

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/KJR/MCDR-2/BBS

Mine code : 40ORI08003

- (i) Name of the Inspecting : U11) DAYANAND UPADHYAY
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Amit Dubey, Agent and Shri Sabyasachy Mishra, Qu
Official with
Designation
- (iv) Date of Inspection : 12/10/2019
- (v) Prev.inspection date : 26/10/2018

PART-I : GENERAL INFORMATION

1. (a) Mine Name : BAMEBARI
- (b) Registration NO. : IBM / 4376 / 2011
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : ORISSA
District : KEONJHAR
Village : BAMEBARI
Taluka : CHAMPUA
Post office : BAMEBARI
Pin Code :
FAX No. : 06767-272027, 272246
E-mail : bmm.mnmines@tatasteel.com
Phone : 06767-279208
- (f) Police Station : Joda
- (g) First opening date : 01/03/1939
- (h) Weekly day of rest : SUN
2. Address for : BAMEBARI MN MINES
correspondance : VIL/PO-BAMEBARI
DIST-KEONJHAR, ORISSA-758034
3. (a) Lease Number : ORI0187
- (b) Lease area : 464 (original Lease area 1150.550 Ha. & retained
area 464 ha.)
- (c) Period of lease : 50
- (d) Date of Expiry : ~~31/03/2030~~ 31.03.2030 (As per section 8A of
Amendment MMDR Act 2015)
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : TATA IRON & STEEL CO. LTD.
TATA IRON & STEEL CO. OMQ,
NUAMUNDI JHARKHAND
SINGHBHUM (WEST) JHARKHAND
Phone:
FAX :

Owner : Sri T.V. Narendran
Managing Director, M/s TATA
Steel Jamshedpur, Dist-East
Singhbhum Jharkhand-831001
KEONJHAR ORISSA
Phone: 0657-2423298
FAX : 0657-2431818

Agent : AMIT KUMAR DUBEY
KEONJHAR ORISSA
Phone: 9238101140
FAX :

Mining Engineer

Name : Sri Maruti Nandan Suman, Full Time
Qualification : B. Tech (Mining) & FCC
Appointment/ : 19/01/2015
Termination date

Geologist

Name : Sri Joydeep Bhattacharjee, Full Time
Qualification : M.Sc. (Applied Geology)
Appointment/ : 16/10/2017
Termination date

Manager

Name : Sri Rimplal Joshi
Qualification : AMIE (Mining) & FCC
Appointment/ : 18/06/2014
Termination date

6. Date of approval of Mining	:	Modif. approved Mining Scheme	24/03/2005
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	05/12/2007
		Mining Scheme rule 12 MCDR1988	09/06/2010
		FMCP under 23C(1)	20/01/2015
		Mining Scheme rule 12 MCDR1988	26/03/2015
		Modif. approved Mining Scheme	04/05/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	248 Nos. of bore holes of total meterage 12400.	In 2018-19, total 52 Nos .of bore holes of 2283.85 meterage have been drilled by lessee.	Deviation of exploration is pointed out through letter.
1b	Exploration over lease area for geological axis 1 or 2	About 293 ha area under G1/G2 Level of exploration during plan period.	In 2018-19, about 8.34 ha explored under G1 Level of exploration and 2.92 ha under G2 Level of exploration.	Deviation of exploration is pointed out through letter.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	In 2018-19, total 52 Nos .of bore holes of 2283.85 meterage have been drilled through in-house. Cost incurred in drilling was Rs. 72.39 Lakhs.	Exploration was executed through in-house.
1d	Balance area to be explored to bring Geological axis in 1 or 2	About 293 ha area under G1/G2 Level of exploration.	Out of total 464 ha lease area about 282.85 ha area has been explored under G1/G2 level of exploration.	About 58.99 ha area has been explored under G1 level and 223.86 ha area under G2 level.
1e	Balance reserve as on 01/04/20	Reserve as per Modification of review of mining plan approved on 04/05/2018 was: Mn ore- 1.383 Million Tonnes under 111,121 & 122 category and resources 6.814 Million Tonnes. Resources of iron ore 3.251 Million Tonnes.	Balance reserve as on 01/04/2019 is 1.312 million Tonnes of Mn ore.	Balance reserve as on 01/04/2019 is 1.312 million Tonnes of Mn ore.

