

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

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/KOTA-1/LST-1

**Mine code :** 38RAJ19001

- (i) Name of the Inspecting : **K010** ) **Kotriwal B.L.**  
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : **SHRI S B SHARMA, AGENT**  
Official with  
Designation
- (iv) Date of Inspection : 07-DEC-19
- (v) Prev.inspection date : 06-MAR-19

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MCL**
- (b) **Registration NO.** : **IBM/7378/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : RAJASTHAN  
District : KOTA  
Village : MORAK  
Taluka : RAMGANJ MANDI  
Post office : ADITYA NAGAR  
Pin Code : 326520  
FAX No. : 07459232231  
E-mail : mclmorak@kappa.net  
Phone : 07459232146
- (f) Police Station : Morak
- (g) First opening date : 21-DEC-77
- (h) Weekly day of rest : SUN
2. Address for : SR GENERAL MANAGER  
correspondance : MANGALAM CEMENT LTD, ADITYA NAGAR,  
PO MORAK, DISTT- KOTA
3. (a) Lease Number : RAJ0013
- (b) Lease area : 895
- (c) Period of lease : 20
- (d) Date of Expiry : 21-FEB-97
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : MANGLAM CEMENTS LIMITED  
 ADITYA NAGER -326517 PO-  
 MORAK DISTT-KOTA KOTA  
 RAJASTHAN  
 Phone: )7459)44237,44262  
 FAX :

Owner : K. C. Jain  
 Mangalam Cement Ltd. P. O.  
 Adityanagar, Morak, Distt.  
 Kota KOTA RAJASTHAN  
 Phone:  
 FAX : 07459232156

Agent : S.B.Sharma  
 Mangalam cement Ltd Aditya  
 Nagar Morak KOTA RAJASTHAN  
 Phone: 07459232262  
 FAX : 07459232231

## Mining Engineer

Name : S. B. Sharma, Full Time  
 Qualification : B. E. (Mining)  
 Appointment/ : 08-MAR-91  
 Termination date

## Geologist

Name : Vivek Rawat, Full Time  
 Qualification : M Tech(Applied Geology), FCC(R)  
 Appointment/ : 13-JAN-95  
 Termination date

## Manager

Name : Ramesh Chaudhry  
 Qualification : B. E. (Mining), FCC (R)  
 Appointment/ : 31-MAR-15  
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	03-FEB-93
Plan/Scheme of Mining		Existing rule 11 MCDR1988	18-AUG-97
		Mining Scheme rule 12 MCDR1988	22-FEB-99
		Mining Scheme rule 12 MCDR1988	25-SEP-03
		Modif.of approved Mining Plan	18-AUG-06
		Mining Scheme rule 12 MCDR1988	04-NOV-11
		Modif.approved Mining Scheme	13-FEB-13
		MP modif under MCR 1960	10-JUN-16

## 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	Nil	Nil	Entire lease area already explored
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Exploration proposal was given as entire ML area have explored.	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	91.469 Million ton	98.1123 million Ton	
1f	General remarks of inspecting officers on geology, exploration etc			Entire lease area already explored.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Block-I Block-II	Block-I Block-II	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in top soil, OB and Mineral.	As propoesed in Mining Plan	
2c	Stripping ratio or ore to OB ratio	1:1..018	1: 1.13	
2d	Quantity of topsoil generation in m3	2,53,828 Ton.	49,388 Ton	
2e	Quantity of overburden generation in m3	61,20,720 Ton	28,98,404 Ton.	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Less production causing less development of mine
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**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Block-I Block-II& III	Block-I Block-II& III	
3b	Quantity of ROM mineral production proposed	6009005 Ton.	25,60,228 Ton.	
3c	Recovery of sailable/usable mineral from ROM production	90% Recovery	90% Recovery	
3d	Quantity of mineral reject generation	600900 Ton	228271 Ton	
3e	Grade of mineral rejects generation and threshold value declared.	CaCO <sub>3</sub> =59-70% MgCO <sub>3</sub> = 1.6 - 2.1% SiO <sub>2</sub> = 18-27 %	CaCO <sub>3</sub> =59-70% MgCO <sub>3</sub> = 1.6 - 2.1% SiO <sub>2</sub> = 18-27 %	
3f	Quantity of sub grade mineral generation.	1530180 Ton.	174109 Ton.	
3g	Grade of sub grade mineral generation	CaO = 34 - 41.5%	CaO = 34 - 41.5%	
3h	Manual / Mechanised method adopted for segregating from ROM	Dry beneficiation by two stage double deck vibrating screen.	As per proposal	
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	Deep hole drilling & blasting with deck charging.	As per proposal	

