

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/KJR/MCDR-64/BBS

**Mine code :** 30ORI08016

- (i) Name of the Inspecting : **VPD** ) **VIKRAM DESHPANDE**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Rashmi Ranjan Parida, Agent, Anil Sahoo, Mines Manage  
Official with  
Designation
- (iv) Date of Inspection : 14/11/2022
- (v) Prev.inspection date : 20/12/2020

**PART-I : GENERAL INFORMATION**

- 1. (a) **Mine Name** : **GANDHAMARDHAN 'A' BLOCK**
- (b) **Registration NO.** : **IBM/4269/2011**
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address :  
State : ORISSA  
District : KEONJHAR  
Village : SUAKATI  
Taluka : KEONJHAR  
Post office : SUAKATI  
Pin Code :  
FAX No. : 06766233085  
E-mail : mangermininggiom@gmail.com  
Phone : 06766233160
- (f) Police Station : KEONJHAR
- (g) First opening date : 21/06/1963
- (h) Weekly day of rest : SUN
- 2. Address for : GANDHAMARDAN IRON MINE, M/S OMC LTD  
correspondance : P.O.SUAKATI, DIST:KEONJHAR  
ORISSA-758018
- 3. (a) Lease Number : ORI0086
- (b) Lease area : 618.58
- (c) Period of lease : 50
- (d) Date of Expiry : 20/01/2033
- 4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : M/S Orissa Mining Corporation Ltd  
P.O.NO.34 OMC House  
Bhubaneswar KHURDA ORISSA  
Phone:  
FAX :

Owner : Shri Balwant Singh, (IAS),  
OMC House, PO Box No. 34  
KHURDA ORISSA  
Phone:  
FAX :

Agent : Shri Anurag Ojha  
At & PO: Suakati District :  
Keonjhar KEONJHAR ORISSA  
Phone:  
FAX :

## Mining Engineer

Name : Sri Bibhisn Majhi, Full Time  
Qualification : B.Tech in Mining Engineering  
Appointment/ : 22/06/2021  
Termination date

## Manager

Name : Anil Kumar Sahoo  
Qualification : Diploma in Mining Engineering  
Appointment/ : 02/04/2021  
Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	01/08/2006
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	20/05/2011
		Mining Scheme rule 12 MCDR1988	20/05/2011
		Renewal under rule 24 MCR1960	14/08/2013
		MP review under 17(1) MCR 2016	23/01/2018
		MS modif under MCR 1960	12/01/2021

---

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	0	0	
1b	Exploration over lease area for geological axis 1 or 2	133	6	Violation of Rule 11(1) of MCDR 2017 issued to lessee on 24/11/2022
1c	Exploration Agencies and Expenditure in lakh rupees during the year	M/s. Maheshwari Mining Pvt.ltd.	NIL	Contract Awarded to Agency but however Commencement of work has not been started due to Want of FC.
1d	Balance area to be explored to bring Geological axis in 1 or 2	506.0.66 Ha	NIL	Work has not been commenced due to want of FC
1e	Balance reserve as on 01/04/20		Reserves/Resources as on 01/04/2022 are: 111:- Nil 121:- 4.16 Mill.Tonnes 122:- 19.55 Mill.Tonnes Total: - 23.71 Mill.Tonnes	All production reported is from float and flank quarry hence the depletion is shown in 122 category.
1f	General remarks of inspecting officers on geology, exploration etc			Ore body of Gandhamardan-A lease is continuation of the main ore body of adjoining Gandhamardan-B of the same lessee. Exposure of the ore body is visible at benches.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
--------	------	-----------	-------------	---------

2a	Location of development w.r.t.lease area	Float Quarry 344355E to 344510E & 2390282N to 2390755 N Flank Quarry 344050 E to 344316 E & 2390780 N to 2390975 N Hill Top Quarry 345208E to 345591 E & 2392080 N to 2392390 N	Float Quarry 344259E to 344475E & 2390382N to 2390602 N Flank Quarry 344117 E to 344316 E & 2390782 N to 2390974 N Hill Top Quarry No Working	Hill top Quarry not working due to want of FC.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	As per proposal	As per proposal	
2c	Stripping ratio or ore to OB ratio	1:0.26	1: 0.62	
2d	Quantity of topsoil generation in m3	0.02 Mill. CuM	0.012 Mill.CuM	Hill top Quarry not working due to want of FC.
2e	Quantity of overburden generation in m3	0.53 Mill. CuM	0.0968 Mill.CuM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The workings are confined to Flank and Float Quarry. The Hill top Quarry not working due to want of FC.