1f	General remarks of inspecting officers on geology, exploration etc	In 2018-19, 248 Nos. of bore holes of total meterage 12400.	In 2018-19, total 52 Nos .of bore holes of 2283.85 meterage have been drilled by lessee.	About 282.85 ha area has been explored under G1/G2 level by putting 956 nos. of bore holes of total meterage 37337.81 m. Deviation of exploration is pointed out through letter.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Bamebari: 2545N-2628N & 3314E-3431E Joribar:: 11298N-11454N & 12363E- 12530E Bonaikela:4273 N-4311N & 4929E-4978E	Bamebari: 2545N-2628N & 3314E-3431E Joribar:: 11298N-11454N & 12363E-12530E	No development in Bonaikela block due to want of clearance of Forest area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and ore with 6-8 mtrs height, top soil bench- nil.	Separate benches in OB and ore of 6-8 mtrs height have been maintained.	Separate benches in OB and ore of 6-8 mtrs height have been maintained.
2c	Stripping ratio or ore to OB ratio	1.403 T/cu.m	1.83 T/cu.m	Average stripping ratio varies due to irregular & pocket nature of ore deposit.
2d	Quantity of topsoil generation in m3	Not proposed.	There is no top soil generation as no exploitation proposed in virgin area.	There is no top soil generation.
2e	Quantity of overburden generation in m3	137437cu.m	137240cu.m	Less quantity of OB generated due to less production of ROM as proposed.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development is proposed in three pits i.e Bamebari, Joribar, Boneikela pits.	The development is concentrated in two pits i.e Bamebari, Joribar. No development carried out in Bonaikela pit due to want of clearance of Forest area.	No development carried out in Bonaikela pit due to want of clearance of Forest area.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Three pits.	Working is concentrated in two pit i.e Bamebari, Joribar pits.	No working is carried out in Bonaikela pit due to want of Forest clearance.
3b	Quantity of ROM mineral production proposed	Mn ore- 97882T	ROM production reported in 2018-19 is 79619.4156T	ROM Production is less as no working is carried out in Bonaikela pit due to want of clearance of Forest area.
3c	Recovery of sailable/usable mineral from ROM production	About 85% recovery of saleable ore.	About 85% recovery of saleable ore from total ROM.	About 85% recovery of saleable ore from total ROM.
3d	Quantity of mineral reject generation	14682.5T	Mineral reject/sub grade generated during 2018-19 is 11371T.	Mineral reject generation is low due to less ROM production as proposed.
3e	Grade of mineral rejects generation and threshold value declared.	10-25% Mn ore.	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.
3f	Quantity of sub grade mineral generation.	14682.5T	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.
3g	Grade of sub grade mineral generation	10-25% Mn ore.	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.	Mineral reject/sub grade generated during 2018-19 is 11371T of grade 10-25% Mn.

3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual method is practiced for segregating of Mn from ROM.	Manual method is practiced for segregating of Mn from ROM.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Manual method is practiced for segregating of Mn from ROM.	Manual method is practiced for segregating of Mn from ROM. Further, a beneficiation process is in process to explore to upgrade these ores using high intensity magnetic separators and reduction roasting followed by low intensity magnetic separation.
3j	Provision of drilling and blasting in mineral benches	Deep hole Drilling with large diameter (83mm)and blasting with slurry explosive cartridges alongwith delay detonator.	Deep hole Drilling with large diameter (83mm) slurry explosive cartridges. Cap- sensitive slurry explosive cartridges are being used as base charge and non-cap sensitive are used as column charge.	Blasting parameters are Spacing- 3m & Burden -2.5m.
3k	Provision of mining machineries in mineral benches	Backhoe-2, Dumper-16, Drill-3, Water Sprinkler 9KL- 2 etc.	BACK HOE 1.2/2.0 cu.m- 3, FRONT END LOADER 2.0 cu.m-1, DUMPER 30/25T - 24, WATER TANKER 9KL-2, DOZER-1 etc.	Excavator, Loader and Dumper are equipped to winning out the mineral.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height 6-8m	Bench height is suitably matched with the loading excavator.	Bench height is suitably matched with the loading excavator.
3m	Total area covered under excavation/pits	97.308 ha proposed during approved plan period.	About 97.194ha. has been covered under excavation pits.	About 97.194ha. has been covered under excavation pits.

