

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON-MN/SNG/MCDR-16/BBS

Mine code : 30ORI13017

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Chaturbhuja Sahoo, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 30/12/2019
- (v) Prev.inspection date : 14/07/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PATABEDA**
- (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 : PATABEDA
- Taluka : BONAI
- Post office : PATAMUNDA
- Pin Code :
- FAX No. : 06767-275770
- E-mail : rlmbsr@mail.com
- Phone : 06767-275318,275620
- (f) Police Station : Koira
- (g) First opening date : 24/06/1986
- (h) Weekly day of rest : MON
2. Address for : PATABEDA IRON & MANGANESE MINE C/O.M.G.MOHANTY
correspondance VILL.PATABEDA, PATMUNDA,SUNDARGARH,ORISSA.
770048
3. (a) Lease Number : ORI0133
- (b) Lease area : 19.43
- (c) Period of lease : 50
- (d) Date of Expiry : 02/04/2036
4. Mineral worked : MANGANESE ORE Associated
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 : SRI.R.L.MOHANTY
 AT/PO.BARBIL,KEONJHAR
 ORISSA.758035 KEONJHAR
 ORISSA
 Phone: 06767-75318
 FAX : 06767-75770

Geologist

Name : SHRI SUSANTA KUMAR PATNAIK,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 10/06/2016
 Termination date

Manager

Name : SHRI CHATURBHUIJ SAHOO
 Qualification : DEGREE MINING
 Appointment/ : 28/01/2013
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	18/07/2000
Plan/Scheme of Mining		Fresh under rule 22 MCR1960	08/11/2002
		Renewal under rule 24 MCR1960	05/07/2005
		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	11/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	However 4 nos of bore holes were propsoed during the eyar 2018-19.	Nil
1b	Exploration over lease area for geological axis 1 or 2	4 nos of boreholes were propsoed during the eyar 2018-19 to brought area under G1/G2 level.	the proposed boreholes were already drilled during the year 2016-17.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	15 nos of boreholes were proposed during the plan period from 2016-17 to 2020-21.	Total boreholes which were planned in the year 2018-19 were already completed by 2016-17.	
1e	Balance reserve as on 01/04/20	As per the scheme of mining approved on 11.03.2016, the iron ore reserves are 4.785 million tonnes and resources of 1.056 million tonnes.	due to depletion/addition over the period of time the updated iron or reserves as on dated 01.04.2019 are 4.294 mil.t and resources are 1.056 mil.t.	
1f	General remarks of inspecting officers on geology, exploration etc		The mineralsied lease area out area has been explored upto G1 level.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	single pit is proposed for development during the year 2018-19.	development is carried out in single pit only.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Seperate becnhes in OB and mineral zone are envisaged. However, there no topsoil exists in the location proposed under mine excavation during 2018-19.	seperate becnhes in OB and mineral are maintained.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.021 t/cu.m.	1:0.0004 t/cu.m.	due to irregular nature of ore deposit.
2d	Quantity of topsoil generation in m3	Not applicable	Nil	
2e	Quantity of overburden generation in m3	4156 cu.m.	85 cu.m.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast mining method as propsoed.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 no	1 no.	
3b	Quantity of ROM mineral production proposed	195086 t during the year 2018-19.	180000 t.	

3c	Recovery of sailable/usable mineral from ROM production	179551 t	180000 t	
3d	Quantity of mineral reject generation	15535 t	Nil	due to irregular nature of ore deposal.
3e	Grade of mineral rejects generation and threshold value declared.	+45-55% Fe	+45-55% Fe	
3f	Quantity of sub grade mineral generation.	addressed in mineral rejects coloumn	Not applicable	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
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.	Not proposed.	Nil	
3j	Provision of drilling and blasting in mineral benches	drilling and blasting is proposed.	drilling and blasting is carried out.	Nil
3k	Provision of mining machineries in mineral benches	shovel and dumper combination is proposed for excavation and hauling.	shovel and dumper combination is deployed for excavation and hauling.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m	maintained.	

