

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR INSPECTION REPORT
BHUBANESHWAR REGIONAL OFFICE**

General

S N	Particulars	Details
1	Name of the Mine	Bamebari Iron and Manganese Mine, Tata Steel Limited
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Original ML Area – 1150.550 Ha. RML Applied Area – 464 ha. Final Mine Closure Plan (FMCP) over an area of 686.550 ha out of the original lease area of 1150.550 ha has been approved by Indian Bureau of Mines, Bhubaneswar Region vide letter no. FMCP/FM/04-ORI/BHU/2014-15, dated 20.01.2015. The Certificate was also granted vide letter no. T/FMCP/C/01/BHU/2011/267, dated 31.05.2016. Within RML Applied Area - (Reserve Forest: 170.157 ha, Khesra Forest: 62.844 Ha DLC Forest: 149.268 Ha. Sabik Forest: 66.126 Ha Total Forest: 448.395 Ha. Non-Forest: 15.605 Ha (Govt. Land – 0.103 Ha + Pvt. Land – 15.502 Ha.)
3	Mine code	400RI08003
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4376/2011
5	Name of the lessee, Address, phone, email and fax number	M/s TATA Steel Ltd, Regd. Office: Bombay House, 24 Homi Mody Street, Mumbai – 400 001
6	Village	Palasa(ka), Kundaposi, Bandhuabeda, Namira, Boneikela, Jadibahal & Jajanga etc.
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pincode	758034
10	State	ODISHA
11	Post office	Bamebari
12	Nearest police station	Joda
13	Nearest Railway station	Banspani
14	Date of Grant of Mining Lease	1 st Grant: 30 years from 01.04.1930 to 31.03.1960 over 1150.550 ha
15	Date of Execution	07-07-1931 (Mining Lease)
16	Date of opening of Mine	05-05-1938
	Date of first Renewal, if applicable and its period & expiry	Grant Order-IIIM(A) 22/62/9819, Dt. 15.10.1962 Execution- Dt. 28.04.1970 Period-01.04.1960 to 31.03.1980
	Date of second Renewal, if applicable and its period & expiry	Grant Order-2851 MG, Bhubaneswar, Dt. 16.02.1982 Execution- Dt. 15.05.1985 Period-01.04.1980 to 31.03.2000
	Date of submission of renewal application if Mining Operations are continuing under deemed extension	3 rd Renewal – Express order granted by Govt. Of Odisha over 464 ha to execute the lease in prospective manner till 31.03.2020.

		Subsequent to promulgation of the MMDR (Amendment) Act, 2015, the lease has been extended till 31.03.2030 over an area of 1150 ha with a notation as “The lessee has applied for a reduced area of 464 ha of the said lease”. The supplementary lease deed of same was executed vide registration no. 1031500250 Dated 08.05.2015
17	Date of Expiry	31.03.2030
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Thachat Viswanath Narendran Managing Director M/S Tata Steel Limited, Jamshedpur, Dist- East Singhbhum Phone-0657-2424602 Fax-022-66657724, Email: mdoffice@tatasteel.com JHARKHAND-831001 Dt. of Appointment: - 01.11.2013
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Shambhu Nath Jha, Agent & Chief, Manganese Group of Mines, AT/PO. Bichhakund, VIA – Joda, Dist. Keonjhar, PIN – 758034 Phone – 9438887778 Email: jhasn@tatasteel.com Dt. of Appointment – 21.03.2024
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. Amulya Kumar Panda, AMIE & FCC Bamebari Iron and Manganese Mines, At/PO- Bamebari Via-Joda Dist- Keonjhar Odisha-758034 Tel: 9153981181 Email: amulya@tatasteel.com Date of appointment: 09.07.2024
21	Name of the Mining Engineer, Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Mr. Alok Singh Sardar, B.Tech. (Mining), Experience - 8.5 Years Bamebari Iron and Manganese Mines, At/PO- Bamebari, Dist- Keonjhar, Odisha-758034 Tel: 8769579977 Email: alok.sardar1@tatasteel.com Dt. of Appointment-30.05.2022
22	Name of the Geologist, Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Shri Sangeeth G, M.Sc. (Applied Geology) Experience – 11 yrs. Bamebari Iron and Manganese Mine, At/PO- Bamebari, Via-Joda, Dist- Keonjhar Odisha-758034 Tel: 7763807661, Email: sangeeth@tatasteel.com Dt. of Appointment- 15.05.2023
23	Date of Approval of Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. No specific conditions have been imposed in the approval letter. The details are furnished below in tabular form.	

