

MCDR-MIFLOFE/12/2023-BBS-IBM\_RO\_BBS  
INDIAN BUREAU OF MINES  
MINERALS DEVELOPMENT AND REGULATION DIVISION

I/9092/2023

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-29/BBS

Mine code : 30ORI13069

- (i) Name of the Inspecting : **RKD** ) **RAJESH KUMAR DAS**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Nikhil Ranjan Behuria, Mine Manager  
Official with  
Designation
- (iv) Date of Inspection : 27-APR-23
- (v) Prev.inspection date : 23-JAN-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GONUA IRON ORE BLOCK**
- (b) **Registration NO.** : **432**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ORISSA**
- District : **SUNDARGARH**
- Village : **Gonua**
- Taluka : **Koira**
- Post office : **Koira**
- Pin Code : **770048**
- FAX No. :
- E-mail :
- Phone :
- (f) **Police Station** :
- (g) **First opening date** : **04-JAN-20**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** :
- correspondance**
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : **IRON ORE** Main

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## 5. Name and Address of the

Lessee : M/S JSW STEEL LTD  
KEONJHAR ORISSA  
Phone:  
FAX :

Owner : JSW Steel Ltd.  
Plot no.-200, Forest Park  
Bhubaneswar BHUBNESHWAR  
ORISSA  
Phone: 9437145415  
FAX : 02242863000

Agent : SHRI B.R.K. PADHI  
AT-DORAGUDA PO-KUCHEIPADAR  
DIST- RAYAGADA RAYGADA  
ORISSA  
Phone: 06865-287100  
FAX : 06865-287040

6. Date of approval of Mining	:	MP under 16(1) of MCR 2016	05-NOV-20
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	22-FEB-22

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2022-23 total 14 bore holes of 1400 meter proposed.	Actual exploration of 10 bore holes of 460.95 meter done.	
1b	Exploration over lease area for geological axis 1 or 2	In 2022-23 total 14 bore holes of 1400 meter proposed.	Actual exploration of 10 bore holes of 460.95 meter done.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned specifically	JSW Steel Limited and 120.83 la	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Broadly the total lease area explored in G2	Already by ex-lessee area covered under G2	The lease was working lease and expired in 2020 and thereafter auction in 2020.
1e	Balance reserve as on 01/04/20		122: 97072730 tons,222: 15650904 Tons	As on 01.04.2023
1f	General remarks of inspecting officers on geology, exploration etc			The Gonua block is a part of Bonai-Kendujhar belt falling in Sundergarh district.Gonua region is observed with the lith-members including lower shale,banded iron formation,laterite ,soil and alluvium. The lease area is broadly explored under G2 category.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Gonua-E331770 to E332220 and N2424878 to N2425283 Patabeda - E331968 to 332122 and N2425730 to 2425850	The development is done in Gonua pit only within proposed area.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top Soil - Nil Separate benches in overburden & mineral proposed.	Broadly as per proposal.	
2c	Stripping ratio or ore to OB ratio	1:0.21	1:0.19	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	207321 m3	33565 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The type of deposit is not regular and development is very less w.r.t. proposal.

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	two pit proposed(Gonua pit & Patabeda Quarry)	Actual work done in one pit(Gonua Quarry).	
3b	Quantity of ROM mineral production proposed	2000000 Tonnes	340542 Tonnes	

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3c	Recovery of sailable/usable mineral from ROM production	1700000 Tonnes	299792 Tonnes reported
3d	Quantity of mineral reject generation	300000 Tonnes	40750 Tonnes
3e	Grade of mineral rejects generation and threshold value declared.	MR :45-55% Fe Threshold value- 45% Fe	MR: 50.65% Fe Threshold value- 45% Fe
3f	Quantity of sub grade mineral generation.	300000 Tonnes	40750 Tonnes
3g	Grade of sub grade mineral generation	MR :45-55% Fe	50.65% Fe
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NA
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting in mineral benches proposed with Burden , Spacing, Hole Diameter to be 2m, 2.5m and 115mm respectively.	Broadly as per proposal.

