

INDIAN BUREAU OF MINES

MCDR INSPECTION REPORT**Bhubaneswar Region****General**

SL. No.	Particulars	Details
1.	Name of the Mine	TIRINGPAHAR IRON ORE MINES
2.	Date of Inspection	06.02.2025
3.	Name of Inspection officer:	Sri Rajesh Kumar Das (DCOM) , IBM Bhubaneswar
4.	Name of official accompanying inspection	Sri Amlan Das (Mines Manager) Sri P K Sahoo(Mining), Sri S K Behera (Geology), Sri Vinod R.V (Geologist) , Sri Pulack Ranjan Nayak(Mining Engineer) , Motilal Naik (Surveyor)
5.	Last date of Inspection & Officer	08.11.2023, Shri Sanjay Kumar Mohapatra
6.	Total Lease Area (Ha) with breakup of non-forest and forest land	Non Forest Land- 0.0 Forest Land- 79.3 Ha. Total- 79.30 Ha.
7.	Minecode	30ORI08098
8.	IBM Registration Number under rule 45 of MCDR, 2017	IBM/4269/2011
9.	Name of the lessee, Address, phone, email and fax number.	M/s OMC Limited, OMC House, PO Box No-34, Bhubaneswar, 751001, Khorda.
10.	Village	Dalpahad
11.	Taluka/Mandal	Barbil
12.	District	Keonjhar
13.	Pincode	758034
14.	State	Odisha
15.	Post office.	Khandabandh
16.	Nearest police station	Bamebari
17.	Nearest Railway station	Jaroli
18.	Date of Grant of Mining Lease	26.06.1964
19.	Date of Execution	24.08.1964
20.	Date of opening of Mine	31.07.2020
21.	Date of expiry	23.08.2034

22.	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Sudhansu Mohan Samal, IAS, MD, Address- OMC House, PO Box No-34, Bhubaneswar, 751001, Khorda, Email- md@odishamining.in
23.	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Abanikanta Pradhan, OMC Office, At/Po- Barbil, Ps- Barbil, Dist- Keonjhar, Odisha, 758035, Email- apradhan@odishamining.in , Mob- 9437431943
24.	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Shri Amlan Das At/po- Khandabandh, Ps- Bamebari, Via- Joda, Dist- Keonjhar, Odisha, 758034, Email- amlan.das@odishamining.in , Mob- 9575688975, DOJ- 13.01.2024
25.	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Sri Pulack Ranjan Nayak, B.tech in Mining, At/po- Khandabandh, Ps- Bamebari, Via- Joda, Dist- Keonjhar, Odisha, 758034, Email- pulack.nayak@odishamining.in , Mob- 8093038822, Total experience - 5 years, DOJ- 18.01.2022
26.	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Sri Vinod RV, Msc in applied geology, At/po- Barbil, Ps- Barbil, Dist- Keonjhar, Odisha, 758035, Email- vinod.rv@odishamining.in , Mob- 9995901357, Total experience - 16 DOJ-10.07.2024
27.	Date of Approval of Mining Plan/Review of Mining Plan/ their modifications with five-year period and specific condition in approval letter, if any.	MCDR-MiFLOFE/28/2023-BBS-IBM_RO_BBS Dated 06.02.2024
28.	Mineral (s) granted in lease and proved for mining.	Iron Ore
29.	Method of Mining (Opencast, Underground)	Open Cast
30.	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
31.	Captive/Non-Captive	Non- Captive
	Present EC Capacity	0.328MTPA