---

**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	03	02	Hill top Quarry not working due to want of FC.
3b	Quantity of ROM mineral production proposed	2.12 Mill.Tonnes	0.1558 Mill.Tonnes	

---

3c	Recovery of sailable/usable mineral from ROM production	100%	100%	100% achivement is due to blending.
3d	Quantity of mineral reject generation	0.41 Mill.Tonnes	0.0312 Mill.Tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	45 % to 55 % of Fe	45 % to 55 % of Fe	
3f	Quantity of sub grade mineral generation.	0.41 Mill. Tonne	0.0312 Mill.Tonne	
3g	Grade of sub grade mineral generation	45 % to 55 % of Fe	45 % to 55 % of Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mehanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	None	
3j	Provision of drilling and blasting in mineral benches	As per proposal	As per proposal	
3k	Provision of mining machineries in mineral benches	As per proposal	As per proposal	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Float Quarry Height: 5Mtr Width: 8Mtr Flank Quarry Height: 6Mtr Width: 8Mtr Hill Top Quarry Height: 10 Mtr Width: 12Mtr	Float Quarry Height: 5Mtr Width: 8Mtr Flank Quarry Height: 6Mtr Width: 8Mtr Hill Top Quarry Height: 10 Mtr Width: 12Mtr	Hill top Quarry not working due to want of FC

---

3m	Total area covered under excavation/pits	58.719 Ha	57.745 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	Float Quarry 1:1.17 Flank Quarry 1:0.32 Hill Top Quarry 1:0.15	Float Quarry 1:0.62 Flank Quarry 1:0.34 Hill Top Quarry No Working	Hill top Quarry not working due to want of FC
3o	Total area put in use under different heads at the end of year	116.444 Ha	116.444 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18 : 0.35 Mill. Tonne 2018-19 : 0.35 Mill. Tonne 2019-20 : 0.35 Mill. Tonne 2020-21: 0.35 Mill. Tonne 2021-22:2.12 Mill. Tonne	2017-18 : Nil 2018-19 : Nil 2019-20 : 0.1790 Mill.Tonne 2020-21: 0.2209 Mill.Tonne 2021-22:0.1558 Mill.Tonne	Hill top Quarry not working due to want of FC.
3q	General remarks of inspecting officers on method of mining etc.			Hill top Quarry not working due to want of FC.

---

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No such proposal	Not Applicable	
4b	Location of topsoil, OB and mineral reject dumps	No Such Proposal	Not Applicable	

---

4c	Number of dumps within lease area and outside of lease area	Within Lease: 02 Outside of Lease Area: Nil	Within Lease: 02 Outside of Lease Area: Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL
4e	Number of active and alive dumps.		Nil
4f	Number of dead dumps.		02
4g	Number of dumps established.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	02-Retaining Wall 01-Garland drain	02-Retaining Wall 01-Garland drain
4i	Length of Retaining wall or garland drain all along dumps	152m-Retaining Wall 316m-Garland Drain	As per proposal
4j	Number of settling ponds	02	02
4k	Specific comments of inspecting officer on waste dump management		

---

**Solid Waste Management - Backfilling:**

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	6.47 Ha	3.10 Ha	
5b	Area under backfilling of mined out area	6.47 Ha	3.10 Ha	

---

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	0.02 Mill. CuM	0.012 Mill.CuM	Topsoil used for plantation purpose as and when generated.
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling has not been done as per proposal.

---

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).		Yes Submitted in time	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	3.59 Ha	0.48 Ha	
6d	No. of saplings planted during the year	7180	885	Violation of Rule 11(1) has been issued to the lessee.
6e	Cumulative no .of plants		6914	
6f	Any other method of rehabilitation	No Such Proposal	None	
6g	Cost incurred on watch and care during the year		Given contract value of Rs 15.44 Lakh For plantation including watch& care	

---

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No Such Proposal	None
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Such Proposal	None
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No Such Proposal	None
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Such Proposal	None
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Such Proposal	None
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Such Proposal	None
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Such Proposal	None

---

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Such Proposal	None	
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per proposal	As per proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The target of bacfilling has not been achieved due to less ROM production.

