

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/KJR/MCDR-55/BBS

**Mine code :** 30ORI08069

- (i) Name of the Inspecting : **SKM** ) **SANJAY KUMAR MAHAPATRA**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Umesh Chandra Mohanta, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 22/09/2021
- (v) Prev.inspection date : 03/01/2021

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **DEOJHAR**
- (b) **Registration NO.** : **IBM/5262/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : DEOJHAR
- Taluka : BARBIL
- Post office : DEOJHAR
- Pin Code : 758038
- FAX No. : 06767-272304
- E-mail : diom.tmpl@gmail.com
- Phone : 06767-272304,273448
- (f) Police Station : Joda
- (g) First opening date : 04/10/1995
- (h) Weekly day of rest : SUN
2. Address for : DEOJHAR IRON MINE, DISTRICT KEONJHAR  
correspondance : ORISSA, PIN: 758 038.
3. (a) Lease Number : ORI0721
- (b) Lease area : 34.37
- (c) Period of lease : 50
- (d) Date of Expiry : 04/09/2044
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : TARINI MINERALS (P) LTD.  
 AT/PO-BONEIKALA JODA  
 KEONJHAR KEONJHAR ORISSA  
 Phone:  
 FAX :

Owner : TARANI MINERALS(P) LTD  
 BONEIKALA JODA KEONJHAR  
 ORISSA  
 Phone: 72304  
 FAX : 72304

## Mining Engineer

Name : SHRI VASANTHKUMAR SELVARAJ, Full Time  
 Qualification : B E MINING ENGG  
 Appointment/ : 25/03/2019  
 Termination date

## Geologist

Name : SHRI YASWANT KUMAR, Full Time  
 Qualification : M.SC GEOLOGY  
 Appointment/ : 25/03/2019  
 Termination date

## Manager

Name : SHRI VASANTHAKUMAR SELVARAJ  
 Qualification : B E MINING ENGG  
 Appointment/ : 01/07/2019  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	09/04/2002
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	17/03/2008
		Modif.approved Mining Scheme	24/10/2008
		Modif.approved Mining Scheme	28/10/2010
		Renewal under rule 24 MCR1960	05/12/2014
		MP review under 17(1) MCR 2016	25/01/2019

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NO BACK LOG	NO BACK LOG
1b	Exploration over lease area for geological axis 1 or 2	G1 level	NO PROPOSAL DURING 2020-21	ENTIRE AREA UNDER G1 EXPLORATION
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified. AS NO PROPOSAL	06 NOS OF BORE HOLE DRILLED DURING THE YEAR 2019-20	Exploration agency involved in drilling was M/s Thriveni Earthmovers Pvt Ltd
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	ENTIRE AREA UNDER G1
1e	Balance reserve as on 01/04/20	As per review of mining plan approved dated 25.01.2019, Reserve under 111 category is 624467.5 MT. Resources under 211 category is 968857.5 MT.	Total balance Reserve as on 01.04.2020 is 597080T. Resources is 968857.5 T.	Total balance Reserve as on 01.04.2020 is 597080T.
1f	General remarks of inspecting officers on geology, exploration etc	NIL	In 2019-20, total 06 nos. of bore holes have been drilled by lessee.	In 2019-20, total 06 nos. of bore holes have been drilled by lessee TO BRING THE AREA UNDER G2 TO G1

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development proposed in the existing quarry at northern part of the lease area.	Development proposed in the existing quarry at northern part of the lease area.	development proposed in the existing quarry at northern part of the lease area.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal for top soil generation. Intercalated waste present within ore benches.	There is no proposal for top soil generation. Intercalated waste present within ore benches.	There is no proposal for top soil generation. Intercalated waste present within ore benches.
2c	Stripping ratio or ore to OB ratio	1:0.053	NIL	There is no OB benches. Beches are developed in ore containing intercalated waste.
2d	Quantity of topsoil generation in m3	No proposal for top soil generation.	No top soil generated.	No top soil generated.
2e	Quantity of overburden generation in m3	In 2020-21, the proposal of waste generation was 16425 m3	NIL	There is no OB benches. Beches are developed in ore containing intercalated waste.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			There is no OB benches. Beches are developed in ore containing intercalated waste.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One number of pit was proposed for production	One number of pit was proposed for production	One number of pit was proposed for production
3b	Quantity of ROM mineral production proposed	81225T IN 2020-21	80770 IN 2020-21	The ROM production is within approved proposal.
3c	Recovery of sailable/usable mineral from ROM production	81225 T	80770 T	Recovery of salable mineral produced is 80770 T
3d	Quantity of mineral reject generation	Nil	NIL	NIL