Exploration:---

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
1a	Backlog of previous year	10 nos (600 m)	8 nos (615.75 m)	
1b	Exploration over lease area for Geological axis 1 or 2.	68.950 Ha (G-1)	68.950 Ha (G-1)	
1c	Exploration Agency & Expenditure in lakh Rupees during the year			Drilling agency – M/s MAPL Expenditure- Rs26.205 Lakh (Excl. GST)
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserves as on 01.04.2024. (Proved + Probable)	31.23 Million tonne as on 31.03.2024		Reserve as on 31.03.2024 was 31.23 MT + resource 5.1065 MT
1f	General remarks of inspecting officer on geology, exploration etc.	Tiringpahar leasehold comprising of an area of 79.30 Hects is considered to be a potential iron ore deposit and occupies a south central position in the Eastern limb of Singhbhum-Keonjhar- Bonai iron ore synclinorium. The major iron ore deposit lies mostly in the western part of the leasehold striking NE-SW and dipping NW. Floats of iron ore cover major part in East and NW part of the lease. SLO patch is well developed in the North-West part of the lease hold. The iron ore exposed in this area exhibits a maximum strike length of 70mtrs in the western block of the deposit. Floats of lateritic iron ore are delineated in North-west part of the leasehold. The lease area broadly explored in G1& G2 scale of exploration.		

Development:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of development w.r.t. lease area	2429877 N to 2430242 N & 332496 E to 332768 E	Broadly as per proposal.	
2b	Separate benches in topsoil, overburden and mineral	Yes	Broadly as per proposal.	

2c	Stripping ratio or Ore to OB ratio	1:1.21	1:0.92	
2d	Quantity of topsoil generation in m ³	500 m ³	Nil	
2e	Quantity of overburden generation in m ³	400000 m ³	304963	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Broadly as per proposal.		

Exploitation:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	328000	327999.500	
3c	Recovery of salable/usable mineral from ROM production	278800	278800	
3d	Quantity of mineral reject generation	49200	49200	
3e	Grade of mineral reject generation and threshold value declared	+45-55 %FE	+45-55 %FE	
3f	Quantity of sub-grade mineral generation	49200	49200	
3g	Grade of sub-grade mineral generation	+45-55 %FE	+45-55 %FE	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation	NA	Subgrade material is being blending with	

	study proposed & carried out for sub-grade mineral and reject		ROM	
3j	Provision of drilling & blasting in mineral benches	Blast holes of 115 mm diameter shall be drilled in suitable pattern in both Ore & OB benches	It is being carried out.	
3k	Provision of mining machineries in mineral benches	Excavator & loading- 07 Dozer- 02 Drilling Machine- 01	Excavator & loading- 06 Dozer- 01 Drilling Machine- 01 Dumper-12	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6	6	
3m	Total area covered. under excavation/ pits	17.6 Ha	16 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1:1.21	1:0.92	
3o	Total area put in use under different heads at the end of year	Mining-17.60 Ha OB Dump- 14.26 Ha Infrastructure -4.06 Ha Road-2.52 Top soil dump- 0.10Ha Mineral storage- 5.17ha Mineral Separation Plant-0.80	Mining-16.00 Ha OB Dump- 13.78 Ha Infrastructure -4.06 Ha Road-2.52 Top soil dump- 0.10Ha Mineral storage- 5.17ha Mineral Separation Plant-0.80	
3p	Production of ROM mineral during last five-years period , as applicable	2019-20-3,28,000 T 2020-21-3,28,000 T 2021-22-3,28,000 T 2022-23-3,28,000 T 2023-24-3,28,000 T	2019-20- NIL 2020-21-128160 T 2021-22-3,28,000 T 2022-23-3,28,000 T 2023-24 – 327999.5	Mining operation has been commenced w.e.f 31.07.2020
3q	General remarks of	The method of mining is by opencast method by using HEMM and deep hole drilling and blasting. The mining activity by fully		

	inspecting Officer on method of mining etc	mechanized method with shovel and dumper combination.
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Solid Waste Management-Dumping:--

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Topsoil- 0.10 OB Dump- 14.26 Ha Mineral Storage - 5.17 Ha	Top Soil- 0.10 Ha OB Dump- 13.78 Ha Mineral Storage- 5.17 Ha	
4b	Location of topsoil, OB & mineral reject dumps	Top Soil- Nil OB Dump- 2429710N-2430260N, 332818E-333210E	Top Soil- 2429747N-2429810N, 333050E-333126E OB Dump- 2429869N-2430260N, 332810E-333132E	
4c	Number of dumps within lease area and outside lease area	Within Lease Area- 01 Outside Lease Area -Nil	Within Lease Area- 01 Outside Lease Area -Nil	
4d	Location of dumps w.r.t. ultimate pit limit	Nil	Nil	
4e	Number of active & alive dumps	1	1	
4f	Number of dead dumps	0	0	
4g	Number of dumps stabilised	0	0	
4h	Whether Retaining wall or garland drain all along dumps are there	0	Yes	
4i	Length of Retaining wall or garland drain all along dump	Retaining Wall- 218 Mtr Garland Drain- 218 Mtr	Retaining Wall- 218 Garland Drain- 218	
4j	Number of settling ponds	0	8	
4k	Specific comments of inspecting Officer on waste Dump management	During mine visit it was observed that waste dumping management was broadly as per proposal		

