

SL.N	PARTICULARS	DETAILS
1	File No.	CHG/BLR/BXT/07MPR42005
2	Name & Designation of the inspecting officer	Shri D. Dash, Regional Mining Geologist, Indian Bureau of Mines, Raipur
3	Date of Inspection	16.10.2023
4	Date of Last Inspection & Officer	21.12.2022, Shri Deepak Chinchkhede, Assistant Controller of Mines, Indian Bureau of Mines, Raipur
5	Accompanying mine personnel	Shri Praween Kumar Pradhan (Geologist),Shri Amit Kumar Tiwari (Mines Manager)
6	Name of the Mine	Samri Bauxite Mine.
7	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area -2146.746 Ha Under Revenue Forest-798.827 Ha Non- forest-1347.919 Ha
8	Mine code	07MPR42005
9	IBM Registration Number under rule 45 of MCDR, 1988	IBM/935/2011
10	Name of the lessee, Address, phone, email and fax number	Registered Office- M/S HINDALCO INDUSTRIES LIMITED, Ahura Center ,1st Floor,B-Wing, Mahakali Caves Road, Andheri (East),Mumbai400093,India, Ph No- 02266525000 Fax No- 02266525801, Email- prateek.kumar@adityabirla.com
	Village	Samri
	Taluka/Mandal	Kusmi
	District	Balrampur
	Pincode	497224
	State	Chhattisgarh
	Post office	Kusmi
11	Nearest police station	Samri
12	Nearest Railway station	Ambikapur
13	Date of Grant of Mining Lease	20/05/1998
14	Date of Execution	24/06/1998
15	Date of opening of Mine	25.05.1999
16	Weekly day of rest	Sunday
17	Date of first Renewal, if applicable and its period & expiry	First Renewal Date: 06.12.2016 Expiry date: 23.6.2048
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri K.N Bhandari, 5, New Power House Road, Sector-7, Jodhpur – 342 004., Phone No. - No - (0291)2620061, Mail ID - knbhandari1942@gmail.com , Date of Appointment – 10.11.2011

19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri V.K.S. Chauhan, Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 9921341888, Date of Appointment – 15.03.2021,Email- hauhan.vijaykumar@adityabirla.com
20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Amit Kumar Tiwari, Hindalco Colony, Post - Kusmi, District-Balrampur, Pin-497224 Mob- 0917771007150, date of Appointment -24.11.15, Total Experience: 16 Years Email- Amit.t@adityabirla.com
21	Name of the Mining Engineer & Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Rishabh Gaurav, Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224, Email- rishabh.gaurav@adityabirla.com , Date of Appointment - 01.08.2020, Total Experience: 5 Years Shri Praween Kumar Pradhan, Hindalco Colony, Post - Kusmi, District-Balrampur, Pin-497224,Email- praween.pradhan@adityabirla.com , Date of Appointment -01.04.2022, Total Experience: 25 Years
22	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	YES
23	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Mining Plan approved vide letter no. SRG/BX/MPLN-379/NGP dated 30.11.1994 for the period from 1999-200 to 2003-04
24	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	1 st Scheme of Mining was approved vide letter no. SRG/BXT/MPLN-385/NGP dated 20.01.20004 for the period from 2004-05 to 2008-09. 2 nd Scheme of Mining was approved vide letter no. 314(3)/2009-MCCM(CZ)/MS-20 dated 31.08.2009 for the period from 2009—10 to 2013-14 3 rd Scheme of Mining was approved vied letter no. SRG/BX/MPLN-385/NGP dated 18.08.2015 for the period from 2014-15 to 2018-19 4 th Scheme of Mining was approved vide letter no. Balrampur/BX/KHYO-1170/2018/Rajpur/1211 for the period from 2019-20 to 2023-24. Modification Review of Mining Plan approved vide letter no. Balrampur/Baux/Khayo-1318/2021/Raipur dated 29.03.2022 for the period from 2022-23 to 2023-2024
25	Mineral(s) granted in lease and	Bauxite

	proved for mining	
26	Method of Mining (Opencast, Underground)	Open cast
27	Category (Fully Mechanized, Others or Manual)	Others
28	Captive/Non-Captive	Captive
29	EC for ROM Prod: Date of Issue:	500000 Tonne DOI: 27.07.2007
30	FA amount Rs Valid up to:	Rs-5,54,72,000 /-Valid up to 31 st March 2024

