

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON-MN/SNG/MCDR-21/BBS

Mine code : 40ORI13050

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri T.C.Sei, Agent
Official with
Designation
- (iv) Date of Inspection : 29/12/2019
- (v) Prev.inspection date : 17/09/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NUAGAON**
- (b) **Registration NO.** : **IBM/135/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : NUAGAON
- Taluka : BONAI
- Post office : KOIRA
- Pin Code :
- FAX No. : 06767275362
- E-mail : snmbbsr@sify.com, snmbbl@s:
- Phone : 06767212164
- (f) Police Station : Koira
- (g) First opening date : 20/08/1999
- (h) Weekly day of rest : SAT
2. Address for : VILL-NUAGAON
correspondance PO-KOIRA
DIST-SUNDERGARH
3. (a) Lease Number : ORI0976
- (b) Lease area : 29.26
- (c) Period of lease : 20
- (d) Date of Expiry : 10/05/2019
4. Mineral worked : IRON ORE Associated
MANGANESE ORE Main

5. Name and Address of the

Lessee : S.N.MOHANTY
 STATION ROAD AT/PO:BARBIL
 PO NO.21 KEONJHAR ORISSA
 Phone:30362 (OFFICE),30254(R)
 FAX :

Owner : PROBODH MOHANTY
 PROBODH MOHANTY,MINES OWN
 AT-STATION ROAD,BARBIL
 DIST-KEONJHAR.758035
 KEONJHAR ORISSA
 Phone:
 FAX :

Agent : T.C.Sei
 Barbil,Keonjhar,Odisha
 SUNDARGARH ORISSA
 Phone: 06767-275362
 FAX : 06767-212164

Mining Engineer

Name : Sri. B.Samal,Full Time
 Qualification : BE Mining
 Appointment/ : 11/03/2012
 Termination date

Geologist

Name : Shri S. Mahanta,Full Time
 Qualification : M.sc geology
 Appointment/ : 26/02/2016
 Termination date

Manager

Name : Sri A.N. Prasad
 Qualification : BE Mining
 Appointment/ : 29/03/2011
 Termination date

6. Date of approval of Mining	:	Modif.approved Mining Scheme	25/03/2009
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	02/03/2010
	:	Mining Scheme rule 12 MCDR1988	22/05/2014
	:	MP review under 17(1) MCR 2016	14/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Not proposed.	24 nos of boreholes were drilled during the year 2018-19.	21.325 ha area has been explored under G1/G2 level.
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	35 nos of boreholes were proposed during the plan period i.e. 2019-20 to brought area under G1/G2 level.	24 nos of boreholes were drilled during the year 2018-19.	
1e	Balance reserve as on 01/04/20	As per the approved document dated 14.11.2018 the iron ore reserves are 0.68 mil.t and resources are 0.56 mil.t. manganese reserves are 0.22 mil. t and resources are 0.13 mil.t.	due to depletion/addition over the period of time the updated iron or reserves as on dated 01.04.2019 are 0.68 mil.t and resources are 0.56 mil.t. manganese reserves are 0.22 mil. t and resources are 0.13 mil.t.	
1f	General remarks of inspecting officers on geology, exploration etc		7.665 ha unexplored area still needs to be explored for which exploration proposal has been given.	

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Iron & Manganese quarry is proposed for development during the year 2018-19.	development is carried out in Iron quarry.	manganese quarry is not deopped due to less market demand
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged during the year 2018-19 and seperate benches in Ob and mineral are proposed.	seperate benches in OB and mineral are maintained.	
2c	Stripping ratio or ore to OB ratio	1:0.54 t/cu.m.	1:4.94 t/cu.m.	due to less ROM production and irregular nature of ore depoist.
2d	Quantity of topsoil generation in m3	Not applicable	Nil	
2e	Quantity of overburden generation in m3	76384 cu.m. for the year 2018-19	23250 cu.m.	
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 proposed.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 nos	1 no.	manganese pit could not be developed due to less market demand
3b	Quantity of ROM mineral production proposed	140224 t of iron ore and 8246 t of manganese ore during the year 2018-19.	4700 t of iron and Nil production of manganese ore	deviation is due to less market demand.