3m	Total area covered under excavation/pits	7.271 ha by end of the plan period i.e. 2020-21.	6.3 ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.021 t/cu.m.	1:0.0004 t/cu.m.	
3o	Total area put in use under different heads at the end of year	total area put to use at the end of plan period i.e. 2020-21 is 19.425 ha.	16.924 ha	
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 173043 t 2015-16: 183544 t 2016-17: 194317 t 2017-18: 194458 t 2018-19:195083 t	2014-15: 117150 t 2015-16: 124410 t 2016-17: 144000 t 2017-18: 166520 t 2018-19:180000 t	Nil
3q	General remarks of inspecting officers on method of mining etc.		production is carried out by opencast mininf method as propsoed.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	separate dumping for OB and mineral rejects are propped. no topsoil generation is envisaged.	separate dumping of OB and mineral rejects are carried out.	Nil
4b	Location of topsoil, OB and mineral reject dumps	dump-4	dump-4	Nil
4c	Number of dumps within lease area and outside of lease area	1 no. within lease area	1 no. within lease area	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL
4e	Number of active and alive dumps.	1 no. during the year 2018-19.	1 no.
4f	Number of dead dumps.	Not proposed during the year 2018-19.	Not applicable
4g	Number of dumps established.	Not proposed.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	provided.
4i	Length of Retaining wall or garland drain all along dumps	already exists	Nil
4j	Number of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		waste dump management is carried out as proposed.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Area not matured for reclamation and rehabilitation .	Not applicable	
5b	Area under backfilling of mined out area	Not applicable	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable Nil	
5d	Total area fully reclaimed and rehabilitated	Not applicable Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Area not matured for reclamation and rehabilitation.

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).	PMCP report to submitted submitted before 1 st July		
6b	Area available for rehabilitation (ha) .	Not proposed.	Nil	
6c	afforestation done (ha).	0.1 ha during the year 2018-19	0.1 ha	
6d	No. of saplings planted during the year	100 nos	108 nos	
6e	Cumulative no .of plants		18305 nos	
6f	Any other method of rehabilitation	Not proposed.	Nil	
6g	Cost incurred on watch and care during the year		Rs 0.25 lakh	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	periodical environmental monitoring of core zone and buffer zone are proposed.	carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures were carried out as proposed.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral is proposed.	carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	+45-55% Fe and +55% Fe	+45-55% Fe and +55% Fe	
7d	Any beneficiation process at mines .	Not proposed.	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	Nil	
8b	Concurrent use or storage of topsoil	Not applicable	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not applicable	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	dump plantation is proposed.	carried out.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	100 nos	108 nos	
8g	Survival rate		92%	
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul raods for dust supression is proposed	carried out.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty in and around the mine is well maintained.
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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 to be submitted as per rule 45 of MCDR, 2017	submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 1, Diploma Mining Engineer 1, Geologist 1	Graduate Mining Engineer 1, Diploma Mining Engineer 1, Geologist 1	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Current (O/C) Workings: 6.300 Ha, waste disposal 0.815 Ha, Occupied by plant, buildings, residential, welfare buildings & roads 8.519 Ha and safety zone: 1.290ha	Current (O/C) Workings: 6.300 Ha, waste disposal 0.815 Ha, Occupied by plant, buildings, residential, welfare buildings & roads 8.519 Ha and safety zone: 1.290ha	
9d	Scrutiny of Annual return on afforestation	108 ns within lease area	108 nos	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM clsoing stock is 21170 t.	ROM clsoing stock is 21170 t.	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost Rs. 1387.94	production cost Rs. 1387.94
9h	Scrutiny of Annual return on fixed assets	Rs. 84571210	Rs. 84571210
9k	Scrutiny of Annual return on mining machineries	Back hoe: 6 nos.,Front end loader: 1 no., wheel loader: 2 nos. blast hole drill 100mm dia: 1 no and rock drill 32 mm dia 4 nos.	Back hoe: 6 nos.,Front end loader: 1 no., wheel loader: 2 nos. blast hole drill 100mm dia: 1 no and rock drill 32 mm dia 4 nos.

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 :

(RAMKISHAN R)

Indian Bureau of Mines