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

1.0 EXPLORATION

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
1a	Backlog of previous year	361 boreholes Proposed Meterage- 4332 mtrs	369 boreholes Actual Meterage- 3985 mtrs	As per proposal.
1b	Exploration over lease area for Geological axis 1 or 2.	Not specific.	Under G1 Category: 1604.07 Ha G2 Category: 25.84 Ha G3 Category- 37.63 Ha	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NIL	Hindalco Industries Limited.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserves as 01.04. 2023 (million tonnes)	Under (111): Under (122): Under (211): Under (222): Under (333):	18232496 Tonnes 983145 Tonnes 6694300 Tonnes 925169 Tonnes 4825400 Tonne	
1f	General remarks of inspecting officer on geology, exploration etc.	Exploration in form of 369 boreholes have been drilled against proposed boreholes of 361 boreholes during the year 2022-23 at grid interval of 50x50m & total meterage of 3985m. Cumulatively, 4455 boreholes have been drilled with total meterage of 58341 . Exploration in form of boreholes to cover the remaining area under G1 scale exploration have been proposed in draft review of Mining Plan submitted for approval.		

2.0 DEVELOPMENT

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
2a	Location of development lease area w.r.t.	1.E800849-801155, N2591026-2591242 2. E800990-801367 N2593841- 2593991 3. E800650-800877 N2593840- 2594082 4. E798762-798959 N2595877- 2596178 5. E798644-798832 N2596487- 2596772 6. E79815-798327 N2596408- 2597727	1. E800999- 801155, N2591032- 2591167 2. E800976- 801226 N2593852- 2593979 3. E800738- 800875 N2593925- 2594137 4. E798762- 798924 N2595890- 2596071 5. E798607- 798834 N2596488- 2596797 6. E798107- 798317 N2596414- 2596678	As per proposal
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Top Soil- 1 OB- 1 Bauxite- 1	Top Soil- 1 OB- 1 Bauxite- 1	As per proposal.
2c	Stripping ratio or ore to OB ratio	1:1.4	1: 1.10	Stripping ratio is slightly on lower side.
2d	Quantity of topsoil generation in Tonnes	959640	203742.01	Top soil are concurrently speard on backfilled area. (Bulk density of top soil- 1.22)
2e	Quantity of overburden generation in MT	2354715	1057670	Overburden are concurrently backfilled in mined out area.(Bulk density of OB- 1.92)

2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development of quarries are as per proposals in approved Mining Plan. Due to shallow depth of Bauxite mineralisation, the mined out area simultaneously backfilled by generated waste during the mining operations.
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3.0 EXPLOITATION

S.N.	ITEM	PROPOSAL (2022-23)	ACTUAL WORK (2022-23)	REMARK
3a	Number of pits proposed for production	8	6	Due lack of clearance from land owner.
3b	Quantity of mineral production proposed	499788 MT	450950 MT	About 90% production achieved.
3c	Recovery of saleable/usable mineral from production	52%	52%	As per recovery study carried out.
3d	Quantity of mineral reject generation	203469.49 Cu.m	190189.2 Cu.m	Intercalated waste below threshold limit.
3e	Grade of mineral reject generation and threshold value declared	Below threshold value Threshold value: 30% AL ₂ O ₃	Below threshold value Average grade- 23.02% AL ₂ O ₃ Threshold value: 30% AL ₂ O ₃	
3f	Quantity of sub-grade mineral generation	N/A	Nil	
3g	Grade of sub-grade mineral generation	N/A	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	Yes.	Yes	
3k	Provision of mining machineries in mineral benches	Yes	Yes	

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	Not specific.	253.612 Ha	Due to Lack of clearance from land owner.
3n	Ore to OB ratio for the pit/mine during the year	1:1.4	1: 1.10	
3o	Total area put in use under different heads at the end of year	Not specific.	1. Mining- 253.612 Ha 2. Mineral Storage- 0.48 Ha 3. Roads- 0.87 Ha 4. Infrastructure- 2.48 Ha 5. OB/Waste Dump- 1.66 Ha 6. Others- 6.032 Ha 6. Total area put to use- 265.136 Ha	
3p	Production of mineral during last Three -year period, as applicable (tones)	2018-19: 499561 2019-20: 493686 2020-21: 499874 2021-22: 498417 2022-23: 499788	418555 425293 331775 401020 450950	Due to lack of land acquisition.
3q	General remarks of inspecting officer on method of mining etc.	Against proposed working in 8 pits during the year 2022-23, mining operations were carried out in 6 pits due to lack clearances from the land owners. About 90% of proposed production has been achieved during the year 2022-23. Mining operations are carried out as proposed maintaining separate benches for ore and ob. The mined out quarries are backfilled simultaneously. Production during the last five years are on lower side against the proposal due to lack of land acquisition.		

