

MCDR INSPECTION REPORT**1.0 GENERAL**

SN	Particulars	Details
1	Name of inspecting office & designation	Rajesh Kumar Das Sr. ACOM Indian Bureau of Mines, Raipur
2	Accompanying Mine Official with Designation	Shri Rajesh Ambastha(Agent Mines), Shri Dilip Ray (Mines Manager)
3	Date of inspection	12/2/2020
4	Name of the Mine	Kudag Bauxite Mine
5	Total Lease Area (Ha) with breakup of Non-forest and forest land	377.116 Ha Under Non-forest-253.007 Ha Under forest-124.109 Ha
6	Mine Code	07MPR42004
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/935/2011
8	Name of the lessee, Address, phone, email and fax number	Registered Office- M/S HINDALCO INDUSTRIES LIMITED Ahura Center ,1 st Floor,B-Wing,Mahakali Caves Road, Andheri (East),Mumbai400093,India Phn No- 02266525000 Fax No- 02266525801 Email- bijeh.jha@adityabirla.com
9	Village	Kudag
10	Taluka / Mandal / District	Balrampur
11	State	Chhattisgarh
12	Post office & PIN	Samripat &497222
13	Nearest police station	Samri
14	Nearest Railway station	Ambikapur
15	Date of Grant of Mining Lease	23/10/1996
16	Date of Execution	24.12.1996
17	Date of opening of Mine	02.07.1997
18	Date of first Renewal, if applicable and its period & expiry	Lease period Extended up to 23/12/2046.
19	Date of second Renewal, if applicable and its period & expiry	Nil
20	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Nil
21	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

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22	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri R R P Ambastha Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09617779285 Date of Appointment —10.08.2018 Email-rajesh.ambastha@adityabirla.com
23	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Dilip Kumar Ray BE in Mining Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09825479772 Date of Appointment –01.02.2020 Email-dilip.ray@adityabirla.com

24	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Yogendra Kumar Lilhare BE in Mining Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Mob- 09825479772 Date of Appointment –02.09.2019 Email-dilip.ray@adityabirla.com
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56&57.	Shri Saptrishi Sengupta Education qualification -M.Sc in Applied Geology from Indian Institute of Engineering Science and Technology(IEST), Shivpur Hindalco Colony, Post -Kusmi, District-Balrampur, Pin-497224 Email- saptarishi.s@adityabirla.com
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Modification in Approved Mining Plan,31/8/2016 SAR/BX/Khyo-383/Nag/2016/25-Raipur for the period 2017-18 to 2021-22
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
28	Mineral(s) granted in lease and proved for mining	Bauxite
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	Semi-mechanised
31	Captive/Non Captive	Captive
32	Existing EC Limit and validity	0.6 LPA and 23/12/2046
33	Status of Financial Assurance as per rule 27 of MCDR, 2017	Financial Assurance in the form of bank Guarantee for Rs. 547850/- (Rupees Five Lakh Seven Thousand Eight Hundred Fifty Only) has submitted at Regional

	Controller of Mines, Raipur.
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Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

1.0 Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for Geological axis 1 or 2.	G1 Detailed exploration: Nil G2 General Exploration: Nil	G1 Detailed exploration: Nil G2 General Exploration: Nil	Already explored under G1 category:112.38 Ha G2 General Exploration: 208.56 Ha
1c	Exploration Agency &Expenditure in lakh Rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserves as on 31.03.2019 (in Million Tonnes)	Under (111): 498855Tonnes Under (122): 1289671Tonnes	Under (111): 505142 Tonnes Under (122): 1289671Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	The bauxite characteristics of this area are massive, sometimes pisolitic hard and compact but shallow deposit. Broadly the area explored in G1 & G2 and approximately 50 ha area still to explored as reported un approachable due to nala, slope,etc.		

2.0 Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area (Range in UTM/Local Coordinate/Plot No./Location)	2598104N – 2598405N &804139.4 E to 804335.8 E	2598220N- 2598309N,804280E- 804399E 2597617N - 2597779N,802925E- 803106E	
2b	Separate benches in topsoil, overburden and mineral (Rule 13)	No of Benches :1 OB: 6 meter Ore: 3 meter	No of Benches :1 OB: 2 meter Ore: 2.5 meter	
2c	Stripping ratio or ore to OB ratio	1:0.49	1:0.71	
2d	Quantity of topsoil generation in m3	92420	18780	
2e	Quantity of overburden	122613	56340	

	generation in m3		
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development is not as per proposal and site deviation observed as mentioned above.	

3.0 Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	2	
3b	Quantity of ROM mineral production proposed	121177 Tonnes	55915 Tonnes	
3c	Recovery of salable/usable mineral from ROM production	49%	100%	
3d	Quantity of mineral reject generation	0	0	
3e	Grade of mineral reject generation and threshold value declared	0	0	
3f	Quantity of sub-grade mineral generation	0	0	
3g	Grade of sub-grade mineral generation	0	0	
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 OB-6 meter BXT: (3.00-3.5) meter	Yes OB-2 meter ORE-2.5 meter	
3m	Total area covered under excavation/pits	2.71 Ha	2.05 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1:0.48	1:0.71	
3o	Total area put in use under different heads at the end of year	2.71	2.05	

3p	Production of ROM mineral during last five-year period, as applicable (in Tonnes)	Yr- 2014-15: 108047 Tonnes Yr- 2015-16: 104557 Tonnes Yr- 2016-17: 112637 Tonnes Yr- 2017-18: 119,896 Tonnes Yr- 2018-19: 121177 Tonnes	Yr- 2014-15: 94201 Tonnes Yr- 2015-16: 101977 Tonnes Yr- 2016-17: 115469 Tonnes Yr- 2017-18: 88591 Tonnes Yr- 2018-19: 55915 Tonnes	
3q	General remarks of inspecting officer on method of mining etc.	The method of mining is broadly as per proposal, opencast using dumper-Shovel combination. The blasting is done deep hole drilling blasting using 100 mm diameter hole wagon drill.		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37)	Nil	Nil	Used for backfilling
4b	Location of topsoil, OB & mineral reject dumps (Range in UTM/Local Coordinate/Plot No./Location)	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 14)	Nil	Nil	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Nil	Nil	
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer	As the mining is of shallow depth therefore subsequent use of waste & top soil for backfilling.		

