

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON-MN/KJR/MCDR-81/BBS

**Mine code :** 30ORI08106

- (i) Name of the Inspecting : **U11** ) **DAYANAND UPADHYAY**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Bioshnu Charan Barik, Dy. manager  
Official with  
Designation
- (iv) Date of Inspection : 31/12/2020
- (v) Prev.inspection date : 10/12/2019

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **NAIBAGA IRON & MANGANESE**
- (b) **Registration NO.** : **IBM/5410/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : NAIBAGA
- Taluka : JHUMPURA
- Post office : DUBUNA
- Pin Code :
- FAX No. : 06767272298
- E-mail : nimm.tpm@gmail.com
- Phone : 9437072218
- (f) Police Station : JODA
- (g) First opening date : 17/11/2009
- (h) Weekly day of rest : SUN
2. Address for : AT-JODA  
correspondance PO-JODA  
DIST- KEONJHAR
3. (a) Lease Number : ORI0889
- (b) Lease area : 47.22
- (c) Period of lease : 50
- (d) Date of Expiry : 16/11/2059
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : SRI TARINI PRASAD MOHANTY  
 MINE OWNER , JODA  
 KEONJHAR ORISSA  
 Phone:  
 FAX :

Owner : T P MOHANTY  
 JODA KEONJHAR ORISSA  
 Phone: 06767273475  
 FAX : 06767273475

Agent : SHRI ARPIT MOHAR  
 JODA KEONJHAR ODISHA  
 KEONJHAR ORISSA  
 Phone: 06767273475  
 FAX : 06767273475

## Mining Engineer

Name : Himansu Maahant, Full Time  
 Qualification : BE(Mining)  
 Appointment/ : 02/02/2016  
 Termination date

## Manager

Name : Chandra Sekhar Jena  
 Qualification : BE(Mining)  
 Appointment/ : 01/11/2011  
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	14/05/2013
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	02/06/2015
		MP review under 17(1) MCR 2016	06/01/2020

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal in 2019-20.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	No proposal	Nil	Total 53 nos of boreholes were drilled by lessee under G1 level of exploration till date.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	Nil.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Entire potential mineralised area has been explored by lessee by putting 53 nos. of bore holes.	Entire potential mineralised area has been explored by lessee by putting 53 nos. of bore holes.
1e	Balance reserve as on 01/04/20	As per the approved documnet on 02.06.2015 the iron ore reserves are 10.14 mil.t. and reosurces are 4.156 mil.t. and manganese reserves are 0.216 mil.t. and resources are 0.015 mil.t.	Reserve of iron ore as on 01/04/2020: 7.95Million Tonnes. Manganese reserves not depleted as the manganese ore production is not carried out.	Reserve of iron ore as on 01/04/2020: 7.95Million Tonnes. Manganese reserves not depleted as the manganese ore production is not carried out.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal	Entire potential mineralised area has been explored by lessee by putting 53 nos. of bore holes.	Entire potential mineralised area has been explored by lessee by putting 53 nos. of bore holes.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Quarry-1:334328-334528N & 2415500-2415700E quarry-2: 334828-335028N & 2415050-2415260E and quarry-3, 335228-335378N & 2415415-2415560E are proposed for development during the year 2019-20.	Development is carried out in quarry-1 and quarry-2 only within approved location.	Due to local law and order problem the quarry-3 is not being developed.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches in mineral are only proposed. No top soil proposed.	Benches in mineral are maintained.	Benches in mineral are maintained.
2c	Stripping ratio or ore to OB ratio	1:0.02 t/cu.m.	Nil	No waste generated.
2d	Quantity of topsoil generation in m3	Not proposed.	Nil.	Nil.
2e	Quantity of overburden generation in m3	No OB proposed. Intercallated waste of 8000 cu.m proposed.	Nil.	Manganese quarry is not developed therefore intercallated waste not generated. Violation is pointed out to lessee in this regard.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Quarry-1, quarry-2 and quarry-3 are proposed for development	Development is carried out in quarry-1 and quarry-2 only.	Due to local law and order problem the quarry-3 is not being developed. Violation is pointed out to lessee in this regard.

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Exploitation:

