

MCDR INSPECTION REPORT

I/31321/2024

General

S.N.	Particulars	Details
1	Name of the Mine	Tigoda iron Ore Mine
	Date of Inspection:	06/01/2023
	Name of Inspecting Officer	Ibrahim Sharief
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	11.82 Ha
3	Mine code	30MPR34002
4	IBM Registration Number under rule 45 of MCDR,1988	813/2011
5	Name of the Lease, Address, Phone, email and fax number	Ms. BANDANA MODI,
6	Village	BARA BAZAR
7	Taluka/Mandal	SHAHGARH
8	District	Sagar
9	Pin code	470339
10	State	M.P
11	Post Office	Tigoda
12	Nearest Police Station	-
13	Nearest Railway Station	-
14	Date of Grant of Mining Lease	04-10-2008
15	Date of Execution	15-10-2008
16	Date of opening of Mine	27-10-2008
17	Date of First Renewal, if applicable and its period & expiry	NA
18	Date of Second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	NA
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Abhay Kumar Modi
22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Shri Sushil Bhimrao Shinde
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Shailendra Patel
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Shri Sushil Bhimrao Shinde, Mining Engineer Shri Shailendra Patel, Geologist
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	MP under rule 22 of MCR 1960 on 24-09-2008
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	1. SOM- under rule 11(4) of MCDR 1988 on 04/07/2014 2. RMP- under rule 17(1) of MCR 2016 on 18-02-2019
27	Mineral(s) granted in lease and approved for Mining	Iron Ore
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanized, Others or Manual)	A- Mechanised
30	Captive/Non-Captive	Non Captive

Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	14	17 bore holes drilled with recovery of 25%, which was not considered	Violation was pointed out
1b	Exploration over lease area for Geological axis 1 or 2.	Entire area to be explored in G1 scale	Exploration to be done	

I/31321/2024

1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Lessee	Lessee	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	5.4 Ha	Not considered in the absence of recovery of core	
1e	Balance reserves as on 01.04.2021	111- 271620 121-122289		In Tonnes
1f	General remarks of Inspecting officer on geology, exploration etc.	<p>Geology: - Kurri Ferrogenous formation overlaps all older units of Bijwara group and is the youngest formation of the Bijwara sequence. Deposit of Iron ore intermixed with Dolomite, Ferrogenous phyllite and morrum is also seen</p> <p>Exploration: - No proper exploration is done in the lease area.</p>		

Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Part-1 & 4 of the lease area	Part-1 & 4 of the lease area	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Yes Separate bench for top soil and mineral is proposed	Yes Separate bench for top soil and mineral maintained	
2c	Stripping ratio or ore to OB ratio	1 : 0.12	1 : 0.2	
2d	Quantity of topsoil generation in m ³	No proposal	Nil	
2e	Quantity of overburden generation in m ³	9350	16827	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development is carried out as per approved proposals		

Exploitation

S.N	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed (2022-23)	65450 Iron Ore	84134 Iron Ore	
3c	Recovery of Salable/usable mineral from ROM production	65450	84134	Violation was pointed out for excess production
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	NA	
3f	Quantity of sub-grade mineral generation	No proposal	NA	
3g	Grade of sub-grade mineral generation	No proposal	NA	
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized method to be adopted by deploying HEMM	Mechanized method adopted as proposed	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No such study was proposed during the year	Not carried out	
3j	Provision of drilling & blasting in mineral benches	Drilling and Blasting is proposed using Jack Hammer with High Explosives	Drilling and Blasting is being carried out using Jack Hammer with High Explosives	
3k	Provision of mining machineries in mineral benches	Excavator-1.0 cum - 2 No., Dumper-10T- 6 No., Pump-10 HP- 1 No.	Excavator-1.0 cum - 2 No., Dumper-10T- 6 No., Pump-10 HP- 1 No.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	1.5 meter bench height is proposed with 1.0 cum capacity excavator is suitably for the said bench height	Yes suitable	

I/31321/2024

3m	Total area covered under excavation /pits	2.6374 Ha	2.264 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1 : 0.12	1 : 0.2	
3o	Total area put in use under different heads at the end of year	3.8938 Ha	2.455 Ha	
3p	Production of ROM mineral during last five-years period, as Applicable	18-19	71617	6970
		19-20	67798	7168
		20-21	56350	23300
		21-22	65450	84134
		22-23	66390	1700
3q	General remarks of inspecting officer on method of mining etc.	Excess production was carried out during the year 2021-22, against which violation was pointed out.		

