

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-60/BBS

Mine code : 30ORI08013

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Kamal Bhasker, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 28/06/2021
- (v) Prev.inspection date : 08/03/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BOLANI**
- (b) **Registration NO.** : **IBM/1120/2011**
- (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. : 06767-30246
- E-mail : rmdbom2016@gmail.com
- Phone : 06767-60207
- (f) Police Station : Bolani
- (g) First opening date : 12/04/1960
- (h) Weekly day of rest : SUN
2. Address for : BOLANI ORES MINES, AT/PO: BOLANI
correspondance KEONJHAR DISTRICT
ORISSA
3. (a) Lease Number : ORI0102
- (b) Lease area : 1321.45
- (c) Period of lease : 20
- (d) Date of Expiry : 09/04/2010
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 : Joydev Chattopadhyay, Full Time
 Qualification : M.Sc.Tech in 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	:	Mining Scheme rule 12 MCDR1988	18/01/2001
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	25/10/2002
	:	Mining Scheme rule 12 MCDR1988	24/05/2007
	:	Renewal under rule 24 MCR1960	13/01/2010
	:	Mining Scheme rule 12 MCDR1988	03/08/2015
	:	MS modif under MCR 1960	06/08/2018
	:	MP review under 17(1) MCR 2016	13/11/2019
	:	MS modif under MCR 1960	08/09/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	Nil	
1b	Exploration over lease area for geological axis 1 or 2	202 nos of boreholes were proposed during the year 2020-21 to bought area under G1/G2 level.	13 nos of boreholes were drilled.	violation observed and communicated to lessee dated 29/06/2021.
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per the approved document on dated 08.09.2020 the iron ore reserves are 316.4 mil.t and resources are 93.47 mil.t.	due to depletion/addition over the period of time the updated iron or reserves as on dated 01.04.2021 are 310.4 mil.t and resources are 64.18 mil.t	
1f	General remarks of inspecting officers on geology, exploration etc		The iron ore deposit of 5.10 sq. miles ML is structurally folded & faulted. The deposit stretches over a strike length of around 5730 m. General strike is between 300 - 2100 with gentle northern plunge of 8-10 deg.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	F-area, G-area, D-area, Panposh area and B&C area.	F-area, G-area, D-area, Panposh area	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged in the mining plan and separate benches in mineral and OB are proposed.	seperate benches in OB and mineral are maintained.	
2c	Stripping ratio or ore to OB ratio	1:0.25 t/cu.m.	1:0.18 t/cu.m.	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	2450496 cu.m. for the year 2020-21	1111875 cu.m.	due to less production of ROM
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast mining method as propsoed in the mining plan.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	5 pits	4 pits	& C area development & production could not be done due to pending project work on laying conveyor belt not completed for ROM transportation from that area to crushing plant hopper located in F area.
3b	Quantity of ROM mineral production proposed	9712373 t during the year 2020-21.	6320642 t	

3c	Recovery of sailable/usable mineral from ROM production	8862998 t	6224202 t
3d	Quantity of mineral reject generation	849375 t	96440 t
3e	Grade of mineral rejects generation and threshold value declared.	+45%-57% Fe	+45%-57% Fe
3f	Quantity of sub grade mineral generation.	Not applicable	Nil
3g	Grade of sub grade mineral generation	Not applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Nil
3j	Provision of drilling and blasting in mineral benches	deep hole drilling and blasting is proposed in mineral benches.	deep hole drilling and blasting is carried out.
3k	Provision of mining machineries in mineral benches	shovel and dumper combination is proposed for excavation and hauling.	shovel and dumper combination is deployed for excavation and hauling.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10 m bench height is proposed.	maintained.