	Mining Plan / Scheme of Mining	Approval Letter No. & Date	Period
	Mining Plan	CAL/KJ/MP-248, Dt. 14.06.1993	1992-93 to 1996-97
	Review & Scheme of Mining	314(3)/97 MCCM(C)/MI/S-7, Dt.11.06.1998	1997-98 to 2003-04
	Modification of Scheme of Mining	BBS/KJ/Mn/MS Bamebari, Dt.24.03.2005	2003-04 to 2004-05
	Scheme of Mining	MS/OTF-Mech/11-ORI/BHU 2007-08, Dt.05.12.2007	2005-06 to 2009-10
	Scheme of Mining	MS/OTF.MECH/06-ORI/BHU/2010-11, Dt. 09.06.2010	2010-11 to 2014-15
	Final Mine Closure Plan	FMCP/FM/04-ORI/BHU/2014-15, Dated. 20.01.2015 over an area of 686.550 hect.	
	Scheme of Mining	MS/OTFM/32-ORI/BHU/2014-15 Dt. 26.03.2015	2015-16 to 2019-20
	Modification of Review of Mining Plan	MSM/FM/05-ORI/BHU/2018-19, Dt. 04.05.2018	2018-29 to 2019-20
	Review of Mining Plan	RMP/A/08-ORI/BHU/2020-21, Dtd. 03.08.2020	2020-21 to 2024-25
24	Mineral(s) granted in lease and proved for mining	Manganese and Iron Ore	
25	Method of Mining (Opencast, Underground)	Opencast	
26	Category (Fully Mechanised, Others or Manual)	A-OTFM	
27	Captive/Non-Captive	Captive	
28	Present EC Capacity	Production of Mn. Ore – 83200 Tonnes/Annum.	

Exploration

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
1a	Backlog of previous year	Core – NIL RC – NIL Total – NIL	RC – 18 Nos. – 876 m Total – 18 Nos. – 876 m.	V/L for backlog exploration already issued on 4/1/24
1b	Exploration over lease area for Geological axis 1 or 2.	Not Specified	G1: 2.750 G2: 3.112	Total Lease Status as on 01-04-2024 G1: 118.476 G2: 91.829
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not Specified	26.28 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	253.70 Ha	V/L for backlog exploration already issued on 4/1/24
1e	Balance reserves as on 01.04.2024 (Mn. Ore)	-	2611076 Tonnes(+10% Mn)	Balance resources as on 31.3.2024
	Balance reserves as on 01.04.2024 (Iron Ore)	-	671047 Tonnes(+45% Fe)	Balance resources as on 31.3.2024

1f	General remarks of inspecting Officer on Geology, exploration etc.	Bamebari Iron & Manganese deposit lies in the western portion of Singhbhum-Orissa Craton. Manganese mineralization is mainly confined to the weathered shale horizon. General strike of the formation is NS to NE-SW with dip varying from 10 to 30 degree towards west. Manganese ore occurs as lenses and pockets (length of a meter to 200 m & thickness 2 to 49 m) in association with laterite, cherty & jaspery quartzite, shale and iron ore. Backlog exploration reported to be not carried out due to non-availability of statutory clearances. However, V/L already pointed out for deviation of exploration for speed-up of action.
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Development

