

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

Mining Plan Modification REPORT

Ranchi regional office

Mine file No : BIH/GLA/BX/204/RRO

Mine code : 07BHR32009

- (i) Name of the Inspecting : **K03**) **G. S. KANNAN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri. Ambastha, QP & Tripurari, MM
Official with
Designation
- (iv) Date of Inspection : 09/08/2021
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JALIM AND SANAI (38.447)**
- (b) **Registration NO.** : **IBM/935/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **JHARKHAND**
- District : **GUMLA**
- Village : **JALIM & SANAI**
- Taluka : **BISHUNPUR**
- Post office : **BISHUNPUR**
- Pin Code :
- FAX No. : **06526-24118**
- E-mail : **N.A.**
- Phone : **06526-24016,24112,24446**
- (f) **Police Station** : **BISHUNPUR**
- (g) **First opening date** : **01/11/1983**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VILL-- JALIM & SANAI**
correspondance : **PO-BISHNPUR**
: **DIST-GUMLA**
3. (a) **Lease Number** : **BHR0248**
- (b) **Lease area** : **12.14**
- (c) **Period of lease** :
- (d) **Date of Expiry** : **31/03/2030**
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 : K.N.BHANDARI
 M/s Hindalco Industries Ltd
 P.O. Renukoot Dist.
 Sonebhadra (UP) SONBHADRA
 UTTAR PRADESH
 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 : SRI AKHILESH SINHA, Full Time
 Qualification : B.E(Min)
 Appointment/ : 17/05/2010 30/07/2019
 Termination date

Mining Engineer

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

Geologist

Name : SHRI ABHISHEK KUMAR, Full Time
 Qualification : M.Sc (GEOLOGY)
 Appointment/ : 17/12/2008
 Termination date

Manager

Name : SRI TRIPURARI SINGH
 Qualification : MINES FOREMAN CERTIFICATE
 Appointment/ : 17/05/2010
 Termination date

6. Date of approval of Mining : Existing rule 11 MCDR1988 03/03/1993
 Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 30/03/2000
 Renewal under rule 24 MCR1960 03/12/2004
 Mining Scheme rule 12 MCDR1988 10/04/2012
 FMCP under 23C(1) 26/02/2013
 Mining Scheme rule 12 MCDR1988 19/12/2014
 MP review under 17(1) MCR 2016 30/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Core Boreholes has been Proposed during 2020-2021	As per proposal, No boreholes has been drilled during 2020-2021	Original lease area is 38.45 hectares, out of which 20.46 hectares is forest land and 5.85 hectares is non - mineralized area.
1b	Exploration over lease area for geological axis 1 or 2	No Additional exploration was proposed during 2020-2021 in the lease area for Geological axis - 1	No Additional exploration was been drilled in the lease area during 2020- 2021	17 boreholes have been drilled in the lease area during 1994 by MECL and 10 boreholes during 2017-2018 by Lessee.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal for Exploration during 2020-2021	Nil	During 2017-2018, 10 boreholes with 167 meterage have been drilled by the Lessee. Having minimum depth of 15m and maximum of 18m.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Additional exploration was been drilled in the lease area during 2020- 2021	No exploration was carried out during 2020-2021	17 + 10 boreholes have been drilled so far in the lease area and 5.0 hectares has explored to G-1.
1e	Balance reserve as on 01/04/20	Reserves & Resources as on 01.04.2021 Proved Mineral Reserves (111) = 52977 tons Probable Mineral Resources (122) = 80947 tons	Reserves & Resources as on 01.04.2021 Proved Mineral Reserves (111) = 74062 tons Probable Mineral Resources (122) = 80947 tons	Reserves and Resources are updated based on the revised threshold value.

