

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/JSL-13/LST-1

Mine code : 38RAJ14002

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sh Mahipal Jugtawat, Mine Manger, Sh Mayank Rao, ME S
Official with
Designation
- (iv) Date of Inspection : 04-OCT-22
- (v) Prev.inspection date : 10-FEB-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SANU (1000HECT.)**
- (b) **Registration NO.** : **IBM/5158/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : JAISALMER
Village : JOGA
Taluka : JAISALMER
Post office : SANU
Pin Code : 345001
FAX No. : 02992-251394
E-mail : sanumines@yahoo.co.in
Phone : 02992-270283
- (f) Police Station :
- (g) First opening date : 19-MAR-87
- (h) Weekly day of rest : SUN
2. Address for : P.BOX NO.56,
correspondance KHANIJ BHAWAN
JAISALMER
3. (a) Lease Number : RAJ1485
- (b) Lease area : 998.4
- (c) Period of lease : 50
- (d) Date of Expiry : 31-MAR-47
4. Mineral worked : LIMESHELL Associated
LIMESTONE Main

5. Name and Address of the

Lessee : RAJASTHAN STATE MINES & MINERALS LTD.
 RSMM LTD., GYPSUM DIVN.
 SADUL CLUB BUILDING,
 BIKANER BIKANER RAJASTHAN
 Phone:0151-2523295, 2544178, 2542291, 2542133
 FAX :0151-2523519

Owner : Vikas Sitaramji Bhale
 Rajasthan State Mines &
 Mineral Ltd 4 Meera Marg,
 Udaipur, Rajasthan UDAIPUR
 RAJASTHAN
 Phone: 9414320130
 FAX :

Agent : D D SHRIPAT
 8 WEST PATEL NAGAR, JODHPUR
 JODHPUR RAJASTHAN
 Phone:
 FAX :

Mining Engineer

Name : Sh. Mayank Rao, Full Time
 Qualification : BE (Mining)
 Appointment/ : 12-MAY-21
 Termination date

Geologist

Name : Sh. D. S. Acharya, Full Time
 Qualification : M.Sc. Geology
 Appointment/ : 22-DEC-21
 Termination date

Manager

Name : Sh. Mahipal Jugtawat
 Qualification : BE Mining
 Appointment/ : 24-SEP-21
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	14-JUN-91
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	20-AUG-97
	:	Mining Scheme rule 12 MCDR1988	04-FEB-02
	:	Mining Scheme rule 12 MCDR1988	17-JUN-03
	:	Mining Scheme rule 12 MCDR1988	04-SEP-06
	:	Mining Scheme rule 12 MCDR1988	27-MAY-08
	:	Mining Scheme rule 12 MCDR1988	13-SEP-12
	:	MP review under 17(1) MCR 2016	13-DEC-16
	:	MP modif under 17(3) MCR 2016	05-DEC-18
	:	MP review under 17(1) MCR 2016	29-MAR-22

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of exploration during the previous year 2020-21.	Not applicable as no proposal.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration for reporting year (RY) 2021-22.	No exploration during the reporting year (RY) 2021-22.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable as no proposal of exploration.	Not applicable.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal of exploration.	Not applicable.	As per approved document entire SMS grade limestone has been explored under G1 level of exploration.
1e	Balance reserve as on 01/04/20	As per approved document dated 29/03/2022, the position of reserve of SMS grade limestone as on 01.10.2021 was 20.726 mT.	The position of SMS grade limestone as on 01/04/2022 was 19.108 mT.	NIL.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration.	As per approved document entire SMS grade limestone has been explored under G1 level of exploration.	Geologically the deposit is of regular habit. The SMS grade limestone occurs around 5-6 mts from surface.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	North Block: N4406- N5100/E6437- E6900 South Block: N127- N690/E6900- E7400	North Block: N3920- N4120/E6437-E7200, South Block: N127-N700/E6500- E7400	Violation of rule 11(1) of MCDR, 2017 issued.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top Soil and OB in lease area. Single bench in mineral.	Only single bench mining. SMS grade limestone occurs at up to a depth of around 6 mtrs from surface.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0 T/T	1:0 T/T	NIL.
2d	Quantity of topsoil generation in m3	No top soil.	Not applicable as no top soil generation.	Overlain by Alluvium at few places.
2e	Quantity of overburden generation in m3	No overburden, deposit outcrops on surface.	Not applicable.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed through opencast method.	Development is being carried out through opencast method.	Violation of rule 11(1) of MCDR, 2017 issued for deviation in development location.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two (North block and South block).	Two (North block and South block).	NIL.
3b	Quantity of ROM mineral production proposed	3304000 tons.	3109865.000 tons	NIL.
3c	Recovery of sailable/usable mineral from ROM production	1500000.00 Tons	1425595.510 tons	30mm to 80mm size.
3d	Quantity of mineral reject generation	1277000 tons.	1276778 tons.	Low grade rejects having size less than 10 mm.
3e	Grade of mineral rejects generation and threshold value declared.	CaO = 45 to 46 % SiO2 = 14 to 15 %	CaO = 44.24% SiO2 = 12.49 %	Threshold value of Limestone is CaO>34% and MgO <=