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t. lease area	<p>Proposed Extent of Development–</p> <p>Bamebari – No development proposal.</p> <p>Joribar - 11288N-11630N & 12312E-12790E from 492 mRL to 636 mRL</p> <p>Bonaikela - 4244-4394N & 4861E-5037E from 560 mRL to 600 mRL</p>	<p>Actual Extent of Development–</p> <p>Bamebari – No development carried out.</p> <p>Joribar - 11285N-11622N & 12288E-12789E from 505 mRL to 630 mRL</p> <p>Bonaikela - No development carried out during the year</p>	Due to want of Forest Clearance.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches for OB and Ore maintained wherever possible due to pocket deposit nature of manganese ore	As per the proposals.	
2c	Stripping ratio or ore to OB ratio	<p>(In-situ CuM : CuM)</p> <p>Bamebari – Nil</p> <p>Joribar – 1 : 2.15</p> <p>Bonaikela – 1 : 21.03</p> <p>Avg. 1 : 3.02</p> <p>(Ore includes Mn. Ore & Iron Ore Mineral Rejects)</p>	<p>(In-situ CuM : CuM)</p> <p>Bamebari – Nil</p> <p>Joribar – 1 : 8.11</p> <p>Bonaikela – Nil</p> <p>Avg. 1 : 8.11</p> <p>(Ore includes Mn. Ore & Iron Ore Mineral Rejects)</p>	Ore & OB Ratio increased due to less excavation of Manganese Ore & in-situ Iron Ore Mineral Rejects from the Mn. Ore Pit. (Only at Joribar Block)
2d	Quantity of topsoil generation in m ³	No proposals	Nil	—
2e	Quantity of overburden/waste generation in m ³	<p>Bamebari – Nil</p> <p>Joribar – 431666</p> <p>Bonaikela – 201662</p> <p>Total – 633328</p>	<p>Bamebari – Nil</p> <p>Joribar – 279188.578</p> <p>Bonaikela – Nil</p> <p>Total – 279188.578</p>	Due to working at Joribar Block only and pending FC.

Exploitation

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
3a	Number of pits proposed for production	Bamebari Block – Nil Joribar Block – 1 No. Bonaikela Block – 1 No.	Bamebari Block – Nil Joribar Block – 1 No. Bonaikela Block – Nil	Due to pending FC
3b	Quantity of ROM mineral production proposed (Mn. Ore in Tonnes)	Bamebari – Nil Joribar – 446749 Bonaikela – 23251 Total – 470000	Bamebari – Nil Joribar – 82885 Bonaikela – Nil Total – 82885	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	Mn Content >10%
3d	Quantity of mineral reject generation (Mn. Ore in Tonnes)	Bamebari – Nil Joribar – 214727 Bonaikela – 5273 Total – 220000	Bamebari – Nil Joribar – 6397.765 Bonaikela – Nil Total – 6397.765	Total Generation 11370.865 Tonnes and 4973.100Tonnes consumed by blending with upper grade.
	Quantity of mineral reject generation (Iron Ore in Tonnes)	Bamebari – Nil Joribar – 26598 Bonaikela – Nil Total – 26598	Bamebari – Nil Joribar – 2571 Bonaikela – Nil Total – 2571	In-situ excavation Concurrent to development of Mn. Ore Pits
3e	Grade of mineral reject generation and threshold value declared	Threshold Value Mn. Ore - Mn>10% Iron Ore – Fe>45% Generation - Mn Ore – Mn Content – 10-25% Iron Ore – Fe Content – 45-58%	Threshold Value Mn. Ore - Mn>10% Iron Ore – Fe>45% Generation - Unprocessed Mn Ore – Mn Content – 19.75 % Processed Mn. Ore – Mn Content – 21.91% Unprocessed Iron Ore – Fe Content – 47.17 %	Threshold value of Iron Ore : +45 % Fe ; & Mn-ore +10 % Mn; Sub-grade/MR of iron ore incidentally generated and stacked separately.
3f	Quantity of sub-grade mineral generation	Same as para 3d		Sub-grade mineral/ mineral reject are being stacked separately & MR of Mn ore is being utilized by blending based on market demand.
3g	Grade of sub-grade mineral generation	Same as para 3e		
3h	Manual / Mechanised method adopted for	Manual	Manual	-

	segregating from ROM			
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	1. Study on Mechanized processing of Manganese Ore 2. Study for beneficiation of Low/Sub Grade Manganese Ore and Fines carried out.	Study Done	
3j	Provision of drilling & blasting in mineral benches	Deep hole Drilling blasting Depth of hole = 6 m +10% subgrade =8.8m Spacing= 3m Burden= 2.5 m Volume= 60 CuM Specific Gravity=2.5 Tonnage/Hole= 150 Tonnes Powder factor= 6.0 kg/Tonne	As per the proposals.	
3k	Provision of mining machineries in mineral benches	Excavator (Backhoe) – 4 Nos. Dumpers – 21 Nos. Drill (100mm Dia) – 3 Nos. Dozer – 3 Nos. FE Loader- 2 Nos. Grader – 1 No.	As per the proposals.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height: 6-8 m Bench Width: 8-10 m	Height – 6-8 m Width- 8-10m	
3m	Total area covered under excavation/pits	92.698 ha.	88.763 ha.	Development could not be enhanced due to delay in processing of fresh Environment Clearance for enhanced production.
3n	Ore to OB ratio for the pit/mine during the year	(In-situ CuM : CuM) Bamebari – Nil Joribar – 1 : 2.15 Bonaikela – 1 : 21.03 Avg. 1 : 3.02 (Ore includes Mn. Ore & Iron Ore Mineral Rejects)	(In-situ CuM : CuM) Bamebari – Nil Joribar – 1 : 8.11 Bonaikela – Nil Avg. 1 : 8.11 (Ore includes Mn. Ore & Iron Ore Mineral Rejects)	Ore & OB Ratio increased due to less excavation of Manganese Ore & in-situ Iron Ore Mineral Rejects from the Mn. Ore Pit. (Only at Joribar Block)

