporating details of the recent drilled 12 nos exploratory boreholes for the year 2022-23. Violation issued under Rule 32 of MCDR 2017.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E675257 to 675429 N1670515 to 1670871 Pit-1-(894-874 mRL), Sec-S-4 to S-12]	The vertical extent(mRL) for pit 1 have been developed till 867 mRL at Sec S-6-6' to S-11-11' for the year 2022-23. which is beyond the proposed maximum vertical limit of 874 m RL.	Violation issued under Rule 11(1) of MCDR 2017.

1/20172/2023

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	3 benches in OB and 4 benches in mineral	3 benches in OB and 4 benches in mineral	NIL
2c	Stripping ratio or ore to OB ratio	1:0.17 (In Tonnes) Proposed	1:0.19 (In Tonnes) achieved	ROM-3,00,000 tons OB- 57,690 tons~28,845 Cum.
2d	Quantity of topsoil generation in m3	No proposal	NIL	NIL
2e	Quantity of overburden generation in m3	25,250Cum OB generation proposed.	28,845 Cum OB generated.	More OB generation due to localized inter-burden layer occurrence/handling as reported by the Lessee during inspection.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The vertical extent (mRL) for pit 1 have been developed till 867 mRL at Sec S-6-6' to S-11-11' for the year 2022-23 which is beyond the proposed maximum vertical limit of 874 mRL. Violation issued under Rule 11(1) of MCDR 2017.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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1/20172/2023

3a	Number of pit proposed for production	01 pit (Pit-1) proposed for production.	01 pit (Pit-1).The vertical extent (mRL) for pit 1 have been developed till 867 mRL at Sec S-6-6' to S-11-11' for the year 2022-23 which is beyond the proposed maximum vertical limit of 874 mRL. Violation issued under Rule 11(1) of MCDR 2017.	Violation issued under Rule 11(1) of MCDR 2017.
3b	Quantity of ROM mineral production proposed	3,00,000 tons of ROM proposed	3,00,000 tons of ROM production achieved	NIL
3c	Recovery of sailable/usable mineral from ROM production	100 % proposed	100% achieved	NIL
3d	Quantity of mineral reject generation	No proposal	NIL	NIL
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	NIL	NIL
3f	Quantity of sub grade mineral generation.	No proposal	NIL	NIL
3g	Grade of sub grade mineral generation	No proposal	NIL	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Only Crushing & Screening proposed	Crushing & Screening carried out within the Lease area	Crusher & Screen-250 TPH capacity. O/p Size 0 - 10 mm (Fines) 10-40 mm (Lumps)
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NIL	NIL

1/20172/2023

3j	Provision of drilling and blasting in mineral benches	Deep hole Drilling and Blasting is proposed for mineral benches.	Deep hole Drilling and Blasting is being carried out for production purpose. Drilling is done with drill of 102 mm dia. and slurry explosive used in conjunction with delay detonators.	Drill-102 mm dia. Explosive-Slurry Explosive.
3k	Provision of mining machineries in mineral benches	Mining Machineries proposed.	Excavators-1.6 Cum-3 nos. Front End Loader- 2.6 Cum-2 nos. Tippers-14 Cum-7 nos. Drill-102 mm-1 no. Water tanker-10 KL-2 nos.	As reported by the Lessee during inspection.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench Height- 8m for both OB & Mineral.	Bench Height- 8m maintained for both OB & mineral.	NIL
3m	Total area covered under excavation/pits	7.23 Ha as on 01.04.2023	7.07 Ha as on 1.04.2023	As reported by the Lessee during inspection.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.17 (In Tonnes) Proposed	1:0.19 (In Tonnes) achieved	ROM-3,00,000 tons OB- 57,690 tons~28,845 Cum.
3o	Total area put in use under different heads at the end of year	Mining- 7.23 Ha O/B Dumps- 10.25 Ha	Mining- 7.07 Ha O/B Dumps- 10.00 Ha	As reported by the Lessee during inspection

I/20172/2023

3p Production of ROM mineral during the last five year period as applicable

2018-19:	2018-19: 299993	
300000	2019-20: 299997	
2019-20:	2020-21: 299700	
300000	2021-22: 299785	
2020-21:	2022-23 :300000	
300000	(in tonnes)	
2021-22:		
300000		
2022-23:		
300000		
(in tonnes)		

CEC limit:
3,00,000 MTPA.

3q General remarks of inspecting officers on method of mining etc.

The vertical extent (mRL) for pit 1 have been developed till 867 mRL at Sec S-6-6' to S-11-11' for the year 2022-23 which is beyond the proposed maximum vertical limit of 874 mRL. Violation issued under Rule 11(1) of MCDR 2017.

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 (AD dump)	It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.

