

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR Inspection Report
Goa Regional Office

- (i) Name of the Inspecting Officer and ID No. : **(K07) KRISHNENDU CHATTERJEE**
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine Official with Designation : S/Shri Chidanand P-Mines Manager, A B Nagaraj-Mining Engineer
- (iv) Date of Inspection : 16.12.2024
- (v) Prev. inspection date : 23.08.2023

PART-I: GENERAL INFORMATION

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1. (a) **Mine Name** : Muddapur Limestone & Dolomite Mine
ML No. 2602
- (b) IBM Registration Number under rule 45 of MCDR, 1988 : IBM/1245/2011
- (c) Mine code : 38KAR26073
- (d) Type of Working (Opencast, Underground) : Opencast
- (e) Category (Fully Mechanized, Others or Manual) : Cat. A, Fully Mechanised
- (f) Captive/ Non captive : Non-captive
- (g) Postal Address
- Village : Muddapur
- Taluk/Mandal : Mudhol
- District : Bagalkot
- Pin code : 587122
- State : Karnataka
- Post office : Mudhol
- Nearest police station : Mudhol
- Nearest Railway station : Bagalkot
- 2 Address for correspondence : M/s South west Mining Ltd.,
JSW Mining office
Post-Vidya Nagar, Toranagallu
Bellary District, Karnataka-583275.
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3	(a)	Total Lease Area (Ha) with breakup of Non-forest and forest land	:	18.84 Ha. (Non-Forest)
	(b)	Date of Grant of Mining Lease	:	21.05.2009
	(c)	Date of Execution	:	21.05.2009
	(d)	Date of opening of Mine	:	21.05.2009
	(e)	Date of expiry	:	20.05.2059; as per MMDR Amendment Act, 2015
4		Mineral(s) granted in lease and proved for mining	:	Limestone & Dolomite
5	(a)	Name of the lessee, Address, phone, email and fax number	:	M/s South west Mining Ltd., JSW Mining office Post-Vidya Nagar, Toranagallu Bellary District, Karnataka-583275.
	(b)	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	:	Shri Anil Sood. M/s South west Mining Ltd., Mail ID: anil. sood@swml.in Date of Appointment - 14.03.2020
	(c)	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	:	Shri Prakash MS M/s South west Mining Ltd., JSW Mining office Post-Vidya Nagar, Toranagallu Bellary District, Karnataka-583275. Mail ID: prakash.subbanna@jsw.in Date of Appointment: 01.07.2024
	(d)	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	:	Shri Chidanand P. Muddapur Limestone & Dolomite Mine At Post: Muddapur, Mudhol Taluk Bagalkot District. Karnataka 587122 Mail ID: chidanand.mp@jsw.in Date of Appointment: 03.11.2020
	(e)	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	:	Shri A B Nagaraj Muddapur Limestone & Dolomite Mine At Post: Muddapur, Mudhol Taluk Bagalkot District. Karnataka 587122 Date of Appointment: 02.04.2018
	(f)	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	:	Shri Natraj B Muddapur Limestone & Dolomite Mine At Post: Muddapur, Mudhol Taluk Bagalkot District. Karnataka 587122 Date of Appointment: 31.08.2015

6	Date of Approval of Mining Plan/Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	:	Approval of RMP MCDR-MPCOLST/11/2023-GOA-IBM_RO_GOA Dated 04/01/2024 Period: 2024-25 to 2028-29
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PART - II: OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration:

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No proposal	G1: 15.44 Ha.	Proved non-mineralized: 3.40 Ha.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Nil	
1e	Balance reserves as on <u>01.04.2024</u>		Total reserve of Limestone: 5.86 million tonnes. Dolomite Reserve: 0.421 million tonnes.	Limestone quality: CaO 45.73% Dolomite quality: MgO 18.36%.
1f	General remarks of inspecting officer on geology, exploration etc.	Entire ML area is explored by the lessee under G1 level by drilling with 06 nos. of DTH and 10 nos. of core boreholes. Further, 8 nos. of check boreholes were proposed by the lessee in F.Y. 2024-25.		

Development:

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	1791143 N to 1791221 N and	1791150 N to 1791230 N	Deviation observed in respect of Limestone

		530674 E to 530759 E	and 530739 E to 530788 E	working location. Violation of rule 11(1) issued.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in ore proposed.	Benches in Ore: 3 Benches in Overburden: 0	
2c	Stripping ratio or ore to OB ratio	1:0.06	1: 0.058	S.R maintained.
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	19,800 m3	3,260 m3	B.D: 1.6 tonnes/m3
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	440,000 tonnes of Limestone ROM production have been proposed during F.Y. 2023-24, against which only 30,618 tonnes Limestone ROM production has been reported. Such production deviation attributed to the deviation in proposed mining locations for the current working. Violation of rule 11(1) issued on 06.01.2025.		

