

MCDR INSPECTION REPORT**General**

1) Name of Inspecting officer:	Shri Rajesh Kumar Das
2) Designation	Deputy Controller of Mines
3) Accompanying mine official with designation	Shri Shambhu Nath Jha, Agent Mines & Shri Rakesh Kumar, Mines Manager.
4) Date of Inspection	29/10/2024

S N	Particulars	Details
1	Name of the Mine	Tiringpahar Iron and Manganese Mine, Tata Steel Limited
2	Total Lease Area (Ha) with breakup of non-forest and forest land	Original ML Area – 643.710 hect. RML Applied Area – 169 hect. (Reserve Forest: Nil Khesra Forest: 10.392 hect. DLC Forest: 58.522 hect. Sabik Forest: 64.260 Hect Total Forest: 133.174 hect. (Within RML applied area) Total Non-Forest Area: 35.826 ha Final Mine Closure Plan (FMCP) over an area of 474.710 ha out of the original lease area of 643.710 ha has been approved by Indian Bureau of Mines, Bhubaneswar Region vide letter no. FMCP/OTFM/09-ORI/BHU/2015-16, dated 01.09.2016. Certificate for Reclamation and Rehabilitation obtained on 23.02.2023 vide letter no. MCDR- MiFLOFE / 15 / 2023 – BBS -IBM_RO_BBS /I/5309/2023.
3	Mine code	40ORI08033
4	IBM Registration Number under rule 45 of MCDR, 2017	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(kha) & Guruda
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pin code	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	1st Grant: 30 years from 01.03.1930 to 29.02.1960 over 643.710 ha.
15	Date of Execution	15.08.1939
16	Date of opening of Mine	01.03.1930
17	Date of Expiry	29.02.1969
	Date of first Renewal and its period & expiry	Deed No. 114 Execution- Dt. 16.01.1970 Period-01.03.1960 to 29.02.1980 over 643.710 ha.
	Date of second Renewal and its	Deed No. 1133

	period & expiry	Execution- Dt. 21.03.1985 Period-01.03.1980 to 29.02.2000 over 643.710 ha.
	Date of submission of renewal application if Mining Operations are continuing under deemed extension	3rd Renewal – The application for third renewal over a reduced area of 169 ha. was made on 31.12.1998. Form-D No. 198, Dt. 25.01.1999, Sl. No. 699, Dt. 05.01.1999 over an area of 169 ha. Subsequent to promulgation of the MMDR (Amendment) Act, 2015, the extension grant order passed by Govt. of Odisha vide letter No. 3278/SM, dtd. 18.04.2025 and extended till 31.03.2030 over an area of 643.710 ha with a notation as “The lessee has applied for a reduced area of 169 ha of the said lease”. The supplementary lease deed of same was executed vide registration no. 11031500242 Dated 08.05.2015
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. Rakesh Kumar, Tiringpahar Iron and Manganese Mines, FAMD, Tata Steel, P.O: Bamebari, Dist: Keonjhar, Odisha- 758086 Tel: 9124754891 Email: rakesh.kumar1@tatasteel.com Qualification: Diploma (Mining) & FCC Date of Appointment: 30.05.2022
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. Rakesh Kumar, Diploma in Mining & FCC, Experience - 24 Years Tiringpahar Iron and Manganese Mines, At/PO- Bamebari, Dist- Keonjhar, Odisha-758034 Tel: 9124754891 Email: rakesh.kumar1@tatasteel.com Dt. of Appointment-25.09.2023
22	Name of the Geologist, Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Mr. Rishikant Maurya, M.Sc. Tech (Geology) Experience – 7 Years Tiringpahar Iron and Manganese Mines, At/PO- Bamebari, Dist- Keonjhar, Odisha-758034 Tel: 9438887725 Email: Rishikant.maurya@tatasteel.com Dt. of Appointment-01.11.2021
23	Date of Approval of Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	

