

**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 : **K010** ) **Kotriwal B.L.**  
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Shri D D Sripat, General Manager (Mines)  
Official with  
Designation
- (iv) Date of Inspection : 09-OCT-19
- (v) Prev.inspection date : 23-OCT-18

**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 : 30
- (d) Date of Expiry : 30-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 :

Manager  
 Name : Rajendra Menaria  
 Qualification : BE(Mining)  
 Appointment/ : 10-APR-18  
 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

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	No proposal	Nil	
1c	Exploration Agencies and 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 reserve as on 01/04/20	-	17.114 MT	
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Entire lease area has been already explored under G-1 level at 200X200 Grid.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	3566-4200N,7400-8044E North Block 591-1615N,7500-7841E South Block	3500-4150N, 7350-8000E North Block 570-1600N, 7450-7800E South Block	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Only single bench mining. SMS grade limestone found at maximum depth of 6 mtrs from surface.	Nil	
2c	Stripping ratio or ore to OB ratio	No proposal	Nil	No overburden, deposit is outcrop on surface.

2d	Quantity of topsoil generation in m3	No proposal	Nil	No top soil, deposit is outcrop on surface. Overlain by Alluvium at few places.
2e	Quantity of overburden generation in m3	No overburden, deposit is outcrop on surface.	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Only single bench mining. SMS grade limestone found at maximum depth of 6 mtrs from surface. It is Surface Deposit

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed	3304000 MT	2725921 MT	
3c	Recovery of sailable/usable mineral from ROM production	Recovery of Finished product i.e. 30mm to 80mm size is 47% Chemical Composition CaO = 54.26 % SiO2 = 1.15 %	Actual Recovery of Finished product i.e. (30-80mm size is 45% Chemical Composition CaO = 54.05 % SiO2 = 1.19 %	
3d	Quantity of mineral reject generation	1377000 MT	1183988 MT	Low grade fines having size less than 10mm.
3e	Grade of mineral rejects generation and threshold value declared.	CaO = 41.25 % SiO2 = 14.30 %	CaO = 44.25 % SiO2 = 12.49 %	Threshold value of SMS Gr Limestone is CaO-39% SiO2-14.8%
3f	Quantity of sub grade mineral generation.	413000 MT	291951 MT	

3g	Grade of sub grade mineral generation	CaO = 53.65 % SiO2 = 1.58 %	CaO = 51.38 % SiO2 = 1.62 %	Subgrade mineral is generated as by-product and having size between 10 mm to 30mm size gitty.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	Drilling is done with help of 4" dia drill machine and Blasting is done with ANFO by using controlled blasting techniques DTH & TLD.	Drilling is done with help of 4" dia drill machine and Blasting is done with ANFO by using controlled blasting techniques DTH & TLD.	(4"dia large DTH drills are used for drilling)
3k	Provision of mining machineries in mineral benches	Heavy Earth Mine Machinery	Heavy Earth Mine Machinery	With Excavator with dumper combination
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	It shall vary from 3.5 to 5.5 meter.
3m	Total area covered under excavation/pits	37.40 Hect	23.19Hect	This is total area put to use including crushers, infrastructure and BRO road in mining lease area.
3n	Ore to OB ratio for the pit/mine during the year.	No proposal	Nil	

3o	Total area put in use under different heads at the end of year	Area for Mining= 28.69 Backfilling= 21.80 Plantation= 25.00 Road, building= 9.69 C&S plant, storage=4.50	Area for Mining=23.19 Backfilling=18.24 Plantation=14.50 Road, building= 9.69 C&S plant, storage= 4.50	Total Land Area Status as on 01.04.2019 Area for Mining = 534.09 Backfilling = 255.84 Plantation = 156.42 Road, building= 9.69 C&S plant, storage= 4.50
3p	Production of ROM mineral during the last five year period as applicable	(In MT) 2013-14- 2700000 2014-15- 2700000 2015-16- 2700000 2016-17- 2700000 2017-18- 2700000 2018-19- 3304000	(In MT) 2013-14-1881815 2014-15-2137593 2015-16-1936097 2016-17-2084683 2017-18-2685196 2018-19- 2725921	
3q	General remarks of inspecting officers on method of mining etc.	-	-	Lower production due to low market value

## 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	Nil	Surface Deposit in outcrop form
4b	Location of topsoil, OB and mineral reject dumps	No proposal	Nil	
4c	Number of dumps within lease area and outside of lease area	No proposal	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal	Nil	

4e	Number of active and alive dumps.	No proposal	Nil	
4f	Number of dead dumps.	No proposal	Nil	
4g	Number of dumps established.	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil	
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management	-	-	It is a Surface Deposit in outcrop form.

