

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

**MCDR inspection REPORT
Ranchi regional office**

Mine file No : BIH/LOH/BX/209/RRO

Mine code : 07BHR33009

- (i) Name of the Inspecting : **R002**) **RAGHVENDRA KUMAR**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 12/09/2021
- (v) Prev.inspection date : 17/10/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PAKHAR (15.58) 38.50**
- (b) **Registration NO.** : **IBM/961/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
State : **JHARKHAND**
District : **LOHARDAGA**
Village : **PAKHAR**
Taluka : **KISKO**
Post office : **NARI-NAWADIH**
Pin Code :
FAX No. : **06526-224118**
E-mail : **hindalco@adityabirla.com**
Phone : **06526-224016, 224112**
- (f) **Police Station** : **KISKO**
- (g) **First opening date** : **26/04/1965**
- (h) **Weekly day of rest** : **TUE**
2. **Address for** : **VILL-PAKHAR**
correspondance : **TAL-KISKO**
: **DIST-LOHARDAGA**
3. (a) **Lease Number** : **BHR0271**
- (b) **Lease area** : **109.51**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **25/07/2058**
4. **Mineral worked** : **BAUXITE** **Main**

5. Name and Address of the

Lessee : MINERALS & MINERALS LTD.
 AT/PO-LOHARDAGA DIST-
 LOHARDAGA JHARKHAND
 LOHARDAGA JHARKHAND
 Phone:06526-224016
 FAX :06526-224118

Owner : BIJESH JHA
 COURT ROAD,LOHARDAGA PO &
 DIST. LOHARDAGA JHARKHAND
 LOHARDAGA JHARKHAND
 Phone: 06526224016
 FAX : 06526224118

Agent : MANOJ KUMAR NAYAK
 HINDALCO INDUSRTIS LTD,
 COURT ROAD, LOHARDAGA JHK
 LOHARDAGA JHARKHAND
 Phone: 9617779670
 FAX :

Mining Engineer

Name : P. K. BHALEKAR,Full Time
 Qualification : B.E.(MINING)
 Appointment/ : 15/04/2013 24/01/2019
 Termination date

Mining Engineer

Name : TUSAR KANTA PRADHAN,Full Time
 Qualification : B.TECH(MINING)
 Appointment/ : 25/01/2019
 Termination date

Geologist

Name : Onkar Nath Tiwari,Full Time
 Qualification : M.Sc.(Geology)
 Appointment/ : 14/10/2019
 Termination date

Manager

Name : P. K. BHALEKAR
 Qualification : B.TECH (MINING)
 Appointment/ : 15/04/2013 24/01/2019
 Termination date

Manager

Name : TUSAR KANTA PRADHAN
 Qualification : B.TECH(MINING)
 Appointment/ : 25/01/2019
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Existing rule 11 MCDR1988 12/02/1992
 Renewal under rule 24 MCR1960 27/04/1995
 Mining Scheme rule 12 MCDR1988 08/02/2002
 Renewal under rule 24 MCR1960 09/12/2005
 Mining Scheme rule 12 MCDR1988 12/08/2013

MP modif under MCR 1960	09/05/2016
MP review under 17(1) MCR 2016	20/12/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	No proposal	12.56 ha. area under G-1	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	NA	12.56 ha. area under G-1 and 3.02 ha. under non-mineralised.
1e	Balance reserve as on 01/04/20	--	111-106755Te 221-735771Te	
1f	General remarks of inspecting officers on geology, exploration etc		The entire area is already explored and almost exploited. No further exploration is proposed.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Quarry no.-2	Quarry no.-2	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil, overburden and mineral proposed.	Separate benches in topsoil, overburden and mineral made.	
2c	Stripping ratio or ore to OB ratio	1.37:1	0.57:1	
2d	Quantity of topsoil generation in m3	9212 cum	11700 cum	
2e	Quantity of overburden generation in m3	42570 cum	48480 cum	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Mine development is carried out as per approved Review of Mining Plan as far as possible. The bench dimensions are maintained as per rule.
----	---	--