3k	Provision of mining machineries in mineral benches	HEMM Shovel Dumper combination)	As per proposal	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	As per proposal	
3m	Total area covered under excavation/pits	15.86 Hects.	2.72 Hect.	
3n	Ore to OB ratio for the pit/mine during the year.	1:1.018	1:1.13	
3o	Total area put in use under different heads at the end of year	Working Pit= 286.48 hect O/B Dump=24.04hect Others (Plantation)=17.73 hect	Working Pit=285.75 hect O/B Dump =21.03 hect. Others (Plantation)=113.96 hect	
3p	Production of ROM mineral during the last five year period as applicable	2014-15= 45 Lac 2015-16= 45 Lac 2016-17 = 45 lac 2017-18 = 44 lac 2018-19 = 60Lac.	2014-15= 24,35,382 T 2015-16=23,77,543 T 2016-17=25,15,416 T 2017-18=28,57,453 T 2018-19 = 25,60,228 T.	
3q	General remarks of inspecting officers on method of mining etc.			Interrupted production due to plant under trial and also Decrease production due to market condition.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of top soil, OB & mineral reject.	As per proposal	

4b	Location of topsoil, OB and mineral reject dumps	Block-I Grid - 1400/600 Block - II Grid 5200/800	Block-I Grid - 1400/600 Block - II Grid 5200/800	
4c	Number of dumps within lease area and outside of lease area	Three - within lease area.	Three - within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out of ultimate pit limit.	Out of ultimate pit limit.	
4e	Number of active and alive dumps.	Two	Two	
4f	Number of dead dumps.	One	One	
4g	Number of dumps established.	One	One	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposals made in the Mining Plan	Yes	
4i	Length of Retaining wall or garland drain all along dumps	No specific proposal	140 Mts.	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Dumps are managed as per proposals made in the mining plan

#### 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.	Proposals have been given in the mining paln	Area confirm by drill hole cutting sample.	
5b	Area under backfilling of mined out area	12.48 hect	8.82 Hect	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	For Plantation	For Plantation	
5d	Total area fully reclaimed and rehabilitated	Reclaimed = 125.15 Rehabilitated 71.82 Hect	Reclaimed = 110.17 hect. Rehabilitated 70.10 Hect	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Due to less production and development, backfilling remained less in the year 2018-19

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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).	Proposals made in the mining plan	Yes, submitted in time	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	No proposal	Nil	
6d	No. of saplings planted during the year	Proposals made in the mining plan	Nil	
6e	Cumulative no .of plants	No proposal	Nil	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	No proposal	Nil	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	31,88,050 m3	8.82hectx25 m= 22,05,000 M3.	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	31,20,700 m3	27,75,004 Ton	@1.6 Density
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	4000 Nos.	5059 Nos.	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	27.33 Hect.	9.25 Hect.	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No specific Proposal	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	i) 1000 saplings ii) 1.28 Hect. iii) By Afforestation	i) 325 Saplings ii) 0.36 Hect. iii) By Afforestation	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	1.28 Hect.	0.36 Ha.	
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	By Afforestation	By Afforestation	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposals made in the Mining Plan as per statutory provision	As per E.C. & Consent condition noise and air quality - six monthly and water quality- quarterly	



6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Violation under rule 11(1) of MCDR, 2017 was issued for less plantation and less area rehabilitated.
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	60,09,005Ton.	25,60,228 Ton	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical by Excavators	
7c	Different grade of mineral sorted out at mines.	Cement grade Sub Grade Waste rocks	Cement grade Sub Grade Waste rocks	
7d	Any beneficiation process at mines .	Dry Beneficiation through vibrating screens	Dry Beneficiation through vibrating screens	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Lesser production due to low market demand

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Removal= 253828Ton Utilization= 2,28,446Ton	Removal= 49388 Ton Utilization=49388 Ton	
8b	Concurrent use or storage of topsoil	For Plantation	For Plantation	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	O/B dump =2.33 Hect Quantity=33023 5 Ton	O/B dump =0.6 Hect Quantity=123400 Ton	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden =6120720 Ton Reject = 600900 Ton	Overburden =28, 98,404 Ton. Reject = 228271 Ton	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation=12 .48Hect Rehabilitation =5.25Hect	Reclamation=8.82 Hect Rehabilitation=5.53Hect	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation of 5500 saplings /year &7.08hects.	Existing Plantation as on 1.4.2019 = 149104 Nos.&5054 (5.52 Hect) saplings planted during 2019-20.	
8g	Survival rate	80%	81% During-2018-19	
8h	Water sprinkling on roads to control airborne dust	Wet drilling & water Spraying through water tankers.	Wet drilling & water Spraying through water tankers.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Less land affected because of excavation area has been reduced.

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Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer -1 Geologist - 1 Manager - 1	Details given in the Annual Return 2018-19
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Pit = 289.75 hect. Reclaimed Area =110.17 hect. Dump Area =24.04 hect.	Details given in the Annual Return 2018-19
9d	Scrutiny of Annual return on afforestation	No. of Plants =5774 Survival = 81%	Given
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Reject = 228271 Ton. Grade- 59 to 70% CaCO3 18 to 27% SiO2	Given
9f	Scrutiny of Annual return on ROM stock and/or graded ore	338750.49 Ton. Cement grade	Given in the Annual Return 2018-19
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex- Mine price and production cost = 262.06	Given in the Annual Return 2018-19
9h	Scrutiny of Annual return on fixed assets	Fixed Assets = 8939669/-	Given
9k	Scrutiny of Annual return on mining machineries	Given in the Annual Return	Deatils given 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)	20-FEB-20			

**Date :**

**(Kotriwal B.L.)**

Indian Bureau of Mines