3f	Quantity of sub grade mineral generation.	413000 tons.	407492 tons.	NIL.
3g	Grade of sub grade mineral generation	No specific proposal on grade.	CaO = 51.38 % SiO ₂ = 1.62 %	Subgrade mineral having size between 10 mm to 30mm size gitty.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized (crushing and screening).	Mechanized (crushing and screening).	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Not applicable.	NIL.
3j	Provision of drilling and blasting in mineral benches	Drilling by 4" dia drill machine and Blasting with ANFO using controlled blasting techniques DTH & TLD.	Drilling by 4" dia drill machine and Blasting with ANFO using controlled blasting techniques DTH & TLD.	NIL.
3k	Provision of mining machineries in mineral benches	Dumper and Shovel Combination (HEMM).	Dumper and Shovel Combination (HEMM).	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Up to the depth of the SMS grade limestone.	As per proposal.	NIL.
3m	Total area covered under excavation/pits	Total of 660.80 hectare area including reclaimed and rehabilitated area.	Total of 594.32 hectare area including reclaimed and rehabilitated area.	NIL.
3n	Ore to OB ratio for the pit/mine during the year.	1:0 T/T	1:0 T/T	NIL.
3o	Total area put in use under different heads at the end of year	Total of 674.99 hectare area including reclaimed and rehabilitated area.	Total of 608.51 hectare area including reclaimed and rehabilitated area.	NIL.

3p	Production of ROM mineral during the last five year period as applicable	2016-17: 2700000 2017-18: 2700000 2018-19: 3304000 2019-20 3304000 2020-21: 3304000 2021-22: 3304000	2016-17: 2084683 2017-18: 2685196 2018-19: 2725921 2019-20 2631526 2020-21: 2099686 2021-22: 3109865	All figures in tonnes.
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining has been proposed.	Opencast method of mining is being practiced.	Opencast method of mining is best suited method for the type of deposit. No issue related to method of mining.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil and OB generation. Mineral reject proposed to backfill.	No top soil and OB generation during RY. Mineral Reject disposed as per proposal.	Surface deposit. No OB and Top Soil.
4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil and OB generation. Mineral reject and SG proposed to backfilling in excavated area.	No top soil and OB generation during RY. Mineral Reject and SG disposed as per proposal.	Surface deposit. No OB and Top Soil.
4c	Number of dumps within lease area and outside of lease area	No waste dumps within and outside lease area.	No waste dumps within and outside lease area.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as no proposal of waste dumping.	Not applicable.	NIL.
4e	Number of active and alive dumps.	No proposal of active & alive dumping.	Not applicable.	NIL.
4f	Number of dead dumps.	No proposal.	Not applicable.	NIL.
4g	Number of dumps established.	No proposal.	Not applicable.	NIL.

4h	Whether Retaining wall or garland drain all along dumps are there.	Not applicable as no waste dumping.	Not applicable.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Not applicable.	NIL.
4j	Number of settling ponds	No proposal.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	No proposal of waste generation.	No waste has been generated during RY.	No issue related waste management as no waste generation.

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.	Backfilling proposed after full extraction of SMS Grade Limestone.	Yes, Full extraction of SMS Grade Limestone before starting backfilling.	NIL.
5b	Area under backfilling of mined out area	28.69 Hect.	25.82 Hect.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	Not applicable.	NIL.
5d	Total area fully reclaimed and rehabilitated	Proposed during FY 2021-22 Backfilling = 28.69 Hect. Plantation = 25.00 Hect	Actual during FY 2021-22 Backfilling=25.82 Hect. Plantation=25.40 Hect.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling proposed after full extraction of SMS Grade Limestone.	Full extraction of SMS Grade Limestone before starting backfilling.	Mined out area is concurrently backfilled with mineral reject or size reject.