	Mining Plan / Scheme of Mining	Submitted Under (Rule Reference)	Approval Letter No. & Date	Period	Area (in ha)
	Mining Plan	Rule 12 of MCDR, 1988	CAL/KJ/Mn/MP-247, Dt.14.06.1993	1991-92 to 1996-97	643.71
	1st Review & Scheme of Mining	Rule 12 of MCDR, 1988 & Rule 24(A) of MCR'1960	314(3)/97-MCCM(O)/MP/ Scheme 7, Dt.15.06.1998	1997-98 to 2003-04	643.71
	Mod. Of Scheme of Mining	Rule 10 of MCDR, 1988	BBS/KJ/Mn/MS Tiringpahar, Dt.24.03.2005	2003-04 to 2004-05	643.71
	Scheme of Mining	Rule 12 & 23B of MCDR, 1988	BBS/KJ/Mn/MS-147, Dt.28.04.2006	2005-06 to 2009-10	643.71
	Scheme of Mining	Rule 12 & 23B of MCDR, 1988	MS/OTF.MECH/21-ORI/BHU/2010-11, Dt. 09.07.2010.	2010-11 to 2014-15	643.71
	Mod. Of Scheme of Mining	Rule 10 & 23B of MCDR, 1988	MS/OTFM/66-ORI/BHU/ 2011-12, Dt. 13.04.2012.	2011-12 to 2014-15	643.71
	Scheme of Mining	Rule 12 & 23 B of MCDR 1988	MS/OTFM/34-ORI/BHU/ 2014-15 Dt. 29.04.2015	2015-16 to 2019-2020	643.71
	Final Mine closure plan over an area of 474.710 ha	Rule 23 C of MCDR 1988	FMCP/OTFM/09-ORI/BHU/2015-16 dt. 1.09.2016		474.71
	Mod. Of Scheme of Mining	Rule 10 & 23B of MCDR, 1988	MSM/FM/11-ORIBHU/ 2018-19/720 Dated - 3/07/2018	2018-19 to 2019-20	643.71
	Review of Mining Plan	Rule 17(2) of MCR, 2016 & 23 of MCDR, 2017	RMP/A/07-ORI/BHU/ 2020-21, Dtd. 31.07.2020	2020-21 to 2024-25	643.71
	Review of Mining Plan & Progressive Mine Closure Plan approved vide letter no. RMP/A/07-ORI/BHU/2020-21, Dtd. 31.07.2020 for the period 2020-21 to 2024-25.				
	No specific conditions have been imposed in the approval letter.				
24	Mineral(s) granted in lease and proved for mining	Manganese and Iron Ore			
25	Method of Mining(Open cast, Underground)	Open cast			
26	Category (Fully Mechanized, Others or Manual)	A-OTFM			
27	Captive/Non-Captive	Captive			
28	Present EC Capacity	85000 TPA of Mn. Ore Production			

Exploration

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
1a	Backlog of previous year	Nil	Core – 31 Nos. – 1515m Non-Core (RC) – 30 Nos. – 1449m Total – 61 Nos. – 2964m	Backlog exploration could not be carried out due to non-availability of Forest clearance.
1b	Exploration over lease area for Geological axis 1 or 2.	Not Specified	G1 = 4.443 ha. G2 = (-) 0.662 ha.	Total Lease Status as on 01-04-2024 is G1: 100.223 Ha G2: 54.178 Ha

1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not Specified	130.31	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	14.600	
1e	Balance Reserves as on 01.07.2024 (Mn. Ore)	-	1766264.50 Tonnes	+10% Mn
	Balance Reserves as on 01.07.2024 (Iron Ore)	-	2944970 Tonnes	+45% Fe
1f	General remarks of inspecting officer on geology, exploration etc.	Tiringpahar manganese ore deposit belongs to Pre-Cambrian era of Dharwarian age. This deposit is a part of eastern limb of the major Bonai synclinorium and trends NNE-SSW with an overturned western limb. The local geology of the Tiringpahar Manganese Blocks as observed from different boreholes more or less confirms the fact that manganese mineralization is mainly confined to the weathered shale horizon (lower shale) of Iron Ore group. As per last approved document the exploration proposed in 2020-21 & 2021-22 was total 346 nos of bore holes of total meterage 17745 meter but till date only 257 nos bore holes of 13002.4 meterage reported in last proposed period. Broadly 189.56 ha. Area explored in G1 & G2 scale of exploration.		