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	Single pit proposed	Single pit.	Dimension of existing pit was: 300m x 230m x 15m
3b	Quantity of ROM mineral production proposed	440,000 tonnes of Limestone & 60,000 tonnes of Dolomite	Limestone: 30,618 tonnes Dolomite: 60,000 tonnes of production was reported in 2023-24.	
3c	Recovery of salable/usable mineral from production	95% recovery proposed	Approx. recovery of ROM 95%	

3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	Not applicable	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	No proposal	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised mine	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	
3j	Provision of drilling & blasting in mineral benches	Proposed to drill by jack hammer and blasting using slurry and UNFO	As per proposal, however drilling & blasting requirement is less.	106 (2) (B) permission obtained from the DGMS as per MMR 1961.
3k	Provision of mining machineries in mineral benches	Drill Machine-1 Excavator-2 Crusher-1 Tipper-3 Water Tanker-1	Drill Machine-1 Excavator-2 Crusher-1 Tipper-3 Water Tanker-1	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8m bench height proposed.	Average height 6m is maintained	
3m	Total area covered under excavation/pits	6.69 Ha.	5.88 Ha.	Actual area utilizations are furnished as per submitted AR 2023-24.
3n	Ore to OB ratio for the pit/mine during the year	1:0.06	1: 0.058	S.R maintained.

3o	Total area put in use under different heads at the end of year	Area under mining: 6.69 Ha. Dump: 0.43 Ha. Mineral Storage: 1.30 Ha. Infrastructures & Road: 0.90 Ha	Area under mining: 5.88 Ha. Dump: 0.63 Ha. Mineral Storage: 1.63 Ha. Infrastructures & Road: 1.03 Ha	Actual area utilizations are furnished as per submitted AR 2023-24.
3p	Production of ROM mineral during last five-year period, as applicable	Limestone: 2019-20: 239942 2020-21: 280013 2021-22: Nil 2022-23: 440000 2023-24: 440000 (in tonnes) Dolomite: 2019-20: 9984 2020-21: 19968 2021-22: 60000 2022-23: 60000 2023-24: 60000 (in tonnes)	Limestone: 2019-20: 69204 2020-21: 38870 2021-22: Nil 2022-23: Nil 2023-24: 30618 (in tonnes) Dolomite: 2019-20: 5000 2020-21: 19800 2021-22: 42314 2022-23: 60000 2023-24: 60000 (in tonnes)	
3q	General remarks of inspecting officer on method of mining etc.	440,000 tonnes of Limestone ROM production was proposed during F.Y. 2023-24; against which only 30,618 tonnes of Limestone production reported. Such production deviation attributed to the deviation in proposed mining locations for current working. Violation of rule 11(1) issued on 06.01.2025.		

Solid Waste Management-Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of OB proposed in F.Y 2023-24	Separate dumping of OB waste.	
4b	Location of topsoil, OB & mineral reject dumps	OB dumping proposal given in N 1791040 to N 1791100; E531090 to E 531240	1791020 N to 1791080 N and 531103 E to 531246 E	Top soil was earlier utilized for plantation along the 7.5m safety barrier.

4c	Number of dumps within lease area and outside lease area	01 no. of dump within ML area proposed.	01 no. dump present within ML area.	No dump is located outside ML
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL proposed.	Located outside UPL	
4e	Number of active & alive dumps	01 No.	01 No.	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps stabilized	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Proposed along the toe of dump and mineral stocks.	Constructed as per proposal.	
4i	Length of Retaining wall or garland drain all along dump	No proposal in 2023-24	Retaining wall constructed along the ML boundary and along the active dump.	Total 357m of retaining wall constructed so far.
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management.	Retaining Wall along the toe of the waste dump was not found maintained; during inspection on 16.12.2024 it was observed that, near BP-F, dumping material breaches the retaining wall due to insufficient height of the wall. Violation of rule 11(1) issued on 06.01.2025.		

Solid Waste Management-Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposal	Nil	

5b	Area under backfilling of mined out area	No proposal	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Nil
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil
5e	General remarks of inspecting officer on backfilling, reclamation etc	Mine lease is not matured for rehabilitation by backfilling.	