---

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting grade wise within lease	As per proposal	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines.	+62% of Fe (Lumps) & + 60% of Fe ( Fines)	+62% of Fe (Lumps) & + 60% of Fe ( Fines)	
7d	Any beneficiation process at mines	Crushing and Screening of ROM.	As per Proposal.	Blending of ROM done at Face.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			ROM of different grade is blended as per requirement.

---

## Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	0.02 Mill. CuM	0.012 Mill.CuM	Topsoil generated is utilized for plantation.
8b	Concurrent use or storage of topsoil	Concurrent use proposed	Topsoil generated is utilized for plantation.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, for Mineral Reject	Mineral Reject	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling	Backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	None	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	7180 No's of tree to be planted within the lease area	885 No's of tree planted within the lease area	
8g	Survival rate	100%	95%	
8h	Water sprinkling on roads to control airborne dust	Mobile Water Sprinkler	Mobile Water Sprinkler	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 the monthly annual return to be submitted to competent authority.	Monthly return submitted up to March 2022, Annual return submitted for the year 2021-22 vide Letter No 2342/OMC/ROG/2022 Dated 30/06/2022	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		During inspection no Mining Geologist was employed as per Rule 55 of MCDR, 2017.	Violation of Rule 55 of MCDR 2017 has been pointed out to the lessee.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pits = 57.745 ha Reclaimed area = 3.771 ha Dumps = 0.822 ha Infrastructure = 25.988 ha Other Purpose (Mineral storage, Sub grade Mineral Storage) = 28.118 ha	Pits = 57.745 ha Reclaimed area = 3.771 ha Dumps = 0.822 ha Infrastructure = 25.988 ha Other Purpose (Mineral storage, Sub grade Mineral Storage) = 28.118 ha	
9d	Scrutiny of Annual return on afforestation	7180 No's of tree to be planted within the lease	885 No's of tree planted within the lease area	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Grade: 45 % to 55 % of Fe Quantity = 0.41 Mill. Tonne	Grade: 45 % to 55 % of Fe Quantity = 0.0312 Mill. Tonne	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM - 0.00 Lumps - For (% of Fe content) 58% to below 60% - 603.670 tonnes 62% to below 65% - 81705.168 tonnes 65% and above - 20606.446 tonnes Fines- For (% of Fe content) Below 55% - 3000.000tonnes 60% to below 62%- 940693.570tonnes 62% to below 65% - 37498.655tonnes s	ROM - 0.00 Lumps - For (% of Fe content) 58% to below 60% - 603.670 tonnes 62% to below 65% - 81705.168 tonnes 65% and above - 20606.446 tonnes Fines- For (% of Fe content) Below 55% - 3000.000tonnes 60% to below 62%- 940693.570tonnes 62% to below 65% - 37498.655tonnes	Fixed assets combined for Block A and B of Gandhamardan Mine.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price (in Rs Per Tonne) For (% of Fe content) Fines 60% to 62% - Rs 4230.44. Lumps 62% to 65% - Rs 7643.91. Lumps 65% and above - Rs 8790.18. Production Cost - Rs 5325.33 Per Tonne.	Ex-mine price (in Rs Per Tonne) For (% of Fe content) Fines 60% to 62% - Rs 4230.44. Lumps 62% to 65% - Rs 7643.91. Lumps 65% and above - Rs 8790.18. Production Cost - Rs 5325.33 Per Tonne.	
9h	Scrutiny of Annual return on fixed assets	Rs 1844117222 /- (For GIOM Block A & B)	Rs 1844117222 /- (For GIOM Block A & B)	

9k	Scrutiny of Annual return on mining machineries	Back Hoe -2 Nos , Front end loader- 2Nos Tipper,- 8 Nos Blast hole Drill-1 No, Crusher- 1 No , Mobile screen plant- 2 Nos , Water Tanker -1 No, Diesel Tanker -1 No etc.	Back Hoe -2 Nos , Front end loader-2Nos Tipper,-8 Nos Blast hole Drill-1 No, Crusher- 1 No , Mobile screen plant- 2 Nos , Water Tanker -1 No, Diesel Tanker -1 No etc.
----	----------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

---

**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	24/11/2022			
MCDR17	Rule 12(4)	24/11/2022			
MCDR17	Rule 33	24/11/2022			
MCDR17	Rule 55(1) (1)	24/11/2022			

**Date :**

**(VIKRAM DESHPANDE)**

Indian Bureau of Mines