

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR Inspection REPORT
Jabalpur Regional office

Mine code: 38MPR35355

(i)	Name of Inspecting officer	Shri Madhavrao Sabre
(ii)	Designation	Senior Mining Geologist
(iii)	Accompanying mine official with Designation	Shri Akhilesh Singh, VP (Mines) Shri Nitya Dixit, DGM (Geology) Shri Sushanta Saha, Manager (Geology) Shri Vinod Gayakwad, Mines Manager
(iv)	Date of Inspection	29.07.2024
(v)	Previous Inspection date	01.12.2022

PART-I: GENERAL INFORMATION

1	(a)	Mine Name	Bigodi Limestone mine
1	(b)	Registration Number	IBM/15031/2013
	(c)	Category	Fully Mechanized
	(d)	Type of Working	Opencast
	(e)	Postal address	
		State	M.P.
		District	Satna
		Village	Sannehi Singti, Dithora & Karondi
		Taluka	Amarpatan
		Post Office	Bigodi
		Pin code	485778
		Fax	+9133 22884426
		email	mai.har.mines@birlacorp.com
		Phone No	033 6603 3300- 02
		(f)	Police Station
	(g)	First Opening date	10/11/2022
	(h)	Weekly day of rest	Sunday
2		Address for Correspondence	
3	(a)	Lease Area	184.149 Ha
	(b)	Period of lease	50 years (27.11.2020 to 26.11.2070)
	(c)	Date of Expiry	26.11.2070
4		Mineral Worked (Main)	Limestone
5		Name of address of the Lessee with Phone, email and fax number	M/s. RCCPL Private Ltd. 1, Shakespeare Sarani, A.C.Market (5 th Floor), Kolkata, Pin- 700071 Phone- 033 6603 3300- 02 Email- mai.har.mines@birlacorp.com Fax- +9133 22884426
		Name of address of the Owner/Nominated Owner with Phone, email, fax number and	Shri Sandip Ghose, Birla Corporation Limited 1, Shakespeare Sarani, A.C. Market, 2nd Floor Kolkata, West Bengal, 700071 Phone- 03366033379

	Date of appointment	sandip.ghose@birlacorp.com Date of appointment- 02.02.2023
	Name of address of the Agent with Phone, email, fax number and Date of appointment	Shri Prahlad Kumar Choudhary RCCPL Pvt. Ltd. Village Bharauli, Post – Itahara Tehsil-Maihar, Dist. - Satna, M.P. Pin- 485773 pk.choudhary@birlacorp.com Date of appointment – 28.08.2022
	Name of address of the Manager with Phone, email, fax number and Date of appointment	Shri Vinod Kr. Gayakwad Bigodi Limestone Mine P.O- Bigodi, Tehsil- Amarpatan, Dist- Satna (M.P.), Phone- 9329141081 vinod.gayakwad@birlacorp.com Date of Appointment- 01.07.2023
	Mining Engineer Name Qualification Date of Appointment	Mining Engineer: Shri Vinod Kr. Gayakwad, BTech Mining, FCC(R), Experience-15 years, Date of Appointment- 01.07.2023 Phone- 9329141081 Email- vinod.gayakwad@birlacorp.com
	Geologist Name Qualification, Date of Appointment	Geologist: Sushanta Saha, M.Sc Geology, Experience- 15 years, Date of Appointment-01.06.2024 Phone- 8815103739 Email- sushanta.saha@birlacorp.com
6	Date of approval of Mining Plan/Review of Mining Plan etc.	E 2510 MCDR-MPCOLST/11/2022-JBP-IBM_RO_JBP on dated 22.03.2023

PART- II: OBSERVATION/COMMENTS OF INSPECTING OFFICERS

1. Exploration (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	0	0	
1b	Exploration over lease area for Geological axis 1 or 2.	G-1	G-1	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Synergy Geotech Pvt. Ltd Expenditure of FY 23-24- Rs 30,52,293		
1d	Balance area to be explored to bring Geological axis in 1 or 2.	G1- 163.979 Ha Non-mineralized area- 20.170 Ha	Total lease area 184.149 Ha converted into G1 axis	
1e	Balance reserves as on 01.04.2024	-	111-32349560 tone 211-15390000 tonne	
1f	Brief of Geology of lease area & Exploration etc.	The rocks exposed in the area belong to Nagod Limestone Formation of the Bhandar Group. In this deposit, the rocks include Limestone, siliceous and High Magnesian Limestone as waste and shale. Exploration done by drilling 71 boreholes.		