5.0 Solid Waste Management-Backfilling

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before	0.92 Ha	0.38 Ha	

	starting backfilling			
5b	Area under backfilling of mined out area	2.71 Ha	2.050 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	Yes 3.03 Ha Backfill the mined out area simultaneously by using overburden, waste rock, rejects etc.	Yes 2.366 Ha Backfill the mined out area simultaneously by using overburden, waste rock, rejects etc.	
5d	Total area fully reclaimed & rehabilitated as on Date	67.83 Ha (31.3.2019)	64.933 Ha (31.03.2019)	
5e	General remarks of inspecting officer on backfilling, reclamation etc	As the mining is of shallow depth therefore subsequent use of waste & top soil for backfilling and as mentioned above there is deviation of excavation therefore deviation on backfilling observed.		

6.0 Progressive Mine Closure Plan

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23. Details should be given in the format as given in Annexure-20.	-	Annual report on PMCP has been submitted on due time	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Nil	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the	1. Void available for Backfilling (L X B X D) pit wise/ stope wise:- 2.71 Ha 2.) Void filled by waste/tailings: 3.03 Ha 3. Afforestation on the	1. Void available for Backfilling (L X B X D) pit wise/ stope wise:- 2.050 Ha 2.) Void filled by waste/tailings:2.366 Ha 3. Afforestation on	

	backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	backfilled area-1.061 Ha iv) Rehabilitation by making water reservoir - Nil v) Any other specific means- Nil	the backfilled area- 1.11 Ha iv) Rehabilitation by making water reservoir - Nil v) Any other specific means- Nil	
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)	Complied	Complied	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Nil		

7.0 Mineral Conservation

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	NA	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	NA	NA	
7d	Any beneficiation process at mines	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The low grade is blend with high grade to get the desire grade and no sub grade reported nor stacked in mine.		

8.0 Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 36)	92420 Cum	18780 Cum	
8b	Concurrent use or storage of topsoil	92420 Cum	18780 Cum	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Yes	Yes	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfill the mined out area simultaneously by using overburden, waste rock, rejects etc.	Backfill the mined out area simultaneously by using overburden, waste rock, rejects etc.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	3.03 Ha	2.366 Ha	
8f	Baseline information on existence of plantation & additional plantation done (Rule 44)	During current planning period (2018-2019): Afforestation: 1.061 Ha Total plantation:2652	During current planning period (2018-2019): Afforestation: 1.11 Ha Total plantation:2780	
8g	Survival rate (percent)	73%	75%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	The mining activity is on very small scale and shallow depth mining with concurrent backfilling therefore no adverse impact observed during mine visit.		

9.0 Compliance of Rule 45

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto–Feb 2020 A.R. submitted upto-Year 18-19	

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri R R Parmar, Mine Manager & Mining Engineer, Shri Kapil Ojha, Geologist	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under mining 8.033 ha., Reclaimed and rehabilitated 64.933 ha. Reported, waste disposal 1.587 ha., Infrastructure 3.0 ha.	Wasted disposal is temporary and the waste is used for backfilling.	
9d	Scrutiny of Annual return on Afforestation	2780 nos saplings		

9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	ROM production is equal to ore production reported	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded ore 955.27 tons		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-mine price for 40-45% Al ₂ O ₃ is Rs 1044.56 & for 45% Al ₂ O ₃ is Rs 1102.30/- , Cost of production is Rs 1050.55/-		
9i	Scrutiny of Annual return on fixed assets	Yes given	Combined for 3 mines	
9k	Scrutiny of Annual return on mining machineries	Yes	Shovel=0.9 cum bucket capacity, Drill m/c 100 diameter, Dumper 25 tons capacity, Wheel Loader 1.48 cum capacity, water tanker 12KL	

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:- The earlier violation taken compliance and during present inspection the following violation pointed out:

Rule	Nature of Violation observed
11(1)	<p>Mining operations should have been undertaken in accordance with the approved Mining Plan. The Modified Mining Plan was approved vide letter no सर / बॉक्स /खयो-383/नाग/2016/25-रायपुर dated 31.08.2016 and following deviation was observed during inspection</p> <ol style="list-style-type: none"> 1. The working is proposed in single pit but working has been done in two pits.. 2. The excavation is not as per proposal and proposal is given between grid 2598104N –2598405N & 804139.4 E to 804335.8 E but actual working is done in two areas between grid 2598220N-2598309N, 804280E-804399E & 2597617N -2597779N, 802925E-803106E 3. As the excavation not done as per proposal therefore the backfilling was also not done as per proposal. 4. During 2018-19 26870 cum mineral reject generation proposed against which nil generation reported.

(Rajesh Kumar Das, Senior Assistant Controller of Mines)