

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/MBJ/MCDR-08/BBS

Mine code : 30ORI10021

- (i) Name of the Inspecting : **RKR5**) **RAJANI KANTA RAUTARAY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri H.N.Das, Nominated Owner, Shri A.K.Roul, Mine Ma
Official with
Designation
- (iv) Date of Inspection : 09-JUN-22
- (v) Prev.inspection date : 26-OCT-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BADAMPAHAR IRON ORE BLOCK**
- (b) **Registration NO.** : **IBM/815/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ORISSA**
- District : **MAYURBHANJ**
- Village : **DHANGUDIMUTA**
- Taluka : **KUSUMI**
- Post office : **BADAMPAHAR**
- Pin Code : **757047**
- FAX No. : **03322480602**
- E-mail : **GMSTEELBMPR@GMAIL.COM**
- Phone : **03322482623**
- (f) **Police Station** :
- (g) **First opening date** : **15-AUG-20**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **WATERLO STREET**
correspondance : **2ND FLOOR**
: **KOLKATA**
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : GM IRON & STEEL COMPANY LIMITED
MAYURBHANJ ORISSA
Phone:
FAX :

Owner : Sri Raj Kumar Misra
MAYURBHANJ ORISSA
Phone:
FAX :

Agent : Harendra Narayan Das
MAYURBHANJ ORISSA
Phone:
FAX :

Manager

Name : Akshaya Kumar Roul
Qualification : AMIE (Mining)
Appointment/ : 12-OCT-20
Termination date

6. Date of approval of Mining : MP under 16(1) of MCR 2016 05-FEB-21
Plan/Scheme of Mining

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	34 Boreholes	10 Boreholes	Violation letter has been issued under MCDR, 2017
1b	Exploration over lease area for geological axis 1 or 2	34 Nos. of boreholes have been proposed to drill in the year 2021-22. 105.05 Ha. has been explored under G1 level & 24.56 Ha. area under G2 category has been proved to be non-mineralised area.	Only 10 boreholes have been drilled against the approved proposal.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	-	Gemco Kati Exploration Pvt. Ltd. Chandrapur, Maharashtra Rs. 25,28,500/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	24.560 Ha.	10 Nos. of holes have been drilled under G1 Level.	Exploration work is continuing for G1
1e	Balance reserve as on 01/04/20	As per approved mining plan, the reserve position as on 01.09.2021 is 6.451 MT	As per approved mining plan, the reserve position as on 01.09.2021 is 6.451 MT	
1f	General remarks of inspecting officers on geology, exploration etc			105.05 Ha. has been explored under G1 level & 24.56 Ha. area under G2 category has been proved to be non-mineralised area.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	2440327 to 2440997 N / 409083 TO 409609E	PeakA & B, Quarry-4 & Narvane Quarry 2440327 to 2440997 N / 409083 TO 409609E
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Ore- 19 nos. OB- 2 nos.	Ore- 19 nos. OB- 2 nos.
2c	Stripping ratio or ore to OB ratio	1:0.7	1:0.4
2d	Quantity of topsoil generation in m3	No such proposal	Nil
2e	Quantity of overburden generation in m3	786,700 Cubic metre	453,204 Cubic metre

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	4 Nos. Peak-A, Peak-B, Quarry-4 and Norven Quarry	4 Nos. Peak-A, Peak-B, Quarry-4 and Norven Quarry	
3b	Quantity of ROM mineral production proposed	11,36,640 MT	11,36,630 MT	
3c	Recovery of sailable/usable mineral from ROM production	565,397 MT	211,590 MT	
3d	Quantity of mineral reject generation	565,397 MT	139,681 MT	
3e	Grade of mineral rejects generation and threshold value declared.	+45% to below 55% Fe	+45% to below 55% Fe	
3f	Quantity of sub grade mineral generation.	565,397 MT	139,681 MT	
3g	Grade of sub grade mineral generation	+45% to below 55% Fe	+45% to below 55% Fe	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal	Nil
3j	Provision of drilling and blasting in mineral benches	Proposed	drilling & blasting in mineral benches are being carried out as per proposal.
3k	Provision of mining machineries in mineral benches	Proposed	mining machineries in mineral benches are deployed
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m height of the benches is proposed	more or less 6m height of the benches is maintained
3m	Total area covered under excavation/pits	47.645 Ha.	47.645 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.7	1:0.4
3o	Total area put in use under different heads at the end of year	Area under excavation- 47.645 Ha. OB Dumps- 8.010 Ha. Mineral Storage- 16.866 Ha. Infrastructure - 4.110 Ha. Road- 2.644 Ha. Mineral Separation Plant-0.572 Ha. Others- 2.00 Ha. Remaining area- 47.763 Ha.	Area under excavation- 47.645 Ha. OB Dumps- 8.010 Ha. Mineral Storage- 13.5 Ha. Infrastructure-4.110 Ha. Road- 2.644 Ha. Mineral Separation Plant-0.572 Ha. Others- 2.00 Ha. Remaining area- 51.129 Ha.

