

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/JSL-14/LST-2

Mine code : 38RAJ14001

- (i) Name of the Inspecting : **S012**) **Sharma H.C.**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Rajendra Menaria, General Manager (Mines), Sh. Ma
Official with
Designation
- (iv) Date of Inspection : 02/03/2021
- (v) Prev.inspection date : 10/10/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SANU (998.40 HA)**
- (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. : **02992-52135**
- E-mail : **menaria**
- Phone : **02992-51607**
- (f) **Police Station** : **Sanu**
- (g) **First opening date** : **18/10/1993**
- (h) **Weekly day of rest** : **MON**
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** : **30/03/2047**
4. **Mineral worked** : **LIMESTONE** **Main**
LIMESHELL **Associated**

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 : Rajendra Manaria
 Khaniz Bhawan, Near B P
 Tank Jaiselmer JAISALMER
 RAJASTHAN
 Phone: 02992251607
 FAX :

Geologist

Name : K K Mathur, Full Time
 Qualification : M Sc (Sedimentology & Petroleum Geology
 Appointment/ : 18/02/2019
 Termination date

Manager

Name : Rajendra Menaria
 Qualification : BE(Mining)
 Appointment/ : 10/04/2018
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	27/01/1993
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	17/07/1998
		Mining Scheme rule 12 MCDR1988	25/07/2013
		MP review under 17(1) MCR 2016	01/12/2017

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	None	
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	Not specified	11.38 million MT	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable		

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	3297-3892N, 1007-2050E North Block 2990- 3400N,2760- 3552E South Block	3200-3850N,1000-2000E North Block 2950-3450N,2700-3500E 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.	Only single bench mining. SMS grade limestone mining carried out in range 3.5 mtrs to 5.5mtrs from surface.	
2c	Stripping ratio or ore to OB ratio	No overburden, deposit is outcrop on surface.	Not applicable	

2d	Quantity of topsoil generation in m3	No top soil, deposit is outcrop on surface.	Nil
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	Not applicable	It is outcropping surface deposit & development as per approved proposals.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed	2718000 MT	2504113 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 45.80% Chemical Composition CaO = 54.05 % SiO2 = 1.19 %	
3d	Quantity of mineral reject generation	1028000 MT	1068287 MT	
3e	Grade of mineral rejects generation and threshold value declared.	CaO = 41.25 % SiO2 = 14.30 %	CaO = 44.25 % SiO2 = 12.49 %	
3f	Quantity of sub grade mineral generation.	422000 MT	298896 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 primed explosive (Class-2) with ANFO &by using controlled blasting techniques DTH & TLD.	Drilling is done with help of 4" dia drill machine and Blasting is done with primed explosive (Class-2) with ANFO &by using controlled blasting techniques DTH & TLD.
3k	Provision of mining machineries in mineral benches	With Excavator with dumper combination	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
3m	Total area covered under excavation/pits	39.40 Hect	20.82 Hect
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable as it is outcropping Surface deposit.	Not applicable
3o	Total area put in use under different heads at the end of year	Area for Mining=39.40 Backfilling= 30.96 Plantation= 20.00 Road, building=2.10 CS plant, storage=37.63	Area for Mining=20.82 Backfilling= 22.21 Plantation= 20.65 Road, building=2.10 C&S plant, storage=37.63

3p	Production of ROM mineral during the last five year period as applicable	2014-15-- 2779778 MT, 2015-16-- 2777778 MT, 2016-17-- 2777778 MT, 2017-18-- 2777778 MT, 2018-19-- 2726000 MT	2014-15-- 2497062 MT, 2015-16--2098433 MT, 2016-17-- 1366821 MT, 2017-18--2717463 MT, 2018-19--2633643 MT
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	Only single bench mining. SMS grade limestone found at maximum depth of 6 mtrs from surface..

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Surface Deposit in outcrop form, no Top Soil & no O/B waste. found.	Not applicable	
4b	Location of topsoil, OB and mineral reject dumps	No proposal due to surface deposit.	Not applicable	
4c	Number of dumps within lease area and outside of lease area	No proposal	Not applicable	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal	Not applicable	
4e	Number of active and alive dumps.	No proposal	Nil	
4f	Number of dead dumps.	No proposal	Not applicable	
4g	Number of dumps established.	No proposal	None	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Not applicable	
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Not applicable	

4j	Number of settling ponds	No proposal	Not applicable
4k	Specific comments of inspecting officer on waste dump management	Not applicable	There is no top soil & no O/B waste, it is outcropping surface deposit.