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	58402 Te	27800 Te	
3c	Recovery of sailable/usable mineral from ROM production	80%	80%	
3d	Quantity of mineral reject generation	9522cum	5560cum	
3e	Grade of mineral rejects generation and threshold value declared.	28.5% Al2O3	28.5% Al2O3	Threshold value grade (+30% & -5%)
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	

3j	Provision of drilling and blasting in mineral benches	Spacing - 1.5m Burden - 1m Depth - 3.3 m for OB & mineral. Bench height- 3m It is Proposed to drill by 34-38mm dia, Jack hammer drill. Blasting is done by using ANFO explosives.	Drilling & Blasting are done as per proposal.
3k	Provision of mining machineries in mineral benches	1. Poclain excavator crawler mountain 2. Terex 3. Compressor 4. Dozer 5. Rock Drill 6. Dumpers 7. Tractor	As per proposal machineries are available in field.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 6 m was proposed in Mineral.	Benches are formed as per proposal.
3m	Total area covered under excavation/pits	5.83 Ha.	3.92 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1.37:1	0.57:1
3o	Total area put in use under different heads at the end of year	Dump: 1.08 Ha Road: 0.14 Ha Greenbelt: 0.29 Ha. Area covered under excavation: 5.83 Ha. Total area in use: 7.34 Ha.	Dump: 0.85 Ha Road: 0.14 Ha Greenbelt: 0.29 Ha. Area covered under excavation: 3.92Ha. Total area in use: 5.2 Ha.

3p	Production of ROM mineral during the last five year period as applicable	2015-16	10644	2015-16	0	T	
			T	2016-17	0	T	
			2016-17	52768	2017-18	28560	T
			T	2018-19	35500	T	
			2017-18	52580	2019-20	57300	T
			T	2020-21	27800	T	
			2018-19	35897			
			T				
			2019-20	58982			
			T				
	2020-21	58402					
	T						

3q	General remarks of inspecting officers on method of mining etc.	27800 tons have been achieved during 2020-2021 against 58402 tons of proposal.	The Method of mining adopted is Opencast Method of mining i.e. "A" Other than Fully Mechanised Mining.
----	---	--	--

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Simultaneously backfilling.	Simultaneously backfilled.	
4b	Location of topsoil, OB and mineral reject dumps	Southern most area of ML.	Southern most area of ML.	
4c	Number of dumps within lease area and outside of lease area	Within the lease area= One Outside the lease area= Nil	Within the lease area= One Outside the lease area= Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Southern most area of ML.	Southern most area of ML.	
4e	Number of active and alive dumps.	Nil	Nil	
4f	Number of dead dumps.	Nil	One	
4g	Number of dumps established.	Nil	Nil	

4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain all along dumps proposed.	Retaining wall 185m and garland drain all along dumps made.
4i	Length of Retaining wall or garland drain all along dumps	NA	185m
4j	Number of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		Waste dump management is carried out as per approved Review of Minig Plan as far as possible.

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.	full extraction of mineral from mined out area before starting backfilling.	full extraction of mineral from mined out area before starting backfilling.	
5b	Area under backfilling of mined out area	1.15 Ha.	0.22 Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of topsoil for restoration or rehabilitation of mined out area followed.	Concurrent use of topsoil for restoration or rehabilitation of mined out area carried out.	
5d	Total area fully reclaimed and rehabilitated	3.70 Ha.	3.68 Ha.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		There is a backlog in Backfilling and reclamation during 2019-20, Violation of rule 11(1) has been issued.	