1f	General remarks of inspecting officers on geology, exploration etc	It is part of Chotanagpur Granite gneiss. Laterite, Bauxite and Lithomerge occur in the plateau top as capping of Chotanagpur Granite gneiss.	Bauxite deposit is not extensive and continuous but found in limited area only.	Lease is having Same Geology. Hence borehole has to be drilled at closer interval to get quantity and quality
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed to work in Quarry-2 & 3 during 2020-2021.	Development has been not carried out as per the proposal	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	It is proposed to form Separate Bench's in Topsoil, Overburden and Mineral	As per proposal benches are formed.	
2c	Stripping ratio or ore to OB ratio	1 : 0.10	1 : 0.83	
2d	Quantity of topsoil generation in m3	It is proposed to remove 27399 cu.m of topsoil during 2020-2021	29798 cu.m of topsoil has been generated during 2020-2021	
2e	Quantity of overburden generation in m3	No OB has proposed during 2020-2021 and 2379 cu.m of quarry waste has proposed.	4250 cu.m of Quarry waste has been removed.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposed to work in Quarry-2 & 3 during 2020-2021.	29798 cu.m of topsoil and 4250 cu.m of Quarry waste has been generated during 2020-2021	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Proposed to work in Quarry-2 & 3 during 2020-2021.	Production has been not carried out as per the proposal	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
3b	Quantity of ROM mineral production proposed	The total target of Production was 49236 tons during 2020-2021.	41548 tons of production have been achieved during 2020- 2021.	
3c	Recovery of sailable/usable mineral from ROM production	90%	83%	
3d	Quantity of mineral reject generation	It is proposed to produced 2379 cu.m of mineral rejects during 2020-2021	4250 cu.m of mineral rejects has been achieved	
3e	Grade of mineral rejects generation and threshold value declared.	Mineral reject- below the threshold value and outside the ore zone.	Mineral reject- below the threshold value and outside the ore zone.	
3f	Quantity of sub grade mineral generation.	No Sub Grade Generation	No Sub Grade Generation	
3g	Grade of sub grade mineral generation	There is No Generation of Subgrade Mineral	There is No Generation of Subgrade Mineral	
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	Nil	Only Manual Picking of Ore from Intercalated Waste.

3j	Provision of drilling and blasting in mineral benches	Spacing - 1m Burden - 1m Depth - 3m It is Proposed to drill by 115mm dia, crawler mounted down hole drill. Blasting is done by using Slurry explosives.	Drilling & Blasting are done as per proposal.	
3k	Provision of mining machineries in mineral benches	Excavators Tippers Tractor Jack Hammer Air Compressor Water Tanker	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 Soil/Morrum will be first bench with 6m and 2m was proposed in Mineral.	Benches are formed as per proposal.	
3m	Total area covered under excavation/pits	0.73 hectares are under Pit during 2020-2021.	0.66 hectares are under Pit during 2020-2021.	
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.10	1 : 0.83	
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2021. Quarry Face = 0.73 hect Reclaimed = 4.84 hect Reclaimed & Planted area = 4.18 hect Roads = 0.02 hect	Land use Pattern as on 01.04.2021. Quarry Face = 0.66 hect Reclaimed = 6.26 hect Reclaimed & Planted area = 3.43 hect Roads = 0.02 hect	Quarry Face, Backfilled area is not tally with field and violation has issued on 22.02.2021 and submitted modification
3p	Production of ROM mineral during the last five year period as applicable	2020-2021 = 49236 tons 2019-2020 = 49439 tons 2018-2019 = 49898 tons 2017-2018 = 36180 tons 2016-2017 = 44839 tons	2020-2021 = 41548 tons 2019-2020 = 45545 tons 2018-2019 = 36037 tons 2017-2018 = 44624 tons 2016-2017 = 43675 tons	

3q General remarks of inspecting officers on method of mining etc. Mechanised Method is Proposed 41548 tons have been achieved during 2020-2021 against 49236 tons of proposed production

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is no proposal for dumping during 2020-2021. It is proposed to backfill the area simultaneously	As per proposal the backfilling is not done.	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
4b	Location of topsoil, OB and mineral reject dumps	There is no proposal for dumping. It is proposed to backfill Quarry-2 & 3 during 2020-2021	As per proposal the backfilling has not carried out.	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
4c	Number of dumps within lease area and outside of lease area	Lease area =Nil Non Lease area= Nil	Lease area =Nil Non Lease area= Nil	There is no dumping and backfill the area simultaneously.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	There is no proposal of Dump.	Nil	
4e	Number of active and alive dumps.	Active Dump =Nil Alive Dump =Nil	There is no active dump within lease area for waste dumping.	Excavated area is backfilled simultaneously. So dumping is not proposed.
4f	Number of dead dumps.	Dead Dumps = Nil	Dead Dumps = Nil	
4g	Number of dumps established.	No dumps have been established.	No dumps have been established.	
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal	Nil	

4i	Length of Retaining wall or garland drain all along dumps	No Proposal	Nil	
4j	Number of settling ponds	No Proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management	There is no proposal for dumping during 2020-2021. It is proposed to backfill the area simultaneously	As per proposal the backfilling is not done.	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.

