INDIAN BUREAU OF MINES
MINERALS DEVELOPMEMT 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 Officer and ID No. : **K(001) B.L. KISKU**

(ii) Designation : Assistant Controller Mine

(iii) Accompaning mine Official with Designation :

(iv) Date of Inspection : 07/04/2022

(v) Prev.inspection date : 16/02/2020

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 correspondance : VILL.- PAKHAR
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 : MANOJ KUMAR NAYAK
HINDALCO INDUSRTIS LTD,
COURT ROAD, LOHARDAGA JHK
LOHARDAGA JHARKHAND
Phone: 9617779670
FAX :

Mining Engineer

Name : SHRI KIRAN SHANKAR SINGH,Full Time

Qualification : B.E.(Mining

Appointment/ Termination date : 15/04/2019

Geologist

Name : RAMESH KUMAR,Full Time

Qualification : MSc.(GEO)

Appointment/ Termination date : 10/10/2017

6. Date of approval of Mining Plan/Scheme of Mining :

Fresh under rule 22 MCR1960	23/04/2008
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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL.	NIL.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	NIL.	NIL.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL.	NIL.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL.	NIL.	NIL.
1e	Balance reserve as on 01/04/20	N.A.	111-1564259 MT & 121-730778 MT.	N.A.
1f	General remarks of inspecting officers on geology, exploration etc	N.A.	Area ailready explored under G-1 axis.	Area ailready explored under G-1 axis.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E-256435.763 to N-2607552.700 and E-256404.546 to N-2607343.093	E-256435.763 to N-2607552.700 and E-256404.546 to N-2607343.093	N.A.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes.	Yes.	N.A.
2c	Stripping ratio or ore to OB ratio	1:0.56	1:1.48	N.A.
2d	Quantity of topsoil generation in m3	1,25,964 m3	60,858 m3	N.A.
2e	Quantity of overburden generation in m3	1,87,193 m3	3,54,455 m3	N.A.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Nil.	Nil.	Nil.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 (one).	1 (one).	N.A.
3b	Quantity of ROM mineral production proposed	279531 MT.	239000 MT.	Nil.
3c	Recovery of sailable/usable mineral from ROM production	80%	80%	Nil.
3d	Quantity of mineral reject generation	30384 MT.	47800 MT.	Nil.
3e	Grade of mineral rejects generation and threshold value declared.	Value - Al2O3% <20%	Value - Al2O3% <20%	Nil.
3f	Quantity of sub grade mineral generation.	Nil.	Nil.	Nil.
3g	Grade of sub grade mineral generation	Nil.	Nil.	Nil.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual.	Manual.	Sorting & sizing are 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 the subgrade mineral with high grade minerals.	All the excavated sub-grade mineral are blending with high grade minerals.

3j	Provision of drilling and blasting in mineral benches	Yes.	Yes.	Blasting is done only in harder patches. Drill holes is 100m dia by Crawler mounted drill to a depth of 6m amd specing is 2.5mX3m given depending upon strata compactness.
3k	Provision of mining machineries in mineral benches	Yes.	Mining machineries are deployed for excavation. Following machines are deployed- 1. Shovel (Hydraulic) - 1.30 cum - 2 nos. - Non Electrical 2. Shovel (Hydraulic) - 0.90 cum - 1 no. - Non Electrical 3. Dumper - 25.00 Tonne - 6 nos. - Non Electrical 4. Wheel Loader - 2.30 cum - 1 no. - Non Electrical 5. Rock Drills - 100 mm - 2 nos. - Non Electrical 6. 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. - 6mX1.1-1.3mX2-4m.	Nil.
3m	Total area covered under excavation/pits	2.03 hects.	2.00 hects.	Nil.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.56	1:1.48	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=26.270 hects. (ii) Covered under current (O/C) Workings Non Forest = 3.39 hects. (iii) Reclaimed/Rehabilitated Non Forest = 22.88 hects. (iv) Work done under PMCP during the year = 1.120 hects.	N.A.
3p	Production of ROM mineral during the last five year period as applicable	2016-17 = 277509 MT, 2017-18 = 277791 MT, 2018-19 = 279242 MT, 2019-20 = 278144 MT, 2020-21 = 279531 MT.	i) 2016-17 = 277220 MT, ii) 2017-18 = 277605 MT, iii) 2018-19 = 247130 MT, iv) 2019-20 = 240100 MT & v) 2020-21 = 239000 MT.	Production are within the proposed limit.
3q	General remarks of inspecting officers on method of mining etc.	N.A.	Mining is done by mechanised means and sorting & sizing are done manually in the lease area.	Mining is done by mechanised means and sorting & sizing are done manually in the 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.	Nil.
4b	Location of topsoil, OB and mineral reject dumps	Nil	Nil.	Nil
4c	Number of dumps within lease area and outside of lease area	02 waste dumps within lease area.	2 (two) temporary waste dumps within lease area.	Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N.A.	400S-600S, 400E-600E	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.	Yes.	Nil.
4i	Length of Retaining wall or garland drain all along dumps	N.A.	i) 170mX2mX2m, ii) 130mX2mX2m.	N.A.
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Nil.	Nil.	Concurrent backfilling & recalation 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.

