

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

**Mining Plan Modification REPORT**

**Ranchi regional office**

**Mine file No :** JHK/LOH/BX/255/RRO

**Mine code :** 07JHK12012

- (i) Name of the Inspecting : **K001** ) **B.L. KISKU**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri Kiran Shankar Singh, Manager, Sri Ramesh Kumar, Geo  
Official with  
Designation
- (iv) Date of Inspection : 23/08/2023
- (v) Prev.inspection date : 07/04/2022

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **PAKHAR BAUXITE MINE109.50**
- (b) **Registration NO.** : **IBM/961/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address  
State : JHARKHAND  
District : LOHARDAGA  
Village : PAKHAR  
Taluka : KISKO  
Post office : NARI-NAWADIH  
Pin Code : 835302  
FAX No. : 06526-224118  
E-mail : bijesh.jha@adityabirla.com  
Phone : 06526-224112, 224015, 22311
- (f) Police Station : KISKO
- (g) First opening date : 18/08/2011
- (h) Weekly day of rest : SUN
2. Address for : VILL.- PAKHAR  
correspondance : P.O.- KISKO, DISTT.- LOHARDAGA,  
JHARKHAND-835302
3. (a) Lease Number : BHR0271
- (b) Lease area : 109.51
- (c) Period of lease : 50
- (d) Date of Expiry : 25/07/2058
4. Mineral worked : BAUXITE Main

## 5. Name and Address of the

Lessee : MINERALS & MINERALS LTD.  
 AT/PO-LOHARDAGA DIST-  
 LOHARDAGA JHARKHAND  
 LOHARDAGA JHARKHAND  
 Phone:06526-224016  
 FAX :06526-224118

Owner : BIJESH KUMAR JHA  
 Minerals&Minerals Ltd. At &  
 P.O. Lohardaga Jharkhand  
 LOHARDAGA JHARKHAND  
 Phone:  
 FAX : 06526224016

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

## Mining Engineer

Name : SHRI KIRAN SHANKAR SINGH,Full Time  
 Qualification : B.E.(Mining)  
 Appointment/ : 15/04/2019  
 Termination date

## Geologist

Name : RAMESH KUMAR,Full Time  
 Qualification : MSc.(GEO)  
 Appointment/ : 10/10/2017  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	23/04/2008
Plan/Scheme of Mining		MP modif under MCR 1960	23/05/2016
		MP review under 17(1) MCR 2016	27/07/2020
		MP modif under 17(3) MCR 2016	16/11/2020
		MP modif under 17(3) MCR 2016	11/05/2022

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	N.A.	N.A.	Nil
1b	Exploration over lease area for geological axis 1 or 2	G-1	G-1	Entire area already explored.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	N.A.	N.A.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	N.A.	N.A.	Nil
1e	Balance reserve as on 01/04/20	N.A.	As on 01.04.2022: - 111- 2414767 MT & 221- 397249 MT	Category- 121 have been converted to category - 111 after exploration in 50mX50m grid interval.
1f	General remarks of inspecting officers on geology, exploration etc	N.A.	N.A.	Category- 121 have been converted to category - 111 after exploration in 50mX50m grid interval.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N-2607940 to N-2608109 and E-257316 to E-257499	N-2607910 to N-2608109 and E-257400 to E-257499	As per approved plan.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes. Separate bench in top soil O.B. and in Ore is made.	As per approved plan.
2c	Stripping ratio or ore to OB ratio	1:0.97	1:0.43	Nil
2d	Quantity of topsoil generation in m3	80748 m3	122000 m3	Top soil generated is more due to development is in new location as per modified mining plan.

2e	Quantity of overburden generation in m3	86998 m3	727849.17 m3	O.B. generated is more due to development work is in new area as per modified mining plan.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	N.A.	N.A.	As per modified mining plan development work is in new area.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 (one).	1 (one).	Nil
3b	Quantity of ROM mineral production proposed	277391 MT	272500 MT	Nil
3c	Recovery of sailable/usable mineral from ROM production	80%	80%	Nil
3d	Quantity of mineral reject generation	69347 MT	NIL	No mineral reject is reported as all excavated ore is dispatched to Lohadaga siding.
3e	Grade of mineral rejects generation and threshold value declared.	Value Al2O3% <20%	Value Al2O3% <20%	Nil
3f	Quantity of sub grade mineral generation.	N.A.	N.A.	No sub-grade mineral is reported as all excavated ore is dispatched to Lohadaga siding.
3g	Grade of sub grade mineral generation	N.A.	N.A.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Sorting & sizing is done by Manually within lease area.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Sub-grade Generation	All the excavated ore is dispatched after blending with high grade mineral.	All excavated mineral is dispatched after blending with high grade mineral.
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	Blasting is done only in harder patches. Drill holes is 100 mm dia by Crawler mounted drill to a depth of 6m and specing is 2.5mX3m given depending upon strata compactness.
3k	Provision of mining machineries in mineral benches	Yes	Following Mining machineries are deployed for excavation:- 1. Shovel (Hydraulic) - 1.30 cum - 2 nos. - Non Electrical 2. Shovel (Hydraulic) - 0.90 cum - 1 no. - Non Electrical 3. Shovel (Hydraulic) - 1.90 cum - 1 no. - Non Electrical 4. Dumper - 25.00 Tonne - 6 nos. - Non Electrical 5. Wheel Loader - 2.30 cum - 1 no. - Non Electrical 6. Rock Drills - 100 mm - 2 nos. - Non Electrical 7. Air Compressor - 12.70 cum/min - 2 Non Electrical.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	In ore = 6mX2.5-3mX2-3m in O.B. - 6m X 1.1-1.3m X 2-4m.	Nil
3m	Total area covered under excavation/pits	3.31 hecsts.	3.14 ha.	As per modified mining plan.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.97	1:0.43	Nil