2. Development (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	E529205 to E529475 N2698621 to N2698890 E531149 to E531327 N2699314 to N2699414	E518264 to E518304 N2698683 to N2698749	Pit not developed in the proposed area for which Violation issued.
2b	Separate benches in topsoil overburden and mineral	Top Soil Bench- 2 OB Bench- 3 Mineral Bench- 1	OB bench- 1 Mineral Bench- 1	Violation issued for deviation.
2c	Stripping ratio or ore to OB ratio	1: 0.7239	1: 40.16	Violation issued for deviation.
2d	Quantity of topsoil generation in m ³	3,82,916	Nil	Violation issued for deviation.
2e	Quantity of overburden generation in m ³	150384	5620	Violation issued for deviation.
2f	Brief of development of pit w.r.t. type of deposit etc	Pit not developed at proposed location. Benches not developed as per proposal. Mineral and OB not produced as per proposal . For these deviations Violation letter issued.		

3. Exploitation (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	2	1	
3b	Quantity of ROM mineral production proposed (2023-24)	158920 tonne	139.93 tonne	Violation letter issued for deviation
3c	Recovery of Salable/usable mineral from ROM production	Nil	Nil	-
3d	Quantity of mineral reject generation	0.00	0.00	-
3e	Grade of mineral reject generation and threshold value declared	Min 34% CaO and Max 5% MgO	Min 34% CaO and Max 5% MgO	-
3f	Quantity of sub-grade mineral generation	Nil	Nil	
3g	Grade of sub-grade mineral generation	NA	NA	No sub grade generated
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	NA	NA	-
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	Yes as per proposal in RMP	-
3m	Total area covered under excavation /pits	4.26 Ha	0.50 Ha	

3n	Ore to OB ratio for the pit/mine during the year	1: 0.72		1: 40.16	
3o	Total area put in use under different heads at the end of year	21.53 Ha		3.45 Ha	
3p	Production of ROM mineral during last five-years period, as Applicable	2019-20	0.00	2019-20	0.00 tonne
		2020-21	0.00	2020-21	0.00 tonne
		2021-22	0.00	2021-22	0.00 tonne
		2022-23	5100 tonne	2022-23	300 tonne
		2023-24	158920 tonne	2023-24	139.93 tonne
3q	Brief details w.r.t. method of mining etc.	The mine is being operated by adopting mechanized method of mining. All operations of mining will be done by deployment of HEMM for deep hole drilling and excavation.			

4. Solid Waste Management-Dumping (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject	Top Soil- NIL OB Dump- NIL Mineral reject- NIL	No dump, as no proposals are given in this MMP	
4b	Location of topsoil, OB & mineral reject dumps	yes	Yes	Top soil will be utilized during Plantation.
4c	Number of Dumps within lease area and outside lease area	Nil	Nil	
4d	Location of Dumps w.r.t. ultimate pit limit	Nil	Nil	
4e	Number of Active & Alive dumps	Nil	Nil	
4f	Number of deed dumps	Nil	Nil	
4g	Number of dumps established	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall- 460m Garland drain- 460m	Yes	
4j	Number of settling ponds	Nil	Nil	
4k	Brief details regarding waste dump management	The overburden / waste will be removed by excavator / Pay loader with dumper combination.		

5. Solid Waste Management-Backfilling (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not in Proposal	Nil	
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	No proposal for rehabilitation of mined out area	Nil	

5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
	Brief details regarding backfilling and reclamation etc.	No Backfilling Proposals are given as per MMP		

6. Progressive Mine Closer Plan (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 26(2). Details should be given in the format as given in Annexure.	Yes	Annual report of PMCP had been already submitted on 22.06.2024 as per Rule 26(2) of MCDR in prescribed format	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha)	Nil	Nil	
	ii) Afforestation done (ha)	0.50	0.10	
	iii) No. of saplings planted during the year	1000	250	Violation issued for deviation.
	iv) Cumulative no. of plants	Cumulative 1000 nos. of sapling are planted as on 31.03.2024		-
	v) Any other specific method of rehabilitation	NA	NA	-
	vi) Cost incurred on watch & care during the year	Rs 200000	Rs 50000	-
6c	Compliance on reclamation and rehabilitation by backfilling	Nil	Nil	-
	i) Voids available for backfilling (L*B*D)			
	ii) Void filled by waste/tailings	Nil	Nil	-
	iii) Afforestation on the backfilling	Nil	Nil	-
	iv) Rehabilitation by making water reservoir	Nil	Nil	-
	v) Any other specific means	Nil	Nil	-
6d	Compliance of Rehabilitation of waste land within lease	0.50 Ha (1000 no of saplings)	0.20 Ha (500 no of saplings)	-
	i) Afforestation			
	ii) Area rehabilitation	Not in Proposal	NIL	-
	iii) Method of rehabilitation	Not in Proposal	NIL	-
6e	Compliance of Environment monitoring (core zone & buffer zone)	Yes	Complied of Environment monitoring	