Development

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t. lease area	Extent of Development- Guruda – A – Quarry - 1 - 11213N-11509N & 11955E-12312E from 556 mRL to 666 mRL. Quarry - 3 - 11494N-11620N & 11632E-11763E from 682 mRL to 706 mRL. Guruda – B – 10180N-10345N & 10953E-11092E from 642 mRL to 682 mRL.	Extent of Development- Guruda – A – Quarry - 1 - 11213N-11509N & 11955E - 12306E from 628 mRL to 654 mRL. Quarry - 3 – 11494N-11620N & 11647E-11763E from 687mRL to 701mRL. Guruda – B – No development carried out.	due to want of Stage – II 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	Separate benches in OB and mineral are being maintained wherever possible.	
2c	Stripping ratio or ore to OB ratio	(In-situ CuM : CuM) Guruda – A – 1: 1.31 Guruda – B – 1: 57.02	(In-situ CuM : CuM) Guruda – A – 1: 1.55 Guruda – B – Nil	

		Avg. 1: 1: 1.82 (Ore includes Mn.Ore & Iron Ore Mineral Rejects)	Avg. 1: 1.55 (Ore includes Mn.Ore & Iron Ore Mineral Rejects)	
2d	Quantity of topsoil generation in m ³	2695	104	
2e	Quantity of overburden/was te generation in m ³	Guruda – A – 454692 CuM Guruda – B – 184068 CuM Total – 638760 CuM	Guruda – A – 131969.695 CuM Guruda – B – Nil Total – 131969.695 CuM	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The production was proposed in two pits Garuda –A & Garuda-B for 2023-24 but actually production is done in Garuda-A.		

Exploitation

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
3a	Number of pits proposed for production	3 Nos.	3 Nos.	
3b	Quantity of ROM mineral production proposed (Mn. Ore in Tonnes)	Guruda – A – 229938 Guruda – B – 8062 Total – 238000	Guruda – A – 55803 Guruda – B – Nil Total – 55803	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	Mn Content >10%
3d	Quantity of mineral reject generation (Mn. Ore in Tonnes)	Guruda – A – 87938 Guruda – B – 62 Total – 88000	Guruda – A – 12269.334 Guruda – B – Nil Total – 12269.334	Total Generation 12269.334 Tonnes and 3348.180 Tonnes consumed by blending with upper grade.
	Quantity of mineral reject generation (Iron Ore in Tonnes)	Guruda – A – 688999 Tonnes Guruda – B – Nil Total – 688999 Tonnes	Guruda – A – 170785.768 Tonnes Guruda – B – Nil Total – 170785.768 Tonnes	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%	Threshold Value Mn. Ore - Mn>10% Iron Ore – Fe>45% Generation - Mn Ore – Mn Content – 19.77%	Iron Ore (MR) - In-situ excavation concurrent to development of Mn. Ore Pits.

		Iron Ore – Fe Content – 45-58%	Iron Ore – Fe Content – 49.26 %	
3f	Quantity of sub-grade mineral generation	Included in Mineral Reject. (Point 3d)	Included in Mineral Reject. (Point 3d)	Same as Point 3d.
3g	Grade of sub-grade mineral generation	Included in Mineral Reject. (Point 3e)	Included in Mineral Reject. (Point 3e)	Same as Point 3d.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
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 – 8 m +10% subgrade =6.6 - 8.8m Spacing= 3m Burden= 2.5 m Volume= 45 - 66 CuM Specific Gravity=2.5 Tonnage/Hole= 112.5 - 170 Tonnes Powder factor= 4.0 – 5.0 kg/Tonne	Deep hole Drilling blasting Depth of hole = 8 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 to 7.00 kg/Tonne	
3k	Provision of mining machineries in mineral benches	For 3 Shift Working - Shovel – 2 Nos. Dumper- 12 Nos. Drill- 2 Nos. Dozer – 3 Nos. FE Loader – 1 Nos.	Operated I Shift Working – Shovel – 3 Nos. Dumper- 15 Nos. Drill- 1 Nos. Dozer – 1 Nos. FE Loader – 1 Nos.	1 No. of less capacity Shovels are in reserve for misc. jobs including shifting of ore. 3 Nos. of Dumpers of less capacity (10T) are being used for shifting of ore and 3 Nos. are in reserve.
3l	Whether height of benches in overburden and mineral suitable for	Bench Height: 6-8 m Bench Width: 8-10 m	Height – 6-8 m Width- 8-10m	

