

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

**MCDR inspection REPORT
Ranchi regional office**

Mine file No : JHK/GML/BX/253/RRO

Mine code : 07JHK09005

- (i) Name of the Inspecting : **K001**) **B.L. KISKU**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : ShriPradeep Kumar Bhalekar, Mining Engineer.
Official with
Designation
- (iv) Date of Inspection : 02/08/2022
- (v) Prev.inspection date : 11/08/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KUJAM - II BAUXITE MINE**
- (b) **Registration NO.** : **IBM/935/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : GUMLA
Village : KUJAM
Taluka : BISHNUPUR
Post office : JOBHIPAT
Pin Code : 835207
FAX No. : 06526-224112, 224015, 22311
E-mail : bijesh.jha@adityabirla.com
Phone : 06526-224118
- (f) Police Station : BISHUNPUR
- (g) First opening date : 01/07/2008
- (h) Weekly day of rest : SUN
2. Address for : VILL -KUJAM & CHIRODIH,
correspondance PO & PS -BISHUNPUR,
DIST - GUMLA (JHARKHAND).
3. (a) Lease Number : JHK0160
- (b) Lease area : 157.38
- (c) Period of lease : 50
- (d) Date of Expiry : 23/03/2056
4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : M/S HINDALCO INDUSTRIES LTD.
 AT - COURT ROAD,
 LOHARDAGA, LOHARDAGA
 JHARKHAND
 Phone:06526-22401112, 224446 & 224016.
 FAX :06526-224112 & 224445

Owner : A.K AGRAWAL
 M/S HINDALCO INDUSTRIES
 LTD. CENTURY BHAWAN, 3rd
 FLOOR, Dr. ANNIE BASANT
 ROAD, WORLY, MUMBAI (MH)
 KOLKATA WEST BENGAL
 Phone:
 FAX :

Agent : B.K.JHA
 M/s HINDALCO INDUSTRIES
 Ltd. COURT ROAD PO& DIST -
 LOHARDAGA (JHK) LOHARDAGA
 JHARKHAND
 Phone: Mob- 941708929, 06526-224112/224015
 FAX : 06526-224118

Mining Engineer

Name : P. K. BHALEKAR, Full Time
 Qualification : B.E. (MINING)
 Appointment/ : 01/06/2013
 Termination date

Geologist

Name : SRI KAILASH PRASAD, Full Time
 Qualification : M. Sc. (GEOLOGY)
 Appointment/ : 21/07/2022
 Termination date

Geologist

Name : SHUBHAM KUMAR, Full Time
 Qualification : M. Sc. (Geology)
 Appointment/ : 21/07/2022
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 12/04/2005
 Modif.of approved Mining Plan 22/07/2011
 Mining Scheme rule 12 MCDR1988 21/11/2014
 MP review under 17(1) MCR 2016 18/02/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NA.	N.A.	Explored under G1.
1b	Exploration over lease area for geological axis 1 or 2	G1	G1.	Explored under G1Under G1.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA.	N.A.	N.A.
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL.	NIL.	N.A.
1e	Balance reserve as on 01/04/20	N.A.	As on 01.04.2022: 1067889 MT.	As per submitted Annual Return 1067889 MT.
1f	General remarks of inspecting officers on geology, exploration etc	N.A.	N.A.	Exploration has not been proposed during 2021-22.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Nawatoli, Q-1, Q-3 & Quarry D.	Nawatoli, Q-1, Q-3 & Part of Quarry D.	N.A.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes.	Yes, Separate bench have been made.	N.A.
2c	Stripping ratio or ore to OB ratio	1:0.99	1:1.57	Less development was done as per demand of captive plant.
2d	Quantity of topsoil generation in m3	449871 cum.	313162.52 cum.	Soil & morrum.
2e	Quantity of overburden generation in m3	176405 cum	NIL.	Development was done as per demand captive plant.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	N.A.	N.A.	N.A.
----	---	------	------	------

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	4 (Four)	3 (Three).	During 2021-22, working were in three quarry only.
3b	Quantity of ROM mineral production proposed	299530 MT	223185 Tonnes.	Low production as per the demand of the captive feeding plant.
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	N.A.
3d	Quantity of mineral reject generation	58350 cum.	35050 tones.	N.A.
3e	Grade of mineral rejects generation and threshold value declared.	Al2O3<20% & SiO2>10%	Al2O3<20% & SiO2>10%	N.A.
3f	Quantity of sub grade mineral generation.	N.A.	N.A.	Sub-grade is blended with high grade ore.
3g	Grade of sub grade mineral generation	N.A.	N.A.	Sub-grade is blended with high grade ore.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual.	Manual.	N.A.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	N.A.	N.A.	N.A.
3j	Provision of drilling and blasting in mineral benches	Yes.	Yes.	Drilling and Blasting is done in mineral benches.

