

MCDR INSPECTION REPORTGeneral

SN	Particulars	Details
1	File no	MCDR-MiFLOMn/5/2023-BBS-IBM_RO_BBS
2	Name of the Inspecting Officer	Vikram Deshpande, ACOM, BBSR
3	Name of the Mine	Manmora Manganese Mine
4	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area (ha)- 16.35 ha i) Forest area(ha): 16.35 ha ii) Non-Forest(ha): 0 ha
5	Mine Code	40ORI08026
6	Date of Inspection	14 <sup>th</sup> December, 2024
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4376/2011
8	Name of the lessee, Address, phone, e-mail, and fax number	Tata Steel Limited, 24 Homi Mody Street, Fort. Mumbai-400001, Ph No.: 9262699402 Fax: 06767-272010 Email id: <a href="mailto:ceo_md_office@tatasteel.com">ceo_md_office@tatasteel.com</a>
9	Village	Bichakundi
10	Taluka/Mandal	Champura
11	District	Kendujhar
12	Pin-code	758034
13	State	Odisha
14	Post office	Bichakundi
15	Nearest police station	Joda
16	Nearest Railway station	Banspani
17	Date of Grant of Mining Lease	01.07.1955
18	Date of Execution	07.07.1998
19	Date of opening of Mine	1955
20	Date of 1 <sup>st</sup> Renewal, if applicable and its period & expiry	07.07.1998 w.e.f. 01.07.1985 to 30.06.2005, 20 years
21	Date of 2 <sup>nd</sup> Renewal, if applicable and its period & expiry	NA
22	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not a deemed extension. Lease period extended till 31.03.2030. Supplementary Lease Deed executed on 06.05.2015
23	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. T. V. Narendran Northern Town, Jamshedpur, P.O: Bistupur, Dist: East Singhbhum, Jharkhand- 831001, Phone No: 0657-2424602 Email id: <a href="mailto:narendran@tatasteel.com">narendran@tatasteel.com</a> Date of appointment: 01.11.2013
24	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Rajesh Kumar Manmora Manganese Mine, At/PO; Bichakundi Dist: Kendujhar Phone No: - 9234612797 <a href="mailto:rajesh.kumar1@tatasteel.com">rajesh.kumar1@tatasteel.com</a> Date of appointment: 08.06.2023
25	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. Tapas Ranjan Pattanaik Manmora Manganese Mine, At/PO; Bichakundi Dist: Kendujhar Phone No:- 9238306013 <a href="mailto:tapas.pattanaik@tatasteel.com">tapas.pattanaik@tatasteel.com</a> Date of appointment: 07.04.2022
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Tapas Ranjan Pattanaik Qualification: B.Tech in Mining Engineering Experience: 16 years Manmora Manganese Mine, At/PO; Bichakundi Dist: Keonjhar Phone No:- 9238306013 <a href="mailto:tapas.pattanaik@tatasteel.com">tapas.pattanaik@tatasteel.com</a> Date of appointment: 07.04.2022

24		MINING ENGINEER: Mr. Tapas Ranjan Pattanaik Qualification: B. Tech in Mining Engineering <a href="mailto:tapas.pattanaik@tatasteel.com">tapas.pattanaik@tatasteel.com</a> Date of appointment: 07.04.2022
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Approval of Mining Plan: - Vide Letter No. BBS/KJ/MN/MP-266, dated 21.11.2005, for the period: 2005-06 to 2009-10
26	Date of Approval of Review of Mining of Mining with five-year period and specific condition in approval letter, if any.	Approval of Review of Mining Plan: - Vide Letter No. BBSR/KJR/MN/9181/FMCP/2022-23 dated 18.10.2022, for the period: 2023-24 to 2027-28
27	Mineral(s) granted in lease and proved for mining	Iron Ore
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised (Category A)
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

#### Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	0	0	The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.
1b	Exploration over lease area for Geological axis 1 or 2.	0	0	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	
1d	Balance area to be explored to bring in Geological axis in 1 or 2	0	0	
1e	Balance reserves as on 01.04.2024	50334 T	50334 T	
1f	General remarks of inspecting officer on geology, exploration etc.	The area is characterized by hilly and rolling topography with north easterly slope. The massive hard and compact, pre-Cambrian formations covers the entire area forming steep slopes and small valley fills with limited soil cover. The elevation of the study area varies from 457 to 550 m RL. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