3e	Grade of mineral rejects generation and threshold value declared.	Not proposed.	NIL	NIL
3f	Quantity of sub grade mineral generation.	Not proposed.	NIL	NIL
3g	Grade of sub grade mineral generation	Not proposed.	NIL	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method	Mechanized method	Mechanized method
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Only crushing and screening is being carried out at mines site.	Only crushing and screening is being carried out at mines site.
3j	Provision of drilling and blasting in mineral benches	Loosening of rock mass was done by drilling & blasting.	The ore was directly excavated and there was no drilling and blasting required due to soft nature of ore.	The ore was directly excavated and there was no drilling and blasting required due to soft nature of ore.
3k	Provision of mining machineries in mineral benches	Shovel and Dumper combination.	Shovel and Dumper combination have been deployed within the mines to produce required production.	Shovel and Dumper combination have been deployed within the mines to produce required production.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The height of the bench proposed is 10m.	The height of the bench is suitable for the method of mining proposed in mining plan.	The height of the bench is suitable for the method of mining proposed in mining plan. Height and width of the benches are as per proposal

3m	Total area covered under excavation/pits	As per the review of mining plan approved dated 25.01.2019, the area under excavation at the end of plan period will be 9.282 Ha.	Area under excavation at the end 2020-21 is 8.430 Ha.	Area under excavation at the end 2020-21 is 8.430 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.053	Nil	No waste generation reported during the year.
3o	Total area put in use under different heads at the end of year	As per the review of mining plan approved dated 25.01.2019, the total area under different heads at the end of plan period will be 24.235 Ha.	Area covered under different heads at the end of the year is 22.5 Ha.	Area covered under different heads at the end of the year is 22.5 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2016-17 - 1499852.75 T 2017-18 - 862906 T 2018-19 - 500398.25 T 2019-20 - 71678 T 2020-21 - 81225 T	2016-17 -1460095 T 2017-18 -862715 T 2018-19 -400535 T 2019-20 -27387.79 T 2020-21 -80770 T	ROM production is within approved proposal.
3q	General remarks of inspecting officers on method of mining etc.	Excavation of ROM has been proposed in one pit.	The ROM production has been carried out in one pit as proposed. The ore was directly excavated and there was no drilling and blasting required due to soft nature of ore.	The ROM production has been carried out in one pit as proposed. The ore was directly excavated and there was no drilling and blasting required due to soft nature of ore.

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal for top soil generation. Waste generated during the plan period will be disposed near the MLB 16 & 17 by extending the existing waste dump due south. Mineral reject /subgrade generated during the plan period will be stacked temporarily over 2 no of stacks.	In 2020-21, There was no generation of top soil, waste and mineral reject have been reported by lessee.	In 2020-21, There was no generation of top soil, waste and mineral reject have been reported by lessee.
4b	Location of topsoil, OB and mineral reject dumps	No proposal for top soil generation. Waste generated during the plan period will be disposed near the MLB 16 & 17 by extending the existing waste dump due south. Mineral reject /subgrade generated during the plan period will be stacked temporarily over 2 no of stacks.	In 2020-21, There was no generation of top soil, waste and mineral reject have been reported by lessee.	In 2020-21, There was no generation of top soil, waste and mineral reject have been reported by lessee.

4c	Number of dumps within lease area and outside of lease area	As per review of mining plan approved dated 25.01.19, there is one waste dumps within lease area	One number of existing waste dump within lease area.	One number of existing waste dump within lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump is outside the UPL	Dump is outside the UPL	Dump is outside the UPL
4e	Number of active and alive dumps.	One number of dump	One number of dump	One number of dump
4f	Number of dead dumps.	No proposal	One number of dump	One number of dump
4g	Number of dumps established.	One number of dump	One number of dump	One number of dump
4h	Whether Retaining wall or garland drain all along dumps are there.	300m retaining wall and garland drain proposed.	Proposed retaining wall and garland drain has been constructed by lessee.	Proposed retaining wall and garland drain has been constructed by lessee. Mainintanace work carried during 2020-21.
4i	Length of Retaining wall or garland drain all along dumps	300m retaining wall and garland drain proposed.	Proposed retaining wall and garland drain has been constructed by lessee.	Proposed retaining wall and garland drain has been constructed by lessee.
4j	Number of settling ponds	02 nos. of settling ponds.	02 nos. of settling ponds.	02 nos. of settling ponds.



