

MCDR-MINERALS DEVELOPMENT AND REGULATION DIVISION
INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION

I/4769/2023

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON-DOL/KJR/MCDR-34/BBS

Mine code : 30ORI08127

- (i) Name of the Inspecting : KQ13) KEWAL KRISHAN
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Ajit Kumar Patra (Agent), Ranjit Choudhury (Mines Man
Official with
Designation
- (iv) Date of Inspection : 18-JAN-23
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

- 1. (a) Mine Name : KASIA IRON & DOLOMITE MIN
- (b) Registration NO. :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : ORISSA
District : KEONJHAR
Village : Kasia
Taluka : Barbil
Post office : Kasia
Pin Code : 758035
FAX No. :
E-mail : *ajit.Patra@jindalsteel.com*
Phone :
- (f) Police Station : *Barbil*
- (g) First opening date : 20-NOV-21
- (h) Weekly day of rest :
- 2. Address for correspondence : *M/S JINDAL STEEL & POWER Ltd.
P.O. Kasia, Dist. Keonjhar 758035*
- 3. (a) Lease Number : *194.096 (DGPS), 194.196 (ROR)*
(b) Lease area : *194.096 (DGPS), 194.196 (ROR)*
(c) Period of lease : *50 Yrs*
(d) Date of Expiry : *19.11.2071*
- 4. Mineral worked : *Iron*



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5. Name and Address of the

Lessee : m/s Jindal Steel and Power Ltd
TRB Iron Ore Mines At
P.O.Tensa SUNDARGARH
ORISSA
Phone:06625 - 82023, 82024
FAX :

6. Date of approval of Mining : 25.2.2022
Plan/Scheme of Mining



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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No back log	No back log	Dt of opening the mine is 20/11/2021 by the new lessee after auction.
1b	Exploration over lease area for geological axis 1 or 2	No such proposal	No such proposal	From 2022-23, 98 no of boreholes are proposed to be drilled for Geological axis 1.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	Not applicable	Not applicable during the period for 2021-22.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not applicable	Not applicable	73.626 Ha of potentially mineralized area under G-2 shall be explored for conversion of the area to G-1 level from 2022-23 onwards
1e	Balance reserve as on 01/04/20		As on 01/04/2022	
			121 115185679 T	
			122 109027780 T	
			221 18303590 T	
			222 33374680 T	

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1f	General remarks of inspecting officers on geology, exploration etc	The Iron Ore deposit can be classified under Bedded Stratiform and tabular deposit of regular habit as per Minerals (Evidence of Mineral Contents) Rules, 2015. The general trend of the rock is N-S with a variation between NNW-SSE to NNE-SSW. Dip direction of the ore body N-S with a variation between NNW-SSE to NNE-SSW. About 73 ha area, which is potentially mineralized, under G-2 is yet be explored under the G-1 level.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North Block- N2441063/ 2441275 E331172/ 331500. South Block- N2439537/ 2439812 E331008/ 331198.	broadly within the proposal	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and minerals are proposed	as per the proposal	

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2c	Stripping ratio or ore to OB ratio	0.0316(m3/t)	1:0.065	Encountered more inter-burden waste in south block hence OB generation is high.
2d	Quantity of topsoil generation in m3	no such proposal	no such proposal	
2e	Quantity of overburden generation in m3	68000	139789	Encountered more inter-burden in south block, so OB generation is high
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		mine development is carried out by opencast mining method in North Block and South block.	mine development is carried out by opencast mining method in North Block and South block.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	two nos	two nos	north block and south block
3b	Quantity of ROM mineral production proposed	2148930 T	2148781 T	
3c	Recovery of sailable/usable mineral from ROM production	1813680 T	1808054 T	
3d	Quantity of mineral reject generation	335250T	340727 T	The mineral reject is blended with saleable .
3e	Grade of mineral rejects generation and threshold value declared.	45 to 55% Fe Threshold +45% Fe	45 to 55% Fe Threshold +45% Fe	
3f	Quantity of sub grade mineral generation.	335250T	340727 T	

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3g	Grade of sub grade mineral generation	45 to 55% Fe	45 to 55% Fe
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	no such proposal	not applicable
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed	as per the proposal
3k	Provision of mining machineries in mineral benches	Excavator with dumper	Excavator with dumper
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height- 9mtrs and Width-15 mtrs	broadly as per the proposal
3m	Total area covered under excavation/pits	as per approved MP (dt 25/2/2022) total area covered under excavaion/pits is 78.042ha	broadly as per the proposal
3n	Ore to OB ratio for the pit/mine during the year.	0.0316(m3/t)	1:0.065

