

NDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION
MCDR INSPECTION REPORT
Ranchi Regional Office

Mine file No: MCDR-MiFLOBXT/2/2022-RCH-IBM_EZ

Mine code: 30BHR27024

Date of Inspection: 12.09.2024

1.0 GENERAL

SN	Particulars	Details
1	Name of the Mine	Pakhar Bauxite Mines (109.507 Ha.)
2	Total Lease Area (Ha) with breakup of non-forest and forest land	Non-forest land-109.507 Ha.
3	Mine Code	07JHK12012
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/961/2011
5	Name of the lessee, Address, phone, e-mail and fax number	Minerals & Minerals Ltd. At & P.O. - Court Road, Lohardaga Dist. Lohardaga, Jharkhand -835 302,Phone - 06526-224015, 224016, 224446 Fax-06526-24112 Email: bijesh.jha@adityabirla.com
6	Village	Pakhar
7	Taluka/Mandal	Kisko
8	District	Lohardaga
9	Pin-code	835302
10	State	Jharkhand
11	Post office	Nari Nawadih
12	Nearest police station	Kisko
13	Nearest Railway station	Lohardaga
14	Date of Grant of Mining Lease	22.04.2008
15	Date of Execution	16.05.2008 (up to 15-05-2058)
16	Date of opening of Mine	16.05.2008
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Bijesh Kumar Jha, M/s. Minerals & Minerals Limited, Court Road Lohardaga, Lohardaga;Fax No. 06526224118; Phone: 06526224016 Email: bijesh.jha@adityabirla.com Date of appointment: 30.07.2018
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Prateek Kumar, M/S Hindalco Industries Ltd, courtroad, Lohardaga, Jharkhand Fax No.- 06526224118 ;Phone: 06526224016 Email:- prateek.kumar@adityabirla.com Date of appointment: 04.08.2022
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Kiran Shankar Singh, M/S Minerals & Minerals Limited, Court Road Lohardaga, Lohardaga ;Fax No. 06526224118;Phone : 9470590791 Email: kiran.singh@adityabirla.com Date of appointment: 18.01.2019
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Kiran Shankar Singh, M/S Minerals & Minerals Limited, Court Road Lohardaga, Lohardaga; Fax No. 06526224118;Phone :9470590791 Email: kiran.singh@adityabirla.com Date of appointment: 18.01.2019
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as	Yes Name: Tapas Kumar Gachhayat

SN	Particulars	Details
	per rule 43 & 44.	Email: tapas.gachhayat@adityabirla.com Phone No.- +91 9131107103; DOJ: 29.06.2022
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	18.10.2023
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanized
30	Captive/Non-Captive	Captive

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

Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	No proposal in reporting year
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	Nil	No proposal in reporting year
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Nil	No proposal in reporting year
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	No proposal in reporting year
1e	Balance reserves as on 01.04.2024	26,96,267.00 MT	21,74,759.00 MT	ok
1f	General remarks of inspecting officer on geology, exploration etc.	No proposal of exploratory drilling for the reporting year		

2.0 DEVELOPMENT

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	1. K-5: E 257407.88 - N 2607992.24 2. K-10: E- 257297.5992- N- 2606942.59 3. K-7: E:- 256543.94 - N - 2607240.68	4. K-5: E 257407.88 - N 2607992.24 5. K-10: E- 257297.5992- N- 2606942.59 6. K-7: E: 256543.94 N- 2607240.68	ok
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes Soil - 1Benches (RL- 1068) Laterite - 1 Benches(RL 1061.176) Bauxite - 1 Benches (RL- 1055.053)	Yes Soil - 1Benches(RL- 1068) Laterite - 1 Benches (RL -1061.176) Bauxite - 1 Benches (RL-1055.053)	Separate benches found
2c	Stripping ratio or ore to OB ratio	1:2.18	1:4.37	As per furnished records.
2d	Quantity of topsoil generation in m ³	160250	3,24,368.28	As per furnished records.
2e	Quantity of overburden generation in m ³	179450.51	742228.99	Including Top soil quantity
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Satisfactory work has been done by the mining lessee.		

