

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-86/BBS

Mine code : 30ORI08114

- (i) Name of the Inspecting : SRM) SHRI SUDIP RANJAN MAZUMDAR
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Kamal Bhasker, Mining Engineer
Official with
Designation
- (iv) Date of Inspection : 21/10/2019
- (v) Prev.inspection date : 15/02/2018

PART-I : GENERAL INFORMATION

1. (a) Mine Name : BOLANI IRON & MN 1586.36
- (b) Registration NO. : IBM/5662/2011
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : KEONJHAR
Village : Bolani
Taluka : BARBIL
Post office : Bolani
Pin Code : 758037
FAX No. : 033-22823990
E-mail : bommines@gmail.com
Phone : 033-22822316
- (f) Police Station : Bolani
- (g) First opening date : 14/11/1962
- (h) Weekly day of rest : SUN
2. Address for : Bolani Mn and Iron Mine,
correspondance At: Bolani, Keonjhar
Odisha-758037
3. (a) Lease Number :
- (b) Lease area : 1586.36 Ha
- (c) Period of lease :
- (d) Date of Expiry : 13.11.2022
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/s Steel Authority of India Ltd (SAIL)
Ispat Bhwan, Lodhi Road New
Delhi DELHI DELHI
Phone:011-24367481-86
FAX :011-24367015/22467458

Owner : SHRI VIVEK GUPTA
Isapt Bhwan, Lodhi Road New
Delhi DELHI DELHI
Phone: 9434776837
FAX : 011-24367015

Agent : SHRI A K MISHRA
KEONJHAR ODISHA KEONJHAR
ORISSA
Phone: 9437007518
FAX : 06767-260172

Mining Engineer

Name : SHRI RAJESH KUMAR, Full Time
Qualification : B TECH MINING
Appointment/ : 20/07/2019
Termination date

Geologist

Name : Sri joydev Chattopadhyay, Full Time
Qualification : M.Sc. Tech (Applied Geology)
Appointment/ : 01/06/2016
Termination date

Manager

Name : SHRI KAMAL BHASKAR
Qualification : B TECH MINING
Appointment/ : 11/06/2018
Termination date

6. Date of approval of Mining : MP modif under MCR 1960 06/08/2010
Plan/Scheme of Mining : MP review under 17(1) MCR 2016 27/03/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2018-19, 108 numbers of boreholes have been proposed to be drilled.	Nil	The mine was non-operational due to want of forest clearance
1b	Exploration over lease area for geological axis 1 or 2	In 2018-19, 108 numbers of boreholes have been proposed to be drilled.	Nil	The mine was non-operational due to want of forest clearance
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration Agency: M/s Mineral Exploration Corporation Limited	Nil	The mine was non-operational due to want of forest clearance
1d	Balance area to be explored to bring Geological axis in 1 or 2	As on 30.11.2017, lease area explored under G1 is 11.19 Ha, Ge: 4.12 Ha, G4: 194.62 Ha, unexplored lease area: 1376.43 Ha. In 2018-19, 108 numbers of boreholes have been proposed to be drilled	Nil	The mine was non-operational due to want of forest clearance

1e	Balance reserve as on 01/04/20	As per the review of mining plan approved dated 27.03.2018, reserve and resource as on 30.11.2017 is as follows: Manganese Ore: Reserve is 0.484 million tones and remaining resource is 0.061 million tones. Total reserve and resource of Mn is 0.545 million tones. Iron Ore: Reserve is 0.868 million tones and remaining resource is 4.22 million tones. Total reserve and resource of Iron ore is 5.0888 million tones	Since the mine is non-operational, there is no depletion of reserve. Hence reserve and resource remains the same. Reserve and Resource as on 01.04.2019 is as follows: Manganese Ore: Reserve is 0.484 million tones and remaining resource is 0.061 million tones. Total reserve and resource of Mn is 0.545 million tones. Iron Ore: Reserve is 0.868 million tones and remaining resource is 4.22 million tones. Total reserve and resource of Iron ore is 5.0888 million tones	The mine was non-operational due to want of forest clearance
1f	General remarks of inspecting officers on geology, exploration etc	In 2018-19, 108 numbers of boreholes have been proposed to be drilled.	Exploration has not been carried out as the mine was non-operational due to want of forest clearance	Exploration has not been carried out as the mine was non-operational due to want of forest clearance

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

2a	Location of development w.r.t.lease area	In 2018-19, Development proposed in Quarry 5 and Quarry-10. Coordinates of development in Quarry-5 : 329950E - 330059E/ 2447354N - 2447473N and in Quarry-10 is: 328042E- 328104E/ 2443476N - 2443514N	In 2018-19, there was no mine development as the mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal for top soil generation. Separate benches in overburden proposed	Nil	The mine was non-operational due to want of forest clearance
2c	Stripping ratio or ore to OB ratio	0.241 cum/cum	Nil	The mine was non-operational due to want of forest clearance
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	The mine was non-operational due to want of forest clearance
2e	Quantity of overburden generation in m3	0.029 M. cum	Nil	The mine was non-operational due to want of forest clearance