#### 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.	Yes, Full extraction of SMS Grade Mineral from mined out area before starting backfilling.	Yes, Full extraction of SMS Grade Mineral from mined out area before starting backfilling.	
5b	Area under backfilling of mined out area	23.19 Ha.	18.24 Ha.	Mined out area is concurrently backfilled with low grade reject in the pit.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	

5d	Total area fully reclaimed and rehabilitated	Earlier backfilled area as on 01.04.19 = 255.84 Ha Plantation over backfilled, mined out & virgin area as on 1.4.19=156.42Hect	Actual carried out during FY 2018-19 Backfilling=18.24 Plantation=14.50	
		Proposed during FY 2018-19 Backfilling= 21.80 Plantation= 25.00		
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	As on 31.03.19 255.84Hectarea is reclaimed & 156.42Hect with plantation in mined out backfilled area.

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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, submitted in time	
6b	Area available for rehabilitation (ha) .	28.69Hect	23.19Hect	This area proposed & Actual used in mining activities.
6c	afforestation done (ha).	15Hect	NIL	Afforestation on mined out area.
6d	No. of saplings planted during the year	5000	5000	
6e	Cumulative no .of plants	-	72222	Total number of plantation on mined out, backfilled and virgin area as on 31.03.2019



6f	Any other method of rehabilitation	-	-	
6g	Cost incurred on watch and care during the year	5.00 lacs	7.15 lacs	Cost incurred in deploying water tanker & labour in care, watch & ward though contractors.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	-	-	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	23.19 Ha	18.24 Ha	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	3 Ha	4 Ha.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	Nil	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposaed in Review of Mining Plan	As proposed in the Review of Mining Plan	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Vilation issued under rule 11(1) of MCDR, 2017

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	During 2018-19 Production Proposal:- 1250000 (30-80mm) 413000 (10-30 mm)  Likely to Despatch:- 1250000 (30-80mm) 300000 (10-30 mm)	Actual Production:- During 2018-19 1249981.20 (30-80 mm) 291951.70 (10-30 mm)  Actual Despatch:- 1249934.65 (30-80 mm) 282876.17(10-30 mm)	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	

7c	Different grade of mineral sorted out at mines.	Yes, different grade separated by screening at plant was as under:- 40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm sizegitty.	Yes, different grade separated by screening at plant was as under:- 40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm sizegitty.	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral processing is carried out by dry processing only.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and utilization of top soil(Rule 32)	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
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 mining plants.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Mineral rejects & fine is dumped in mined out area & for backfilling.	Mineral rejects & fine is dumped in mined out area & for backfilling.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Area used for Plantation (fire-wood plant), for natural water reservoirs & backfilled by clayey soil of low grade fines.	Area used for Plantation (fire-wood plant), for natural water reservoirs & backfilled by clayey soil of low grade fines.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 Nos.	5000 Nos.	
8g	Survival rate	100 %	70%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes, water is being sprinkled on roads to control airborne dust	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	No top soil, it is a surface deposit.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted up to Aug.2019 A.R. Submitted for 2018-19.	M.R. submitted up to Aug.2019 A.R. Submitted for 2018-19.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer = 2 Diploma Mining Engineer = 1 Geologist Partially Employed=1 Surveyor = 1 Other Technical & Supervisory staff = 13	Yes, submitted	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total Land Area Status as on 01.04.2019 Area for Mining = 534.09 Backfilling = 255.84 Plantation = 156.42 Road, building= 9.69 C&S plant, storage= 4.50	Yes, provided	
9d	Scrutiny of Annual return on afforestation	Details given	Yes, provided.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Low grade rejects fines generated with grade: CaO = 44.25 % SiO2 = 12.49 % Quantity = 1053304 MT	Details given	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		Yes, provided. Total production of ROM is 2725921 MT	Yes, provided. Total production of ROM is 2725921 MT

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Provided	Yes, provided. Total sale value of mineral= Rs. 995941383/- Ex mine price of Finished product (30-80mm size) gitty= Rs. 420.80 PMT Ex mine price of Subgrade/ byproduct (below 30mm size) gitty= Rs. 226.20 PMT Production Cost: Rs. 404.80 PMT
9h	Scrutiny of Annual return on fixed assets	-	Yes, provided. Value of Fixed Asset: Rs. 11,52,24,271/-
9k	Scrutiny of Annual return on mining machineries		Details provided in the annual return

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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)	06-DEC-19			
MCDR17	Rule 26(2)	06-DEC-19			

**Date :****(Kotriwal B.L.)**

Indian Bureau of Mines