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Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Quarry-1, quarry-2 and quarry-3	Development is carried out in quarry-1 and quarry-2 only.	Due to local law and order problem the quarry-3 is not being developed.
3b	Quantity of ROM mineral production proposed	0.58 mil.t. iron ore, 15000 t of manganese ore during the year 2018-19.	0.50 mil.t. of iron ore and Nil production of Manganese ore.	Due to local law and order problem the quarry-3 is not being developed so manganese production could not be carried out. Violation is pointed out to lessee in this regard.
3c	Recovery of sailable/usable mineral from ROM production	0.52 mil.t. saleable ore and 58800 tonnes mineral reject.	0.50 mil.t. saleable ore and mineral reject is Nil.	Mineral reject simultaneously blended with high grade ore to make ROM saleable.
3d	Quantity of mineral reject generation	58800T	Nil.	Mineral reject simultaneously blended with high grade ore to make ROM saleable.
3e	Grade of mineral rejects generation and threshold value declared.	+45%-55% Fe	Mineral reject simultaneously blended with high grade ore to make ROM saleable.	Mineral reject simultaneously blended with high grade ore to make ROM saleable.
3f	Quantity of sub grade mineral generation.	58800T	Nil.	Mineral reject simultaneously blended with high grade ore to make ROM saleable.
3g	Grade of sub grade mineral generation	+45%-55% Fe	Mineral reject simultaneously blended with high grade ore to make ROM saleable.	Mineral reject simultaneously blended with high grade ore to make ROM saleable.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	Mechanised.	Mechanised.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Nil	Only crushing and screening is practiced.
3j	Provision of drilling and blasting in mineral benches	Wagon drilling and blasting with slurry explosive.	Drilling and blasting is carried out with Wagon drilling of 110mm dia. and Blast hole with emulsion/slurry explosive as coloumn charge.	Drilling and blasting is carried out with Wagon drilling of 110mm dia. and Blast hole with emulsion/slurry explosive as coloumn charge.
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination is proposed for excavation.	Shovel and dumper combination is deployed for excavation.	Shovel and dumper combination is deployed for excavation.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m bench height is prospoed.	6 m bench height is suitably matched with the excavator.	Bench height is suitably matched with the loading excavator.
3m	Total area covered under excavation/pits	10.621 ha at the end of plan period i.e. 2019-20.	7.359 ha.	About 7.359 ha. has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.02 t/cu.m.	Nil	Manganese quarry is not developed therefore intercallated waste not generated. Violation is pointed out to lessee in this regard.
3o	Total area put in use under different heads at the end of year	20.651 ha total area is put to use at the end of plan period i.e. 2019-20.	Area covered under different heads are 13.954 ha.	Area covered under different heads are 13.954 ha.

3p	Production of ROM mineral during the last five year period as applicable	2015-16: 587160 t 2016-17: 589920 t 2017-18: 592680 t 2018-19: 584589 t. 2019-20: 588001Tof iron ore	2015-16: 440741 t 2016-17: 500100 t 2017-18: 241670 t 2018-19: 508080 t. 2019-20: 501310 tof iron ore	ROM Production is within the approved limit.
3q	General remarks of inspecting officers on method of mining etc.	Excavation of ROM has been proposed in 3 quarry.	The ROM production has been carried out in 02 quarry. Wagon drilling of 110mm dia. Blast hole with emulsion/ slurry explosive is being practiced for drilling and blasting.	The ROM production has been carried out in 02 quarry. Wagon drilling of 110mm dia. Blast hole with emulsion/ slurry explosive is being practiced for drilling and blasting.

#### 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 intercalated waste and mineral rejects are proposed.	Nil	Mineral rejects and intercalated waste not generated as the quarry-3 could not be operated.
4b	Location of topsoil, OB and mineral reject dumps	Central part of the lease area.	Nil	No waste during the year. 2019-20. Mineral reject is simultaneously blended with high grade ore to make it saleable.
4c	Number of dumps within lease area and outside of lease area	One dump.	Nil	No waste generated during the year.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	Nil	No waste generated during the year.
4e	Number of active and alive dumps.	One dump.	Nil.	No waste generated during the year.
4f	Number of dead dumps.	Not proposed.	Nil.	Nil.
4g	Number of dumps established.	Not proposed.	Nil.	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	210m Retaining wall and 210m garland drain.	There is no active dump therefore proposed Retaining wall and garland drain not made.	There is no active dump therefore proposed Retaining wall and garland drain not made.
4i	Length of Retaining wall or garland drain all along dumps	210m Retaining wall and 210m garland drain.	There is no active dump therefore proposed Retaining wall and garland drain not made.	There is no active dump therefore proposed Retaining wall and garland drain not made.
4j	Number of settling ponds	2 nos.	There is no active dump therefore proposed settling tank not made.	There is no active dump therefore proposed settling tank not made.
4k	Specific comments of inspecting officer on waste dump management	one dump.	Proposed dump not created as waste is not generated.	Proposed dump not created as waste is not generated.

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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.	Not proposed as pit not exhausted.	Nil.	Pits are not matured for reclamation and rehabilitation.
5b	Area under backfilling of mined out area	Not proposed as pit not exhausted.	Nil.	Pits are not matured for reclamation and rehabilitation.