3n	Ore to OB ratio for the pit/mine during the year.	1.403 T/cu.m	1.83 T/cu.m	Average stripping ratio varies due to irregular & pocket nature of ore deposit.
3o	Total area put in use under different heads at the end of year	Total area proposed under different heads are Pit-97.308 ha, waste dump-46.465 ha, Infrastructure - 4.186 ha, roads-10.42 ha & Mineral storage-11.215 ha, Township area -24.350 ha. etc	Area covered under different heads are Pit-97.194 ha, waste dump-46.465 ha, Plant, residential & building, roads-38.95ha, Reclaimed/Rehabilitated-42.632 ha & others - 29.87 ha.	Area covered under different heads are Pit-97.194 ha, waste dump-46.465 ha, Plant, residential & building, roads-38.95ha, Reclaimed/Rehabilitated-42.632 ha & others -29.87 ha.
3p	Production of ROM mineral during the last five year period as applicable	2014-15 :97883T 2015-16 :97885T 2016-17 :97885T 2017-18: 97883T 2018-19: 97882T	2014-15:61763.012T 2015-16 :78420.506T 2016-17 :83146.467T 2017-18 :78405.558T 2018-19: 79619.415T	ROM Production is less as no working is carried out in Bonaikela pit due to want of clearance of Forest area.
3q	General remarks of inspecting officers on method of mining etc.	Excavation of ROM has been proposed in three blocks i.e Bamebari, Joribar, Boneikela.	The ROM production has been carried out in two blocks i.e Bamebari & Joribar. Mining is carried out by Deep hole Drilling with large diameter (83mm) slurry explosive cartridges. Cap-sensitive slurry explosive cartridges are being used as base charge and non-cap sensitive are used as column charge.	No working is carried out in Bonaikela pit as proposed due to want of clearance of Forest area.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
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- 4a Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Bonaikela dump 4000 N-4250 N & 4100 E-4600 E, Separate dumping of mineral reject. Top soil not proposed. Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Mineral reject dump as per proposal. There is no top soil generation.
- 4b Location of topsoil, OB and mineral reject dumps OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Bonaikela dump 4000 N-4250 N & 4100 E-4600 E, mineral reject dump: BMR#1: 2145N-2193N & 2964E-3051E, BMR#2: 2557N-2653N & 3145E-3249E, JMR#1:11620N-11719N & 12645E-12763E, JMR#2: 11735N-11661N & 12562E-12667E, JMR#3:11459N-11593N & 12603E-12779E. Overbureden generated of Bamebari and Joribar has been back filled in Bamebari Pit. Mineral reject dump as per proposal. There is no top soil generation.

4c	Number of dumps within lease area and outside of lease area	OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Bonaikela waste dump 4000 N-4250 N & 4100 E-4600 E.	There are five waste dumps within the lease area.	There are five waste dumps within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Bonaikela dump 4000 N-4250 N & 4100 E-4600 E, mineral reject dump: BMR#1: 2145N-2193N & 2964E-3051E, BMR#2: 2557N-2653N & 3145E-3249E, JMR#1:11620N-11719N & 12645E-12763E, JMR#2: 11735N-11661N & 12562E-12667E, JMR#3:11459N-11593N & 12603E-12779E.	The OB dumps are lying outside ultimate pit limit.	The OB dumps are lying outside ultimate pit limit.
4e	Number of active and alive dumps.	One active waste dump i.e Bonaikela dump . OB of Bamebari and Joribar: Proposed for backfill in Bamebari Pit	Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Bonaikela dump not developed due to want of forest clearance.	Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Bonaikela dump not developed due to want of forest clearance.