	method of mining proposed in MP/SOM			
3m	Total area covered under excavation/pits	30.307 ha as on 31.03.2024	29.000 ha. as on 31.03.2024	
3n	Ore to OB ratio for the pit/mine during the year	(In-situ CuM : CuM) Guruda – A – 1: 1.31 Guruda – B – 1: 57.02 Avg. 1: 1: 1.82 (Ore includes Mn.Ore & Iron Ore Mineral Rejects)	(In-situ CuM : CuM) Guruda – A – 1: 1.55 Guruda – B – Nil Avg. 1: 1.55 (Ore includes Mn.Ore & Iron Ore Mineral Rejects)	
3o	Total area put in use under different heads at the end of year	At the end of 31.03.2025: Area Excavated: 40.602 ha Storage of topsoil: 0.300 ha Waste Dump: 34.328 ha Mineral Storage: 24.031 ha Infrastructure (Workshop, Magazine etc.): 0.300 ha Roads: 3.636 ha Railways: 0 ha Greenbelt: 2.547 ha Tailing Pond: 0 ha ETP: 0 ha Mineral Separation Plant: 0 ha Township Area: 0 ha Total – 105.744 ha.	At the end of 31.03.2024: Area Excavated: 29.000 ha Storage of Top Soil : Nil Waste Dump: 31.200 ha Mineral Storage: 15.400 ha Infrastructure (Workshop, Magazine etc.): 0.300 ha Roads: 3.350 ha Railways: 0 ha Greenbelt: 2.547 ha Tailing Pond: 0 ha ETP: 0 ha Mineral Separation Plant: 0 ha Township Area: 0 ha Total – 81.800 ha.	
3p	Production of ROM mineral during last five-year period, as applicable	Mn. Ore	Mn. Ore	As mentioned below.
	Year- 2019-20	100000	84998	
	Year- 2020-21	98200	84141	
	Year- 2021-22	122000	67012	
	Year- 2022-23	178400	63135	
	Year-2023-24	238000	55803	
3q	General remarks of inspecting officer on method of mining etc.	The method of mining is by opencast method by using HEMM and deep hole drilling and blasting. The mining activity by fully mechanized method with shovel and dumper combination.		
Remarks – The production level was proposed to be enhanced from 2021-22 onwards with the present approved level of ROM of Mn. Ore of 98000 Tonnes to 538000 Tonnes during this plan period till 31.03.2025 for which afresh environment clearance is in process but delayed due to SOP of MoEF & CC was under sub-juidice. Due to such delay in processing, the production plan was curtailed to be remain within the present approved limit.				

