

MCDR-MIFLOFF/9/2022-BBS-IBM\_RO\_BBS  
INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION

I/15120/2023

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

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

**Mine code :** 30ORI08016

- (i) Name of the Inspecting : **RKD** ) **RAJESH KUMAR DAS**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Anil Kumar Sahoo, Mine Manager  
Official with  
Designation
- (iv) Date of Inspection : 07-JUN-23
- (v) Prev.inspection date : 14-NOV-22

**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-JUN-63
- (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-JAN-33
- 4. Mineral worked : IRON ORE Main

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## 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-JUN-21  
Termination date

## Manager

Name : Anil Kumar Sahoo  
Qualification : Diploma in Mining Engineering  
Appointment/ : 02-APR-21  
Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	01-AUG-06
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	20-MAY-11
		Mining Scheme rule 12 MCDR1988	20-MAY-11
		Renewal under rule 24 MCR1960	14-AUG-13
		MP review under 17(1) MCR 2016	23-JAN-18
		MS modif under MCR 1960	12-JAN-21

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	73 nos reported in 2022-23	
1b	Exploration over lease area for geological axis 1 or 2	133 Nos proposed in 2021-22	73 nos reported upto 31.03.2023	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such specifically proposal.	M/s. Maheshwari Mining Pvt.ltd. Rs.7700000.00 ( 30 Nos. of Bore Holes, rest to be raised)	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Broadly 506.066 Ha	300.0 Ha. approx.	Drilling still continuing
1e	Balance reserve as on 01/04/20	121 & 122 :19.04 million tons	121 & 122:23.7195 million tons	Due to less production in last two years.
1f	General remarks of inspecting officers on geology, exploration etc			The entire lease area is covered with varying thickness of topsoil, laterite, shale and BHJ/BHQ. The deposit strike in north-south direction with gentle moderate westerly dipping 5-30 degree. The lease area is approximately 50% explored rest exploration is going on.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Flank Quarry 343950 E to 344370 E 2390760 N to 2391020 N Hill Top Quarry 345160 E to 345560 E & 2392100 N to 2392400 N	Flank Quarry 344339E- 344507E 2390420N-2390687N & 344168 E - 344229 E 2390847 N - 2390987 N Hill Top Quarry No Working	Hill top Quarry reported not working due to want of FC.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	yes broadly in flank quarry as per proposal.	
2c	Stripping ratio or ore to OB ratio	1:0.11	1:0.55	
2d	Quantity of topsoil generation in m3	0.001 million Cu.m.	Nil	
2e	Quantity of overburden generation in m3	0.331 million Cum	0.0899 million CuM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development is not as per proposal,. The quantity is very less with respect to proposal and proposal given in two pits but work is done in single pit.

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**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 pit	01 pit	
3b	Quantity of ROM mineral production proposed	2.77 million Tons	0.1647 million Tons	

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3c	Recovery of sailable/usable mineral from ROM production	94%	83%	
3d	Quantity of mineral reject generation	0.14 million Tons	0.03294 million Tons	
3e	Grade of mineral rejects generation and threshold value declared.	+45-55%FeC	+45-55%Fe	
3f	Quantity of sub grade mineral generation.	0.14 million Tons	0.03294 million Tons	
3g	Grade of sub grade mineral generation	+45-55%Fe	+45-55%Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	yes	As per broposal	Drill m/c proposed 115-150mm dia hole and blasting with slurry explosive with Nonel & ED.
3k	Provision of mining machineries in mineral benches	Yes given with Shovel -Dumper combination.	As per proposal.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	As per proposal.	
3m	Total area covered under excavation/pits	73.149 Ha	62.521 Ha	

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3n	Ore to OB ratio for the pit/mine during the year.	Flank Quarry 1:0.22 Hill Top Quarry 1:0.09	Flank Quarry 1:0.55 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	135.967 Ha	117.449 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2018-19 : 0.35 Mill. Tonne 2019-20 : 0.35Mill. Tonne 2020-21: 0.35 Mill. Tonne 2021-22: 2.12 Mill. Tonne 2022-23: 2.88 Mill. Tonne	2018-19 : Nil 2019-20 : 0.1790 Mill.Tonne 2020-21: 0.2209 Mill.Tonne 2021-22: 0.1558 Mill.Tonne 2022-23: 0.1647 Mill.Tonne	
3q	General remarks of inspecting officers on method of mining etc.			The method of mining is by Shovel-Dumper combination using deep hole drilling blasting. The height of bench is proposed 5-10m.The method of mining is broadly as per proposal.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	top soil generation is negligible therefore no proposal for dumping,OB and Mineral Reject dumping proposal given.	Broadly as per proposal.	