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.	Annual report on PMCP submitted.
6b	Area available for rehabilitation (ha) .	Nil	Nil
6c	afforestation done (ha).	0.52 ha.	0.58 ha.
6d	No. of saplings planted during the year	1300 sapling	1452 sapling
6e	Cumulative no .of plants	NA	5518 plants
6f	Any other method of rehabilitation	NA	Nil
6g	Cost incurred on watch and care during the year	No proposal	NA
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.15 Ha.	0.22 Ha.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Void filled by waste, 0.22 Ha.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	0.52 Ha.	0.58 Ha.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly Monitoring of Air Quality, Water Quality, Noise Level to be done.	Quarterly Monitoring of Air Quality, Water Quality, Noise Level done.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	it was proposed to plant 1300 nos. of saplings, in 0.52 ha. backfilled area, during 2020-21.	1452 saplings have been planted in the backfilled area. Total reclaimed and rehabilitated area = 3.68 ha.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	The total target of Production was 58402 tons during 2020-2021.	27800 tons of production have been achieved during 2020- 2021.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Process and Manual Picking of Ore from Intercalated Waste.	Mechanical Process and Manual Picking of Ore from Intercalated Waste.	
7c	Different grade of mineral sorted out at mines.	Average Grade:- Al2O3 = 42.52% Sio2 = 2.85% Cut Off Grade:- Al2O3 = +30% Sio2 = 5%	Average Grade:- Al2O3 = 42.52% Sio2 = 2.85% Cut Off Grade:- Al2O3 = +30% Sio2 = 5%	
7d	Any beneficiation process at mines .	No such proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	The total target of Production was 58402 tons during 2020-2021.	27800 tons of production have been achieved during 2020- 2021.	Low grade are Blended with High grade ores to get the desired plant feed materials.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal of removing topsoil separately and spreading over mined out area.	Concurrent backfilling and spreading of topsoil over backfilled areas is practiced for reclaimed and rehabilitation of mined out areas.	
8b	Concurrent use or storage of topsoil	Concurrent use proposed.	Concurrent use done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal of removing topsoil separately and spreading over mined out area.	Concurrent backfilling and spreading of topsoil over backfilled areas is practiced for reclaimed and rehabilitation of mined out areas.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	The OB and Waste generated are to be proposed to backfilled simultaneously in the mined out areas.	Backfilling has done in proposed & un-proposed area and restoring the land to its original use.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation and or making cultivating land.	Plantation and or making cultivating land.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1300 saplings has proposed in 0.52 hectares backfilled area for 2020-2021.	1452 saplings have been achieved in 0.58 hectares during 2020-2021.	
8g	Survival rate	No proposal	70%	
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Water sprinkling on road is observed during the inspection.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Surrounding area beyond lease area is greenery.	The aesthetic beauty in and around mines area is good.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	--	Submitted Monthly and Annual Return for 2020-21.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer & Manager : Sri Tusar Kanta Pradhan B.Tech(Mining) Geologist: Sri Onkar Nath Tiwary.	Mining Engineer and Geologist are appointed.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area already exploited & abandoned by Opencast Mining -7.6 ha., Area covered under current O/C workings- 3.92 ha., Reclaimed /Rehabilitated area- 3.68 ha., Area used for waste disposal- 0.50 ha. work done under progressive mine closure plan during the year- 0.22 ha.	Seems to be correct.
9d	Scrutiny of Annual return on afforestation	1452 nos. planted within lease area with survival rate 70%.	Seems to be correct.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Mineral Rejects Generation not shown.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM opening stock & closing Stock was Nil. Dispatches of Processed ore 40% to below 45% Al ₂ O ₃ = 29275.87 tons Sale Value= Rs. 959.01/te, Cost of Production & Ex. Mine Price Rs. 872.65/te has shown.	Mine has produced 27800 tons of Production during 2020-2021. Seems to be correct.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value= Rs. 959.01/te, Cost of Production & Ex. Mine Price Rs. 872.65/te has shown.	Seems to be correct.
9h	Scrutiny of Annual return on fixed assets	Fixed Assets is given Rs. 111010131 /-	Seems to be correct.
9k	Scrutiny of Annual return on mining machineries	<ol style="list-style-type: none"> 1. Poclain excavator crawler mountain-3 2. Terex-1 3. Compressor-1 4. Dozer-1 5. Rock Drill-3 6. Dumpers -6 7. Tractor -2 	Seems to be correct.

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)	01/10/2021			

Date :

(RAGHVENDRA KUMAR)

Indian Bureau of Mines