3.0 EXPLOITATION

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	2 (Quarry-5, Quarry-7)	2 (Quarry-5, Quarry-7)	As per Plan
3b	Quantity of ROM mineral production proposed	278711 MT	2,43,976 MT	Within the proposal.
3c	Recovery of saleable/usable mineral from ROM production	80%	80%	Within the proposal.
3d	Quantity of mineral reject generation	69677.00	NIL	Rejects are used for concurrent backfilling
3e	Grade of mineral reject generation and threshold value declared	Threshold value Al ₂ O ₃ % : 30% & SiO ₂ %;=<7% Below 30%AL ₂ O ₃ & Above 7% SiO ₂	Threshold value Al ₂ O ₃ % : 30% & SiO ₂ %;=<7%	Within the proposal.
3f	Quantity of sub-grade mineral generation	Nil	Nil	Within the proposal.
3g	Grade of sub-grade mineral generation	Nil	Nil	Within the proposal.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Within the proposal.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	NIL	NIL	No analysis was proposed in approved RoMP.
3j	Provision of drilling & blasting in mineral benches	Deep Hole Drilling Dia: - 100 mm Depth: 6.6 m Spacing: 3 m Burden: 2.5 m Explosive: ANFO, Aluminized gelled slurry explosive	Deep Hole Drilling Dia: - 100 mm Depth: 3.2 m Spacing: 3 m Burden: 2.5 m Explosive: ANFO, Aluminized gelled slurry explosive .61472kg	As per approved RoMP& found satisfactory.
3k	Provision of mining machineries in mineral benches	Shovel (1.9 m ³) & Dumper (25T) Combination	Shovel (1.9 m ³) & Dumper (25 T) Combination	As per approved RoMP & found satisfactory.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height- 6 m	Height of benches suitable for method of mining as proposed in mining plan, Bench Height- 6 m	As per approved RoMP& found satisfactory.
3m	Total area covered under excavation/ pits	Q-K5= 2.9 Ha Q-K7= 0.558 Ha Q-K10= 2.414 Ha Total area- 5.87 Ha	Q-K5= 2.9 Ha Q-K7= 0.558 Ha Ha Q-K10= 2.414 Ha Ha Total area- 5.87 Ha	Found ok.
3n	Ore to OB ratio for the pit/mine during the year	1 : 2.18	1:4.37	Within the proposal.
3o	Total area put in use under different heads at the end of year	Pit: 22.98 ha Dump: 1.13 ha Mineral Storage: 3.70 Ha. Roads: 2.91 ha. Topsoil: .NIL. Infrastructure: 0.35 ha Total: 31.07 ha	Pit: 22.98 ha Dump: 1.13 ha Mineral Storage: 3.70 Ha. Roads: 2.91 ha. Topsoil : .NIL Infrastructure: 0.35 ha Total: 31.07 ha	As per approved RoMP & found satisfactory.
3p	Production of ROM mineral during last five-year period, as applicable	2019-2020 : 278144 2020-2021 : 279531 2021-2022 : 279710 2022-2023 : 277391 2023-2024 : 349493.28	2019-2020 : 240100 2020-2021 : 239000 2021-2022 : 212450 2022-2023 : 272500 2023-2024 : 243976	Within the proposal. As on 31.08.24: 123127.00MT

3q	General remarks of inspecting officer on method of mining etc.	Satisfactory work has been done by the mining lessee.
----	--	---

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Nil	Nil	Concurrent use for backfilling and reclamation
4b	Location of topsoil, OB & mineral reject dumps	Nil	Nil	No proposal envisaged in the approved document.
4c	Number of dumps within lease area and outside lease	Nil	Nil	No proposal envisaged in the approved document.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NIL	Nil	No proposal envisaged in the approved document.
4e	Number of active & alive dumps	Nil	Nil	No proposal envisaged in the approved document.
4f	Number of dead dumps	Nil	Nil	No proposal envisaged in the approved document.
4g	Number of dumps stabilised	2 Nos.	2 Nos.	Old Stabilized Dump. Near k10 OB Dumps: N 23°33'10.649" - N 23°33'13.560" E84°37'22.814 - E84°37'27.200 Soil Dump: N 23°33'13.160 - N23°33'16.528 E84°37'22.427" - E84°37'26.052"
4h	Whether Retaining wall or garland drain all along dumps	Nil	Nil	As per approved proposal.
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	Old garland drain re-cleaned location N 2606686 , E256895 to N2607457 , E 257717
4j	Number of settling ponds	Nil	Nil	As per approved proposal.
4k	Specific comments of inspecting officer	No proposal envisaged in the mining plan in relation to solid waste management-dumping		

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 starting backfilling	Quantity : 349493.28 MT K-5: E 257407.88 - N 2607992.24 K-10: E- 257297.5992- N- 2606942.59 K-7: E:- 256543.94 - N - 2607240.68	Quantity : 243976 MT K-5: E 257407.88 - N 2607992.24 K-10: E- 257297.5992- N- 2606942.59 K-7: E:- 256543.94 - N - 2607240.68	ok
5b	Area under backfilling of mined out area	Q-K5= 1.53 Ha Q-K7= 1.41 Ha	Q-K5= 0.179 Ha Q-K7= 1.41 Ha	Less area has been backfilled than planned.