6f	Brief details of PMCP compliance and progressive closure operations etc.	Complete extraction of mineral is yet to be achieved so backfilling not applicable. PMCP report has been already submitted on 22.06.2024
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7. Mineral Conservation (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	ROM Mineral dispatch	ROM Mineral dispatch	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	mechanical	mechanical	
7c	Different grade of mineral sort out at mine	None	None	
7d	Any beneficiation process at mines	Not proposed	NA	
7e	Brief details about Mineral conservation and beneficiation issues	ROM mineral is dispatched from the Mine. Threshold value of limestone is Min 34% CaO and Max 5% MgO. But we use upto 6 % MgO for mineral conservation purpose.		

8. Environment (2023-24)

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil	Generation-382916.00 Cum Utilization-5000 Cum	Generation-2000 Cum Utilization- Nil	
8b	Concurrent use or storage of topsoil	Storage of Top soil- 377916 Cum	Yes	Top soil utilized in Plantation area (Lat-24.406341° & Long- 81.182632 °) and along bund for safety measures.
8c	Separate dumps for overburden waste rock, rejects and fines	Not in proposal as per MMP.	NA	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not in Proposal	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not in Proposal	NA	
8f	Baseline information on existence of plantation & additional plantation done	Yes	Total 1000 no. of saplings are planted covering an area of 0.35 Ha as on 31 st March, 2024.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Yes	Water sprinkler has been utilized on roads to control dust suppression.	
8i	Details regarding aesthetic beauty in and around mines area	This is a new lease , production started from 2022-2023 onwards. So work pertaining to aesthetic beauty yet to start. 1000 saplings		

	are planted in the lease area.
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9. Compliance of Rule 45 (2023-24)

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	<p>Monthly return- FY 2023-24 April-23 – 06.05.2023 May -23 – 07.06.2023 June-23 – 08.07.2023 July-23 – 08.08.2023 August-23 – 05.09.2023 September-23 – 06.10.2023 October-23 – 08.11.2023 November-23 – 08.12.2023 December-23 – 08.01.2024 January-24 – 08.02.2024 February-24 – 07.03.2024 March-24 – 08.04.2024</p> <p>Annual Return- FY 2023-24 submitted on 22.06.2024</p>	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Already Appointed. Notice of Appointment (Form-H) had been sent to IBM, Jabalpur	-
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under OC mining- 0.5 Ha Used for waste disposal- 0.5 Ha Occupied by roads, infrastructure- 1.19 Ha Garland drain & Bund- 1.26 Ha	Nil
9d	Scrutiny of Annual return on afforestation	Nil	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Opening Stock at Mine : 51.200T Production Done : 139.930 T Dispatch Done: 175.960 T Presently in Stock : 15.170T	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Ex Mine price- Rs 199.42/-	Nil
9i	Scrutiny of Annual return on Fixed assets	Rs 130299263/-	Nil
9k	Scrutiny of Annual return on mining Machineries	1 no. Back hoe- 1.2 Cum (Cap) 3 nos Tipper- 14.00 Cum	Nil

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

Violations issued under Rule 11(1) of MCDR 2017:

1. Only 139.93 tonnes of Limestone production is raised during 2023-24 against the proposed 1,58,920 tonnes.

2. Pit was developed in 7.5 m barrier and also outside the lease.
3. Pit was not developed in proposal area for year 2023-24.
4. 5620 m³ Overburden is generated against the proposal of 1,50,384 m³, thereby distorting the stripping ratio.
5. Overburden was dumped in 7.5 m barrier and also outside the lease.
6. Overburden was not dumped at proposed location.
7. It was proposed to produce 3,82,916 m³ of top soil during the year, but nil top soil was produced.
8. It was proposed to develop 2 benches in Top Soil, 03 in Overburden and 02 in Mineral during the year 2023-24, but only 01 bench in overburden and mineral were developed.
- 9 It was proposed that Stripping ratio of 1:0.72 will be maintained but in actual it was coming to be 1:40.16.
10. It was proposed to plant 1000 saplings during the year but only 250 saplings were planted.

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