4k	Specific comments of inspecting officer on waste dump management	There was no proposal for top soil generation. The total waste generated during the plan period will be disposed near the MLB 16 & 17 by extending the existing waste dump due south.	There was no generation of top soil, waste and mineral reject have been reported by lessee.	There was no generation of top soil, waste and mineral reject have been reported by lessee.
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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.	Backfilling of 0.2 ha area.	Backfilling of 0.2 ha carried	Backfilling of 0.2 ha carried
5b	Area under backfilling of mined out area	Backfilling of 0.2 ha	Backfilling of 0.2 ha carried	Backfilling of 0.2 ha carried
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil not proposed	Top soil not generated.	Top soil not generated.
5d	Total area fully reclaimed and rehabilitated	No proposal	Not carried. Partially Backfilling of 0.2 ha carried	Partially backfilled. 0.2ha of area
5e	General remarks of inspecting officers on backfilling and reclamation etc.	0.2 ha of back filling during the year 2020-21	Partially backfiiled of 0.2ha of area	Partially backfiiled of 0.2ha of area

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017
6b	Area available for rehabilitation (ha) .	Back filling of 0.2.ha during 2020-21	Back filling of 0.2.ha carried during 2020-21	Back filling of 0.2.ha carried during 2020-21
6c	afforestation done (ha).	0.73 ha	0.73 ha	
6d	No. of saplings planted during the year	1483	1510	
6e	Cumulative no .of plants	Not specified.	29220 nos of saplings planted.	Cumulative 29220 nos of saplings planted.
6f	Any other method of rehabilitation	Back filling of 0.2 ha	Back filling of 0.2 ha carried	Back filling of 0.2 ha carried during the year 2020-21
6g	Cost incurred on watch and care during the year	Not specified	Rs 30,000/- cost incurred on watch and care.	Rs 30,000/- cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Back filling of 0.2ha area	Back filling carried 0.2.ha	Back filling carried 0.2.ha
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Back filling of 0.2ha area	Back filling carried 0.2ha	Back filling carried 0.2ha
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Back filling proposed 0.2.ha	Back filling carried 0.2.ha	Back filling carried 0.2.ha

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal of water reservior	Back filling carried 0.2.ha	Back filling carried 0.2.ha
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Back filling of 0.2ha	Back filling carried 0.2ha	Back filling carried 0.2ha
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	0.15 ha safety zone plantation.	0.15 ha safety zone plantation.	0.15 ha safety zone plantation.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	0.15 ha safety zone plantation.	0.15 ha safety zone plantation.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	0.15 ha safety zone plantation.	0.15 ha safety zone plantation.	0.15 ha safety zone plantation.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring	Quarterly monitoring carried.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Back filling of 0.2ha area	Back fillinf carried 0.2ha	No specific remark. Only 0.2ha area back fillied.

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**Mineral Conservation:**


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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting	Gradewise sorting is being practiced.	Gradewise sorting is being practiced.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	Mechanised
7c	Different grade of mineral sorted out at mines.	Gradewise sorting. Saleable Ore:+58 % Fe	Gradewise sorting. Saleable Ore:+58 % Fe	Gradewise sorting. Below 55% Fe Fines also sold during the year 2020-21.
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	Grade wise sorting proposed in mines	Only crushing and screening Of ROM is being practiced.	Only crushing and screening Of ROM is being practiced. Below 55% Fe Fines also sold during the year 2020-21.

#### Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	There was no proposal for top soil generation and its subsequent utilization.	There was no generation of top soil.	There was no generation of top soil.
8b	Concurrent use or storage of topsoil	There was no proposal for top soil generation and its subsequent utilization	There was no generation of top soil.	There was no generation of top soil.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	There was no proposal for top soil generation. The total waste generated during the plan period will be disposed near the MLB 16 & 17 by extending the existing waste dump due south.	There was no generation of top soil. waste and mineral reject reported by lessee.	There was no generation of top soil. waste and mineral reject reported by lessee.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling of 0.2 ha area.	Back filling carried in 0.2ha area	Back filling carried in 0.2ha area
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Back filling of 0.2ha area	Back filling carried in 0.2ha area	Back filling carried in 0.2ha area
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not Specified	1510 nos of saplings planted by lessee during the year.	1510 nos of saplings planted by lessee during the year.
8g	Survival rate	Not specified.	survival rate of 50 %	survival rate of 50 %
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed	Water sprinkling is being carried out.	Water sprinkling is being carried out.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not Specified	Aesthetic beauty in and around mines is maintained.	Aesthetic beauty in and around mines 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 returns and annual return have been submitted.	Monthly returns and annual return have been submitted.	Monthly returns and annual return have been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining engineer, Geologist and Manager has been furnished in annual return submitted.	During inspection it is found that whole-time Geologist has not been employed.	Violation of Rule 55(1) 3.(iii) issued vide lettere No ORI/IRON/KJR/MCDR-63/BBS dated 29.09.2021.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area (surface area) utilization at the end of the year as furnished in annual return. Mining -8.43 Ha Mineral Storage-6.03 Ha Road -1.5 Ha TOTAL -22.5 Ha	Mining 8.43 Ha Mineral Storage-6.03 Ha Road 1.5 Ha Infrastructure -0.311 Ha OB dump -2.527 Ha Others 3.7 Ha TOTAL -22.5 Ha	- - - - -

9d	Scrutiny of Annual return on afforestation	1510 nos of saplings.	1510 nos of saplings.	1510 nos of saplings.
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 at mine head of processed ore. Lump (58% to below 60% Fe): 15137.48 tones. Fines below 55 % 7439.97 t(55% to below 58% Fe): 14624.040 tones, Fines (58% to below 60% Fe): 113542.63 tones, Fines (62% to below 65% Fe): 0.28 ones.	Closing stock at mine head of processed ore. Lump (58% to below 60% Fe): 9590.57 tones. Lump (62% to below 65% Fe): 15137.48 tones. Fines below 55 % 7439.97 t(55% to below 58% Fe): 14624.040 tones, Fines (58% to below 60% Fe): 113542.63 tones, Fines (62% to below 65% Fe): 0.28 ones.	Violation of Rule 45(5)(c) issued vide letter No ORI/IRON/KJR/MCDR-63/BBS dated 29.09.2021. Discrepancy observed after scrutiny of Annual return for the for the year 2020-21 are as follow: (i) Cost of production has been mentioned as Rs 6773.75 which is not justified. (ii) Production proposal for the year 2020-21 has been entered as 0 . Thus the entire production of 80770 tonne is showing as excess production. (iii) In part VI Sl No 5 in Sale Despatch effected the details of the buyers IBM Regis

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production Rs 6773.75	Discrepancy observed after scrutiny of Annual return for the for the year 2020-21 are as follow: (i) Cost of production has been mentioned as Rs 6773.75 which is not justified. (ii) Production proposal for the year 2020-21 has been entered as 0 . Thus the entire production of 80770 tonne is showing as excess production. (iii) In part VI Sl No 5 in Sale Despatch effected the details of the buyers IBM Regis	Violation of Rule 45(5)(c) issued vide lettere No ORI/IRON/KJR/MCDR-63/BBS dated 29.09.2021.Discrepancy observed after scrutiny of Annual return for the for the year 2020-21 are as follow: (i) Cost of production has been mentioned as Rs 6773.75 which is not justified. (ii) Production proposal for the year 2020-21 has been entered as 0 . Thus the entire production of 80770 tonne is showing as excess production. (iii) In part VI Sl No 5 in Sale Despatch effected the details of the buyers IBM Regis
9k	Scrutiny of Annual return on mining machineries	Shovel: 03 CUM -01 No, 0.6CUM -1no Truck- 30T : 02 nos	Shovel: 03 CUM -01 No, 0.6CUM -1no Truck- 30T : 02 nos	

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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
MCDR17	Rule 11(1)	22/09/2021			
MCDR17	Rule 35(2)	22/09/2021			
MCDR17	Rule 55(1)(3)	22/09/2021			
MCDR17	Rule 45(5)(c)	22/09/2021			

**Date :**

(SANJAY KUMAR MAHAPATRA)

Indian Bureau of Mines