3m	Total area covered under excavation/pits	322.64 ha ath end of plan period i.e. year 2024-25	290.8 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.25 t/cu.m.	1:0.18 t/cu.m.
3o	Total area put in use under different heads at the end of year	520.08 ha at the end of plan period i.e. year 2024-25.	446.79 ha
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 9.62 MT 2017-18: 10.05 MT 2018-19: 11.61 MT 2019-20: 11.62 MT 2020-21: 9.71 MT	2016-17: 5681842 T 2017-18: 5232276 T 2018-19: 5654001 T 2019-20: 6039265 T 2020-21: 6320642 T
3q	General remarks of inspecting officers on method of mining etc.		mining is done by opencast mining method as proposed in the mining plan in a fully mechanised manner.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no top soil generation is envisaged, seperate dumping for OB is proposed and mineral rejects are are proposed to be temporarily stacked and blended with high grade ore or stacked.	seperate dumping of OB is carried out. mineral rejects are temporarily stacked and blended with high grade ore or stacked.	

4b	Location of topsoil, OB and mineral reject dumps	waste dumping is proposed in four block areas and mineral rejects dumps are proposed in five blocks areas.	carried out
4c	Number of dumps within lease area and outside of lease area	4 dumps within lease area	4 dumps
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	2 dumps are within UPL and two dumps are outside UPL	2 dumps are within UPL and two dumps are outside UPL
4e	Number of active and alive dumps.	4	4
4f	Number of dead dumps.	Not applicable	Nil
4g	Number of dumps established.	Not applicable	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	proposed	provided.
4i	Length of Retaining wall or garland drain all along dumps	465 m of retaining wall and garland drain	650 m of retaining wall and garland drain
4j	Number of settling ponds	2	2
4k	Specific comments of inspecting officer on waste dump management		waste dumping management is carried out as per the approved mining plan

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.	area not matured for backfilling	Nil
5b	Area under backfilling of mined out area	Not applicable	area not matured for reclamation and rehabilitation
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Nil
5d	Total area fully reclaimed and rehabilitated	Not applicable	area not matured for reclamation and rehabilitation
5e	General remarks of inspecting officers on backfilling and reclamation etc.		area not matured for reclamation and rehabilitation

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report submitted before 1 st July	submitted	
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	
6c	afforestation done (ha).	0.2 ha during the year 2020-21	2 ha	
6d	No. of saplings planted during the year	500 nos	1700 nos	

6e	Cumulative no .of plants		55200 nos
6f	Any other method of rehabilitation	Not applicable	Nil
6g	Cost incurred on watch and care during the year		Rs. 5 lakh
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Not applicable	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2 ha	2 ha
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	plantation	plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Monitoring as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB.	Periodical Monitoring as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB is carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures are carried out as per mining plan.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wsie sorting is proposed.	carried out	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanical	mechanical	
7c	Different grade of mineral sorted out at mines.	+45%-57% Fe and +57% Fe above	+45%-57% Fe and +57% Fe above	

7d	Any beneficiation process at mines .	Not applicable Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	grade-wise sorting of mineral are carried out.	

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	no top soil generation is envisaged during the year 2020-21.	Nil	
8b	Concurrent use or storage of topsoil	Not applicable Nil		
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	seperate dumping for OB is proposed and mineral rejects are proposed to be temporarily stacked and blended with high grade ore or stacked.	seperate dumping of OB is carried out. mineral rejects are temporarily stacked and blended with high grade ore or stacked.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable Nil		

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	dump stabilisation proposed.	carried out
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos	1700 nos
8g	Survival rate		75%
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul roads for dust suppression is proposed.	carried out
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aesthetic beauty in and around the mines area is maintained.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and annual returns are to be submitted as per rule 45 of MCDR, 2017	monthly return submitted. yeraly return has not been submitted till the date of inspection.	have to be submitted before July 1st 2021.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not submitted till the time of inspection date.	Not applicable	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Not submitted till the time of inspection date.	Not applicable	Nil
9d	Scrutiny of Annual return on afforestation	Not submitted till the time of inspection date.	Not applicable	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not submitted till the time of inspection date.	Not applicable	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Not submitted till the time of inspection date.	Not applicable	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Not submitted till the time of inspection date.	Not applicable	
9h	Scrutiny of Annual return on fixed assets	Not submitted till the time of inspection date.	Not applicable	
9k	Scrutiny of Annual return on mining machineries	Not submitted till the time of inspection date.	Not applicable	

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)	29/06/2021	03/09/2021				

Date :

(RAMKISHAN R)

Indian Bureau of Mines