

**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 : **K005**) **B.P. KERKETTA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Tusar Kanta Pradhan, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 17/10/2020
- (v) Prev.inspection date : 31/08/2019

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	1	1	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserve as on 01/04/20		111-134555 MT 221-735771 MT	
1f	General remarks of inspecting officers on geology, exploration etc			The area is almost explored previously and during 2015-16.Total three Boreholes were drilled on Southern part of the lease area around the dump to explore the bottom of the dump and found to be positive and considerable thickness of Bauxite encountered in each boreholes. Therefore, 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	N2604920, N2605050 E255154, E255268	N2604920, N2605050 E255154, E255268	
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	1:2.04	1:1.36
2d	Quantity of topsoil generation in m3	16073 cum	10200 cum
2e	Quantity of overburden generation in m3	68084 cum	78192 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 Modification in 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	58982 MT	57300 MT	
3c	Recovery of sailable/usable mineral from ROM production	80%	25%	
3d	Quantity of mineral reject generation	9617MT	14325MT	
3e	Grade of mineral rejects generation and threshold value declared.	28.5% Al2O3	28.5% Al2O3	
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	There is Provision of drilling and blasting in mineral benches.	Drilling and blasting in mineral benches done.
3k	Provision of mining machineries in mineral benches	Provision of mining machineries eg.Shovel &Dumpers in mineral benches.	Shovel &Dumpers are used in mineral benches.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes
3m	Total area covered under excavation/pits	7.29ha.	3.64ha
3n	Ore to OB ratio for the pit/mine during the year.	1:2.04	1:1.36
3o	Total area put in use under different heads at the end of year	Dump: 1.08Ha Road: 0.14Ha Greenbelt: 0.29 Total area in use: 7.29Ha	Dump: 0.85Ha Road: 0.14Ha Greenbelt: 0.29 Total area in use: 3.64Ha
3p	Production of ROM mineral during the last five year period as applicable	2014-15 45703MT 2015-16 10644MT 2016-17 52768MT 2017-18 52580MT 2018-19 35897MT 2019-20 58982MT	2014-15 31175MT 2015-16 0 2016-17 0 2017-18 28560MT 2018-19 35500MT 2019-20 57300MT

3q	General remarks of inspecting officers on method of mining etc.	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 backfilled	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	1	1	
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	1	
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 Modification in Approved 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	1.35ha.	0.30ha	
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	Yes	Yes	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			There is a backlog in Backfilling and reclamation. Out of 1.35ha proposed Backfilling during 2019-20 only 0.30ha.has been backfilled.

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 on time and correctly.	Annual report on PMCP submitted on time and correctly-	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.76ha	0.48ha	
6d	No. of saplings planted during the year	1900nos.	1050nos.	
6e	Cumulative no .of plants	NA	4066	
6f	Any other method of rehabilitation	NA	NIL	

6g	Cost incurred on watch and care during the year	Not proposed	nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.35Ha inQ2 120X42X9	0.30ha.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	128x71x6	Void filled by waste
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	0.76ha	0.48ha.
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.		PMCP compliance and progressive closure operations are not carried out as per approved Modification in Approved Mining Plan. Violation in this regard has been issued vide letter even no. dated 06/11/2020. Its compliance is awaited.

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 to be carried out.	ROM Mineral dispatch or grade-wise sorting within lease area carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Yes	Yes	
7d	Any beneficiation process at mines	Not proposed.	Nil	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Due regard is given towards Mineral Conservation. As the Bauxite of the area is mixed type with predominantly gibbsitic i.e. tri-hydrate alumina in the range of 70% to 75% and balance is Boehmite, i.e. monohydrate alumina. The ore is ideally suited for alumina plant at Renukoot/Muri designed by the Kaiser Engineering of USA based on Bayers Process of Aluminium extraction adopting double digestion Technology suited for Gibbsite & Boehmite both.
----	--	---

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and simultaneously utilization of Topsoil	Separate removal and simultaneously utilization of Topsoil	
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)	Separate dumps to be provided for overburden, waste rock, rejecte	Separate dumps provided for overburden, waste rock, re	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Concurrent use of overburden, waste rock, rejects for restoring the land to its original use	Concurrent use of overburden, waste rock, rejects for 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)	1900	1050
8g	Survival rate	70%	70%
8h	Water sprinkling on roads to control airborne dust	Yes	Yes
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty in and around mines area is good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly returns and Annual Return for 2019-20 timely submitt	Found correct.	
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.	Sri Tusar Kanta Pradhan, Mining Engineer & Manager and Sri Onkar Nath Tiwary, Geologist were present during inspection.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area already exploited & abandoned by Opencast Mining 7.1ha., area covered under current O/C workings 3.64ha., reclaimed area 3.46ha., area used for waste disposal 0.5ha. work done under progressive mine closure plan during the year 0.30ha.	Found Correct.
9d	Scrutiny of Annual return on afforestation	1050nos planted within lease area with survival rate 70%.	1050nos planted within lease area with survival rate 70%.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Found correct.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM opening stock & closing Stock was Nil. ROM production 57300Te. Closing Stock of Bauxite 40% to below 45% Al ₂ O ₃ 5385.38Te.	The Closing stock of ROM during 2018-19 was 550.19Tonne, which should be the Opening Stock for 2019-20.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production & Ex-mine price Rs 965.48/te, Sale value Rs 52700011.00.	Found correct.
9h	Scrutiny of Annual return on fixed assets	Rs 98140290/-	Found 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)	06/11/2020			

Date :

(B.P. KERKETTA)

Indian Bureau of Mines