3c	Recovery of sailable/usable mineral from ROM production	125440 t	Nil	due to less production of ROM as per the market demand
3d	Quantity of mineral reject generation	8246 t	4700 t	
3e	Grade of mineral rejects generation and threshold value declared.	+45-55% Fe for iron and +10-20% Mn for manganese ore	+45-55% Fe for iron and +10-20% Mn for manganese ore	
3f	Quantity of sub grade mineral generation.	addressed in mineral rejects coulmn.	not applicable	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	mechanised for iron and manual for manganese.	mechanised for iron and manual for manganese.	
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.	
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	Mn Ore Quarry bench height propped to 5 mts and In Iron Ore Quarry bench height proposed to 9 mts.	maintained.	
3m	Total area covered under excavation/pits	A total 11.243 Ha area is proosed at the end of the plan period.	9.235 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.54 t/cu.m.	1:4.94 t/cu.m.	due to less ROM production and irregular nature of ore deposito.
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 is 19.801 ha	18.223 ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	Iron ore 2014-15: 100800 t 2015-16: 105840 t 2016-17: 113120 t 2017-18: 117600 t 2018-19: 140224 t Manganese ore 2014-15: 3549 t 2015-16: 4004 t 2016-17: 4513 t 2017-18: 5096 t 2018-19: 8246 t	Iron ore 2014-15: 54230 t 2015-16: 40000 t 2016-17: 11000 t 2017-18: 9090 t 2018-19: 4700 t Manganese ore 2014-15: 300 t 2015-16: 4000 t 2016-17: 185 t 2017-18: 798 t 2018-19: Nil	deviation is due to less market demand.
3q	General remarks of inspecting officers on method of mining etc.	prodcution is carried out by opencast mining method.		

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no top soil generation is envisaged. seperate dumping of Ob and mineral are proposed.	seperate dumping of OB and mineral are carried out.	
4b	Location of topsoil, OB and mineral reject dumps	wetsern part of the lease area.	wetsern part of the lease area.	
4c	Number of dumps within lease area and outside of lease area	1 dump within lease area	1 dump within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	1 dump	1 dump	
4f	Number of dead dumps.	Not proposed during the year 2018-19	Nil	
4g	Number of dumps established.	Not proposed during the year 2018-19	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.	Not applicable	
4j	Number of settling ponds	already exists	Not applicable	
4k	Specific comments of inspecting officer on waste dump management		waste dump mangement is carried out as propsoed.	

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.	Area not matured for backfilling	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 backfilling	

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 applicable	Nil	
6c	afforestation done (ha).	0.25 ha during the year 2018-19	0.25 ha	
6d	No. of saplings planted during the year	400 nos	400 nos	
6e	Cumulative no .of plants		53000 nos	

6f	Any other method of rehabilitation	Not applicable Nil	
6g	Cost incurred on watch and care during the year		Rs. 24000
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x 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 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	
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 for iron ore and manual for manganese ore.	mechanical for iron ore and manual for manganese ore.	
7c	Different grade of mineral sorted out at mines.	+10-20% Mn and +20% Mn for manganese ore, +45-55% Fe and +55% Fe for iron	+10-20% Mn and +20% Mn for manganese ore, 55% Fe and +55% Fe for iron	

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)	seperate dumps for waste and mineral rejects are proposed.	seperate dumps for waste and mineral rejects are maintained.	
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)	400 nos	400 nos
8g	Survival rate		80%
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul roads for dust suppression is proposed.	carried out
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aesthetic beauty in and around the mines area is maintained.

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.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 1, Diploma Mining Engineer 2, Geologist 1	Graduate Mining Engineer 1, Diploma Mining Engineer 2, Geologist 1	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 9.235 ha, Used for waste disposal: 4.700 ha, Occupied by plant, buildings, residential, welfare buildings & roads: 0.020 ha, Other Purpose (Road, Mineral storage, gree belt creation etc.) :1.788 ha	found to be in order.
9d	Scrutiny of Annual return on afforestation	400 nos	400 nos
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	4700 t	4700 t
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is Nil	ROM closing stock is Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	prodcution cost Rs. 3677.	prodcution cost Rs. 3677.
9h	Scrutiny of Annual return on fixed assets	Rs. 575000	Rs. 575000

9k	Scrutiny of Annual return on mining machineries	Back hoe 0.9 cu.m. 1,ROCK DRILL (NONELEC.) 100.000 MM 1,AIR COMPRESSOR 6.000 CUM/MN 1,DUMPER 10.000 TONNE 4,WATER TANKER 8000.000 LITRE 1	found to be in order.	Nil
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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