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4b	Location of topsoil, OB and mineral reject dumps	OB dumping proposal:34414 0E to 344330E & 2390210N to 2390576N Backfilling, temporarily dumping	Broadly as per proposal	
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	Nil	Dumping is done as backfilling.
4f	Number of dead dumps.	02 Nos	02 Nos	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No new proposal only maintenance of existing	As per proposal	
4i	Length of Retaining wall or garland drain all along dumps	Nil	NA	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			There is no major waste dump and OB dumping is done as backfilling as per proposal.

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**Solid Waste Management - Backfilling:**


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Sl.No.	Item	Proposals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	yes broadly 4.13 ha. area	Broadly backfilling done within proposed area.	
5b	Area under backfilling of mined out area	4.13 ha.	1.643 ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	0.001 million Cum	Nil	
5d	Total area fully reclaimed and rehabilitated	No specific proposal for fully reclaimed	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling done within proposed area and afforestation done.

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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	Yes submitted.	
6b	Area available for rehabilitation (ha) .	1.95 ha.	Nil	Area not fully backfilled as per proposal.
6c	afforestation done (ha) .	1.95 ha.	2.0 ha.	
6d	No. of saplings planted during the year	3900 nos	5070 nos reported.	
6e	Cumulative no .of plants		10984 nos reported.	

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6f	Any other method of rehabilitation	No such proposal	NA	
6g	Cost incurred on watch and care during the year	nil	Given contract value of Rs 62,92,516/- 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	NA	afforestation proposal on backfilled area given for 1.95 ha. area and 3900 saplings.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Such Proposal	NA	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	1.95 ha area and 3900 nos saplings	Broadly done as per proposal.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Such Proposal	NA	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Such Proposal	NA	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Such Proposal	some afforestation done of more than 1000 nos saplings.	

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6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Such Proposal	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Such Proposal	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal given as per guidelines for 4 season:Summer, monsoon, post - monsoon & winter	As per proposal.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Broadly complied.

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**Mineral Conservation:**

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Mineral is being blending grade wise within lease	As per proposal.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	yes(+55Fe saleable grade & 45-55%FE Mineral Reject)	Broadly as per proposal.	

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7d	Any beneficiation process at mines .	No beneficiation except crushing & Screening.	As per proposal.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Broadly the low grade material blend with high grade to get the desired grade.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	(0.001 Mill. CuM) quantity generation proposed	Negligible quantity top soil generation.	
8b	Concurrent use or storage of topsoil	top soil is proposed for spreading	use for afforestation.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	waste proposed for backfill and mineral reject in temporary stack	As per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB proposed for backfilling	Broadly as per proposal.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	yes backfilling is proposed	Broadly as per proposal.	

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3900 No's of tree proposed to be planted within the lease area in 2022-23.	5070 No's of tree planted within the lease area.	
8g	Survival rate	No specific proposal.	95% reported	
8h	Water sprinkling on roads to control airborne dust	Mobile Water Sprinkler	As per proposal water tanker is used for dust suppression.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			No adverse impact observed on aesthetic beauty during mine visit.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	AR of 2022-23 & MR submitted on time	AR submitted on 29.06.2023	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Manager:Shri Anil Kumar Sahoo, Mining Engineer:Shri Bibhisan Majhi, Geologist: Shri Shibani Mahanta	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes given	Broadly as per actual.	
9d	Scrutiny of Annual return on afforestation	Yes given	5070 nos saplings	

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9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	32940 Tons of 57.3 %Fe reported	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes Given	Stock of ROM is Nil and for fines of various grade stock is given.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Cost of production is given 4421.75 Rs and sale value & Ex-Mine price is given for different grade of Fines and CLO.
9h	Scrutiny of Annual return on fixed assets	Yes given	Value reported Rs 2031840463/-
9k	Scrutiny of Annual return on mining machineries	Yes given	The information regarding HEMM i.e. excavator, tipper, loader, water tanker are broadly as per used in mines.

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**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)	28-JUN-23			

**Date :****(RAJESH KUMAR DAS)**

Indian Bureau of Mines