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	In 2018-19, Development proposed in Quarry 5 and Quarry-10. Coordinates of development in Quarry-5 : 329950E - 330059E/ 2447354N - 2447473N and in Quarry-10 is: 328042E- 328104E/ 2443476N - 2443514N	In 2018-19, there was no mine development as the mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance
----	---	---	---	--

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	In 2018-19, production proposed from two number of pits, namely Quarry-5 & Quarry-10	In 2018-19, there was no mine development and production as the mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance
3b	Quantity of ROM mineral production proposed	0.015 million tones	Nil	The mine was non-operational due to want of forest clearance
3c	Recovery of sailable/usable mineral from ROM production	0.009 million tones	Nil	The mine was non-operational due to want of forest clearance
3d	Quantity of mineral reject generation	0.006 million tones	Nil	The mine was non-operational due to want of forest clearance
3e	Grade of mineral rejects generation and threshold value declared.	Grade of Mineral reject : 14.30% Mn, Threshold value declared is 10% of Mn	Nil	The mine was non-operational due to want of forest clearance

3f	Quantity of sub grade mineral generation.	0.006 million tones	Nil	The mine was non-operational due to want of forest clearance
3g	Grade of sub grade mineral generation	Grade of subgrade : 14.30% Mn	Nil	The mine was non-operational due to want of forest clearance
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting of Mn-ore will be carried out for seggregation.	Nil	The mine was non-operational due to want of forest clearance
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling will be carried out using 115 mm dia drills with 2.5-3 m burden and 3-3.5 m spacing. Holes will be charged with slurry/emulsion explosives using detonating fuse/NONEL	Nil	The mine was non-operational due to want of forest clearance
3k	Provision of mining machineries in mineral benches	Blasted material will be loaded using hydraulic excavators in tippers and will be transported to proposed ore stackyard for manual sizing and sorting	Nil	The mine was non-operational due to want of forest clearance

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The proposed height of the bench is 6m	The mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance
3m	Total area covered under excavation/pits	Area under mining at the end of plan period will be 89.99 Ha.	88.81 Ha	The mine was non-operational due to want of forest clearance
3n	Ore to OB ratio for the pit/mine during the year.	0.241 cum/cum	Nil	The mine was non-operational due to want of forest clearance
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of plan period will be 426.21 Ha	381.73 Ha	The mine was non-operational due to want of forest clearance
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 0.015 million tones	2018-19: Nil	The mine was non-operational due to want of forest clearance
3q	General remarks of inspecting officers on method of mining etc.	In 2018-19, production proposed from two number of pits, namely Quarry-5 & Quarry-10	In 2018-19, there was no mine development and production as the mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There was no proposal for top soil generation. Separate temporarily dumping of overburden proposed in WD1 and WD2. Subgrade generated will be blended with high grade ore	Nil	The mine was non-operational due to want of forest clearance
4b	Location of topsoil, OB and mineral reject dumps	There is no proposal for top soil generation. Location of WD1 and WD2 are as follows: WD1- Northern Quarry side of Quarry 5 from 330123E to 330250E & 2447450N to 2447605N, WD2- Southern side of Quarry - 10 from 328006E to 328051E & 2443467N to 2443520N. Subgrade generated will be blended with high grade ore	Nil	The mine was non-operational due to want of forest clearance
4c	Number of dumps within lease area and outside of lease area	2 dumps (WD-1 & WD-2) are within the lease area proposed within lease area	Nil	The mine was non-operational due to want of forest clearance

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed WD-1 in Q-5 is outside UPL, whereas proposed WD-2 is within UPL.	Nil	The mine was non-operational due to want of forest clearance
4e	Number of active and alive dumps.	Nil	Nil	Nil
4f	Number of dead dumps.	Already existing 7 Nos. of waste dumps	Already existing 7 Nos. of waste dumps	Nil
4g	Number of dumps established.	Not Proposed in 2018-19	Nil	The mine was non-operational due to want of forest clearance
4h	Whether Retaining wall or garland drain all along dumps are there.	Near waste dump WD1 in Quarry 5, Garland drain of length 232m and retaining wall of dimension 227m is proposed along toe of waste dump WD-1 Near waste dump WD2, in Quarry 10, Garland drain of length 84m, retaining wall of 80 x 1.5 x 1.2m is proposed along the toe of the waste dump WD-2.	Nil	The mine was non-operational due to want of forest clearance

4i	Length of Retaining wall or garland drain all along dumps	Near waste dump WD1 in Quarry 5, Garland drain of length 232m and retaining wall of dimension 227m is proposed along toe of waste dump WD-1 Near waste dump WD2, in Quarry 10, Garland drain of length 84m, retaining wall of 80 x 1.5 x 1.2m is proposed along the toe of the waste dump WD-2.	Nil	The mine was non-operational due to want of forest clearance
4j	Number of settling ponds	2 nos. (SP-1 & Nil SP-2)	Nil	The mine was non-operational due to want of forest clearance