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	30.96 ha	22.21ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable as there is no top soil & no O/B waste.	Not applicable	
5d	Total area fully reclaimed and rehabilitated	Backfilling= 30.96 ha Plantation= 20.00 ha	During FY 2019-20 Backfilling= 22.21 ha Plantation= 20.65 ha	As on 31.03.20, - 318.89 Hectare is reclaimed & 152.53 Hect with plantation in mined out backfilled area.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	Mined out voids backfilled with low grade reject which may be used in cement in future.	

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 as per rule	Not submitted	

6b	Area available for rehabilitation (ha) .	39.40Hect	20.82Hect	
6c	afforestation done (ha).	Nil	Nil	
6d	No. of saplings planted during the year	5000 nos	5000 nos	
6e	Cumulative no .of plants	Not specified	49294 nos	Total number of plantation on mined out, backfilled and virgin area as on 31.03.2020
6f	Any other method of rehabilitation	Not specified	None	
6g	Cost incurred on watch and care during the year	Rs. 4.0 lacs	Rs. 9.80 lacs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	20.82 Ha	22.21 Ha	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No waste/ tailings generated	No waste/ tailings generated	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	20.00 Ha	20.65 Ha	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	None	

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	None
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	None
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per proposals in approved Mining Plan.	Being done
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	The Violation of Rule 26 (2) is proposed to be issued.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Production Proposal:- 1211000 (30-80mm) 421000 (10-30 mm) Likely to Despatch:- 1210000 (30-80mm) 300000 (10-30 mm)	Actual Production:- 1136929 (30-80 mm) 298896 (10-30 mm) Actual Despatch:- 1118134 (30-80 mm) 305343 (10-30 mm)	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	None	
7c	Different grade of mineral sorted out at mines.	Yes, different size grade separated by screening at plant was as under:- 40-80 mm sizegitty, 30-60mm sizegitty, 30-50mm sizegitty, 10-30mm sizegitty.	being done	Only size wise grading & sorting of mineral done with dry processing
7d	Any beneficiation process at mines .	NO proposal	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	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)	No top soil, surface deposit.	Not applicable	
8b	Concurrent use or storage of topsoil	No top soil, surface deposit.	Not applicable	
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.	Being done	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.	Being done
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.	Being done
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 Nos. per year to be planted.	5000 Nos. planted during the year.
8g	Survival rate	Not specified	70 %
8h	Water sprinkling on roads to control airborne dust	Yes	10 KLD Water tanker with sprinkler deployed for the purpose.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthetic beauty in & around the mine was satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Not applicable	M.R. submitted up to Dec-2020 A.R. Submitted for 2019-20.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer = 4, Diploma Mining Engineer = 1, Geologist Employed=1, Surveyor =2, Other Technical & Supervisory staff = 16	Found in order
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total Land Area Status as on 01.04.2020, Area for Mining = 458.84 ha, Backfilling = 318.89ha, Plantation = 152.53 ha Road, building= 2.10 ha, C&S plant ,storage= 37.63 ha.	Found in order
9d	Scrutiny of Annual return on afforestation	Planted 5200 nos within lease area & achieved 65.13 % Survival rate.	Found in order.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Low grade rejects fines generated with grade: CaO = 44.30 % SiO2 = 12.05 % Quantity = 1068287 MT	Found in order
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Total production of ROM is 2504113 MT	Found in order.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Total sale value of mineral= Rs. 100,72,90,534/ - Ex mine price of Finished product (30-80mm size) gitty= Rs. 429.35 PMT Ex mine price of Subgrade/byproduct (below 30mm size) gitty= Rs. 329.50 PMT Production Cost: Rs. 422.98PMT	Found in order
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Asset: Rs. 11,62,07,318/-	Found in order
9k	Scrutiny of Annual return on mining machineries	Detailed list of M/C deployed given	Found in order.

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(Sharma H.C.)

Indian Bureau of Mines