Solid Waste Management-Backfilling:--

SL.No.	Item	Proposals (FY 2023-24)	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	NA	NA	
5d	Total area fully reclaimed & rehabilitated	NA	NA	
5e	General remarks of inspecting Officer on backfilling and reclamation etc	Area not matured for backfilling.		

Progressive Mine Closure Plan: ---

SL.N.	Item	Proposals (FY 2023-24)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)	As per Rule	Submitted with Annual Return on dated 25.06.2024	
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 (ha)-NA ii) Afforestation done (ha)-0.25HA iii) No. of saplings planted during the year-625 iv) Cumulative no. of plants-NA v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) Area available for rehabilitation (ha)-NA ii) Afforestation done (ha)-0.25 iii) No. of saplings planted during the year-1680 iv) Cumulative no. of plants - 4680	

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	NA	NA	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	NA	NA	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes (Core & buffer Zone)	Yes (Core & buffer Zone)	it was done by M/s Ecomen Lab Pvt Ltd in 2023-24
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc	Broadly as per proposal.		

Mineral Conservation:---

SL.No.	Item	Proposals ((FY 2023-24)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting within lease area	CLO-10x40 mm-104848.84 Fines- 0-10mm-257028.11	At Tiringpahar iron ore only processed mineral is being dispatched.

7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines		Fines-60-62% Fe Fines-62-65 % Fe CLO-10x40mm-62-65%fe CLO-10x40mm-+65%fe	
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 desired grade. No wet beneficiation within lease.		

Environment:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
8a	Separate removal and utilization of topsoil	Yes,500m ³ topsoil generated.	Yes,500m ³ topsoil generated.	
8b	Concurrent use or storage of topsoil	Stacked at earmarked site.	Stacked at earmarked site.	
8c	Separate dumps for overburden, waste rock, rejects and fines	O.B- 400000 M ³ Waste Rock- NIL	O.B- 304963 M ³ Waste Rock- NIL	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	
8f	Baseline information on existence of plantation & additional plantation done	1686 (Within Mines lease) & Kitchen garden development with peripheral areas		
8g	Survival rate	95%	95%	
8h	Water sprinkling on roads to control airborne dust	Yes	Water sprinkling is being carried out 4times by each tanker in a day with 2nos of	

			mobile water tanker. (12KL&10KL)	
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 but the plantation not done as per proposal.		

Compliance of Rule 45

SL.No.	Item	COMMENTS		Remarks.
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto DEC 2024 A.R. Submitted upto 2023-24		
S.N.	Item			
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Mine Manager: Shri Amlan Das, Mining Engineer: Shri Pulack Ranjan Nayak, Geologist: Shri Rabindra Mohanty	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes given	17.66 ha. Under O/C working, Waste disposal: 14.26 ha.	
9d	Scrutiny of Annual return on afforestation	1680 nos reported		
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Yes given	49200 Tons	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		327999.50 Tons	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Yes given	Ex- mine price for Fines: Fe%(60-62)-Rs 4598.26/-, Fe%(62-65)-Rs 4851.45/-, CLO FE %(62-65)-Rs 7599.88/-	
9h	Scrutiny of Annual return on fixed assets	Rs 156201561/-		
9i	Scrutiny of Annual return on mining machineries	Yes given	Backhoe-1.6m ³ (3 nos), Dumper-25& 35 tons, Dozer, Grader, etc.	

During present inspection the violation under Rule 11(1) and 45(5)(c) pointed out.

Rajesh Kumar Das
Deputy Controller of Mines
IBM, Bhubaneswar