

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

Inspection under SDF for star rating of mines REPORT

Ranchi regional office

Mine file No : BIH/LOH/BX/246/RRO

Mine code : 07JHK12006

- (i) Name of the Inspecting : P002) PHILLIP HAPADGARA
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Prateek Kumar, Agent & Shri Tapas Gachhayat, Geo
Official with
Designation
- (iv) Date of Inspection : 01/09/2023
- (v) Prev.inspection date : 16/08/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : BHUSAR & KEKRANG
- (b) **Registration NO.** : IBM/935/2011
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : JHARKHAND
- District : LOHARDAGA
- Village : BHUSAR
- Taluka : BAGRU
- Post office : BAGRU
- Pin Code : 835302
- FAX No. : 06526-24049
- E-mail : bijesh.jha@adityabirla.com
- Phone : 06526-24161
- (f) **Police Station** : KISKO
- (g) **First opening date** : 05/04/1978
- (h) **Weekly day of rest** : FRI
2. **Address for correspondance** : VILL.-BHUSAR & KEKRANG,
P.O.- BAGRU HILL
DISTT.-LOHARDAGA (JHK)
3. (a) **Lease Number** : BHR0265
- (b) **Lease area** : 65.31
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 31/03/2030
4. **Mineral worked** : BAUXITE Main

5. Name and Address of the

Lessee : M/S HINDALCO INDUSTRIES LTD.
COURT ROAD, LOHARDAGA,
LOHARDAGA JHARKHAND
Phone:06526 - 224012 & 224118
FAX :06526-224112, 224016 & 0651- 2330782

Owner : A.K. AGRAWAL
M/s HINDAL INDUSTRIES Ltd.,
PO - RENUKOOT, UTTAR
PRADESH- 231217 SONBHADRA
UTTAR PRADESH
Phone: 05446-252084, 2
FAX : 05446-252107

Agent : Prateek Kumar
Hindalco Ind. Ltd. Court
Road Lohardaga LOHARDAGA
JHARKHAND
Phone: 7738368627
FAX :

Mining Engineer

Name : SHRI PRADEEP KUMAR, Full Time
Qualification : B. TECH (MINING)
Appointment/ : 03/09/2013 30/07/2019
Termination date

Mining Engineer

Name : Akhilesh Kumar Sinha, Full Time
Qualification : B.Tech. (Mining)
Appointment/ : 01/08/2019
Termination date

Mining Engineer

Name : Rajesh Ranjan Prasad Ambastha, Full Time
Qualification : B.Tech (Mining Engineering)
Appointment/ : 02/02/2023
Termination date

Geologist

Name : VICTOR BASU, Full Time
Qualification : M.Sc (Geology)
Appointment/ : 26/11/2013 28/02/2023
Termination date

Geologist

Name : Malaya Kumar Prusty, Full Time
Qualification : M.Sc. Tech (in Applied Geology)
Appointment/ : 28/02/2023
Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Renewal under rule 24 MCR1960 27/03/1996
Mining Scheme rule 12 MCDR1988 25/07/2007
Modif.of approved Mining Plan 11/10/2010
Mining Scheme rule 12 MCDR1988 22/12/2011
MP modif under MCR 1960 31/05/2016
MP modif under 17(3) MCR 2016 29/07/2019

MP review under 17(1) MCR 2016
MP modif under 17(3) MCR 2016

16/10/2020
22/04/2022

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	Total Area Explored in G1 level
1b	Exploration over lease area for geological axis 1 or 2	no such proposal during the year	nil	Total Area Explored in G1 level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	no such proposal	nil	nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	no such proposal	nil	Total Area Explored in G1 level
1e	Balance reserve as on 01/04/20	1004745.00 T	1271626.00 T	nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Lease area is explored in G1 level

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Quarry -B	Quarry -B	nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Soil- 1 H- 6mtr O.B - 2 H- 6mtr Ore -2 H-6mtr	Soil-1 H-3.5mtr O.B - 2 H- 4.5 mtr Ore -2 H- 3.5mtr	nil
2c	Stripping ratio or ore to OB ratio	1:0.47	1:0.86	nil
2d	Quantity of topsoil generation in m3	46548 cum	32583cum	nil
2e	Quantity of overburden generation in m3	131861 m3	215441.4 T	nil

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Production of mineral from Quarry B. Separate benches in top soil, overburden and mineral are maintained
----	---	---	---	--

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	nil
3b	Quantity of ROM mineral production proposed	278140 T	248213 T	nil
3c	Recovery of sailable/usable mineral from ROM production	278140 T	248213 T	nil
3d	Quantity of mineral reject generation	4 1876 T	nil	no reject generation from mine during the year.
3e	Grade of mineral rejects generation and threshold value declared.	<30% Al2O3	nil	nil
3f	Quantity of sub grade mineral generation.	no such proposal	nil	nil
3g	Grade of sub grade mineral generation	NA	nil	nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	no such proposal	nil	nil
3j	Provision of drilling and blasting in mineral benches	100 mm dia drilling	100 mm dia drilling by Crawler Mounted Drill	nil