3o	Total area put in use under different heads at the end of year	N.A.	(i) Already exploited & abandoned by opencast (O/C) mining - 29.95 ha. (ii) Covered under current (O/C) Workings - 3.14 ha. (iii) Reclaimed/Rehabilitated - ha.- 26.85 ha. (iv) Work done under progressive mine closure plan during the year - 1.14 ha.	Nil
3p	Production of ROM mineral during the last five year period as applicable	a) 2018-19 = 279242 MT, b) 2019-20 = 278144 MT, c) 2020-21 = 279531 MT. d) 2021-22 = 279710 MT e) 2022-23 - 277391 MT	i) 2018-19 = 247130 MT, ii) 2019-20 = 240100 MT, iii) 2020-21 = 239000 MT, iv) 2021-22 = 212450 MT and v) 2022-23 = 272500 MT.	Production is less due to working is in new location.
3q	General remarks of inspecting officers on method of mining etc.	N.A.	N.A.	Development work is in new area as per modified mining plan. Mining is done by mechanised means and sorting & sizing are done manually within lease area.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Concurrent use of O.B. & rejects for backfilling and reclamation.	Overburden and rejects are used simultaneously for backfilling and reclamation. Top soil stored are spread over the reclaimed area.	Concurrent use for backfilling and reclamation.
4b	Location of topsoil, OB and mineral reject dumps	Nil	Nil	Nil
4c	Number of dumps within lease area and outside of lease area	2 Nos.	2 (two) temporary waste dumps within lease area.	Nil

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N.A.	N.A.	N.A.
4e	Number of active and alive dumps.	Nil	Nil	Nil
4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	02	02 (Two)	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Old garland drain re-cleaned.	Nil
4i	Length of Retaining wall or garland drain all along dumps	Nil	i) 170mX2mX2m, ii) 130mX2mX2m.	Old garland drain re-cleaned.
4j	Number of settling ponds	N.A.	None	Nil
4k	Specific comments of inspecting officer on waste dump management	N.A.	N.A.	Concurrent backfilling & recalculation work is done. Overburden and rejects are used in backfilling and reclamation. Top soil stored are spread over the reclaimed area. Waste dumps management is good, as Retaining wall & garland drain all along the dumps are made.

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Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Full extraction of mineral from mined out area before starting backfilling.	full extraction of mineral from mined out area before starting backfilling.	As per approved modified mining plan.
5b	Area under backfilling of mined out area	1.37 ha.	1.14 ha.	Nil

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5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Yes	Yes	Spreading over backfilled areas for Plantation establishment.
5d	Total area fully reclaimed and rehabilitated	Proposed 2022-23 = 1.37 ha.	cumulative upto 31.03.2023 = 25.15 ha.	Plantation establishment in backfilled area.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	N.A.	Top soil are spread over in backfilled/reclaimed area for plantation establishment.	Top soil are spread over in backfilled/reclaimed area for plantation establishment.

#### Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	PMCP report is submitted in due time.	PMCP report is submitted in due time.
6b	Area available for rehabilitation (ha) .	1.37 hectrs.	1.14 hectrs.	Nil
6c	afforestation done (ha).	1.37 hectrs.	1.14 hectrs.	Nil
6d	No. of saplings planted during the year	2740 nos.	3586 nos.	Nil
6e	Cumulative no .of plants	N.A.	23046 nos.	Nil
6f	Any other method of rehabilitation	N.A.	N.A.	Nil
6g	Cost incurred on watch and care during the year	Rs. 364500/-	Rs. 413424/-	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	1.14 ha.	1.14 ha.	No void available. Concurrent backfilling of Void is done.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	N.A.	Void filled by O.B. waste.	Concurrent backfilling of Void is done.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	N.A.	3586 nos. of saplings planted during the year in backfilled/reclaimed area.	Concurrent backfilling of Void is done.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	N.A.	N.A.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	N.A.	N.A.	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No waste land is available.	N.A.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	1.37 ha.	1.14 ha.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation.	Plantation.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of Air, Water & Dust.	Complied. Quarterly monitoring of Water, Air & Dust test are carried out.	Complied. Quarterly monitoring of Water, Air & Dust test are carried out.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	N.A.	N.A.	Proposal given in approved mining plan, PMCP work are carried out to provide drinking water to local inhabitants.
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### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes. Proposal - 277391 MT	Production - 272500 MT Dispatched - 214192.860 MT	No grade wise sorting is done.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manually sorting & sizing within lease.	Manually sorting & sizing within lease.
7c	Different grade of mineral sorted out at mines.	Yes.	Yes. Al2O3 - <40% to Al2O3 - >40% and below 45%.	Nil
7d	Any beneficiation process at mines	N.A.	N.A.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	N.A.	Manually sorting & sizing is done within lease.	Manually sorting & sizing is done within lease.

### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil removed and stored separately.	Top soil removed and stored separately. Later, spreading over the backfilled area for rehabilitation of degraded land.	Top soil is spreading over the backfilled/reclaimed area for rehabilitation of degraded land.
8b	Concurrent use or storage of topsoil	Concurrent use.	Top soil stored is used for spreading over the reclaimed areas, simultaneously.	Top soil stored is used for spreading over the reclaimed areas, simultaneously.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	N.A.	N.A.	No O.B. dump is available.
8d	Use of overburden, waste rock, rejects 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.	Concurrent use of overburden, waste rock, rejects for restoring the land to its original use.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Land affected by mining is rehabilitated by plantation or making land for cultivation.	Land affected by mining is rehabilitated by plantation or making land for cultivation and handed over to Raiyats.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2740 nos.	3586 nos.	Nil
8g	Survival rate	70%	70%	Nil
8h	Water sprinkling on roads to control airborne dust	Yes	Yes. Water sprinkling on roads to control airborne dust is done.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	N.A.	N.A.	Degraded land is rehabilitated by plantation within lease areas.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly and Annual return submitted on due time. 1. Mining Engineer- Shri Kiran Shankar Singh, 2. Geologist- Shri Ramesh Kumar and 3. Manager - Shri Kiran Shankar Singh as given in Annual return.	Monthly and Annual return submitted on due time. As per given in Annual return: - 1. Mining Engineer- Shri Kiran Shankar Singh, 2. Geologist- Shri Ramesh Kumar and 3. Manager - Shri Kiran Shankar Singh	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Monthly and Annual return have been scrutinised. As per Annual Return Shri Kiran Shankar Singh (Mining Engineer), Shri Ramesh Kumar (Geologist) and Shri Kiran Shankar Singh (Manager) have been furnished.	Engineer & Geologist are present during the inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already exploited & abandoned by opencast (O/C) mining= 28.02 hecets. (ii) Covered under current (O/C) Workings Non Forest = 2.87 hecets. (iii) Reclaimed/Rehabilitated Non Forest = 25.15 hecets. (iv) Work done for any other purpose = 2.27 hecets.	Scrutiny of Annual Return furnished is given as under:- (i) Already exploited & abandoned by opencast (O/C) mining= 28.020 hecets. (ii) Covered under current (O/C) Workings Non Forest = 2.87 hecets. (iii) Reclaimed/Rehabilitated Non Forest = 25.15 hecets. (iv) Work done for any other purpose = 2.27 hecets.	Nil
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year- 3050 saplings.	In the reclaimed area cumulative plantation observed 16410 nos.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	N.A.	Nil	No reject is reported.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Grade wise ROM closing stock appears to be correct. given as:- Below 40% Al2O3= 208.390 MT & 40% to below 45% Al2O3 = 9764.20 MT.	Ore/Minerals obtained from mine are dispatched to Lohardaga loading side for own captive Plant at Renukoot, U.P.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production = Rs. 1288.20/- Per Tonne.	Ores/Minerals obtained from mine are dispatched to own Captive Plant at Renukoot, U.P.	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets = Rs. 108934757/- and water installation. Depreciation on fixed assets Rs. 9452287/-	The assets furnished appears to be correct as below: - (i) Land = Rs. 58152160/- (ii) Industrial Building = Rs. 2704464/- (iii) Residential Building = Rs. 24712/- (iv) Plant and Machinery including transport equipment = Rs. 2553327/- (v) Capitalised Expenditure (exploration, development, major overhaul etc. = Rs. 47575468/-	Nil

9k	Scrutiny of Annual return on mining machineries	Machineies shown in Annual Return are- a) Shovel (Hydraulic) - 1.30 cum - 2 nos. - Non Electrical b) Shovel (Hydraulic) - 0.90 cum - 1 no. - Non Electrical c) Shovel (Hydraulic) - 1.90 cum - 1 no. - Non Electrical d) Dumper - 25.00 Tonne - 9 nos. - Non Electrical e) Wheel Loader - 2.30 cum - 1 no. - Non Electrical f) Rock Drills - 100 mm - 2 nos. - Non Electrical g) Air Compressor - 12.70 cum/min - 2 Non Electrical	Machineies are found operational at the time of inspection.	Machineies deployed are found operational at the time of inspection.
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**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 :**

**(B.L. KISKU)**

Indian Bureau of Mines