3o	Total area put in use under different heads at the end of year	At the end of 31.03.2025: Area Excavated: 101.138 ha Storage of topsoil: 0.450 ha Waste Dump: 57.166 ha Mineral Storage: 14.708 ha Infrastructure (Workshop, Magazine etc.): 5.451 ha Roads: 11.420 ha Railways: 0 ha Greenbelt: 17.150 ha Tailing Pond: 0 ha ETP: 0 ha Mineral Separation Plant: 0 ha Township Area: 24.35 ha Total – 231.833 ha.	Actual as on 31.03.2024 (in ha.)- Area Excavated: 88.763 ha Storage of topsoil: 0 ha. Waste Dump: 46.884 ha Mineral Storage: 10.347 ha Infrastructure (Workshop, Magazine etc.): 6.096 ha Roads: 11.482 ha Railways: 0 ha Greenbelt: 21.336 ha Tailing Pond: 0 ha ETP: 0 ha Mineral Separation Plant: 0 ha Township Area: 24.35 ha Total – 209.258 ha.	Infrastructure – 2 ha. land is being temporarily utilised by NHAI at Bonaikela Block Road - Widening of NH 215 by NHAI effected the increase of 2.5 ha. at Bonaikela Block
3p	Production of ROM mineral during last five-year period, as applicable	Mn. Ore	Mn. Ore	
	Year- 2019-20	97882	92223	Unit in Tonnes
	Year- 2020-21	96400	89839	
	Year- 2021-22	275680	56182	
	Year- 2022-23	434800	83073	
	Year- 2023-24	470000	82885	

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate Dumps for topsoil, OB and mineral reject has been proposed.	As per proposals.	
4b	Location of topsoil, OB & mineral reject dumps	Waste Dump - Bamebari – Back filling of quarry within the extent of 2182N - 2730N & 3047E - 3543E from 590 mRL to 620 mRL (Extent of Phase 1 for the period 2020-23) Joribar – Dump D#1 12285N-12418N & 13154E-13514E from 516mRL to 545 mRL Bonaikela Block – 4395N – 4606N & 4890E - 5180E from 580 mRL to 600 mRL	Waste Dump - Bamebari – 2182N-2494N & 3047E-3433E from 577 mRL to 587 mRL (Disposed to cover up the backlog extent) No disposal over the proposed extent due to want of FC. Bonaikela Block – No generation of waste due to no development. Mineral Reject Dumps-	Due to delay in processing of fresh Environment Clearance and FC.