3k	Provision of mining machineries in mineral benches	HEMM	HEMM	nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Soil- 1 H- 6mtr O.B - 2 H- 6mtr Ore -2 H-6mtr	Soil-1 H-3.5mtr O.B - 2 H- 4.5 mtr Ore -2 H- 3.5mtr	height of benches in overburden and mineral suitable for method of mining
3m	Total area covered under excavation/pits	14.145 ha (including mined out area)	13.54 ha (including mined out area)	nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.47	1:0.86	nil
3o	Total area put in use under different heads at the end of year	65.31 ha	60.025 ha (including backfilled area)	nil
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 278595 T 2019-20: 279019 T 2020-21: 278743 T 2021-22: 279457 T 2022-23: 278140 T	2018-19: 190078 T 2019-20: 5093 T 2020-21: 38757 T 2021-22: 137495 T 2022-23: 248213 T	nil
3q	General remarks of inspecting officers on method of mining etc.	-	-	Method of mining is opencast. Drilling blasting is in proposal as well as deployment of HEMM

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no such proposal	nil	nil
4b	Location of topsoil, OB and mineral reject dumps	NA	nil	nil

4c	Number of dumps within lease area and outside of lease area	2 nos	2 nos	nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N1726-1815E 1372-1440 E1656- 1742E1086-1193	N1726-1815E 1372-1440 E1656-1742E1086-1193	nil
4e	Number of active and alive dumps.	nil	nil	nil
4f	Number of dead dumps.	nil	nil	nil
4g	Number of dumps established.	2 nos	2 nos	nil
4h	Whether Retaining wall or garland drain all along dumps are there.	YES proposed along the dump	YES	nil
4i	Length of Retaining wall or garland drain all along dumps	nil	120m and 80m	Retaining wall or garland drain existed all along dumps.
4j	Number of settling ponds	1 nos	1 nos	nil
4k	Specific comments of inspecting officer on waste dump management	-	-	Old 2 nos dumps have been stabilized and covered by retaining wall and garland drain.

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	As per proposal	nil
5b	Area under backfilling of mined out area	3 Ha	1.16 Ha	1.16 ha area available for backfilling during the year

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of topsoil for reclamation & rehabilitation	As per proposal	nil
5d	Total area fully reclaimed and rehabilitated	42.215 (Ha)	43.75 Ha	Cumulative reclaimed area.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling is done after full extraction of mineral.

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).	yes	yes	nil
6b	Area available for rehabilitation (ha) .	1.28ha	1.16Ha	1.16 ha area available for backfilling
6c	afforestation done (ha).	1.28ha	1.16 ha	nil
6d	No. of saplings planted during the year	3200 nos	3240 nos	nil
6e	Cumulative no .of plants	-	127458 nos	nil
6f	Any other method of rehabilitation	No specific proposal	nil	nil
6g	Cost incurred on watch and care during the year	Rs. 184000.00/-	Rs 250320.00/-	nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	95x92x12 cum	50 m X 30 m X 7 m	nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	155mx82mx10m	149 m X 78 m X 10 m	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	1.27Ha	1.16Ha	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nos such proposal	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No specific proposal	nil	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	no such proposal on waste land	nil	nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	no such proposal on waste land	nil	nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	no specific proposal on waste land	nil	nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Air, water, noise monitoring	(Air, water, noise) monitoring done quarterly	nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Concurrent backfilling of mined out area is in proposal as well as in practice.
----	---	---	---	---

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No such proposal	nil	nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No such proposal	nil	nil
7c	Different grade of mineral sorted out at mines.	No such proposal	nil	nil
7d	Any beneficiation process at mines	No such proposal	nil	nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	All mined out minerals are dispatched. There is no provision of grade wise mineral sorting at mine and there no beneficiation plant at mine.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Concurrent spreading over backfilled area	As per proposal	nil
8b	Concurrent use or storage of topsoil	Concurrent use of topsoil	Concurrent use of topsoil	nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No such proposal	nil	nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Concurrent Backfilling	Concurrent Backfilling	nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Concurrent Backfilling of mined out area and spreading of topsoil over backfilled area	as per proposal	nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3200 Sapling	3240 Sapling	nil
8g	Survival rate	80%	80%	nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling by Water tanker	As per proposal	nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Top of hill is devoid of vegetation whereas sal vegetation on slope.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Returns Submitted On time	Returns Submitted On time	nil

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Eng- Rajesh Ranjan Ambastha. Geologist- Malaya Prusty	Information found to be correct	nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited and abandoned by opencast (O-C) mining: 58.325 ha, Covered under current (O-C) Workings: 1.7 ha, Reclaimed-rehabilitated: 43.753ha, Used for waste disposal: 2.36ha, Utility: 1.51 ha, Rain Water harvesting Pond: 1.03 ha, Work done under progressive mine closure plan during the year: 1.16 ha	Information seems to be correct.	nil
9d	Scrutiny of Annual return on afforestation	3240 nos	Information seems to be correct	nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No reject generation during the year	nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock: 0T, Closing Stock: 0T, Production: 248213 T	Information seems to be correct	nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production: Rs.1248.29	Information seems to be correct	nil

9h	Scrutiny of Annual return on fixed assets	Rs. 197204300/-	Information seems to be correct	nil
9k	Scrutiny of Annual return on mining machineries	Shovel (0.9 cum): 1nos, Shovel (1.9): 1 nos, Dumper (25T) 3 nos, Dumper (20 T) 2 nos, Air compressor (450 cum/min): 1nos, Crane (10T): 1nos Explosive van: 1nos	Information seems to be correct	nil

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

Date :

(PHILLIP HAPADGARA)

Indian Bureau of Mines