

**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 : 21/12/2020
- (v) Prev.inspection date : 29/12/2019

**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	However during the year 2019-20 it is proposed to drill 35 nos of boreholes.	
1b	Exploration over lease area for geological axis 1 or 2	during the year 2019-20 it is proposed to drill 35 nos of boreholes. To brought area under G1/G2 level.	No exploration is carried out	Violation observed and communicated to lessee letter dated 12.01.2021
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 proposed to drill to brought area under G1/G2 level.	Exploration not carried out	
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	Exploration has not been carried out as proposed in the approved mining plan
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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 2019-20.	development is carried out in Iron and Manganese quarry.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged during the year 2019-20 and separate benches in Ob and mineral are proposed.	separate benches in OB and mineral are maintained.	
2c	Stripping ratio or ore to OB ratio	1:1.36 t/cu.m.	1:9.73 t/cu.m.	Due to irregular nature of ore deposit and less developemnt and mineral production.
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	140230 m <sup>3</sup>	32725 Cum	due to less ROM production and irregular nature of ore deposit.
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.	

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## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02	02	
3b	Quantity of ROM mineral production proposed	92655 t of iron ore and 10050 t of manganese ore during the year 2019-20.	3000 t of iron and 360 t production of manganese ore	due to less market demand of low grade mineral.
3c	Recovery of sailable/usable mineral from ROM production	53250 t of saleable ore of iron ore and 39405 t of mineral reject, 6968 t of saleable manganese ore and 3082 t of mineral reject	Nil of saleable ore of iron ore and 3000 t of mineral reject, 360 t of saleable manganese ore and Nil of mineral reject	
3d	Quantity of mineral reject generation	39405 t of mineral reject iron ore, 3082 t of mineral reject of manganese ore	3000 t of mineral reject iron ore, Nil of mineral reject of manganese ore	
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.	Not applicable	Nil	
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 applicable	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 5 mtrs. maintained.
- 3m Total area covered under excavation/pits A total 11.243 9.61 Ha Ha area is proposed at the end of the plan period.
- 3n Ore to OB ratio for the pit/mine during the year. 1:1.36 t/cu.m. 1:9.73 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 is 18.3 ha 19.801 ha

3p	Production of ROM mineral during the last five year period as applicable	Iron ore 2015-16: 105840 t 2016-17: 113120 t 2017-18: 117600 t 2018-19: 140224 t 2019-20: Manganese ore 4004 t 2016-17: 4513 t 2017-18: 5096 t 2018-19: 8246 t 2019-20: 10050 t	Iron ore 2015-16: 40000 t 2016-17: 11000 t 2017-18: 9090 t 2018-19: 4700 t 2019-20: 3000 t Manganese ore 2015-16: 4000 t 2016-17: 185 t 2017-18: 798 t 2018-19: Nil 2019-20: 360 t	deviation is due to less market demand
3q	General remarks of inspecting officers on method of mining etc.	production is carried out by opencast mining method.		

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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)	no top soil generation is envisaged. separate dumping of Ob and mineral are proposed.	separate dumping of OB and mineral are carried out.	
4b	Location of topsoil, OB and mineral reject dumps	western part of the lease area for OB/waste dumping.	western 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	
4e	Number of active and alive dumps.	one	one	
4f	Number of dead dumps.	Not proposed during the year 2019-20.	Nil	
4g	Number of dumps established.	Not applicable	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	575 m around waste dump and mineral reject stack	Not carried out	Violation observed and communicate to lessee letter dated 12.01.2021
4j	Number of settling ponds	Not applicable	Nil	
4k	Specific comments of inspecting officer on waste dump management		waste dump management is carried out as proposed.	

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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	Nil	
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

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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).	PMCP report to submitted before 1 st July		
6b	Area available for rehabilitation (ha) .	Not applicable Nil		
6c	afforestation done (ha).	0.3 ha during the year 2019-20.	0.3 ha	
6d	No. of saplings planted during the year	750 nos	2500 nos	
6e	Cumulative no .of plants		45500 nos	
6f	Any other method of rehabilitation	Not applicable Nil		
6g	Cost incurred on watch and care during the year	Not applicable Nil		

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	plantation proposed.	carried out
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.1 ha	0.1 ha

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	plantation	plantation
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, +45-55% Fe and +55% Fe for iron	
7d	Any beneficiation process at mines	Not applicable	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)	separate dumps for waste and mineral rejects are proposed.	separate 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)	750 nos	2500 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.

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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.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 1, Diploma Mining Engineer 2, Geologist 1	Found to be in order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 9.61 ha, Used for waste disposal: 4.750 ha, etc.,	Found to be in order.	

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9d	Scrutiny of Annual return on afforestation	2500	2500
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	3000 t of iron	3000 t of iron
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	Production cost is Rs.4141	Production cost is Rs.4141
9h	Scrutiny of Annual return on fixed assets	Rs. 512000	Rs. 512000
9k	Scrutiny of Annual return on mining machineries	BACK HOE 0.900 Found to be in order. CUM 1, ROCK DRILL 100.000 MM 1 AIR COMPRESSOR 6.000 CUM/MN 1, DUMPER 10.000 TONNE 4 etc.,	

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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