SN	Item	Proposals	Actual work	Remarks
		Total Area : 2.94 Ha.	Total Area : 1.58Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Concurrent use proposed	Concurrent use	13456.m ³ of topsoil utilised in plantation.
5d	Total area fully reclaimed & rehabilitated	Q-K5= 1.53 Ha Q-K7= 1.41 Ha Total Area : 2.94 Ha.	Q-K5= 0.179 Ha Q-K7= 1.41 Ha Total Area : 1.58Ha.	Less area reclaimed than planned.
5e	General remarks of inspecting officer on backfilling, reclamation etc	Area under backfilling of mined out area has not been done as per the proposal envisaged in the mining plan.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	Item	Proposals	Actual work	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.	To be submitted by 30 th June	Yes, submitted along with Annual Return on 29 th June 2024	As per Rule.
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	i) 0.87 Ha ii) 0.87 Ha. iii) 2175 iv) NA v) Plantation vi) NA.	i) 0.87 Ha ii) 0.87 Ha. iii) 4350 iv) 27396 Nos v) Plantation vi) Rs. 3,21,522	Within the approval proposal.
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 backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Voids available for backfilling: Backfilling Area: Quarry K5 263.55*52*12.95 ii) Void filled by waste/tailings: Quarry - K7 iii) 2.14 ha iv) NA v) NA Total Backfill area: 17.43 ha Backfilling volume: 1.072 m ³	i) Voids available for backfilling: Backfilling Area : Quarry K5 263.55*52*12.95 ii) Void filled by waste/tailings: Quarry - K7 iii) 2.14 ha iv) NA v) NA Total Backfill area: 17.42 ha Backfilled volume: 1.035 m ³	Slight Variation in proposal. Otherwise Within the approval proposal.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Afforestation: 2175Nos. ii) Area rehabilitated (ha): 0.87 Ha. iii) Method of rehabilitation: Plantation	i) Afforestation: 4350 Nos. ii) Area rehabilitated (ha): 0.87 Ha. iii) Method of rehabilitation: Plantation	Found Satisfactory.
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Half Yearly reporting Noise survey: Half Yearly reporting Reporting	Air quality monitoring: Monthly reporting Surface Water quality monitoring: Half Yearly reporting Noise survey: Half Yearly reporting Reporting	ok
6f	General remarks of inspecting officer on PMCP compliance & progressive	Satisfactory work has been done in the area of PMCP compliance.		

7.0 MINERAL CONSERVATION

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes 278710.00	Yes, 243976.00	Within the approved proposal.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No grade wise sorting is proposed. Size-wise Manual sorting proposed.	No grade wise sorting is being done. Size-wise Manual sorting is being done.	No grade wise sorting is being done. Size-wise mechanical sorting is being done.
7c	Different grade of mineral sorted out at mines	Not Applicable	Not Applicable	Not done
7d	Any beneficiation process at mines	Nil	Nil	No proposal envisaged
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Satisfactory work has been done by lessee Mineral conservation & beneficiation compliance		

8.0 ENVIRONMENT

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and concurrently spread over back filled area 160250 m ³	Separate removal and concurrently spread over back filled area 324368.28 m ³	No stacking done in the period 2023-24.
8b	Concurrent use or storage of topsoil	Concurrent use & Storage Proposed	Concurrent usage of topsoil for plantation within mines	13456 m ³ of topsoil was utilized in concurrent plantation.
8c	Separate dumps for overburden, waste rock, reject and fines (Rule 33)	Nil	Nil	As per the approved Proposal
8d	Use of overburden, waste rock, reject and fines dumps for restoring the land to its original use	Concurrent use of overburden, waste rock, rejects for restoring the land to its original use	Concurrent use of overburden, waste rock, rejects for restoring the land to its original use	1053141.27 M ³ of waste/OB was used for backfilling over an area of 1.58ha.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	K-5: E 257407.88 - N 2607992.24 K-10: E- 257297.5992- N- 2606942.59 K-7: E:- 256543.94 - N - 2607240.68	K-5: E 257407.88 - N 2607992.24 K-10: E- 257297.5992- N- 2606942.59 K-7: E:- 256543.94 - N - 2607240.68	ok
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Area proposed for plantation: 2.66 ha. No. of saplings to be planted:2175 Nos.	Area under plantation: 2.14ha No. of saplings planted: 4350 Nos.	Previous Area under plantation: 6.00Ha Previous No. of plants within the lease area: 3586 Cumulative area under plantation: 11.88 ha Cumulative np. Of plants within the lease: 27396
8g	Survival rate	70%	70%	Satisfactory work done
8h	Water sprinkling on roads to control airborne dust	Proposed	Being done using mobile water tankers and fixed water sprinklers	As per the approved Proposal
8i	General remarks of inspecting officer on aesthetic beauty in and around mines	Haul roads in the mines were in the horrible condition leading to safety threats. This may lead to damage to hauling assets.		