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.	Simultaneously Back filling has proposed to backfill Quarry-2 & 3 during and 2020-2021	Simultaneously Back filling was in process and could not achieved as per proposal	
5b	Area under backfilling of mined out area	It is proposed to backfill 0.45 hectares in Quarry-2 and 0.30 hectares in Quarry-3 during 2020-2021	0.66 hectares has Backfilled against proposal but in unproposed area.	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use	Concurrent use	
5d	Total area fully reclaimed and rehabilitated	Fully Reclaimed and Rehabilitated = 7.33 hect	Fully Reclaimed and Rehabilitated = 7.33 hect	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Simultaneously Back filling has proposed to backfill Quarry-2 & 3 during and 2020-2021	0.66 hectares has Backfilled during 2020-2021	

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	It should be on or before 1st July every year.	Submitted for the year 2020-2021.	
6b	Area available for rehabilitation (ha) .	0.75 hectares	0.66 hectares	
6c	afforestation done (ha).	Proposed 0.68 hect in 2020-2021	0.80 hectares has been Afforested	
6d	No. of saplings planted during the year	1088 saplings proposed in Backfilled area for 2020-2021	1500 saplings have been achieved.	
6e	Cumulative no .of plants	800 nos of saplings proposed during the plan period 2014-2018 in the backfilled area and 2224 nos of saplings during 2018-2021	1100 saplings have been planted during 2014-2018 inside the backfilled area and 3550 saplings during 2018-2021.	
6f	Any other method of rehabilitation	No Proposal	Nil	
6g	Cost incurred on watch and care during the year	9.13 lakhs has been proposed	11 Lakhs has spend	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.75 hectares	0.66 hectares	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Proposed 0.68 hect in 2020-2021	0.80 hectares has been Afforested	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposal	Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1088 saplings proposed in Backfilled area for 2020-2021	1500 saplings have been achieved.	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Proposed 0.68 hect in 2020-2021	0.80 hectares has been Afforested	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Simultaneously Backfilling	Simultaneously Backfilling	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Bi-Annually Survey	Environment monitoring is carried out through own as well as private agency.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Environment monitoring is carried out through own as well as private agency.	1500 saplings have been achieved in 0.80 hectares during 2020-2021	4650 saplings have been planted during 2014-2021 in the backfilled area.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	The total target of Production was 49236 tons during 2020-2021.	41548 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 = 41.39% Sio2 = 4.21% Cut Off Grade:- Al2O3 = +30% Sio2 = 5%	Average Grade:- Al2O3 = 41.39% Sio2 = 4.21% Cut Off Grade:- Al2O3 = +30% Sio2 = 5%	Low grade are Blended with High grade ores to get the desired plant feed materials.
7d	Any beneficiation process at mines .	Manually sizing and sorting are proposed	sorting and sizing is being done	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	The total target of Production was 49236 tons during 2020-2021.	41548 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	Concurrent use	
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 unproposed area and restoring the land to its original use.	Violation has been issued under Rule 11(1) on 22.02.2021 and submitted modification.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1088 saplings has proposed in 0.68 hectares Backfilled area for 2020-2021	1500 saplings have been achieved in 0.80 hectares during 2020-2021	4650 saplings have been planted during 2015-2021 inside the backfilled area.
8g	Survival rate	No such proposal in the approved document	80%	
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	Cultivation depends mainly at the top of the plateau in monsoon.	Surrounding area beyond lease area is greenery. The area is hilly terrain.	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR Submitted up to = July 2021 AR Submitted up to = 2020-2021	Both Annual & Monthly returns are submitting in online system.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist has shown	As per record Mining Engineer and Geologist are present during Inspection
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use Pattern as on 01.04.2021. Exploited area = 18.160 hect Reclaimed = 8.370 hect Current working = 7.160 hect	Landuse Pattern is filled as per approved Mining Plan
9d	Scrutiny of Annual return on afforestation	1500 saplings have been planted within lease area and 500 saplings outside lease area during 2020-2021.	It is advised the lessee to plant the saplings as per the proposal.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	There is no Mineral Rejects Generation	There is no Mineral Rejects Generation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Bauxite Stock as on 01.04.2021 ROM Closing stock = Nil Dispatches of Processed ore 40% to below 45% Al2O3 = 1176 tons and 45% to below 50% Al2O3=40276 tons	Mine has produced 41548 tons of Production during 2020-2021
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production & Ex. Mine Price has shown	It is captive mine of Hindalco
9h	Scrutiny of Annual return on fixed assets	Fixed Assets is given	Fixed Assets is filled

9k Scrutiny of Machineries As available in field
Annual return on details given
mining
machineries

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 :

(G. S. KANNAN)

Indian Bureau of Mines