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Nil	Nil	Simultaneous backfilling done. Simultaneous backfilling done in mined out quarry.
b	Location of topsoil, OB & mineral reject dumps	Nil	Nil	
4c	Number of dumps within lease area and outside lease area	Nil	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Nil	Nil	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	2	2	
4g	Number of dumps stabilized	2	2	
4h	Whether Retaining wall or garland drain all along dumps are there	proposed	Yes	
4i	Length of Retaining wall or garland drain all along dump	479	492 mtrs	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer	The waste generated during the process of mining are simultaneously backfilled in mined out quarries. Top soil is spread on backfilled area.		

5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Mined Out: 38.236 Ha Reclaimed:	Mined out: 14.853 Ha Reclaimed: 9.187 Ha	Mined out is on lower side than proposed due to lack land area acquisition. Proportionately, backfilling has

		19.11 Ha		been carried out as proposed.
5b	Area under backfilling of mined out area	19.11 Ha	9.187 Ha	Less area backfilled due to less area being mined out.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Yes. 19.11 Ha.	Yes. 9.187 Ha	Concurrent use of top soil. During 2022-23 total 203742.01 MT quantity is being used.
5d	Total area fully reclaimed & rehabilitated	251.977	214.044 Ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Simultaneous backfilling of mined out quarry are being carried out. During the year 2022-23, against proposed 38.326 ha of mined out land, only 14.853 ha have been mined out due to lack of land area acquisition. Proportionally, backfilling has been carried out as proposed.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	Yes	Annual report on PMCP has been submitted on due date.	Annual return submitted on dated 29.06.2023.
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (ha)	19.11 Ha	9.187 Ha	Due to less area mined out.
	ii) Afforestation done (ha)	12.94 Ha	9.898 Ha	Due to less area available.
	iii) No. of saplings planted during the year	32350	39071	Plantation is on higher

				side.
	iv) Cumulative no. of plants	Nil	358835	
	v) Any other specific method of rehabilitation	Nil	Bio-Park developed on 6 Ha of reclaimed land.	
	vi) Cost incurred on watch & care during the year	Nil	Cost incurred on watch & care during the year: Rs. 69.59 lakhs	
6c	<p>Compliance on reclamation and rehabilitation by backfilling</p> <p>i) Voids available for backfilling (L X B X D)</p> <p>ii) Void filled by waste/tailings</p> <p>iii) Afforestation on the backfilled area</p> <p>iv) Rehabilitation by making water reservoir</p> <p>v) Any other specific means</p>	<p>1.Void available for Backfilling: 19.11 Ha</p> <p>2.Void filled by Waste/Tailing: NA</p> <p>3.Afforestation on the backfilled area: 12.94 Ha</p> <p>4.Rehabilitation by Making water reservoir: NIL</p> <p>5.Any other Specific means: NIL</p>	<p>1.Void available for Backfilling: 9.187 Ha</p> <p>2.Void filled by Waste/Tailing: NA</p> <p>3.Afforestation on the backfilled area: 9.898 Ha</p> <p>4.Rehabilitation by Making water reservoir: 1.32 Ha</p> <p>5.Any other Specific means: 6 Ha area has been</p>	Backfilling has been carried out on less area than proposed due to less area mined out available due to lack of land area acquisition.

			converted into a bio-park	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	NIL	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proper Monitoring	Complied PM 10 and PM 2.5 is within permissible limit	Proper Monitoring
6f	General remarks of inspecting officer on PMCP compliance & progressive	Simultaneous backfilling of mined out quarry is carried out as proposed. During the year 2022-23, against proposed void of 19.11 ha for rehabilitation, rehabilitation work has been carried on 9.187 ha due to lack land area acquisition. During the year 2022-23, afforestation has been carried out on 9.898 ha and additionally, bio park has been developed on 6ha area.		

7.0 MINERAL CONSERVATION

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed	Manual sorting Done as proposed.	
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	NA	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Manual sorting of run of mine ore is carried out within the mining lease area as proposed.		