4k	Specific comments of inspecting officer on waste dump management	There is no proposal for top soil generation. Location of WD1 and WD2 are as follows: WD1- Northern Quarry side of Quarry 5 from 330123E to 330250E & 2447450N to 2447605N, WD2- Southern side of Quarry - 10 from 328006E to 328051E & 2443467N to 2443520N. Subgrade generated will be blended with high grade ore	The mine was non-operational due to want of forest clearance hence there was no waste generation	The mine was non-operational due to want of forest clearance
----	--	--	--	--

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	Nil	Nil
5b	Area under backfilling of mined out area	Not Proposed	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	Nil

5d	Total area fully reclaimed and rehabilitated	Not Proposed	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	There is no proposal for reclamation through backfilling	The mine is not matured for reclamation and rehabilitation	The mine is 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).	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP for the year 2018-19 have been submitted	Annual report on PMCP for the year 2018-19 have been submitted
6b	Area available for rehabilitation (ha) .	Nil	Nil	Nil
6c	afforestation done (ha).	1.94 Ha in barren land	1.16 Ha	Nil
6d	No. of saplings planted during the year	In 2018-19, 6500 nos of saplings proposed for plantation	3300 nos of saplings within lease area	Data as furnished in annual return for 2018-19
6e	Cumulative no .of plants	In 2018-19, 6500 nos of saplings proposed for plantation	3300 nos of saplings within lease area	Data as furnished in annual return for 2018-19
6f	Any other method of rehabilitation	Not Proposed	Nil	Nil
6g	Cost incurred on watch and care during the year	10.412 Lakhs	Rs 6.5 lakhs	Nil

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not Proposed	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not Proposed	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Afforestation in Barren land 6000 no. of saplings proposed	3300 nos. of saplings planted in barren land.	3300 nos. of saplings planted in barren land.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.94 Ha	1.16 Ha	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP for the year 2018-19 have been submitted	Annual report on PMCP for the year 2018-19 have been submitted

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting will be done.	Nil	The mine was non-operational due to want of forest clearance
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Nil	The mine was non-operational due to want of forest clearance
7c	Different grade of mineral sorted out at mines.	10% to 25% Mn and above 25% Mn	Nil	The mine was non-operational due to want of forest clearance
7d	Any beneficiation process at mines	Not Proposed	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting will be done.	The mine was non-operational due to want of forest clearance	The mine was non-operational due to want of forest clearance

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	Nil	The mine was non-operational due to want of forest clearance
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	The mine was non-operational due to want of forest clearance
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps have been proposed in the earmarked areas	Nil	The mine was non-operational due to want of forest clearance
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	The mine was non-operational due to want of forest clearance
8e	Phased restoration, reclamation and rehabilitation , of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Nil	The mine was non-operational due to want of forest clearance
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	In 2018-19, 6500 nos of saplings proposed for plantation	3300 nos of saplings within lease area	Nil
8g	Survival rate	Not specified	Survival rate: 80%	Data as furnished in annual return for 2018-19
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No comments to offer	Aesthetic beauty in and around mines is maintained	Nil
----	--	----------------------	--	-----

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual return for 2018-19 have been submitted	Annual return for 2018-19 have been submitted	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Manager, Mining Engineer and Geologist furnished in annual return for 2018-19	Manager, Mining Engineer and Geologist have been appointed in mines.	Nil

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 for 2018-19. Covered under current working: 88.81 Ha, Used for waste disposal: 7.37 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 89.11 Ha, other purposes: 89.09 Ha, Roads and conveyors: 59.57 Ha, Railways: 47.28 Ha	Lease area (surface area) utilization at the end of the year as furnished in annual return for 2018-19. Covered under current working: 88.81 Ha, Used for waste disposal: 7.37 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 89.11 Ha, other purposes: 89.09 Ha, Roads and conveyors: 59.57 Ha, Railways: 47.28 Ha	Lease area (surface area) utilization at the end of the year as furnished in annual return for 2018-19. Covered under current working: 88.81 Ha, Used for waste disposal: 7.37 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 89.11 Ha, other purposes: 89.09 Ha, Roads and conveyors: 59.57 Ha, Railways: 47.28 Ha
9d	Scrutiny of Annual return on afforestation	3300 nos of saplings planted within lease area	3300 nos of saplings planted within lease area	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	The mine was non-operational due to want of forest clearance
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	Nil	The mine was non-operational due to want of forest clearance
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost: Nil	Production cost: Nil	The mine was non-operational due to want of forest clearance
9h	Scrutiny of Annual return on fixed assets	Nil	Nil	Nil

9k	Scrutiny of Annual return on mining machineries	Nil	Nil	The mine was non- operational due to want of forest clearance
----	--	-----	-----	--

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 :

Sudip Ranjan Mazumdar
02/07/2020
(SHRI SUDIP RANJAN MAZUMDAR)

Indian Bureau of Mines