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.	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 mining plan.
5b	Area under backfilling of mined out area	2.20	1.12	N.A.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Yes	Yes.	Top soil are restored separately.

5d	Total area fully reclaimed and rehabilitated	Yes.	Yes.	Plantation establishment.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	N.A.	Top soil are spread over in reclaimed area for plantation establishment.	Top soil are spread over in reclaimed area for plantation establishment.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes.	Yes.	PMCP report is submitted in time.
6b	Area available for rehabilitation (ha) .	2.20 hects.	1.12 hects.	N.A.
6c	afforestation done (ha).	2.05 hects.	1.07 hects.	Nil.
6d	No. of saplings planted during the year	3280 nos.	2270 nos.	Nil.
6e	Cumulative no .of plants	N.A.	16410 nos.	Nil.
6f	Any other method of rehabilitation	None.	Nil.	None.
6g	Cost incurred on watch and care during the year		Rs. 473073.02/- (Including Plantation Cost).	Nil.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2.20 hects.	1.12 hects.	Nil.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	N.A.	Filled by waste.	Nil.

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	2.05 hects.	1.07 hects.	Nil.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	N.A.	N.A.	N.A.
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	2.05 hects.	1.07 hects.	Nil.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2.20 hects.	1.12 hects.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation.	Area rehabilitated by tree plantation.	Nil.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of Water, Air & 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, the mine development work are done accordingly. PMCP work are also carried out to provide drinking water to local inhabitants.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes.	240984.12 MT	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual.	Manually sorting within lease.	Nil.
7c	Different grade of mineral sorted out at mines.	Yes.	Yes. Al2O3 - <40% to Al2O3 - >40% - below 45%.	Nil.
7d	Any beneficiation process at mines .	N.A.	N.A.	N.A.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	N.A.	Sorting and sizing is done by manually within lease. Low grade ore is blended with high grade ore.	Sorting and sizing is done by manually within lease. Low grade ore is blended with high grade ore in view of mineral conservation.

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 rehabiitation of degraded land.	Nil
8b	Concurrent use or storage of topsoil	Concurrent use.	Top soil stored is used for spreading over on the reclaimed areas, concurrently.	Nil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	N.A.	Nil.	N.A.

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.	Nil.
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 hand over to land owner.	Nil.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3280 trees.	2270 saplings planted.	Nil.
8g	Survival rate	75%	75%	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.	Degraded land is rehabilitated by plantation within lease areas.	Degraded land is rehabilitated by plantation within lease areas.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual return submitted in time.	Monthly and Annual return submitted in due time. 1. Mining Engineer- Shri Kiran Shankar Singh, 2. Geologist- Shri Ramesh Kumar and 3. Manager - Shri Kiran Shankar Singh asgiven in Annual return.	N.A.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Scrutiny of Annual Return.	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=26.270 hects. (ii) Covered under current (O/C) Workings Non Forest = 3.39 hects. (iii) Reclaimed/Rehabilitated Non Forest = 22.88 hects. (iv) Work done for any other purpose = 1.120 hects.	Scrutiny of Annual Return furnished is given as under:- (i) Already exploited & abandoned by opencast (O/C) mining=26.270 hects. (ii) Covered under current (O/C) Workings Non Forest = 3.39 hects. (iii) Reclaimed/Rehabilitated Non Forest = 22.88 hects. (iv) Work done for any other purpose = 1.120 hects.	Nil.
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year- 2270 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.	None.	There is no reject generation.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Grade wise ROM stock given as:- Below 40% Al2O3= 208.39 MT & 40% to below 45% Al2O3 = 11507.06 MT.	During field visit it is found to be correct.	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	Ex-mine price = Rs. 899.66/- Per Tonne.	Appears to be correct.	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. 111010131/- (in respect of the mine, beneficiation plant, mine work-shop, power and water installation).	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/-	N.A.
9k	Scrutiny of Annual return on mining machineries	Machineies shown in Annual Reurn are- a) Shovel (Hydraulic) - 1.30 cum - 2 nos. - Non Electrical b) Shovel (Hydraulic) - 0.90 cum - 1 no. - Non Electrical c) Dumper - 25.00 Tonne - 6 nos. - Non Electrical d) Wheel Loader - 2.30 cum - 1 no. - Non Electrical e) Rock Drills - 100 mm - 2 nos. - Non Electrical f)Air Compressor - 12.70 cum/min - 2 Non Electrical	All Machineies are found operational at the time of inspection.	Machineies deployed are found operational at the time of inspection.

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