9.0 COMPLIANCE OF RULE 45

SN	Item	COMMENTS	Remarks
9a	Status of submission of	Monthly Return submitted up to: August-2024	Within time

	Monthly and Annual returns	Annual Return submitted for FY 2023-2024		
SN	Item	Details given in A.R.	Observation of I/O	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Mr. Kiran Shankar Singh Geologist: Mr. Tapas Gachhayat Manager: Mr. Kiran Shankar Singh	Mining Engineer: Mr. Kiran Shankar Singh Geologist: Mr. Tapas Gachhayat Manager: Mr. Kiran Shankar Singh	Found ok with records.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 2.94ha Dump: 0.58 ha Mineral Storage: 3.70 Ha. Roads: 2.91 ha. Topsoil : NIL Infrastructure: 0.35 ha Total: 30.52	Pit: 2.94 ha Dump: 0.58 ha Mineral Storage: 3.70 Ha. Roads: 2.91 ha. Topsoil : .NIL Infrastructure: 0.35 ha Total: 30.52	Found ok with records.
9d	Scrutiny of Annual return on afforestation	0.87Ha	0.87Ha	Found ok with records.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	NIL	NIL	Found ok with records.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock- 208.39(below 40) 11894.84(40 to 45) Production- 243976MT Closing Stock- 32084.3(40-45) 122.05(below 40) Products: Al₂O₃ : 40% to 45%	Opening Stock- 208.39(below 40) 11894.84(40 to 45) Production- 243976MT Closing Stock- 32084.3(40-45) 122.05(below 40) Products: Al₂O₃ : 40% to 45%	Found ok with records.
below 9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Below 40% Al ₂ O ₃ :- Ex-mine price: ₹ 1283.00 40% to below 45% Al ₂ O ₃ :- Ex-mine cost: 1291.92	Below 40% Al ₂ O ₃ :- Ex-mine price: ₹ 1283.00 40% to below 45% Al ₂ O ₃ :- Ex-mine cost: 1291.92	Found ok with records.
9j	Scrutiny of Annual return on fixed assets	196048994	196048994	Certified by Chartered Accountant Found ok with records.
9k	Scrutiny of Annual return on mining machineries	1.Shovel- 4 2. Dumper- 9 3.Rock Drill- 2 4. Loader -1 5. Dozer-0 6. Grader-0 7. Water Tanker-1 8. Crane-0	1.Shovel- 4 2. Dumper- 9 3.Rock Drill- 2 4. Loader -1 5. Dozer-0 6. Grader-0 7. Water Tanker-1 8. Crane-0	Found ok with records.

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

- Earlier pointed out violation: 1; Rule-45,11(1) dated-3/10/2023, complied.
- Violation pointed out in the current inspection are as under:
 - Rule 11(1): a. The benches have not been developed as envisaged in the approved Mining plan document. Bench height of approximately 12 meters has been seen in the quarry-K5.
 - b. Surface plan has not been updated. Many of the surface features viz. electric line, civil structure has not been shown in the surface plan.

- c. Surface geological plan has not been prepared and updated correctly. Surface geological plan and section submitted to this office was also found incorrect. Working section (B-B2) has not been shown.
- d. Reclamation work has not been done as per the proposal envisaged in the approved review of Mining plan document for Quarry -K5. However, it has been shown wrongly as completed in the surface plan and other related plans.
- e. Poor haul roads condition was observed during course of inspection wherein the plying dumpers were moving in the high-risk conditions. This is considered as an overall gross violation of Rule 11(1).

(Vikas Kumar),
Asst. Controller of Mines,
Indian Bureau of Mines- Ranchi