3k	Provision of mining machineries in mineral benches	<p>Yes.</p> <p>1. SHOVEL (Hydraulic) (capacity 0.90-1.50 cum) - 6 nos.</p> <p>2. WHEEL Loader (capacity 1.50 cum) - 2 nos. Diesel.</p> <p>3. Water Tanker (capacity 5000 Litre) - 2 nos. Diesel.</p> <p>4. Blast Host/Drills (capacity 100 mm) - 2 nos. Non Electrical</p> <p>5. Air Compressor (capacity 250 cum/min) - 2 nos. Diesel oprated.</p> <p>6. Dumper (capacity 25 tonne) - 10 nos. Diesel oprated.</p>	<p>Yes, Machinery deployed are given:</p> <p>1. SHOVEL (Hydraulic) (capacity 0.90 cum) - 3 nos. Diesel oprated.</p> <p>2. WHEEL Loader (capacity 1.75 cum) - 2 nos. Diesel oprated.</p> <p>3. Water Tanker (capacity 1200 Litre) - 1 nos. Diesel oprated.</p> <p>4. Blast Host/Drills (capacity 110 mm) - 2 nos. Non Electrical</p> <p>5. Air Compressor (capacity 450 cum/min) - 2 nos. Diesel oprated.</p> <p>6. Dumper (capacity 25 tonne) - 10 nos. Diesel oprated.</p>	<p>HEMM is deployed for advancement of mineral benches.</p>
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes.	Yes.	<p>Hieghts of benches in O.B. and mineral is suitable for method of mining proposed in approved M.P.</p>
3m	Total area covered under excavation/pits	5.42 ha.	4.72 ha.	<p>During the plan period development was less, as the demand of the captive feeding plant was less.</p>
3n	Ore to OB ratio for the pit/mine during the year.	1:0.99 Tonne:cum	1:1.57 Tonne:Tonne	N.A.
3o	Total area put in use under different heads at the end of year	85.57 ha.	85.61 ha.	N.A.

3p	Production of ROM mineral during the last five year period as applicable	i) 2017-18 - 298804 MT ii) 2018-19 - 299446 MT iii) 2019-20 - 299293 MT iv) 2020-21 - 299223 MT v) 2021-22 - 299530 MT	i) 2017-18 - 291458 MT ii) 2018-19 - 260995 MT iii) 2019-20 - 80395 MT iv) 2020-21 - 136158 MT v) 2021-22 - 223185 MT	During the year 2021-22 production is less.
3q	General remarks of inspecting officers on method of mining etc.	N.A.	N.A.	Method of mining can be improved in view of scientific mining.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil will be used for reclamation of the backfilled quarry.	Top soil is used for reclamation & rehabilitation of the backfilled quarry.	Concurrent backfilling is done.
4b	Location of topsoil, OB and mineral reject dumps	N.A.	N.A.	Concurrent backfilling is done. Hence, no O.B./Rejects dump observed.
4c	Number of dumps within lease area and outside of lease area	N.A. All overburdens will be backfilled in mined-out areas.	N.A., Cocurrent backfilling is done in mined-out areas.	Cocurrent backfilling is done in mined-out area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N.A.	N.A.	N.A.
4e	Number of active and alive dumps.	NIL.	NIL.	No dump available.
4f	Number of dead dumps.	NIL.	NIL.	No dump available.
4g	Number of dumps established.	Nil.	Nil.	No dump available.
4h	Whether Retaining wall or garland drain all along dumps are there.	N.A.	N.A.	Not applicable, as no dump available.

4i	Length of Retaining wall or garland drain all along dumps	N.A.	N.A.	Not applicable, as no dump available.
4j	Number of settling ponds	N.A.	N.A.	N.A.
4k	Specific comments of inspecting officer on waste dump management	N.A.	N.A.	Not applicable.

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.	Yes.	Yes.	As the advancement of mining is done in Bauxite deposit, concurrent backfilling is done.
5b	Area under backfilling of mined out area	4.69 ha.	6.36 ha.	Included previous years backlog area based on the demand of the landowners.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil will be used for reclamation of the backfilled quarry.	Top soil is being used for reclamation of the backfilled quarry.	N.A.
5d	Total area fully reclaimed and rehabilitated	N.A.	77.90 ha.	N.A.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	N.A.	N.A.	Concurrent backfilling and reclamation is done.