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.	Separate dumps for topsoil, OB, mineral reject is being maintained.	
4b	Location of topsoil, OB & mineral reject dumps	Topsoil – Area earmarked. Waste Dump – Backfilling of Quarry - 2 – 11584N-11750N & 11694E-11864E, from 664 mRL to 688 mRL. Dump D#4 – 11124N-11341N & 11677E-11927E from 640 mRL to 683 mRL Mineral Reject Dump – Mn. Ore (M#3) – 11348N-11472N & 11748E-11873E and up to 695 mRL Iron Ore (I#3) – 11277N-11629N & 11550E-11706E and up to 700 mRL.	Topsoil – Area earmarked. Waste Dump – Backfilling of Quarry -2 – 11585N-11750N & 11695E-11854E, from 664 mRL to 680 mRL. Dump D#4 – 11125N-11341N & 11677E-11927E from 642 mRL to 668mRL Mineral Reject Dump – Mn. Ore (M#3) – 11366N-11471N & 11774E-11855E and up to 704.83 mRL Iron Ore (I#3) – 11305N-11629N & 11557E-11705E and up to 700 mRL.	(Covering of back log part) Temporary Stacking is also being done over the Backfill area of Quarry 2
4c	Number of dumps within lease area and outside lease area	4 Nos & 1 (partial back filling of Guruda-A Quarry-1)	4 Nos & 1 (partial back filling of Guruda-A Quarry-1)	No dumps are outside the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Same as Point No. 4b	Same as Point No. 4b	
4e	Number of active & alive dumps	3 Nos.	3 Nos.	
4f	Number of dead dumps	1 No.	1 No.	
4g	Number of dumps stabilized	1 No.	1 No.	
4h	Whether Retaining wall or garland drain all along dumps are there	Retaining Wall – 400 m	Retaining Wall –50 m	400 m retaining wall was proposed over Mineral Reject Dump MI#4,
4i	Length of Retaining wall or garland drain all along dump	Garland Drain – 400 m	Garland Drain – Nil	but the dump not developed due to want of

				Forest Clearance. 50m has been carried out during the year for strengthening of existing walls.
4j	Number of settling ponds	1	1	Check Dam proposed near MR Dump I#4 (Guruda-B) could not be done due to no establishment due to want of Stage - II Forest clearance. One check wall with settling pit provided near road covering the valley portion.
4k	Specific comments of inspecting officer on waste dump management	There were proposals of 400m retaining wall and 400 meter Garland drain in 2023-24 but actually only 50 meter retaining wall constructed and Nil drainage.		

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	Nil	Nil	
5b	Area under backfilling of mined out area	2.010 ha	2.000 ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	1770 CuM	104 CuM	Concurrently used for plantation.
5d	Total area fully reclaimed & rehabilitated	Not proposed during the year	NA	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling within proposed area.		

Progressive Mine Closure Plan

S.N.	Item	Proposals	Actual work	Remarks
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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 th Jun every year	Submitted on 26.06.2024 (email)	
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	Nil	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 backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) 2.010 ha. ii) 1,90,000 CuM iii) Nil iv) Nil v) Nil	i) 2.000 ha. ii) 1,08,117 CuM iii) Nil iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Dump Plantation - 2.000 ha (5000 Nos. of Sapling) over Waste Dump - D#4 at Guruda - A.	Dump Plantation - 0.04 ha. (1800 Nos. of Sapling)	Dump Plantation could not be achieved due to non-availability of matured slope as the dump development delayed by one year on account of delay in grant of working permission over the diverted forest land after tree felling

6e	Compliance of Environmental monitoring (core zone & buffer zone)	Core Zone – a) Ambient Air Quality Monitoring (Twice a week) b) Water Quality (Once in a month) c) Noise Survey (Once in a quarter) d) Ground Vibration Buffer Zone – Quarterly monitoring of Ambient Air and Water Quality.	Adhered the schedule of monitoring at Core and Buffer Zone	
6q	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Broadly as per proposal.		

Mineral Conservation

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Guruda – A – 229938 Guruda – B – 8062 Total – 238000	Guruda – A – 55803 Guruda – B – Nil Total – 55803	
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)	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)	
7d	Any beneficiation process at mines	NA	NA	

7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The blending of low grade with high grade done to get the desire grade.
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Environment