5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed as pit not exhausted.	Nil	Pits are not matured for reclamation and rehabilitation.
5d	Total area fully reclaimed and rehabilitated	Not proposed as pit not exhausted.	Nil.	Pits are not matured for reclamation and rehabilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed as pit not exhausted.	Nil.	Pits are 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).	Not specified.	Annual return on PMCP has been submitted.	Annual return on PMCP has been submitted.
6b	Area available for rehabilitation (ha) .	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6c	afforestation done (ha).	0.41 ha	0.41 ha	Area cover under afforestation is about 0.41 ha.
6d	No. of saplings planted during the year	656 nos. of saplings	700 nos. of saplings have been planted by lessee.	700 nos. of saplings have been planted by lessee.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 15610.	Cumulative nos. of saplings planted in the lease area is about 15610.
6f	Any other method of rehabilitation	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 5.0 lakh cost incurred on watch and care.	Around Rs 5.0 lakh cost incurred on watch and care.

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Safety zone plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Safety zone plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Safety zone plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.	0.41 ha safety zone area has been rehabilitated by 700 nos. of plantation.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring	Quarterly monitoring
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Backfilling not proposed as pit is not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting.	Gradewise sorting.	Gradewise sorting.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	Mechanised
7c	Different grade of mineral sorted out at mines.	45% to 55% Fe and +55% Fe.	45% to 55% Fe and +55% Fe.	Mineral reject is blended with high grade.
7d	Any beneficiation process at mines .	Not proposed.	Only crushing and screening Of ROM is being practiced.	Only crushing and screening Of ROM is being practiced.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise sorting	Gradewise sorting	Only crushing and screening Of ROM is being practiced.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	Nil.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	Not proposed.	Nil.	No top top soil generation is proposed.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	seperate dumping of intercalated waste and mineral rejects are proposed.	Nil.	No waste during the year. 2019-20. Mineral reject is simultaneously blended with high grade ore to make it saleable.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed as pit not exhausted.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	656 nos. of plantation	Total 700 nos. saplings have been planted in 2019-20. Cumulative 15610 nos. have been planted by lessee .	Total 700 nos. saplings have been planted in 2019-20. Cumulative 15610 nos. have been planted by lessee .
8g	Survival rate	Not specified	As reported survival rate is 75%.	As reported survival rate is 75%.
8h	Water sprinkling on roads to control airborne dust	water sprinkler	Water sprinkler are used to control air borne dust.	Water sprinkler are used to control air borne dust.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	656 nos. of plantation in 2019-20.	Total 700 nos. saplings have been planted in 2019-20. Cumulative 15610 nos. have been planted by lessee .	Aesthetic beauty in and around mines area is maintained.
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Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The employment status of mining engineer, geologist & mine manager have been furnished in the annual return	Mining engineer, geologist & mine managers were employed in the mine.	Mining engineer, geologist & mine managers were employed in the mine.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-7.359 ha, Infrstructure, roads-2.675ha & others - 3.92 ha.	Area covered under different heads are Pit-7.359 ha, Infrstructure, roads-2.675ha & others -3.92 ha.	Area covered under different heads are Pit-7.359 ha, Infrstructure, roads-2.675ha & others -3.92 ha.
9d	Scrutiny of Annual return on afforestation	700 nos. of plantation.	700 nos. of plantation.	700 nos. of plantation.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	Nil.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	closing stock Lump 58% to below 60%; 14518.330T 62% to below 65%: 34521.850T Fines 55% to below 58%: 16176.140T 58% to below 60%: 49637.129T	closing stock Lump 58% to below 60%; 14518.330T 62% to below 65%: 34521.850T Fines 55% to below 58%: 16176.140T 58% to below 60%: 49637.129T	closing stock Lump 58% to below 60%; 14518.330T 62% to below 65%: 34521.850T Fines 55% to below 58%: 16176.140T 58% to below 60%: 49637.129T
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price: Lump 58% to below 60%; Rs 2484.00 62% to below 65%: 4453.00 Fines 55% to below 58%: Rs 625 58% to below 60%: Rs 1660	Ex mine price: Lump 58% to below 60%; Rs 2484.00 62% to below 65%: Rs 4453.00 Fines 55% to below 58%: Rs 625 58% to below 60%: Rs 1660	Ex mine price: Lump 58% to below 60%; Rs 2484.00 62% to below 65%: Rs 4453.00 Fines 55% to below 58%: Rs 625 58% to below 60%: Rs 1660
9h	Scrutiny of Annual return on fixed assets	Fixed asset as furnished in AR is Rs 30000000/-	Fixed asset as furnished in AR is Rs 30000000/-	Fixed asset as furnished in AR is Rs 30000000/-
9k	Scrutiny of Annual return on mining machineries	BACK HOE-6, DUMPER-6, FRONT END LOADER-2, WATER TANKER-2 etc.	BACK HOE-6, DUMPER-6, FRONT END LOADER-2, WATER TANKER-2 etc.	BACK HOE-6, DUMPER-6, FRONT END LOADER-2, WATER TANKER-2

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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

**Date :**

(DAYANAND UPADHYAY)

Indian Bureau of Mines