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3k	Provision of mining machineries in mineral benches	Deployment of mining machineries is proposed in mineral benches by Shovel Dumper Combination. ROM excavated and loaded in the 30T dumper by 2.5 to 3.5 m3 excavators.	Broadly as per proposal and machneries are contractual and used based on availibility of machineries.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 9m is proposed in overburden & mineral.	Broadly as per proposal and suitable.
3m	Total area covered under excavation/pits	Area under excavation: 23.798 Ha.,	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.21	1:0.19
3o	Total area put in use under different heads at the end of year	Total: 37.023 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2020-21 1502700 Tons 2021-22 2000010 Tons 2022-23 2000000 Tons Total 5502710 Tons	2020-21 774577 Tons 2021-22 960730 Tons 2022-23 340542 Tons Total 2075849 Tons
3q	General remarks of inspecting officers on method of mining etc.		The method of mining is by opencast method of mining by using deep hole drilling and blasting and using HEMM.

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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)	Yes,Top Soil Nil, OB Waste Dump 2, Mineral Reject Gonua Quarry	Broadly as per proposal.	
4b	Location of topsoil, OB and mineral reject dumps	Top Soil Nil, OB: N 2425220 to N 2425390 & E 331800 to E 332000	Broadly OB dumping within proposed area.	
4c	Number of dumps within lease area and outside of lease area	Within Lease 02 nos OB dump, Outside Lease Nil, Total 02 nos	within lease area one dump active and other dump dead dump.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping is proposed inside ultimate pit limit. and co-ordinate already given in point 4b.	Broadly with in proposed area.	
4e	Number of active and alive dumps.	one Dump.	one Dump.	
4f	Number of dead dumps.	Nil	One old dump.	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall of 250 meter and Garland drain of 375 meter proposed.	During mine visit it was observed that drain filled silt and retaining wall work not done.	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 250 meter and Garland drain of 375 meter proposed.	During mine visit it was observed that drain filled silt and retaining wall work not done.	
4j	Number of settling ponds	Nil	Nil	

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4k	Specific comments of inspecting officer on waste dump management			During mine visit it was observed that waste dump management was not proper and drain along dump was not proper done and filled with silt and boulder and retaining wall as proposed not done.
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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.	NA	NA	
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Area still not matured for backfilling.

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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	As per MCDR,2017	for 2022-23 still not submitted
6b	Area available for rehabilitation (ha) .	Nil	Nil
6c	afforestation done (ha).	0.50	1.5
6d	No. of saplings planted during the year	1250 nos saplings	3750 nos saplings reported.
6e	Cumulative no .of plants	3750 nos	7250 nos
6f	Any other method of rehabilitation	NA	NA
6g	Cost incurred on watch and care during the year	Rs 48750/-	Rs 206250/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil

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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.	NA	NA	
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)	NA	NA	
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)	Environmental monitoring in Core zone and buffer zone will be as per MOEFCC and SPCB guidelines.	Broadly as per proposal.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Broadly compliance PMCP.

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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 by screening & crushing within lease area	Broadly as per proposal and screening & crushing done by mobile screening & crushing plant.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Yes	Iron ore of different size and grade will be dispatched to own & different plants.(Grade Range- 55-58%, 58-60%, 60-62% & 62-65% of both Lumps & fines)	
7d	Any beneficiation process at mines .	No proposal except crushing & Screening .	only crushing & Screening done within lease.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation is done by blending low grade with high grade material to get desired grade and crushing and screening done within lease area.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil generation Nil	Top soil generation Nil	
8b	Concurrent use or storage of topsoil	NA	NA	

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8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1250 nos saplings	3750 nos saplings
8g	Survival rate	70-80% proposed	80% reported.
8h	Water sprinkling on roads to control airborne dust	Regular sprinkling of water on Haul roads and transport roads using Water tanker to suppress the dust.	Broadly as per proposal.

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8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The lessee as per proposal broadly complied all environment protection measures i.e. plantation, water sprinkling for dust suppression, monitoring of Air, water, noise, etc therefore no such adverse impact observed on aesthetic beauty in and around mines area.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthy report upto March'23 submitted in time ,Annual return of 2022-23 till not submitted.		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Annual return of 2022-23 till not submitted.		
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Annual return of 2022-23 till not submitted.		
9d	Scrutiny of Annual return on afforestation	Annual return of 2022-23 till not submitted.		

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9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Annual return of 2022-23 till not submitted.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Annual return of 2022-23 till not submitted.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Annual return of 2022-23 till not submitted.
9h	Scrutiny of Annual return on fixed assets	Annual return of 2022-23 till not submitted.
9k	Scrutiny of Annual return on mining machineries	Annual return of 2022-23 till not submitted.

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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 :****(RAJESH KUMAR DAS)**

Indian Bureau of Mines