

## INDIAN BUREAU OF MINES

## MINERALS DEVELOPMENT AND REGULATION DIVISION

## MCDR inspection Report

## Jabalpur regional office

S.N.	Particulars	Details
1	Name of the Mine	Tikariya Bauxite, Laterite & Fireclay Mine
	Date of Inspection:	27-06-2024
	Name of Inspecting Officer	Akash Arun Mittarwar, Assistant Mining Engineer
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	4.01 Hect.
3	Mine code	07MPR47020
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/10077/2012
5	Last Inspection Details	29-09-2023 by Shri Robert Simon C, ACOM
6	Mine official present during the inspection	Shri Saurabh Nayak (Mining Engineer) & Shri Umakant Soni (Geologist)
7	Name of the Lease, Address, Phone, email and fax number	Tikariya Bauxite, Laterite & Fireclay Mine (4.01Hect.) Village – Tikariya, Taluka- Murwara, District – Katni (M.P.) - 483501 Phone - 9630057584 E-mail: - atulkumarguptaco@yahoo.co.in; pacificbauxite@gmail.com
8	Village	Tikariya
9	Taluka/Mandal	Murwara
10	District	Katni
11	Pin code	483501
12	State	Madhya Pradesh
13	Post Office	Murwara
14	Nearest Police Station	Murwara
15	Nearest Railway Station	Katni
16	Date of Grant of Mining Lease	18-06-2009
17	Date of Execution	29-09-2009
18	Lease period	29-09-2009 to 28-09-2029
19	Date of opening of Mine	14-12-2009
20	Date of First Renewal, if applicable and its period & expiry	29-09-2009 to 28-09-2029
21	Date of Second Renewal, if applicable and its period & expiry	NA
22	Date of Third Renewal, if applicable and its period & expiry	NA
23	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA

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1/38609/2024	24	Name of the Owner/ Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Moti Lal Bajaj (Lease holder), Acharya Vinoba Bhawe Ward, Moti Bag, Near Mai Nadi, Murwara, Katni (M.P.) - 483501 Phone - 9630057584 E-mail: - atulkumarguptaco@yahoo.co.in; pacificbauxite@gmail.com
	25	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	NA
	26	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	NA
	27	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Shri Saurabh Nayak (Mining Engineer) Qualification – B. tech (Mining) Date of Appointment – 25/03/2022 Phone-9589555568 Email -nsourabh1989@live.in Shri Umakant Soni (Geologist) Qualification – M.Sc (Geology) Date of Appointment – 15/04/2022 Phone-6266773055 Email - pacificbauxite@gmail.com
	28	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	Mining plan under rule 10 MCDR,1988 - 25-MAY-09 Scheme of Mining under Rule 12(3) of MCDR,1988 -24-JUL-14 Review of Mining plan under rule 17(3) of MCR2016 16-SEP-20 Review of Mining plan under rule 17(3) of MCR,2016 - 06-DEC-23
	29	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	NA
	30	Mineral(s) granted in lease and approved for Mining	Bauxite, Laterite & Fireclay
	31	Method of Mining (Opencast, Underground)	Opencast
	32	Category (Fully Mechanized, Others or Manual)	A
	33	Captive/Non-Captive	Non-Captive

Exploration

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S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No exploration proposals during year 2023-24 for G1/G2 levels	Entire lease area explored up to G1 level.	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not specified.	Not specified.	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Nil	Nil	
1e	Balance reserves as on 01.04.2023	Nil	Balance reserve as on 01/04/2024 – 270400 tonnes	Total production reported in AR 2023-24 is not depleted from the reserves. Violation pointed out under rule 45(7) of MCDR,2017
1f	General remarks of Inspecting officer on geology, exploration etc.	Entire lease area explored up to G1 Level of exploration. No backlog of exploration.		

Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	Development was proposed towards West of the Pit 1.	As per proposal	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Separate bench for Over burden & mineral proposed	Yes, Separate bench for Over burden & Mineral were observed.	
2c	Stripping ratio or ore to OB ratio	1:0.64	Can not be ascertain as Nil OB is reported in Annual Return of 23-24	Violation pointed out under rule 45(7) of MCDR,2017
2d	Quantity of topsoil generation in m <sup>3</sup>	6240 cu. m	Utilized for plantation on 7.5 meter of barrier zone in southern part of the lease as per proposal.	
2e	Quantity of overburden generation in cu. m	2397 cu.m	OB generated during the year was utilized in backfilling of 7.5 meter of barrier zone in southern part of the lease as per proposal.	OB generated is not mentioned in submitted Annual return. Violation pointed out under rule 45(7) of MCDR,2017

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2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development was carried towards West of the Pit 1 as per proposal. Violation pointed out under rule 45(7) of MCDR, 2017 for not reporting generated OB in Annual return during the year.
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**Exploitation**

S.N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed (2023-24)	18697 tonnes	18690 tonnes	
3c	Recovery of Salable/usable mineral from ROM production	80%	80%	
3d	Quantity of mineral reject generation	Not proposed	Not applicable	
3e	Grade of mineral reject generation and threshold value declared	Not proposed	Not applicable	
3f	Quantity of sub-grade mineral generation	Not proposed	Not applicable	
3g	Grade of sub-grade mineral generation	Not proposed	Not applicable	
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed	Not applicable	
3j	Provision of drilling & blasting in mineral benches	Proposed	Drilling & blasting carried out as proposed.	
3k	Provision of mining machineries in mineral benches	proposed	HEMM is being used in mineral benches for excavation and transportation. Shovel -1- 1.10 cu.m Pumps -1- 650 lit/min Water Tanker-3- 3000 litre Dumper - 4- 10 tonne	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed	Height of o/b & mineral benches is suitable for method of mining as proposed.	
3m	Total area covered under excavation /pits	3.55 hect.	3.39 hect.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.64	Can not be ascertain as Nil OB is generated and reported in Annual Return of 23-24	Violation pointed out under rule 11(1) of MCDR,2017

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3o	Total area put in use under different heads at the end of year	3.95 hect.		3.50 hect.	
3p	Production of ROM mineral during	2019-20	Nil	2019-20 – Nil	Lapse period
	last five-years period, as Applicable	2020-21	18402 t	2020-21- 16000 t	
		2021-22	18477 t	2021-22 – 18350 t	
		2022-23	18739 t	2022-23 – 17700 t	
		2023-24	18697 t	2023-24 – 18690 t	
3q	General remarks of inspecting officer on method of mining etc	Category A mines having adopted mechanized method of mining.			

**Solid Waste Management-Dumping**

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Not proposed	Not Applicable	OB generated during the plan period utilized for backfilling of 7.5 m barrier zone in the southern part of the lease.
4b	Location of topsoil, OB & mineral reject dumps	Not proposed	Not Applicable	
4c	Number of Dumps within lease area and outside lease area	Not proposed	Not Applicable	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	Not Applicable	
4e	Number of Active & Alive dumps	Not proposed	Not Applicable	
4f	Number of dead dumps	Not proposed	Not applicable	
4g	Number of dumps established	Not proposed	Not applicable	
4h	Whether Retaining wall or garland drain all along dumps are there	Not proposed	Not applicable	
4i	Length of Retaining wall or garland drain all along dump	Not proposed	Not applicable	
4j	Number of settling ponds	Not proposed	Not applicable	
4k	Specific comments of inspecting officer on waste dump management	Waste generated are dumped on proposed location for dumping.		

**Solid Waste Management-Backfilling**

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Full extraction of mineral from mined out area is proposed	Full extraction of mineral under progress up to the UPD	

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5b	Area under backfilling of mined out area	4560 sq. m with 3-4 meter in height	As per proposal	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Proposed for afforestation	As per proposal	
5d	Total area fully reclaimed & rehabilitated	Not specified	0.023 hectare reported in Annual return	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling & reclamation were carried out as per approved proposals.		