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Separate dump for OB and Minor mineral to be maintained		
4b	Location of topsoil, OB & mineral reject dumps	Barrier Zone of Area in Part-1, 2 and 3	Barrier zone of Area in Part-1	
4c	Number of Dumps within lease area and outside lease area	3	1	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Beyond UPL	Beyond UPL	
4e	Number of Active & Alive dumps	3	1	
4f	Number of deed dumps	Nil	Nil	
4g	Number of dumps established	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes proposed	Yes maintained	
4i	Length of Retaining wall or garland drain all along dump	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific commends of inspecting officer on waste dump management	Waste generated is being dumped in earmarked place		

Solid Waste Management-Backfilling

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No area is proposed for backfilling during the year 2021-22	No backfilling carried out during the year 2021-22	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	No area is matured for reclamation.		

Progressive Mine Closer Plan

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and Correctly-Rule 23E (2). Details should be given in the format as given in Annexure-20	To be submitted in time	Yes submitted in time	
6b	Management of worked/mined out benches			
	i)Area available for rehabilitation (Ha)	No proposal	Nil	

I/31321/2024

	ii) Afforestation done (ha)	0.009 Ha	0.009 Ha	
	iii) No.of saplings planted during the year	20	20	
	iv) Cumulative no. of plants	-	About 2000	
	v) Any other specific method of rehabilitation	No proposal	Nil	
	vi) Cost incurred on watch & care during the year	No proposal	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L*B*D) ii) Void filled by waste/tailings iii) Afforestation on the backfilling iv) Rehabilitation by making water reservoir v) Any other specific means	No proposal	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitation iii) Method of rehabilitation	No proposal	Nil	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Quarterly monitoring is to be carried out	Quarterly monitoring is carried out	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Plantation is being carried out to improve aesthetic beauty.		

Mineral Conservation

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Saleable ore from Rom ore produced to be dispatched	Saleable ore from Rom ore produced is dispatched	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Sorting and Sizing is in practice	Sorting and Sizing is being done	
7c	Different grade of mineral sort out at mine	Yes	Yes	
7d	Any beneficiation process at mines	No proposal	Not Applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Sorting and Sizing is being done to make ore saleable		

Environment

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	No proposal	Not Applicable	
8b	Concurrent use or storage of topsoil	No proposal	Not Applicable	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	OB dumps to be maintained	Yes maintained	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not Applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not Applicable	

I/31321/2024

8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	No such report of existence of plantation, additional plantation is to be planted	Additional plantation is being planted to improve aesthetic beauty	
8g	Survival rate	No proposal	80%	
8h	Water sprinkling on roads to control airborne dust	Yes proposed	Yes done	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	plantation is being planted to improve aesthetic beauty		

Compliance of Rule 45

S.N.	Item	Comments	Remarks															
9a	Status of submission of monthly and Annual returns : Monthly and Annual returns to be submitted in time as per statute	Annual Returns 2021-22: - Submitted on time and Monthly Returns for the Month of December 2022 -: Submitted on time																
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: - Shri Sushil Bhimrao Sinde Geologist:- Shri Shailendra Patel	Mining Engineer and Geologist employed as reported															
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 2.264 Ha Dump – 0.081 ha Road & Infra.: 0.29 Hect, Mineral Storage : 4.09 ha																
9d	Scrutiny of Annual return on afforestation	100 saplings planted with 80% survival rate																
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil																
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM –Nil Lump: below 55% Fe-54840.46 Tonne 55% to below 58% Fe- 2423.273 Tonne 58% to below 60% Fe- 731.805 Tonne Fines : below 55% Fe- 28657.97 Tonne																
9g	Scrutiny of Annual return on sale value, Ex Mine price & production costs	Ex Mine Lump: below 55% Fe- Rs.1399.52 55% to below 58% Fe- Rs.2000 58% to below 60% Fe- Rs.2200 Fines : below 55% Fe- Rs.829.31 CoP- Rs. 341.45/T.																
9i	Scrutiny of Annual return on Fixed assets	FA= Rs. 21602630/-																
9k	Scrutiny of Annual return on mining Machineries	<table border="1"> <thead> <tr> <th>Type of machinery</th> <th>Capacity of each type of machinery</th> <th>No. of machinery</th> </tr> </thead> <tbody> <tr> <td>Front end loader/ Excavator</td> <td>1.2 cum</td> <td>1</td> </tr> <tr> <td>Dumper</td> <td>16.000 Tonnes</td> <td>2</td> </tr> <tr> <td>dumper</td> <td>10.000 Tonnes</td> <td>2</td> </tr> <tr> <td>Water tanker</td> <td>12000 Litres</td> <td>1</td> </tr> </tbody> </table>	Type of machinery	Capacity of each type of machinery	No. of machinery	Front end loader/ Excavator	1.2 cum	1	Dumper	16.000 Tonnes	2	dumper	10.000 Tonnes	2	Water tanker	12000 Litres	1	
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Details of Validations observed during current inspection and compliance position of earlier violation pointed out: -

Sl No.	Violations pointed out	Status of compliance
1	11(1)	Not complied
2	12(4)	Not complied
3	45(7)	Not complied

Date:

Name: IBRAHIM SHARIEF

Designation: Deputy Controller of Mines