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).	As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP report before 1st day of July every year.	PMCP report for the year 2021-22 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	28.69 Hect.	25.82 Hect.	NIL.
6c	afforestation done (ha).	25.0 Hect.	25.40 Hect.	NIL.
6d	No. of saplings planted during the year	6500 nos of saplings.	6500 nos of saplings.	NIL.
6e	Cumulative no .of plants	No specific proposal.	81291 number of saplings.	NIL.
6f	Any other method of rehabilitation	No proposal.	Not applicable.	NIL.
6g	Cost incurred on watch and care during the year	No proposal.	Rs. 13.80 lacs	As inform during mine inspection.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	28.69 Hect.	25.82 Hect.	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Mineral Reject having size - 10mm.	Mineral Reject having size -10mm.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	25.0 Hect.	25.40 Hect.	NIL.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	Not applicable.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No any other specific proposal.	Not applicable.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	6500 nos of saplings.	6500 nos of saplings.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	25.0 Hect.	25.40 Hect.	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)	Regularly monitoring of environment parameters.	Periodic compliance report is regularly submitted to concerned authorities.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	An area of 25.0 hectare with 6500 nos of saplings has been proposed to plant.	An area of 25.40 hectare with 6500 nos of saplings has been planted.	PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	No grade wise sorting. Size wise sorting has been proposed; 30-80mm, 10-30 mm and -10 mm.)	As per proposal.	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical (crushing and screening).	Mechanical (crushing and screening).	NIL.
7c	Different grade of mineral sorted out at mines.	30-80mm size gitty 10-30mm sizegitty. -10 mm size.	As per proposal.	NIL.
7d	Any beneficiation process at mines .	No proposal.	No beneficiation process other than crushing and screening.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Dry processing by crushing and screening.	Dry processing as per proposal.	No issue observed related to mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	No top soil has been generated.	No top soil, surface deposit.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	No top soil has been generated.	No top soil, surface deposit.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Low grade rejects generated during the crushing & screening process and backfilled in mined out pits.	Low grade rejects generated during the crushing & screening process and backfilled in mined out pits.	These low grade reject may be used in future for cement manufacturing.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling of mineral reject in mine out area.	As per proposal.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Land affected by mining has been proposed to reclaim by the way of backfilling.	Backfilling has been carried out for the purpose of reclamation.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6500 Nos. of saplings.	6500 Nos. of saplings.	NIL.
8g	Survival rate	No proposal on survival rate.	72.37 as per AR 2020-21.	NIL.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to control airborne dust.	Water sprinkling observed through water tanker.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	A total of 6500 numbers of saplings proposed to plant during 2021-22.	A total of 6500 numbers of saplings have been planted during 2021-22.	The area is arid and lessee has made efforts to reclaim and rehabilitate the mine out area.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual return to be submitted to competent authority.	Monthly and annual returns have been submitted for the RY.	NIL.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Manager, Mining Engineer and geologist has been furnished.	Mining Engineer, Geologist and Manager has been appointed in the mine.	Scrutiny of AR 2021-22.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area for Mining = 594.32 Rehabilitated = 462.50 Plantation = 292.50 Road, building= 9.69 C&S plant, storage= 4.50	The information of land use found in order.	NIL.
9d	Scrutiny of Annual return on afforestation	Inside Lease: 6500 and Outside Lease: NIL.	Inside Lease: 6500 and Outside Lease: NIL.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Rejct of 1276778.00 tonnes.	Low grade rejects having size less than 10 mm.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing: NIL Total Graded Closing: 397975.18 tonnes.	Found in order.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Information on sale value, Ex. Mine Price and cost of production has been furnished.	Calculation error has been observed in Cost of production.	Violation of rule 45(7) of MCDR, 2017 issued for variation in cost of production.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Asset: Rs. 84180002 /-	Information furnished appears to be in order.	NIL.

9k	Scrutiny of Annual return on mining machineries	Back Hoe, Blast Hole Drill, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	Back Hoe, Blast Hole Drill, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	NIL.
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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
MCDR17	Rule 11(1)	18-NOV-22	22-DEC-22			
MCDR17	Rule 45(7) (a)	18-NOV-22	22-DEC-22			

Date :

(DILIP JAIN)

Indian Bureau of Mines