#### 2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	NA	NA	No development proposed Avg. Pit dimensions (L×B×D) 331.43×66.95×20
2b	Separate benches in topsoil, overburden, and mineral (Rule 15)	NA	NA	
2c	Stripping ratio or ore to OB ratio	-	-	
2d	Quantity of topsoil generation in m <sup>3</sup>	-	-	
2e	Quantity of overburden generation in m <sup>3</sup>	-	-	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

#### 3.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	0	0	No excavation proposed. The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.
3b	Quantity of ROM mineral production proposed	0	0	
3c	Recovery of saleable/usable	0	0	

	mineral from ROM production			
3d	Quantity of mineral reject generation	0	0	

3e	Grade of mineral reject generation and threshold value declared	NA	NA	
3f	Quantity of sub-grade mineral generation	0	0	
3g	Grade of sub-grade mineral generation	NA	NA	
3h	Manual / Mechanised method adopted for segregating from ROM	No development/excavation	No development/excavation	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	NA	NA	
3j	Provision of drilling & blasting in mineral benches	NA	NA	
3k	Provision of mining machineries in mineral benches	NA	NA	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	NA	NA	
3m	Total area covered under excavation/ pits	2.219 ha	2.219 ha	
3n	Ore to OB ratio for the pit/mine during the year	NA	NA	
3o	Total area put in use under different heads at the end of year	Pit: 2.219 ha Dump: 1.005 ha Infrastructure: 0.082 ha Total: 16.35 ha	Pit: 2.219 ha Dump: 1.005 ha Infrastructure: 0.082 ha Total: 16.35 ha	
3p	Production of ROM mineral during last five-year period, as applicable	2019-20: 0 2020-21: 0 2021-22: 0 2022-23: 0 2023-24: 0	2019-20: 0 2020-21: 0 2021-22: 0 2022-23: 0 2023-24: 0	
3q	General remarks of inspecting officer on method of mining etc.	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

#### 4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumps for topsoil, waste, and mineral reject.	Separate dumps for topsoil, waste and mineral reject have been maintained.	
4b	Location of topsoil, OB & mineral reject dumps	NA	NA	
4c	Number of dumps within lease area and outside lease	<p>WITHIN LEASE AREA:</p> <p>Total no. of Waste Dumps -1 Nos.</p> <p>N: 2437518 to 2437568 E: 339432 to 339506</p> <p>Total no. of Mineral Reject Dumps -1 Nos.</p>	<p>WITHIN LEASE AREA:</p> <p>Total no. of Waste Dumps -1 Nos.</p> <p>N: 2437518 to 2437568 E: 339432 to 339506</p> <p>Total no. of Mineral Reject Dumps -1 Nos.</p>	

SN	Item	Proposals	Actual work	Remarks
		N: 2437508 to 2437563 E: 339290 to 339367  NO DUMPS OUTSIDE LEASE AREA.	N: 2437508 to 2437563 E: 339290 to 339367  NO DUMPS OUTSIDE LEASE AREA.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OUTSIDE UPL  Waste Dumps: 1 Nos. (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506  Mineral Reject Dumps: 1 Nos. (Mineral Reject) N: 2437508 to 2437563 E: 339290 to 339367	OUTSIDE UPL  Waste Dumps: 1 Nos. (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506  Mineral Reject Dumps: 1 Nos. (Mineral Reject) N: 2437508 to 2437563 E: 339290 to 339367	Number of dumps within UPL: 0  Number of dumps outside UPL: 2  Waste Dump Mineral Reject Dump
4e	Number of active & alive dumps	None	NA	
4f	Number of dead dumps	DEAD DUMPS- 2 NOS.  Waste Dumps: 1 Nos.  (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506  Mineral Reject Dumps: 1 Nos. (Mineral Reject) N: 2437508 to 2437563 E: 339290 to 339367	DEAD DUMPS- 2 NOS.  Waste Dumps: 1 Nos.  (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506  Mineral Reject Dumps: 1 Nos. (Mineral Reject) N: 2437508 to 2437563 E: 339290 to 339367	
4g	Number of dumps stabilised	Stabilization of Waste Dump- 1 Nos.  (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506	Stabilization of Waste Dump- 1 Nos.  (Waste Dump) N: 2437518 to 2437568 E: 339432 to 339506	
4h	Whether Retaining wall or garland drain all along dumps	Not Proposed	Not Done	
4i	Length of Retaining wall or garland drain all along dump	NA	NA	
4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