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3o	Total area put in use under different heads at the end of year	as per last approved document the area under mining 78.042ha Overburden/Waste Dumping 11.216ha Mineral Storage 4.882ha Infrastructure (Workshop, Administrative Building etc.) 12.699 ha Roads 6.891 ha mineral separation plant 4.805 ha Others to Specify (safety zone and protective measures etc 75.561ha	broadly as per the proposal	Dt of opening the mine is 20/11/2021 by the new lessee after auction.
3p	Production of ROM mineral during the last five year period as applicable	2021-22 2148930T	2021-22 2148781	Dt of opening the mine is 20/11/2021 by the new lessee after auction.
3q	General remarks of inspecting officers on method of mining etc.		The method of mining is A category and is fully mechanised. The ROM production is carried out by open cast mining methods and is presently carried out at north block and south block	A category and is fully mechanised. The ROM production is carried out by open cast mining methods and is presently carried out at north block and south block.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	dumping of OB and mineral reject is Proposed no proposal for general of top soil	waste dump dumping & mineral reject is blended with high grade	
4b	Location of topsoil, OB and mineral reject dumps	New Dump-1	as per the proposal	
4c	Number of dumps within lease area and outside of lease area	01 no	01 no	01 no by present lessee 02 no by the earlier lessee
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL	
4e	Number of active and alive dumps.	01 no	01 no	
4f	Number of dead dumps.		02 no by the earlier lessee	02 no by the earlier lessee
4g	Number of dumps established.	no such proposal	02 no by the earlier lessee	02 no by the earlier lessee
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain .	Retaining wall and garland drain are there along the waste dumps	
4i	Length of Retaining wall or garland drain all along dumps	Maintenance of existing retaining wall of 3718m	broadly as per the proposal	
4j	Number of settling ponds	no such proposal	no such proposal	06 Nos. Settling ponds to be maintained as constructed by Ex-lessee
4k	Specific comments of inspecting officer on waste dump management		waste dump management is being carried out as proposed.	waste dump management is being carried out as proposed.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	no such proposal	no such proposal	
5b	Area under backfilling of mined out area	no such proposal	no such proposal	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	no such proposal	no such proposal	
5d	Total area fully reclaimed and rehabilitated	no such proposal	no such proposal	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		There is no proposal of backfilling / reclamation during plan period	There is no proposal of backfilling / reclamation during plan period

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).		Annual PMCP Report submitted on dated 30-06-2022.	Annual PMCP Report submitted on dated 30-06-2022.
6b	Area available for rehabilitation (ha) .	no such proposal	no such proposal	
6c	afforestation done (ha).	no such proposal	no such proposal	plantation proposed in saftey zone from 2022-23 onwards
6d	No. of saplings planted during the year	no such proposal	no such proposal	plantation proposed in saftey zone from 2022-23 onwards

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6e	Cumulative no .of plants	no such proposal	no such proposal	Dt of opening the mine is 20/11/2021 by the new lessee after auction.
6f	Any other method of rehabilitation	no such proposal	no such proposal	
6g	Cost incurred on watch and care during the year	no such proposal .	no such proposal	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	no such proposal	no such proposal	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	no such proposal	no such proposal	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	no such proposal	no such proposal	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	no such proposal	no such proposal	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	no such proposal	no such proposal	

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6m	Compliance of rehabilitation of waste land within lease (i)afforestation	no such proposal	no such proposal	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	no such proposal	no such proposal	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	no such proposal	no such proposal	
6p	Compliance of environmental monitoring (core zone and buffer zone)	periodical monitoring of environmental parameters are proposed in core and buffer zone	as per the proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		No specific PMCP measues are proposed by party except the environmental monitoring in the core and buffer zone.	No specific PMCP measues are proposed by party except the environmental monitoring in the core and buffer zone.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanised	mechanised	

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7c	Different grade of mineral sorted out at mines.	45 to 55 % Fe % +55% Fe	60-62 % Fe 62 to 65% Fe	
7d	Any beneficiation process at mines .	no such proposal	no such proposal	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Grade wise sorting is carriedout out. The mineral rejects are entirely utilized by means of blending with high grade .	Grade wise sorting is carriedout out. The mineral rejects are entirely utilized by means of blending with high grade .

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	no such proposal	no such proposal	
8b	Concurrent use or storage of topsoil	no such proposal	no such proposal	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for Overburden, waste rock, proposed	Separate dumps for Overburden, waste rock.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	no such proposal	no such proposal	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	no such proposal	no such proposal	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	no such proposal	no such proposal	plantation proposed from 2022-23 onwards by the lessee
8g	Survival rate	no such proposal	no such proposal	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling is proposed on haul road to control airborne dust	Water Sprinkling is proposed on haul road to control airborne dust	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mines is good because of plantation carried out by the earlier lessee & by regular sprinkling of water on mine roads to control the dust by the present lessee.

 Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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- 9a Status of submission of Monthly and Annual returns as per MCDR2017, the monthly return are to be submitted before the 10th day of every month in respect of the preceding month and AR shall be submitted before the 1st day of July each year for the preceding financial year.
- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager Graduate Mining Engineer-05 (including 01 Mines Manager) Diploma Mining Engineer 04 Geologist-1 Surveyor- 1 Graduate Mining Engineer-05 Diploma Mining Engineer 04 Geologist-1 Surveyor- 1
- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. Covered under current (O/C) Workings- 78.042 Ha. Used for waste disposal- 11.216 Ha. Occupied by plant, buildings, residential, welfare buildings & roads-19.590 Ha. Other Purpose (Mineral Storage etc)- 85.248 Ha broadly in order

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9d	Scrutiny of Annual return on afforestation	no proposal during the year	no proposal during the year	plantated about 90nos of sapling within in lease and out side lease area with about 77% survival rate
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	340727 T & grade 54.40	reject produced blended with high grade .	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	closing stock as reported is 528527.0 T	closing stock as reported is 528527.0 T	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	as reported by party Ex-Mines Price- Lumps: 62%-65%: Rs 6921.00 Fines: 60% to 62% Fe 3979.00 62%-65%: Rs 4840.00	as reported by party Ex-Mines Price- Lumps: 62%-65%:Rs 6921.00 Fines: 60% to 62% Fe Rs 3979.00 62%-65%: Rs 4840.00	
9h	Scrutiny of Annual return on fixed assets	Rs 2899126786=00 as reported by the party	Rs 2899126786=00 as reported by the party	
9k	Scrutiny of Annual return on mining machineries	Dumper 32 Shovel 8 Loader 14 Drill 1 Dozer 3 Grader 1 Water tanker 4	Dumper 32 Shovel 8 Loader 14 Drill 1 Dozer 3 Grader 1 Water tanker 4	

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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 :**(KEWAL KRISHAN)**

Indian Bureau of Mines