		<p>Mineral Reject Dumps-</p> <p>Bamebari Block – Mn. Ore – No generation was proposed.</p> <p>Iron Ore – No generation was proposed.</p> <p>Joribar Block – Mn. Ore - 11620N-11731N & 12456E - 12807E from 590 to 620 mRL Iron Ore - 11600N – 11697N & 12800E - 13034E from 565 to 575 mRL</p> <p>Bonaikela Block – Mn. Ore - 4033N – 4193N & 4980E – 5088E from 517 to 523 mRL Iron Ore - 3842N - 3854N & 5054E - 5122E (within Ore Stack Area)</p>	<p>Bamebari Block – No generation of MR due to no operation.</p> <p>Joribar Block (temporary in pit stacking due to want of Forest Clearance over proposed area) Mn. Ore – 11620 N-11726N & 12588E-12796E from 620 to 623 mRL Iron Ore – 11600N – 11737N & 12912E – 13046E from 558 to 577 mRL</p> <p>Bonaikela Block - No generation of MR due to no operation</p>	
4c	Number of dumps within lease area and outside lease area	<p>1 Back Filling Site at Bamebari Block (Backlog area)</p> <p>1 No. at Bonaikela Block</p>	1 Back filling site at Bamebari Block	
4d	Location of dumps w.r.t. ultimate pit limit	Same as Point No. 4b	Same as Point No. 4b	
4e	Number of active & alive dumps	OB of Bamebari and Joribar: Proposed for backfill in Bamebari Pit. 1 No. at Bonaikela Block.	As per proposal at Bamebari Block. Dump at Bonaikela Block could not be developed due to no operation.	
4f	Number of dead dumps	Bamebari:3 Nos. Joribar: 2 Nos. Bonaikela: 2 Nos.	Bamebari:3 Nos. Joribar: 2 Nos. Bonaikela: 2 Nos.	
4g	Number of dumps stabilized	Bamebari:3 Nos. Joribar: 1 No. fully stabilized, 1 No. partially stabilized. Bonaikela: 2 Nos.	Bamebari:3 Nos. Joribar: 1 No. fully stabilized, 1 No. partially stabilized. Bonaikela: 2 Nos.	
4h	Whether Retaining wall or garland drain all along dumps are there	Joribar Block – 302m	Joribar Block – 150m	The retaining wall & garland drain of 302m were proposed near

4i	Length of Retaining wall or garland drain all along dump	Joribar Block – 302m	Joribar Block – 150m	extension of Waste Dump (D#1) at Joribar Block, but could not done due to no extension for want of Forest Clearance. 150m done for strengthening of existing walls
4j	Number of settling ponds	Nil	Nil	

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	Bamebari Block -Back filling of quarry within the extent of 2182N - 2730N & 3047E - 3543E from 590 mRL to 620 mRL (Backlog Area)	Bamebari Block – Back filling site within the extent of 2182N-2494N & 3047E-3433E from 577 mRL to 587 mRL (Disposed to cover up the backlog extent)	Less area due to no development at Bamebari Block.
5b	Area under backfilling of mined out area	Nil	0.958 ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	No generation of Topsoil.	NIL	
5d	Total area fully reclaimed & rehabilitated	Not proposed	NIL	

Progressive Mine Closure Plan

S.N.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)	To be submitted by 30 th Jun every year	Submitted on time	NIL
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	Waste Dump – 1.000 ha at Joribar Block.	Nil	No Plantation at Joribar Block over proposed dump extension of Dump D#1 which has not been developed due to non-availability of Forest Clearance over the proposed area.

6c	Compliance on and rehabilitation by backfilling i) Voids available for backfilling (L *B * 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) Bamebari Block - Back filling of quarry within the extent of 2182N - 2730N & 3047E - 3543E from 590 mRL to 620 mRL (Backlog Area) ii) Nil iii) 2.350 ha. iv) Nil v) Nil	i) Bamebari Block – Back filling site within the extent of 2182N-2494N & 3047E-3433E from 577 mRL to 587 mRL (Disposed to cover up the backlog extent) ii) Nil iii) 3.251 ha. iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	There was no proposal for rehabilitation of waste land.	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Monitoring of Ambient Air Quality in core zone and Buffer zone as per the Standard. Monitoring of Quality of Surface Water, Ground Water, Drinking Water & Wastewater. Noise level to be monitored on quarterly basis. Blast Vibration: At the time of blasting.	Ambient Air Quality in core zone is being monitored twice a week at four locations (core zone) and 3 villages (buffer zone) once in a month. The quality for Surface Water, Ground Water, Drinking Water & Wastewater at regular interval Noise level is being monitored on quarterly basis. Blast Vibration: At the time of blasting.	

Mineral Conservation

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	470000 Tonnee	82885 Tonnes	No ROM is directly dispatched from the mine. Grade-wise

				sorting is being done within lease area.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Chemical Grade - (Mn> 48% & Fe< 4%) (+10 -75mm, +6 -25mm, -10mm) High Grade - (Mn>46%) (+10 -75mm, +6 -25mm, -10mm) Medium Grade - (Mn>35% & Mn< 26%) (+10 -75mm, +6 -25mm, -10mm) Low Grade - (Mn >25% & < 35%) (+10 -75mm, +6 -25mm,-10mm) Sub Grade / MR- (Mn> 10% & Mn < 25%) (All Size)	As per proposals	
7d	Any beneficiation process at mines	Nil	Nil	