8.0 ENVIRONMENT

SN	ITEM	PROPOSALS (2022-23)	ACTUAL WORK (2022-23)	REMARKS
8a	Separate removal and utilization of topsoil (Rule 32)	975634	203742.01	561 plants planted outside lease area
8b	Concurrent use or storage of topsoil	975634	203742.01	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Nil	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Simultaneously backfilling of the mined out area by the use of overburden, waste for restoring the land to its original use.	Simultaneously backfilling of the mined out area by the use of overburden, waste for restoring the land to its original use.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	19.11 Ha	9.187 Ha	
8f	Baseline information on existence of plantation & additional plantation done	Afforestation on the backfilled	Afforestation on the backfilled	

	(Rule 41)	area: 12.94 Ha Number of Sapling:- 32350	area: 9.898 Ha Number of Sapling:- 39071	
8g	Survival rate	80%	83.4%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	Dedicated tanker for water sprinkling
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	The general aesthetic beauty of the area is maintained. The mined out area is backfilled simultaneously. Although, mined out area is on lower side due to lack land acquisition, plantation is on higher side than proposed.		

9.0 COMPLIANCE OF RULE 45

S. N.	Item	Details Given in A.R.	Observation of I/Officer	Remarks
9 a	Status of submission of monthly and Annual returns	Monthly Returns submitted up to – Sep, 2023, Annual Return submitted up to -2022-23 submitted on 29.06.2023.	Submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	As per annual return Manager : Shri Amit Tiwary Mining Engineer : Shri KK Singh Geologist : Shri Praween Kr Pradhan	Officials were present during the inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Open cast mining: 253.612 Ha. Area under current working pit: 8.392 Ha. Reclaimed area: 214.044 Ha	Appears to be correct.	

		Occupied by plant, building and roads: 3.352 Ha Waste Disposal: 1.66 Ha Work done under PMCP during the year: 20.406 Ha																							
9d	Scrutiny of Annual return on afforestation	Number of Saplings: 39071 Survival rate: 83.4%	More than proposed.																						
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	NIL																							
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock: 0 Tonne Bauxite Production: 450950 Tonnes Closing Stock: 0 Tonne	No stock observed during the visit.																						
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price: Rs 1246.17/MT Cost of Production: Rs. 1246.17	Appears to be correct.																						
9i	Scrutiny of Annual return on fixed assets	As per annual return the fixed asset is Rs 76004699/-	-do-																						
9k	Scrutiny of Annual return on mining machineries	<table border="1"> <thead> <tr> <th>Type of machinery</th> <th>Capacity of each unit</th> <th>No. of units</th> </tr> </thead> <tbody> <tr> <td>SHOVEL (HYDRAULIC)</td> <td>0.9 CUM</td> <td>6</td> </tr> <tr> <td>SHOVEL (HYDRAULIC)</td> <td>1.4 CUM</td> <td>2</td> </tr> <tr> <td>SHOVEL (HYDRAULIC)</td> <td>2.69 CUM</td> <td>1</td> </tr> <tr> <td>AIR COMPRESSOR</td> <td>9.06 CUM/MIN</td> <td>1</td> </tr> <tr> <td>AIR COMPRESSOR</td> <td>8.49 CUM/MIN</td> <td>1</td> </tr> <tr> <td>BLAST HOLE</td> <td>100 MM</td> <td>2</td> </tr> </tbody> </table>	Type of machinery	Capacity of each unit	No. of units	SHOVEL (HYDRAULIC)	0.9 CUM	6	SHOVEL (HYDRAULIC)	1.4 CUM	2	SHOVEL (HYDRAULIC)	2.69 CUM	1	AIR COMPRESSOR	9.06 CUM/MIN	1	AIR COMPRESSOR	8.49 CUM/MIN	1	BLAST HOLE	100 MM	2	Found in operation during the visit.	
Type of machinery	Capacity of each unit	No. of units																							
SHOVEL (HYDRAULIC)	0.9 CUM	6																							
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BLAST HOLE	100 MM	2																							

		DRILL				
		DUMPER	25 TONN ES	18		
		WHEEL LOADER	1.7 CUM	2		
		WATER TANKER	12000 LITRE S	1		
		Type of machinery	Capaci ty of each unit	No. of unit s		
		SHOVEL (HYDRAU LIC)	0.9 CUM	6		
		SHOVEL (HYDRAU LIC)	1.4 CUM	2		
		SHOVEL (HYDRAU LIC)	2.69 CUM	1		
		AIR COMPRES SOR	9.06 CUM/ MIN	1		
		AIR COMPRES SOR	8.49 CUM/ MIN	1		
		BLAST HOLE DRILL	100 MM	2		
		DUMPER	25 TONN ES	18		
		WHEEL LOADER	1.7 CUM	2		

10- Details of violations observed during current inspection and compliance position of earlier violation

During the previous inspection dated 12.03.2022, no violation was pointed.

During the current inspection, no serious violation was observed.

Date:

(Debadurllav Dash)

Regional Mining Geologist