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).	N.A.	Yes. Submitted on time and correctly.	N.A.
6b	Area available for rehabilitation (ha) .	Nil.	Nil.	N.A.
6c	afforestation done (ha).	Nil.	Nil.	N.A.
6d	No. of saplings planted during the year	1375 saplings.	2448 saplings.	Plantation done on thr road side 10m safety barrier.
6e	Cumulative no .of plants	Nil.	2448 saplings.	On along the 10m safety barrier.
6f	Any other method of rehabilitation	Nil.	Nil.	N.A.
6g	Cost incurred on watch and care during the year	Nil.	Nil.	N.A.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	4.69 ha.	6.36 ha.	Included previous years backlog area based on the demand of the landowners.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL.	NIL.	N.A.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL.	2448 nos.	N.A.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL.	NIL.	N.A.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL.	NIL.	N.A.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL.	NIL.	N.A.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL.	NIL.	N.A.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL.	NIL.	N.A.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Rs. 1,87,000.00	Rs. 55,13,620.00 (Cummulative).	N.A.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	N.A.	N.A.	Mine operator should give more adhere to the environment aspect as proposed in PMCP.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes.	Yes.	Grade wise sorting and stack are done within lease area.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manually sorting and dispatched.	Manually sorting and dispatched.	Ore/Mineral are sorted manually and transported to Lohardaga siding.
7c	Different grade of mineral sorted out at mines.	Yes.	Yes.	N.A.

7d	Any beneficiation process at mines	N.A.	N.A.	No, ore are transported to Lohardaga siding.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	N.A.	N.A.	No beneficiation are doe at mine site, sorted ore are transported to Lohardaga siding.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes.	Yes.	N.A.
8b	Concurrent use or storage of topsoil	Concurrent use.	Concurrent use.	Concurrent use.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	N.A.	N.A.	All overburden is backfilled in mined-out areas.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	N.A.	N.A.	O.B. generated is used for concurrent backfilled in mined-out areas.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	All overburden will be backfilled in mined-out areas, soil will be spread for reclamation.	Overburden is being used for backfilling in mined-out areas, top soil also is being spread over reclaimed area.	O.B. is used for concurrent backfilling and top soil is being spread over reclaimed area.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes.	Yes.	N.A.
8g	Survival rate	N.A.	70%	N.A.

8h	Water sprinkling on roads to control airborne dust	Yes.	Yes.	Water sprinkling by water tankers in several span on daily basis
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	N.A.	N.A.	N.A.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns submitted dully filled up.	Monthly and Annual returns timely submitted.	N.A.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	details of Mining Engineer and Geologist are given.	Mining Engineer -Shri Pradeep Kumar Bhalekar and Mining Geologist - Shri Kailash Prasad were present at the time of inspection.	N.A.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits - 7.71 ha., reclaimed area - 77.90 ha., dumps - Nil.	Pit - 7.71 hecsts., Reclaimed area - 77.90 hecsts.	N.A.
9d	Scrutiny of Annual return on afforestation	WML - 4150 nos. OML - 750 nos.	WML - 4150 nos. OML - 750 nos.	N.A.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL.	NIL.	N.A.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock - 4509.92 MT, Production - 223185.00 MT, Dispatches - 219694.38 MT, Closing stock - 8000.54 MT.	Appears to be correct.	N.A.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	1210.00/tonne.	1210.00/tonne. (Al2O3 - 40% to 45%).	N.A.

9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets - Rs. 88936335/-	Seems to be correct.	N.A.
9k	Scrutiny of Annual return on mining machineries	SHOVEL (HYDRAULIC) - 3 nos. (capacity 0.90 cum), WHEEL LOADER - 2 nos. (capacity 1.750 cum., WHEEL LOADER - 2 nos. (capacity 1.750 cum., WATER TANKER - 1 no. (capacity 1200.00 Lires), BLAST HOST DRILL - 2 nos. (capacity 110.000 mm), AIR COMPRESSOR - 2 nos. (capacity 450.00 cum/min.) & DUMPERS - 10 nos. (capacity 25.00 tonne).	SHOVEL (HYDRAULIC) - 3 nos. (capacity 0.90 cum) WHEEL LOADER - 2 nos. (capacity 1.750 cum., WATER TANKER - 1 no. (capacity 1200.00 Lires), BLAST HOST DRILL - 2 nos. (capacity 110.000 mm), AIR COMPRESSOR - 2 nos. (capacity 450.00 cum/min.), DUMPERS - 10 nos. (capacity 25.00 tonne).	N.A.

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)	12/08/2022			

Date :

(B.L. KISKU)

Indian Bureau of Mines