## 5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	NA	NA	
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed & rehabilitated	-	-	
5e	General remarks of inspecting officer on backfilling, reclamation etc	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

## 6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	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 by 30 <sup>th</sup> June	Yes, submitted along with Annual Return on 29 <sup>th</sup> June 2024	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) Area available for rehabilitation: 0 ii) Afforestation: NA iii) No. of saplings to be planted: 0 iv) Cumulative no. of plants: NA v) Any other specific method: NA vi) Cost incurred on watch and care: NA	i) Area available for rehabilitation: 0 ii) Afforestation: NA iii) No. of saplings to be planted: 0 iv) Cumulative no. of plants: NA v) Any other specific method: NA vi) Cost incurred on watch and care: NA	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Voids available for backfilling: NA ii) Void filled by waste/tailings: NA iii) Afforestation on the backfilled area = NA iv) Rehabilitation by making water reservoir: NA v) Any other specific means: NA	i) Voids utilised for backfilling: NA ii) Void filled by waste/tailings: NA iii) Afforestation on the backfilled area = NA iv) Rehabilitation by making water reservoir: NA v) Any other specific means: NA	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Afforestation: 243 nos. ii) Area rehabilitated (ha): 0.243 ha iii) Method of rehabilitation: Plantation	i) Afforestation: 680 nos. ii) Area rehabilitated (ha): 0.38 ha iii) Method of rehabilitation: Plantation	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Quarterly reporting	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Quarterly reporting	

SN	Item	Proposals	Actual work	Remarks
		Ground Water quality monitoring: Quarterly Reporting Noise survey: Monthly Reporting	Ground Water quality monitoring: Quarterly Reporting Noise survey: Monthly Reporting	
6f	General remarks of inspecting officer on PMCP compliance & progressive	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

## 7.0 MINERAL CONSERVATION

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	NA	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	NA	NA	
7c	Different grade of mineral sorted out at mines	NA	NA	
7d	Any beneficiation process at mines	NA	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.		

## 8.0 ENVIRONMENT

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NA	NA	
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, reject and fines (Rule 33)	NA	NA	
8d	Use of overburden, waste rock, reject and fines dumps for restoring the land to its original use	NA	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation proposed over an area of 0.243 ha via 243 nos. of saplings.	Plantation achieved over an area of 0.38 ha via 680 nos. of saplings.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Area proposed for plantation: 0.243 ha No. of saplings to be planted: 243	Previous Area under plantation: 7.47 ha Previous No. of plants within the lease area: 76212 Area under plantation (FY'24): 0.38 ha No. of saplings planted: 680 Cumulative area under plantation: 7.85 ha Cumulative no. of plants within the lease: 76892	
8g	Survival rate	85%	85%	
8h	Water sprinkling on roads to control airborne dust	-	-	
8i	General remarks of inspecting	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been		

	officer on aesthetic beauty in and around mines are	approved on 18/10/2022.
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## 9.0 COMPLIANCE OF RULE 45

SN	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return submitted up to : November 2024 Annual Return submitted for FY 2023-2024		
SN	Item	Details given in A.R.	Observation of I/O	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Mr. Tapas Ranjan Pattanaik Geologist: Mr. Jayanta Narayan Bharatiya Manager: Mr. Tapas Ranjan Pattanaik	Mining Engineer: Mr. Tapas Ranjan Pattanaik Geologist: Mr. Jayanta Narayan Bharatiya Manager: Mr. Tapas Ranjan Pattanaik	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 2.219 ha Dump: 1.005 ha Infrastructure: 0.082 ha Total: 16.35 ha	Pit: 2.219 ha Dump: 1.005 ha Infrastructure: 0.082 ha Total: 16.35 ha	
9d	Scrutiny of Annual return on afforestation	243	680	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	-	-	The mine is not in operation. The Final Mine Closure Plan of the Mining Lease has been approved on 18/10/2022.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock- 2985 Production- 0 Closing Stock- 0	Appears to be correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	-	-	
9i	Scrutiny of Annual return on fixed assets	-	-	
9k	Scrutiny of Annual return on mining machineries	-	-	