**Progressive Mine Closer Plan**

S.N.	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	Proposed	Submitted	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha)	Not proposed	Not applicable	
	ii) Afforestation done (ha.)	Not Proposed	Not applicable	
	iii) No. of saplings planted during the year	Not Proposed	Not applicable	
	iv) Cumulative no. of plants	Not specified	Not applicable	
	v) Any other specific method of rehabilitation	Not proposed	Not applicable	
	vi) Cost incurred on watch & care during the year	Not Specified.	Not applicable	
6C	Compliance on reclamation and rehabilitation by backfilling			Four dumps namely D1, D2, D3 & D4 were present at the beginning of the plan period in the western, central & south-western part of the lease of total 7022 cu.m of volume which was rehandled during the plan period to backfill 7.5 meter barrier zone in the northern part of the lease covering an area of 714 sq.m
	i) Voids available for backfilling (L*B*D)	714 sq. m	As per proposal	
	ii) Void filled by waste/tailings	7022 cu. m	As per proposal	
	iii) Afforestation on the backfilling	304 saplings	As per proposal	
	iv) Rehabilitation by making water reservoir	Not Proposed	Not applicable	
v) Any other specific means	Not Proposed	Not Applicable		
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	Not Proposed	Not Applicable	
	ii) Area rehabilitation			
	iii) Method of rehabilitation			

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6e	Compliance of Environment monitoring (core zone & Buffer zone)	Proposed	Within prescribed limit.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Proposed backfilling & afforestation on 7.5 meter barrier zone in the northern part of the lease is observed.		

#### Mineral Conservation

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	ROM mineral dispatch proposed	ROM mineral dispatch after Manual sorting done	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual sorting proposed	Manual sorting done	
7c	Different grade of mineral sort out at mine	Not specified	Cement grade bauxite	
7d	Any beneficiation process at mines	Not Proposed	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM mineral dispatch after manual sorting being done in the lease.		

#### Environment

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed for plantation	As per proposal	
8b	Concurrent use or storage of topsoil	Topsoil to be utilized for plantation	As per proposal	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Proposed for backfilling of 7.5 meter barrier zone in southern part of the lease.	As per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed for backfilling of 7.5 meter barrier zone in southern part of the lease.	As per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposal for backfilling of 7.5 meter barrier zone in southern part of the lease.	As per proposal	

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8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Not specified	Not Applicable	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling on roads to control airborne dust carried out with the use of water tanker	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Plantation was done in the proposed location. Needs improvements for aesthetic beauty in and around mine area.		

**Compliance of Rule 45:-**

S.N.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted both Monthly and Annual Return	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist	Shri Saurabh Nayak (Mining Engineer) & Shri Umakant Soni (Geologist)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Covered under current (O-C) Workings – 3.390 hect. Infrastructure – Nil Green Belt – 0.110 hect.	
9d	Scrutiny of Annual return on afforestation	304 number of saplings were proposed for plantation	Only 220 saplings were planted.	Violation pointed out under rule 11(1) of MCDR,2017
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM closing stock as on 01/04/2024 – 5922	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex. Mine price - 738.08 and production cost – 702.00	
9h	Scrutiny of Annual return on fixed assets	Yes	The Value of Fixed Asset is mentioned as “Nil”	
9k	Scrutiny of Annual return on mining machineries	Yes	Shovel -1- 1.10 cu.m Pumps -1- 650 lit/min Water Tanker-3- 3000 litre Dumper - 4- 10 tonne	



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Details of Violations observed during current inspection and compliance position of violation pointed out:-

Rule – 11(1) of MCDR 2017

Rule – 26(2) of MCDR 2017

Rule – 33 of MCDR 2017

Rule – 45(7) of MCDR 2017

Name: Akash Arun Mittarwar

Designation: Assistant Mining Engineer