

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

Inspection under SDF for star rating of mines REPORT

Ranchi regional office

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

Mine code : 07JHK09005

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 22/01/2020
- (v) Prev.inspection date :

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/ : 01/10/2013
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	12/04/2005
Plan/Scheme of Mining	:	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	No Proposal	Lease area has been fully explored in G1 category.	Lease area has been fully explored in G1 category.
1b	Exploration over lease area for geological axis 1 or 2	No Proposal	Exploration was already done under G1 level of exploration. Form I & J also submitted accordingly as per MCDR 2017.	Explored under G1 -119.43 ha Non-Mineralized area - 37.94 ha
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Explored under G1 - 119.43 ha Non-Mineralized area - 37.94 ha	
1e	Balance reserve as on 01/04/20	Balance reserve as on 01/04/2019	111 - 1507627 tonnes 221 - 316091 tonnes	
1f	General remarks of inspecting officers on geology, exploration etc	-	Lease area has been fully explored in G1 category.	Lease area has been fully explored in G1 category.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Pit A, Pit B, Pit C	Pit A, Pit B, Pit C Quarry A Two Benches Ist- Soil IInd- Bauxite Quarry B Two Benches Ist- Soil IInd- Bauxite Quarry C Three Benches Ist- Soil IInd - Morrum IIIrd Bauxite	Quarry A Two Benches Ist- Soil IInd- Bauxite Quarry B Two Benches Ist- Soil IInd- Bauxite Quarry C Three Benches Ist- Soil IInd - Morrum IIIrd Bauxite
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes, Separate bench have been made.	

2c	Stripping ratio or ore to OB ratio	1:1.65 (Tons :Cum)	1:1.65 (Tons :Cum)
2d	Quantity of topsoil generation in m3	No proposal	9525 tones
2e	Quantity of overburden generation in m3	328328 m3	799848 tonnes
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Three	Three	
3b	Quantity of ROM mineral production proposed	299293 tonnes	80395 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	
3d	Quantity of mineral reject generation	58304 cum	16078 tones	
3e	Grade of mineral rejects generation and threshold value declared.	Less than 30% Al2O3 & More than 10% silica	Less than 30% Al2O3 & More than 10% silica	
3f	Quantity of sub grade mineral generation.	No Proposal	NA	
3g	Grade of sub grade mineral generation	No Proposal	NA	
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.	NO Proposal	No studied	Carried out.	
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	Yes	We do drilling and blasting in mineral benches
3k	Provision of mining machineries in mineral benches	Yes	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Yes	
3m	Total area covered under excavation/pits	5.94 ha	3.81 ha		
3n	Ore to OB ratio for the pit/mine during the year.	1:1.65 (Tons :Cum)	1:1.65 (Tons :Cum)		
3o	Total area put in use under different heads at the end of year	76.28 ha	76.28 ha		
3p	Production of ROM mineral during the last five year period as applicable	2015-16 293099 2016-17 295634 2017-18 298804 2018-19 299446 2019-20 299901	2015-16 223025 2016-17 294830 2017-18 291458 2018-19 260995 2019-20 80395		
3q	General remarks of inspecting officers on method of mining etc.	-	-	-	-

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	soil will be used for reclamation of the backfilled quarry	soil is used for reclamation of the backfilled quarry	There is no dump of top soil

4c	Number of dumps within lease area and outside of lease area	all overburden will be backfilled in mined-out areas	all overburden is backfilled in mined-out areas
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	-	-
4e	Number of active and alive dumps.	NIL	NIL
4f	Number of dead dumps.	NIL	NIL
4g	Number of dumps established.	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	NA	NA
4i	Length of Retaining wall or garland drain all along dumps	NA	NA
4j	Number of settling ponds	NA	NA
4k	Specific comments of inspecting officer on waste dump management	-	-

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 Extractoion Part by Part	Full Extractoion Part	Part by
5b	Area under backfilling of mined out area	4.99 ha	1.75 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	soil will be used for reclamation of the backfilled quarry	soil is being used for reclamation of the backfilled quarry	

5d	Total area fully reclaimed and rehabilitated	68.97 ha	63.44ha	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	-

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM Mineral Dispatch	Garde wise Sorting	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual Grade Wise sorting	Manual	
7c	Different grade of mineral sorted out at mines.	No proposal	40 to 45 % Al2O3	
7d	Any beneficiation process at mines	No proposal	NO	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	-

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes	
8b	Concurrent use or storage of topsoil	Concurrent use	Concurrent use	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	NA	NA	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	
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.	All overburden is being backfilled in mined-out areas, soil also is being spread for reclamation.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	60 %	60 %	
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	-	-	-

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	-	Monthly and Annual returns submitted on time.	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer in charge - Pradeep Kumar Bhalekar Geologist in charge - Kailash Prasad	Mining Engineer in charge - Pradeep Kumar Bhalekar Geologist in charge - Kailash Prasad	Mining Engineer and Geologist present at the time of inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited & abandoned by opencast mining - 76.750 Ha. Covered under current (O/C) Workings - 13.310 Ha. Reclaimed/Rehabilitated - 63.440 Ha.	Already exploited & abandoned by opencast (O/C) mining - 76.750 Ha. Covered under current (O/C) Workings - 13.310 Ha. Reclaimed/Rehabilitated - 63.440 Ha.	
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year - 2448 Within lease area, 300 Outside lease area	Number of trees planted during the year - 2448 Within lease area, 300 Outside lease area	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	-	NO mineral Reject Generated only OB and Top soil Generated.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production and Stocks of ROM ore at Mine-head - 80395.000 production Graded Ore - 80395.000 T, Avg. Grade - 44.75	Production and Stocks of ROM ore at Mine-head - 80395.000 production Graded Ore - 80395.000 T, Avg. Grade - 44.75	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Rs. 1130.00 - Avg. Ex-Mine price for the year	Rs. 1130.00 - Avg. Ex-Mine price for the year	
9h	Scrutiny of Annual return on fixed assets	Value of fixed Assets - 0	Value of fixed Assets in combination with Kujam I bauxite mine.	

9k	Scrutiny of	SHOVEL	SHOVEL (HYDRAULIC)
	Annual return on	(HYDRAULIC)	WHEEL LOADER
	mining	WHEEL LOADER	BLAST HOST DRILL
	machineries	BLAST HOST	WATER TANKER
		DRILL	DUMPER
		WATER TANKER	AIR COMPRESSOR
		DUMPER	
		AIR COMPRESSOR	

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

Date :

(NAMAN EKKA)

Indian Bureau of Mines