

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-22/BBS

Mine code : 30ORI13054

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Sri A K Mishra, GM, Sri Jagaddish Mahanta, Mines Mana
Official with
Designation
- (iv) Date of Inspection : 11/01/2018
- (v) Prev.inspection date : 30/07/2016

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PATABEDA IRON (14 HA)**
- (b) **Registration NO.** : **IBM/247/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : SUNDARGARH
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 06742596370
E-mail : mgmbbsr@gmail.com
Phone : 06742596400
- (f) Police Station : KOIRA
- (g) First opening date : 09/04/2006
- (h) Weekly day of rest : SUN
2. Address for : M/S M.G.MOHANTY, POST BOX NO. 17, BARBIL,
correspondance DIST. KEONJHAR- 758 035 (ORISSA)
ODISHA
3. (a) Lease Number : ORI0978
- (b) Lease area : 14
- (c) Period of lease :
- (d) Date of Expiry : 20/12/2033
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S.M.G.MOHANTY
 R.L.MOHANTY, MANAGING PAR
 AT/PO.BARBIL,KEONJHAR,
 ORISSA.-758035 KEONJHAR
 ORISSA
 Phone:06767-75318
 FAX :06767-75770

Owner : M/s M.G. Mohanty, R.L. Monhanty (Managing Partner)
 5A, Forest Park
 Bhubaneshwar Odisha-751009
 SUNDARGARH ORISSA
 Phone: 0674-2596400
 FAX : 0674-2596390

6. Date of approval of Mining	:	Modif.of approved Mining Plan	07/08/2007
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	13/11/2009
	:	Mining Scheme rule 12 MCDR1988	01/04/2011
	:	Modif.approved Mining Scheme	28/05/2014
	:	Mining Scheme rule 12 MCDR1988	18/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Proposal	NIL.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	A total of 06 Bh proposed during 2016-17 to 2020-21	06 Completed.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	In-house Geology Division of the Company.	Exploration has been carried out departmentally.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	06 Bh Proposed.	Entire potentially mineralised area explored.	NIL.
1e	Balance reserve as on 01/04/20	In the approved SOM dated 18/03/2016, the Reserve and Resource of the Iron Ore estimated as on 01/04/2016 was 1131158.00 tonnes and 172965.00 tonnes respectively.	As on 01/04/2017 Reserve: 1057858 tonnes Resource: 172965 tonnes	NIL.
1f	General remarks of inspecting officers on geology, exploration etc	--	No specific comment. Proposed exploration completed.	NIL.

Development :

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

2a	Location of development w.r.t. lease area	FY 2016-17: between grid line N2426090-N2426310 and E331896-E331946	Observed between grid line N2426090-N2426310 and E331896-E331946	NIL.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed for Mineral and OB.	As per proposal.	NIL.
2c	Stripping ratio or ore to OB ratio	FY 2016-17- 1:0.04 tonnes/CuM	1: 0.13 tonnes/CuM	The stripping ratio is in higher side due to encounter of more waste during development.
2d	Quantity of topsoil generation in m3	No Proposal	Not Applicable.	NIL.
2e	Quantity of overburden generation in m3	3815 CuM	9380 CuM	The waste generation is in higher side due to encounter of more waste during development.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	The development has been observed within the approved limit. OB generation is in higher side due to encounter of Shale patch during ore excavation.	NIL.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	Confined to the proposed area.	NIL.
3b	Quantity of ROM mineral production proposed	FY 2016-17: 90684 tonnes.	73300 tonnes.	Production is in lower side due to less demand of Ore.
3c	Recovery of sailable/usable mineral from ROM production	FY 2016-17: 79696 tonnes.	73300 tonnes.	NIL.

3d	Quantity of mineral reject generation	FY 2016-17: 10987.50 Tonnes.	NIL.	Only salable ore is encountered during excavation. Hence, no production of MR.
3e	Grade of mineral rejects generation and threshold value declared.	Between 45 to 55% Fe.	No Generation.	NIL.
3f	Quantity of sub grade mineral generation.	FY 2016-17: 10987.50 Tonnes.	NIL.	Only salable ore is encountered during excavation. Hence, no production of SG.
3g	Grade of sub grade mineral generation	Between 45 to 55% Fe.	No Generation.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized.	Mechanized.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal.	Not Applicable.	NIL.
3j	Provision of drilling and blasting in mineral benches	Yes provisions have been made.	Deep hole drilling of 110 mm dia with 2.5 m burden, 3.0 m spacing, 6.0 m height. blasting is being done with slurry explosive of 83 mm dia, Nonel and Electric detonator.	NIL.
3k	Provision of mining machineries in mineral benches	Excavator: 0.9 and 2.1 CuM, Tripper: 10 and 7.5 tonnes, Crushing and Screening plant: 250 TPH	Found to be in order.	NIL.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes. The height of the benches were proposed 6 m whereas width proposed more than the height	As per proposal.	NIL.
3m	Total area covered under excavation/pits	At the end of plan period 2.878 Ha	As on 01/04/2017 2.496 Ha	As per AR 2016-17.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.04 tonnes/CuM	1:0.13 tonnes/CuM	The stripping ratio is in higher side due to encounter of more waste during development.
3o	Total area put in use under different heads at the end of year	At the end of plan period a total of 11.80 Ha area proposed for degradation.	As on 01/04/2017 area degraded was 10.584 Ha.	Aa per AR 2016-17.
3p	Production of ROM mineral during the last five year period as applicable	2012-13: 84474 MT 2013-14: 76095 MT 2014-15: 94038 MT 2015-16: 100473 MT 2016-17: 906840 MT	2012-13: 36057 MT 2013-14: 38025 MT 2014-15: 38500 MT 2015-16: 77520 MT 2016-17: 73300 MT	NIL.
3q	General remarks of inspecting officers on method of mining etc.	--	The mining operation is being done by open cast method. No MR generation during the year 2016-17. The mining operations were restricted to the approved limit.	NIL.