Environment

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil	No such proposals.	Nil	
8b	Concurrent use or storage of topsoil	No such proposals.	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate Dumps for Overburden, and Mineral rejects (Mn.Ore & Iron Ore) Proposed	Carried out as per approved proposals.	
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Backfilling of exhausted pit (Bamebari Block – Backlog area_	Backfilling is in progress over the backlog area. New dump is yet to	

		Rehabilitation of inactive slopes of Waste Dumps (Bonaikela Block)	be developed.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Bamebari Block - Rehabilitation of Dump Slopes (Back filling area)- 2.35 ha. with 5875 Nos. of saplings. Joribar Block - Rehabilitation of Dump (D#1) - 1 ha with 2500 Nos. of saplings.	Bamebari Block - Rehabilitation of Dump Slopes (Back filling area)- 3.251 ha. with 8300 Nos. of saplings. Joribar Block - The D#1 dump could not be extended as proposed due to want of forest clearance.	
8f	Baseline information on existence of plantation & additional plantation done	8300 Nos. of Saplings plantation during FY 23-24	Carried out as per proposal	
8g	Survival rate	85%	90%	
8h	Water sprinkling on roads to control airborne dust	To maintain the ambient air quality as per the National Standard.	Carried out as per the proposals.	

Compliance of Rule 45

S.N.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Submitting the MRs/ARs on-time		
S.N.	Item	Details GIVEN in A.R.	Actual in field	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager - Mr. Niranjana Kumar Mining Engineer - Mr. Alok Singh Sardar Geologist - Mr. Sangeeth G	Manager - Mr. Niranjana Kumar Mining Engineer - Mr. Alok Singh Sardar Geologist - Mr. Sangeeth G	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under Mining - 88.763 ha Reclaimed / Rehabilitated - 20.815 ha. Used for Waste Disposal - 46.884 ha. Occupied by Plant, Building,	Area covered under Mining - 88.763 ha Reclaimed / Rehabilitated - 20.815 ha. Used for Waste Disposal - 46.884 ha. Occupied by Plant, Building, residential, welfare	

		residential, welfare buildings & Roads – 41.928 ha. Others (Storage of Topsoil, Mineral Storage, & Green Belt) – 31.683 ha. Work done under PMCP during the year – 3.251 ha.	buildings & Roads – 41.928 ha. Others (Storage of Topsoil, Mineral Storage, & Green Belt) – 31.683 ha. Work done under PMCP during the year – 3.251 ha.	
9d	Scrutiny of Annual return on afforestation	8300 Nos. of Saplings within lease area	8300 Nos. of Saplings within lease area	Survival Rate – 90%
		10899 Nos. of Saplings outside lease area.	10899 Nos. of Saplings outside lease area.	Survival Rate – 85%
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mn Ore – Mn Content – 19.75 % Closing Balance – - From unprocessed ore - 235793 Tonnes - From processed ore – 115229.95 Tonnes Iron Ore – Fe Content – 47.17 % - From unprocessed ore – 95952.5 Tonnes From processed ore - NIL	Actual also as per AR	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production during 2023-24 – Mn. Dioxide – Nil 46% & above – 40318.578 Tonnes 35% & above but below 46% - 14251.712 Tonnes 25% & above but below 35% - 21916.945 Tonnes Below 25% - 6397.765 Tonnes Total – 82885 Tonnes	Appear to be correct.	
		Closing Stock as on 31.03.2024 Mn. Dioxide – 1.402 Tonnes 46% & above –	Appear to be correct.	

		1522.040 Tonnes 35% & above but below 46% - 810.642 Tonnes 25% & above but below 35%- 18604.362 Tonnes Below 25% - 351022.952 Tonnes Total – 371961.398 Tonnes		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mines Price – Rs. 5948.18 /T (=Cost of Production)	Appears to be correct	
9i	Scrutiny of Annual return on fixed assets	Rs. 12,86,15,652/-	Appears to be correct	
9k	Scrutiny of Annual return on mining machineries	Excavator (Backhoe) – 3 Nos. Dumpers – 21 Nos. Drill (100mm Dia) – 1 Nos. Dozer – 1 Nos. FE Loader- 1 Nos. Grader – 1 No.	Appears to be correct	

Date:19.02.2025

Sujit Kumar Jena
Junior Mining Geologist