3p	Production of ROM mineral during the last five year period as applicable	2020-21- 11,36,640 MT	2020-21- 2,24,570 MT
		2021-22- 11,36,640 MT	2021-22- 11,36,630 MT

3q	General remarks of inspecting officers on method of mining etc.		Mining operation has been started w.e.f 14.10.2020 (i.e. from the Financial Year 2020-21)
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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)	Separate dumping of & mineral reject are proposed as per rule	Separate dumping is done OB	
4b	Location of topsoil, OB and mineral reject dumps	Waste is proposed to accumulate in Dump 3	Waste is accumulated in Dump 3	
4c	Number of dumps within lease area and outside of lease area	1 no. within lease area	1 no. within lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	UPL- 691m E-426045.894 N-2440380.577 E-426003.063 N-2440407.121 E-426049.507 N-2440393.567 E-425994.017 N-2440381.584	UPL- 691m E-426045.894 N-2440380.577 E-426003.063 N-2440407.121 E-426049.507 N-2440393.567 E-425994.017 N-2440381.584	
4e	Number of active and alive dumps.	1 no.	1 no.	
4f	Number of dead dumps.	No such proposal	Not applicable	
4g	Number of dumps established.	N oproposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drains are provided in all along the dumps	Retaining wall and garland drains are provided in all along the dumps	

4i	Length of Retaining wall or garland drain all along dumps	Proposed for maintainance during the year	Maintained
4j	Number of settling ponds	Proposed for maintainance	maintained

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.	No such proposal	nil	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No such proposal during the year	Not applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Pits are not matured for backfilling

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).	Proposed	Annual report on PMCP submitted on time	
6b	Area available for rehabilitation (ha) .	No such proposal	Nil	

6c	afforestation done (ha).	No such proposal during the year	
6d	No. of saplings planted during the year	No such proposal	Nil
6f	Any other method of rehabilitation	No proposal	Nil
6g	Cost incurred on watch and care during the year	No proposal	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No such proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No such proposal	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposal	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 Nos. sapplings to be planted during the year	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.4 Ha	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By means of plantation	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring (core zone & buffer zone) is proposed	Environmental monitoring (core zone & buffer zone) are being carried out quarterly.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Violation letter has been issued under MCDR, 2017 for non-compliance proposed Rehabilitation of waste land within lease.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM Mineral dispatch or grade-wise sorting within lease area are proposed	ROM Mineral is being sorted grade wise within the lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	45% to below 51% Fe 51% to below 55% Fe 55% Fe 55% to below 58% Fe 58% to below 60% Fe	45% to below 51% Fe 51% to below 55% Fe 55% to below 58% Fe 58% to below 60% Fe	
7d	Any beneficiation process at mines .	No proposal for beneficiation of Iron ore	nil	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Rom iron ore boulders and oversized screened materials are broken mechanically. After sizing mechanically in the crushing and screening units, salable iron ore is dispatched to the various destinations.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No such proposal	Nil	No top soil generation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for waste is proposed	waste has been dumped in Dump No. 3	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No proposal	Nil	
8g	Survival rate	No proposal	Nil	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to be done on roads.	water tankers are being used for water sprinkling on roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The total lease area is not deforested; partly deforestation has been done for excavation within the lease area. There is a dense growth of forest.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return has been Submitted upto May-2022 Annual Return has been Submitted upto FY 2020-21	found in order	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer-2 Geologist-1 Manager-1	Scrutinized and found in order	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under excavation- 41.980 Ha. OB Dumps- 7.290 Ha. Mineral Storage- 16.866 Ha. Infrastructure - 4.110 Ha. Road- 2.644 Ha. Mineral Separation Plant-0.572 Ha. Others- 2.00 Ha. Remaining area- 54.148 Ha.	found in order
9d	Scrutiny of Annual return on afforestation	Within lease- 525 nos. Outside lease- 1310 nos.	found in order
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	MR Quantity- 139,681 MT Grade- 45% to below 55% Fe	Found in order
9f	Scrutiny of Annual return on ROM stock and/or graded ore	224,570 MT	ROM production for the year 2020-21
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production per MT- Rs. 582/- Ex-mine price per MT- Iron Ore Lumps- Below 55% Fe- Rs. 1365.00 55% to below 58% Fe- 3533.00 58% to below 60% Fe- 4763.00 (ASP) Iron Ore Fines- Below 55% Fe- Rs. 587.00	found in order

9h	Scrutiny of Annual return on fixed assets	Rs. 12,05,01,278.0 0	found in order
9k	Scrutiny of Annual return on mining machineries	Shovel- 2 nos. Back Hoe- 6 nos. Wheel Loader- 9 nos. Dumper- 31 nos. Air compressor- 1 no. Crusher- 5 nos. Generator- 3 nos. Water Tanker- 10 nos.	found in order

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	04-JUL-22			

Date :

(RAJANI KANTA RAUTARAY)

Indian Bureau of Mines