

**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 : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Vasanthkumar Selvaraj, Mining Engineer
Official with
Designation
- (iv) Date of Inspection : 03/01/2021
- (v) Prev.inspection date : 30/01/2020

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	In 2019-20, 06 nos. of bore holes.	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.
1b	Exploration over lease area for geological axis 1 or 2	G1 level	In 2019-20, total 06 nos. of bore holes have been drilled by lessee. under G1 level.	In 2019-20, total 06 nos. of bore holes have been drilled by lessee. under G1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Exploration agency involved in drilling was M/s Thriveni Earthmovers Pvt Ltd and cost incurred in drilling was Rs 1006510/-.	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	5.523 ha area from G2 to G1 Level	In 2019-20, total 06 nos. of bore holes have been drilled by lessee. under G1 level of 5.523 ha area.	In 2019-20, total 06 nos. of bore holes have been drilled by lessee. under G1 level of 5.523 ha area.
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.	Total balance Reserve as on 01.04.2020 is 597080T.
1f	General remarks of inspecting officers on geology, exploration etc	In 2019-20, 06 nos. of bore holes.	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.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	development proposed in the existing quarry at northern part of the lease area.	Development took place in the existing quarry at northern part of the lease area.	Development took place 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.	Generation of Top soil was nil. & Overburden Nil. Intercalated waste present within ore benches.	Generation of Top soil was nil. & Overburden Nil. Intercalated waste present within ore benches.
2c	Stripping ratio or ore to OB ratio	I:0.393	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 2019-20, the proposal of waste generation was 67915 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	Development proposed in the existing quarry at northern part of the lease area	Development took place in the existing quarry at northern part of the lease area.	Development took place in the existing quarry at northern part of the lease area.

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 put for production.	One number of pit was put for production.
3b	Quantity of ROM mineral production proposed	71678T in 2019-20.	27387.79 T in 2019-20.	The ROM production is within approved proposal.

3c	Recovery of sailable/usable mineral from ROM production	Recovery of salable mineral proposed 71678T	Recovery of salable mineral produced is 27387.79 T	Recovery of salable mineral produced is 27387.79 T
3d	Quantity of mineral reject generation	Not proposed.	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 if the bench is suitable for the method of mining proposed in mining plan.	The height if the bench is suitable for the method of mining proposed in mining plan.
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 2019-20 is 7.860 Ha.	Area under excavation at the end 2019-20 is 7.860 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.393	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 21.287 Ha.	Area covered under different heads at the end of the year is 21.287 Ha.
3p	Production of ROM mineral during the last five year period as applicable	Year wise ROM Production Proposal: 2015-16:- 740784 MT 2016-17:- 1499852 MT 2017-18:- 862906 MT 2018-19:- 500398 MT 2019-20: 71678MT	Year wise ROM Production: 2015-16:-Nil 2016-17:- 1460095 MT 2017-18:- 862715 MT 2018-19:- 400535 MT 2019-20: 27387.79MT	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.
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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 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 2019-20, There was no generation of top soil, waste and mineral reject have been reported by lessee.	In 2019-20, 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 2019-20, There was no generation of top soil, waste and mineral reject have been reported by lessee.	In 2019-20, 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 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.	Not proposed.	There is one no of dump	There is one no of dump
4g	Number of dumps established.	One no. of dump	One no. of dump	One no. 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.

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.

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 0.6 ha area.	Bacfilling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfilling not carried out as the pit is not exhausted due to less ROM production than proposed.
5b	Area under backfilling of mined out area	Backfilling of 0.6 ha area.	Bacfilling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfilling not carried out as the pit is not exhausted due to less ROM production than proposed.
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	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.

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).	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP for the year 2019-20 hase been submitted.	Annual report on PMCP for the year 2019-20 hase been submitted.
6b	Area available for rehabilitation (ha) .	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6c	afforestation done (ha).	0.83 Ha area proposed for afforestation	0.83 ha area afforested.	0.83 ha area afforested.
6d	No. of saplings planted during the year	1328 nos. of saplings proposed for plantation	1300 nos of saplings planted.	1300 nos of saplings planted.
6e	Cumulative no .of plants	Not Specified	26170 nos of saplings planted.	26170 nos of saplings planted.
6f	Any other method of rehabilitation	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.

6g	Cost incurred on watch and care during the year	Not specified.	Rs 24000/- cost incurred on watch and care.	Rs 24000/- cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	0.13 ha safety zone plantation.	0.13 ha safety zone area covered by 210 nos. of plantation.	0.13 ha safety zone area covered by 210 nos. of plantation.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.13 ha safety zone plantation.	0.13 ha safety zone area covered by 210 nos. of plantation.	0.13 ha safety zone area covered by 210 nos. of plantation.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	0.13 ha safety zone plantation.	0.13 ha safety zone area covered by 210 nos. of plantation.	0.13 ha safety zone area covered by 210 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 of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed. Violation was pointed out to the lessee.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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. Saleable Ore:+58 % Fe

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	Grade wise sorting. Dry processing through screening and crushing is practiced.	Grade wise sorting. Dry processing through screening and crushing is practiced.

Environment :

Sl.No.	Item	Propasals	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 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling of 0.6 ha area.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.	Bacfiiling not carried out as the pit is not exhausted due to less ROM production than proposed.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not Specified	1300 nos of saplings planted by lessee during the year.	1300 nos of saplings planted by lessee during the year.
8g	Survival rate	Not specified.	survival rate of 75%	survival rate of 75%
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.

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.	Mining Engineer, Geologist and Manager appointed in mines.	Mining Engineer, Geologist and Manager appointed in mines.
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. Covered under current working: 7.86 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.811 Ha, Other purpose(dump, stack yard etc.): 8.416 Ha etc	Lease area (surface area) utilization at the end of the year as furnished in annual return. Covered under current working: 7.86 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.811 Ha, Other purpose(dump, stack yard etc.): 8.416 Ha etc	Lease area (surface area) utilization at the end of the year as furnished in annual return. Covered under current working: 7.86 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.811 Ha, Other purpose(dump, stack yard etc.): 8.416 Ha etc
9d	Scrutiny of Annual return on afforestation	1300 nos of saplings.	1300 nos of saplings.	1300 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 (62% to below 65% Fe): 35585.840 tones. Fines (55% to below 58% Fe): 816.890 tones, Fines (58% to below 60% Fe): 179115.0 tones, Fines (62% to below 65% Fe): 0.280 tones.	Closing stock at mine head of processed ore. Lump (62% to below 65% Fe): 35585.840 tones. Fines (55% to below 58% Fe): 816.890 tones, Fines (58% to below 60% Fe): 179115.0 tones, Fines (62% to below 65% Fe): 0.280 tones.	Violation was pointed out to lessee against the not matching of closing stock/dispatch quantity and ex mine price.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-Mines price (in Rs per tonne) of Lump of grade 62 % Fe to below 65% Fe is Rs. 3405.00 and fines 55% Fe to below 58% Fe is Rs 875.00, Fines 58% Fe to below 60% Fe is Rs 1361.00 and Fines 62% Fe to below 65% is Rs 2135.00.	Violation was pointed out to lessee against the not matching of closing stock/dispatch quantity and ex mine price.	Violation was pointed out to lessee against the not matching of closing stock/dispatch quantity and ex mine price.

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