I/20172/2023

4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposal: E 675730 to W 675844 N 1670480 to S 1670570	It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
4c	Number of dumps within lease area and outside of lease area	Within Lease Area- 2 Proposed Dump- 1(AD) Inactive Dump- 1 (ID-4)	Within Lease Area- 2 Proposed Dump-1(AD) Inactive Dump-1 (ID-4)	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed Dump (AD)- Outside Ultimate Pit Limit. Parts of Inactive Dump (ID-4) lie inside the UPL.	Proposed Dump (AD)- Outside Ultimate Pit Limit. Parts of Inactive Dump (ID-4) lie inside the UPL.	As per the current exploration data.
4e	Number of active and alive dumps.	Active Dump- 1(AD)	Active Dump -1(AD). It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
4f	Number of dead dumps.	Inactive Dump -1(ID-4)	Inactive Dump -1(ID-4)	NIL
4g	Number of dumps established.	No proposal	NIL	NIL

I/20172/2023

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	NIL	NIL
4i	Length of Retaining wall or garland drain all along dumps	No proposal	NIL	NIL
4j	Number of settling ponds	No proposal	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management			It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.

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	NIL
5b	Area under backfilling of mined out area	No proposal	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	NIL	NIL

1/20172/2023

5d	Total area fully reclaimed and rehabilitated	No proposal	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling proposals.

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 before 1st of July Every year.	Annual PMCP report for the year 2022-23, yet to be submitted on the date of inspection.	NIL
6b	Area available for rehabilitation (ha) .	0.20 ha afforestation in Greenbelt proposed	1.49 ha afforestation carried out in green belt, Dump area, Gap plantation etc.	As reported by Lessee during inspection.
6c	afforestation done (ha).	0.20 ha afforestation in Greenbelt proposed	1.49 ha afforestation carried out in green belt, Dump area, Gap plantation etc.	As reported by Lessee during inspection.
6d	No. of saplings planted during the year	500 nos. of saplings plantation proposed	4230 nos. of saplings plantation carried out.	555 -Green belt area, 530 -Gap areaalong the R&R structure 3145 -Dump area
6e	Cumulative no .of plants	2200 nos. of plants cumulative.	7730 nos. of plants cumulative within lease as on 1.04.2023.	As reported by Lessee during inspection.
6f	Any other method of rehabilitation	No proposal	NIL	NIL
6g	Cost incurred on watch and care during the year	Rs. 87,500 proposed for plantation during year 2022-23	As per proposal.	NIL

I/20172/2023

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	NIL	NIL

I/20172/2023

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	NIL	NIL
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. Environmental monitoring report of March-23 available. All parameters within limit.	Parameters which are being Monitored: (Air, Noise, Surface water quality, Ground water & Dust)
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The PMCP proposals implemented inside the mine as per the proposal.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Only Dry crushing and screening proposed	Dry Crushing & Screening carried out.	Crushing & Screening plant of 250 TPH. Output size= 10-40 mm (Lumps) & 0-10 mm(fines)
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Only Dry crushing and screening proposed	Fines Fe 51-55% Fe 55-58% Lumps Fe 51-55%	As reported by the Lessee during inspection.
7c	Different grade of mineral sorted out at mines.	Only Dry crushing and screening proposed	Fines Fe 51-55% Fe 55-58% Lumps Fe 51-55%	As reported by the Lessee during inspection.
7d	Any beneficiation process at mines	No proposal	NIL	NIL

I/20172/2023

7e General remarks of inspecting officer on Mineral conservation and beneficiation issues

No specific comments.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Topsoil Generation proposal	NIL	NIL
8b	Concurrent use or storage of topsoil	No proposal	NIL	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden is proposed (AD)	It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	NIL	NIL

I/20172/2023

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2200 nos. of plants cumulative.	7730 nos. of plants cumulative within lease as on 1.04.2023.	As reported by the Lessee during inspection.
8g	Survival rate	85-90% proposed within lease area.	90% achieved within lease area	As reported by the Lessee during inspection.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads are proposed to control airborne dust.	Water tankers have been deployed for sprinkling on roads to control airborne dust.	No. of Water Tankers:2 Capacity: 10 KL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			It is observed during inspection that waste dumping for proposed waste dump (AD) has been carried out between Section S5-5' & S6-6' (N-1670692, E-675700) for the year 2022-23 which is not the earmarked location for waste dumping as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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I/20172/2023

9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to: May-2023 Submitted on: 09.06.2023 ***** A.R. for the year 2022-23 yet to be submitted on date of inspection.	M.R. Submitted up to: May-2023 Submitted on: 09.06.2023 ***** A.R. for the year 2022-23 yet to be submitted on date of inspection.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection	NIL
9d	Scrutiny of Annual return on afforestation	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	AR 2022-23 yet to be submitted on date of inspection	NIL	NIL

I/20172/2023

9h	Scrutiny of Annual return on fixed assets	AR 2022-23 yet to be submitted on date of inspection	NIL
9k	Scrutiny of Annual return on mining machineries	AR 2022-23 yet to be submitted on date of inspection	AR 2022-23 yet to be submitted on date of inspection

I/20172/2023

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
MCDR17	Rule 11(1)	04-JUL-23	17-AUG-23			
MCDR17	Rule 32(1) (ε	04-JUL-23	17-AUG-23			

Date :**(SANDEEP KUMAR SINGH)**

Indian Bureau of Mines