4f	Number of dead dumps.	Bamebari block:3 nos., Joribar block: 2 nos.	Bamebari: Three fully rehabilitated and stabilized by plantation. Joribar:-Two partially rehabilitated and stabilized by plantation	Bamebari: Three fully rehabilitated and stabilized by plantation. Joribar:-Two partially rehabilitated and stabilized by plantation
4g	Number of dumps established.	Bamebari block:3 nos., Joribar block: 2 nos.	Bamebari: Three fully rehabilitated and stabilized by plantation. Joribar:-Two partially rehabilitated and stabilized by plantation	Bamebari: Three fully rehabilitated and stabilized by plantation. Joribar:-Two partially rehabilitated and stabilized by plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall of 140m and a garland drain of 140m.	Retaining wall of 140m and a garland drain of 140m has been completed.	Retaining wall of 140m and a garland drain of 140m has been completed.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 140m and a garland drain of 140m	Retaining wall of 140m and a garland drain of 140m has been completed.	Retaining wall of 140m and a garland drain of 140m has been completed.
4j	Number of settling ponds	One settling pond in 2018-19.	Proposed settling pond constructed by lessee.	Proposed settling pond constructed by lessee.
4k	Specific comments of inspecting officer on waste dump management	OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Bonaikela dump 4000 N-4250 N & 4100 E-4600 E, Separate dumping of mineral reject.	Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Mineral reject dump as per proposal. Retaining wall and garland drain have been completed around the dump.	Retaining wall and garland drain have been completed around the dump. Bonaikela dump not developed due to want of forest clearance.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Proposal of Backfilling Bamebari Pit.	Partly mined out area of Bamebari Pit has been backfilled as per proposal.	Partly mined out area of Bamebari Pit has been backfilled as per proposal.
5b	Area under backfilling of mined out area	0.402 ha, (Bamebari pit)	About 0.402 ha mined out area of Bamebari Pit has been backfilled as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled as per proposal.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	There is no top soil generation as no exploitation proposed in virgin area.	There is no top soil generation.
5d	Total area fully reclaimed and rehabilitated	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.

Progressive Mine Clousre Plan:

Sl.No.	Item	Proposals	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) .	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6c	afforestation done (ha).	4525 nos. of saplings in 1.81 ha area	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19.	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19.
6d	No. of saplings planted during the year	4525 nos. of saplings in 1.81 ha area	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19.	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 285786 nos.	Cumulative nos. of saplings planted in the lease area is about 285786 nos.
6f	Any other method of rehabilitation	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 258189/- cost incurred on watch and care.	Around Rs 258189/- cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not proposed.	Nil	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Nil	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Nil	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring of air, water and noise level are being carried out.	Quarterly monitoring of air, water and noise level are being carried out.
6q	General remarks of inspecting officers on PMCP for compliance and progressive closure operations etc.	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.

Mineral Conservation:

Sl.No.	Item	Proposals	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.	Manual for Mn ore	Manual for Mn ore	Manual for Mn ore