Progressive Mine Closure Plan:

Sl.No.	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 for F.Y. 2023-24	
6b	Area available for rehabilitation (ha)	No proposal	Nil	
6c	Afforestation done (ha)	0.31 Ha. during 2023-24.	0.33 Ha.	
6d	No. of saplings planted during the year	100 nos.	1261 nos. within the ML area in 2023-24.	
6e	Cumulative no. of plants	Not specified	Apprx. 6000 nos. saplings planted along the safety barrier.	Including gap plantation.
6f	Any other specific method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch & care during the year	Not specified	Rs. 150,000/- as reported by the lessee representative	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D)	No proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings	No proposal	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area	No proposal	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	No proposal	Not applicable
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation	No proposal	Not applicable
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha)	No proposal	Not applicable
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Not applicable
6p	Compliance of Environmental monitoring (core zone & buffer zone)	Proposed.	Environmental monitoring is carried out periodically and parameters are found within stipulated limit.
6q	General remarks of inspecting officer on PMCP compliance &	PMCP compliances being carried out as per approved proposals. Apprx. 6000 nos. saplings	

progressive closure operations

were planted within the ML area along the safety barrier.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch proposed after sizing and sorting.	ROM & grade wise dispatch after sizing and sorting.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical sizing and sorting.	Mechanical sizing and sorting by crusher.	Crusher has been installed within ML area for sizing and screening of ore.
7c	Different grade of mineral sorted out at mines	Proposed for all +34% CaO in respect of Limestone.	BF grade Limestone dispatch reported in F.Y. 2023-24	
7d	Any beneficiation process at mines	No proposal	Nil except crushing and dry screening.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Grade wise mineral being dispatched from the mine after sizing and sorting of ores. 22009 tonnes of BF grade Limestone and 52120 tonnes of Dolomite were dispatched form the mine during 2023-24.		

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No Top Soil generation in F.Y. 2023-24	
8b	Concurrent use or storage of topsoil	No proposal	Not Applicable	Top soil earlier used for plantation along the safety barrier zone.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping of waste is proposed.	Separate dumping of waste has been made.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Mine pit is not matured for backfilling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed during conceptual stage.	Not Applicable
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation of local Spices	Baseline information submitted. Apprx. 6000 nos. saplings were planted within ML area.
8g	Survival rate	Not specified.	70 to 80%
8h	Water sprinkling on roads to control airborne dust	Proposed.	Water tanker arrangement for water sprinkling on mine roads has been made.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty in and around the mining area is good.	

Compliance of Rule 45:

Sl.No.	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Jan. 2025 A.R. Submitted up to 2023-2024	Date of submission of AR was 25.06.2024.

S.N.	Item	Propasals	Actual work	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Shri Chidanand Padadappanavar Mining Engineer: Shri A B Nagaraj Geologist: Shri Natraj B	No change.	Notices of appointments of Mining Engineer and Geologist submitted in Form -H.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under mining: 5.88 Ha. Dump: 0.63 Ha. Infrastructures & Road: 1.1 Ha.	Area under mining: 5.88 Ha. Dump: 0.63 Ha. Mineral Storage: 1.63 Ha. Infrastructures & Road: 1.03 Ha.	
9d	Scrutiny of Annual return on afforestation	1261 nos. within the ML area	Carried out along safety barrier area and Eastern side of the ML.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Furnished as Nil	No mineral reject generation in 2023-24.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stocks: Nil in respect of Limestone and Dolomite both. Graded ore closing Stock of BF grade Limestone: 118798 tonnes. Graded ore closing Stock of Dolomite: 24250 tonnes.	Actual was also same at that time as per mine production and dispatch register.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price for BF grade Limestone: Rs. 365.78 / tonne and	Some of the invoices were checked during inspection and sale values	

Ex-Mine Price for given were
 Dolomite: Rs. found correct.
 472.28 /tonne

Production Cost:
 Rs. 475.24 /tonne

9i	Scrutiny of Annual return on fixed assets	Net closing balance and estimated market values are mentioned in AR.	Details furnished.
9k	Scrutiny of Annual return on mining machineries	Air Compressor: 2 nos. Excavator: 2 nos. Tippers: 3 nos. Crusher: 1 no. Water tanker: 1 no.	No change.

Details of violations observed during current inspection and compliance position of violation pointed out					
Rule NO.	<u>Violation observed</u>		Rule NO.	<u>Show cause position</u>	
	Issued on	Compliance on		Issued on	Compliance on
11(1)	06.01.2025	06.02.2025			

(KRISHNENDU CHATTERJEE)
Indian Bureau of Mines