Solid Waste Management - Dumping:

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

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed for separated dumping of OB and MR.	Yes, Proposed for separated dumping of OB and MR.	NIL.
4b	Location of topsoil, OB and mineral reject dumps	OB Dump: SW corner of the lease area. MR: West to NW side of the lease area.	As per proposal. However, no MR generation during the year 2016-17.	NIL.
4c	Number of dumps within lease area and outside of lease area	Within Lease area: 3 outside Lease area: NIL	Within Lease area: 3 outside Lease area: NIL	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side of the UPL.	Out side of the UPL.	NIL.
4e	Number of active and alive dumps.	1	1	NIL.
4f	Number of dead dumps.	1	1	NIL.
4g	Number of dumps established.	1	1	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes.	observed.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No Proposal forthe year 2016-17.	Not Applicable	NIL.
4j	Number of settling ponds	No Proposal forthe year 2016-17.	Not Applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	--	Dumping is being done as per proposal. Retaining wall and garland drain has been provided around the dump to arrest surface run-off.	NIL.

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.	No Proposal for backfilling.	Not Applicable.	NIL.
5b	Area under backfilling of mined out area	No Proposal for backfilling.	Not applicable.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation during 2016-17.	Not applicable.	NIL.
5d	Total area fully reclaimed and rehabilitated	No proposal for fully or part reclamation and rehabilitation	Not Applicable.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	--	No specific comment as no proposal for reclamation and rehabilitation.	NIL.

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).	Yearly report of PMCP for the year 2016-17 has been submitted by party under rule 26(2) of MCDR, 2017.	Annual report of PMCP submitted on time.	NIL.
6b	Area available for rehabilitation (ha) .	No Proposal for rehabilitation	NIL.	NIL.
6c	afforestation done (ha).	No proposal for afforestation during 2016-17	NIL.	NIL.

6d	No. of saplings planted during the year	No Proposal	Within the lease area: 210 No. Outside lease area: 2015 No.	As epr AR 2016-17.
6e	Cumulative no .of plants	During the Scame period 800 no.	210 no.	NIL.
6f	Any other method of rehabilitation	No proposal.	NIL.	NIL.
6g	Cost incurred on watch and care during the year	No proposal.	Rs. 100700.00	As reported by lessee.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal.	NIL.	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	NIL.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal.	NIL.	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	NIL.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal.	NIL.	NIL.

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal.	NIL.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal.	NIL.	NIL.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal.	NIL.	NIL.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed to monitor in core and buffer zone.	Being monitored as per proposal.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	--	PMCP report for the year 2016-17 has been submitted. No proposal of plantation, retaining wall, garland drain etc during the year 2016-17.	NIL.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed through crushing and screening.	Being done as per proposal.	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.	NIL.

7c	Different grade of mineral sorted out at mines.	Between 45 to 55% Fe and above 55% Fe.	Between 45 to 55% Fe 55 to 58 % Fe 58 to 60% Fe 60 to 62 % Fe 62 to 65 % Fe >65 % Fe	NIL.
7d	Any beneficiation process at mines .	No proposal.	Not applicable.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	--	Sub-grade/Mineral Reject being used regularly. No proposal of beneficiation.	NIL.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal of top soil generation during 2016-17.	NIL.	
8b	Concurrent use or storage of topsoil	No proposal.	Not applicable.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed for separate dumping of OB, rejects and fines.	Being done as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal.	Not applicable.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal.	However, plantation have been done on OB dump.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No specific proposal.	NIL.
8g	Survival rate	No specific proposal.	82%
8h	Water sprinkling on roads to control airborne dust	Proposed.	being done as per proposal.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	---	Aesthetic beauty seems to be good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	--	Monthly and annual returns are being submitted regularly.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: 01 No. Geologist: 01 No. Mining Engineer: 01 No.	As per annual return.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total area used atthe end of 01/04/2017 is 10.584. ha.	As per annual return.	
9d	Scrutiny of Annual return on afforestation	Plantation by 210 no. saplings within lease area.	210 no.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL for the year 2016-17.	NIL.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production: Rs 965.74	As per annual return.	Not verified.
9h	Scrutiny of Annual return on fixed assets			
9k	Scrutiny of Annual return on mining machineries	Excavator: 1.5 and 2.1 CuM, Tripper: 4.5 and 6.0CuM, Rock drill: 32.00 mm, water tanker: 8000 ltr, etc.	As per annual return.	

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(DILIP JAIN)

Indian Bureau of Mines