7c	Different grade of mineral sorted out at mines.	Chemical Grade (Mn> 48% & Fe<4%), High Grade (Mn>46%), Medium Grade (Mn>35% & Mn<26%), Low Grade (Mn >25% & <35%), Sub Grade (Mn> 10% & Mn <25%)	Chemical Grade (Mn> 48% & Fe<4%), High Grade (Mn>46%), Medium Grade (Mn>35% & Mn<26%), Low Grade (Mn >25% & <35%), Sub Grade (Mn> 10% & Mn <25%)	Chemical Grade (Mn> 48% & Fe<4%), High Grade (Mn>46%), Medium Grade (Mn>35% & Mn<26%), Low Grade (Mn >25% & <35%), Sub Grade (Mn> 10% & Mn <25%)
7d	Any beneficiation process at mines	Manual Sorting and sizing	Manual Sorting and sizing	Manual Sorting and sizing is being practiced.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise sorting.	Gradewise sorting of Chemical Grade (Mn> 48% & Fe<4%), High Grade (Mn>46%), Medium Grade (Mn>35% & Mn<26%), Low Grade (Mn >25% & <35%), Sub Grade (Mn> 10% & Mn <25%) are being practiced.	Manual Sorting and sizing is being practiced.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	No top top soil generation as mining is proposed in broken up area.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	Not proposed.	No top top soil generation as mining is proposed in broken up area.	No top top soil generation is proposed.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB of Bamebari and Joribar:proposed for backfill in Bamebari Pit. Separate dumping of mineral reject. Top soil not proposed.	Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Mineral reject dump as per proposal.	Overbureden generated from Bamebari and Joribar block has been back filled in Bamebari Pit. Mineral reject dump as per proposal.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	0.402 ha, (Bamebari pit) for backfilling and 1.81 ha of dump rehabilitation	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.	About 0.402 ha mined out area of Bamebari Pit has been backfilled and 1.81 ha of dumps rehabilitated by plantation as per proposal.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	4525 nos. of saplings in 1.81 ha area	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19.	Cumulative nos. of saplings planted in the lease area is about 285786 nos.
8g	Survival rate	Not specified.	As reported survival rate is 82%.	As reported survival rate is 82%.
8h	Water sprinkling on roads to control airborne dust	Mobile 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	4525 nos. of saplings in 1.81 ha area	Lessee has planted 5556 nos. of saplings in 1.81 ha area in 2018-19. Cumulative nos. of saplings planted in the lease area is about 285786 nos.	Aesthetic beauty in and around mines area is maintained. Cumulative nos. of saplings planted in the lease area is about 285786 nos.
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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 & 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	Graduate Mining Engineer-1, Surveyor-1, Geologist-1, Other-23	Graduate Mining Engineer-1, Surveyor-1, Geologist-1, Other-23	Graduate Mining Engineer-1, Surveyor-1, Geologist-1, Other-23
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-97.194 ha, waste dump-46.465 ha, Plant, residential & building, roads-38.95ha, Reclaimed/Rehabilitated-42.632 ha & others -29.87 ha.	Area covered under different heads are Pit-97.194 ha, waste dump-46.465 ha, Plant, residential & building, roads-38.95ha, Reclaimed/Rehabilitated-42.632 ha & others -29.87 ha.	Area covered under different heads are Pit-97.194 ha, waste dump-46.465 ha, Plant, residential & building, roads-38.95ha, Reclaimed/Rehabilitated-42.632 ha & others -29.87 ha.
9d	Scrutiny of Annual return on afforestation	5556 nos. of saplings in 2018-19.	5556 nos. of saplings in 2018-19.	5556 nos. of saplings in 2018-19.

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	11371T, 10-25% Mn	11371T, 10-25% Mn	11371T, 10-25% Mn
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is Nil	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 4515.33 & Ex mine price-Rs4515.33/-	Production cost is: Rs 4515.33 & Ex mine price-Rs4515.33/-	Production cost is: Rs 4515.33 & Ex mine price-Rs4515.33/-
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (inRs) 221116208/-	Value of Fixed Assets (inRs) 221116208/-	Value of Fixed Assets (inRs) 221116208/-
9k	Scrutiny of Annual return on mining machineries	BACK HOE 1.2/2.0 cu.m-3, FRONT END LOADER 2.0 cu.m-1, DUMPER 30/25T -24, WATER TANKER 9KL-2, DOZER-1 etc.	BACK HOE 1.2/2.0 cu.m-3, FRONT END LOADER 2.0 cu.m-1, DUMPER 30/25T -24, WATER TANKER 9KL-2, DOZER-1 etc.	BACK HOE 1.2/2.0 cu.m-3, FRONT END LOADER 2.0 cu.m-1, DUMPER 30/25T -24, WATER TANKER 9KL-2, DOZER-1 etc.

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

Violation of rule 11(c) & 45(5)(b) has been issued on 22.10.2019. Dayanand Upadhyay

Date : 02.12.2019

(DAYANAND UPADHYAY)

Indian Bureau of Mines