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	2695	104	Topsoil has been utilized completely
8b	Concurrent use or storage of topsoil	Nil	Nil	within 3 months of excavation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate Dumps for Overburden, and Mineral rejects (Mn.Ore & Iron Ore) Proposed	Separate Dumps for Overburden, and Mineral rejects (Mn.Ore & Iron Ore) are being maintained.	
8d	Use of overburden, waste rock, rejects and fines dump 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)	Dump Plantation – 2.000 ha (5000 Nos. of Sapling) over Waste Dump – D#4 at Guruda – A.	Dump Plantation – 0.04 ha. (1800 Nos. of Sapling)	Dump Plantation could not be achieved due to non-availability of matured slope as the dump development delayed by one year on account of delay in grant of working permission over the diverted forest land after tree felling
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Nil	Nil	
8g	Survival rate	85%	91%	
8h	Water sprinkling on roads to control airborne dust	To maintain the ambient air quality as per the National	▪ Dust suppression systems (water jets) have been	

		Standard.	provided in drill machine. ▪ Haul roads are regularly sprinkled with the help of mobile water sprinklers. ▪ Fixed water sprinklers have been installed along the haul roads of D quarry. ▪ Dumping and screening are regularly sprinkled with the help of mobile water sprinklers.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	During mine visit no adverse impact on aesthetic beauty within lease observed.		

Compliance of Rule 45

S.N.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Returns are being submitted within stipulated time. Annual Return for the year 2023-24 submitted on 26.06.2024.		Form F-1 for the Month of Sept'2024 submitted online on 08.10.2024 Form G-1
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	Mines Manager: Rakesh Kumar Mining Engineer: Rakesh Kumar Geologist: Rishikant Maurya	Mines Manager: Rakesh Kumar Mining Engineer: Rakesh Kumar Geologist: Rishikant Maurya	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under Mining – 29.000 ha Used for Waste Disposal – 31.200 ha. Occupied by Plant, Building, residential, welfare buildings & Roads – 3.650 ha. Others (Storage of Topsoil,		

		Mineral Storage, & Green Belt) – 17.950 ha. Work done under PMCP during the year – 0.040 ha.		
9d	Scrutiny of Annual return on afforestation	1800 Nos. of Saplings within lease reported		Survival Rate – 91%
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mn Ore Mineral Reject - Closing Balance – - From unprocessed ore - 5301 Tonnes (Mn – 19.77%) - From processed ore - 6968 Tonnes (Mn – 19.51%) Iron Ore Mineral Reject - - From unprocessed ore – 170785.77 Tonnes (Fe – 49.26%) From processed ore - NIL	-	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production during 2023-24– Mn. Dioxide – Nil 46% & above – 203.087 Tonnes 35% & above but below 46% - 5171.149 Tonnes 25% & above but below 35%- 41507.610 Tonnes Below 25% - 8921.154 Tonnes Total – 55803 Tonnes	Production during 2023-24– Mn. Dioxide – Nil 46% & above – 203.087 Tonnes 35% & above but below 46% - 5171.149 Tonnes 25% & above but below 35%- 41507.610 Tonnes Below 25% - 8921.154 Tonnes Total – 55803 Tonnes	
		Closing Stock as on 31.03.2024 Mn. Dioxide – 5.602 Tonnes 46% & above – 3.782 Tonnes	Closing Stock as on 31.03.2024 Mn. Dioxide – 5.602 Tonnes 46% & above – 3.782 Tonnes	

		35% & above but below 46% - 34.204 Tonnes 25% & above but below 35%- 18625.258 Tonnes Below 25% - 244099.433 Tonnes Total – 262768.279 Tonnes	35% & above but below 46% - 34.204 Tonnes 25% & above but below 35%- 18625.258 Tonnes Below 25% - 244099.433 Tonnes Total – 262768.279 Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mines Price of Mn – Rs. 3781.68/ T (= Cost of Production)		
9i	Scrutiny of Annual return on fixed assets	Rs. 4,80,19,512/-	Rs. 4,80,19,512/-	
9k	Scrutiny of Annual return on mining machineries	Shovel – 3 Nos. Dumper- 15 Nos. Drill- 1 Nos. Dozer – 1 Nos. FE Loader – 1 Nos.	Shovel – 3 Nos. Dumper- 15 Nos. Drill- 1 Nos. Dozer – 1 Nos. FE Loader – 1 Nos.	

During present mine visit the violations under Rule 11(1) of MCDR found violated and accordingly violations pointed out
