

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

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/BND-01/LST-1

**Mine code :** 38RAJ08002

- (i) Name of the Inspecting : **S012** ) **Sharma H.C.**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Ajay Shrivastava DGM(Mines), Sh. N. K. Pandey, Ge  
Official with  
Designation
- (iv) Date of Inspection : 03-DEC-19
- (v) Prev.inspection date : 10-OCT-18

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **LAKHERI**
- (b) **Registration NO.** : **IBM/256/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **BUNDI**
- Village : **LAKHERI**
- Taluka : **INDERGARH**
- Post office : **LAKHERI**
- Pin Code : **323603**
- FAX No. : **07438-261504**
- E-mail : **suresh.wandhare@acclimited**
- Phone : **07438-261642**
- (f) **Police Station** : **Lakheri**
- (g) **First opening date** : **01-DEC-13**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **Associated Cement Copany Ltd.**  
**correspondance** **Lakheri Cement Works, P.O.Lakheri**  
**Dist:- Bundi,Rajasthan, Pin-323603**
3. (a) **Lease Number** : **RAJ0003**
- (b) **Lease area** : **137.68**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **12-APR-99**
4. **Mineral worked** : **LIMESTONE** **Main**

## 5. Name and Address of the

Lessee : ASSOCIATED CEMENT CO. LTD.  
 LAKHERI CEMENT WORKS PO  
 LAKHERI-323603 BUNDI  
 RAJASTHAN  
 Phone:  
 FAX :

Owner : Sridhar Balakrishnan  
 Cement House,121, M K Road,  
 Mumbai, Maharashtra-400020  
 BUNDI RAJASTHAN  
 Phone: 022-22836672  
 FAX : 022-22836672

Agent : Suresh Dubey  
 Lakheri Cement Works,  
 Lakheri, Dist. Bundi,  
 Rajasthan BUNDI RAJASTHAN  
 Phone: 07438-261642  
 FAX : 07438-261642

## Mining Engineer

Name : Deepal Gorasia, Full Time  
 Qualification : B E Mining & FCC  
 Appointment/ : 12-MAR-14  
 Termination date

## Geologist

Name : N. K. Pandey, Full Time  
 Qualification : M Sc Geology  
 Appointment/ : 10-MAR-13  
 Termination date

## Manager

Name : Ajay Kumar Shrivastava  
 Qualification : B E (mining)  
 Appointment/ : 05-MAR-14  
 Termination date

|   |   |                                |           |
|---|---|--------------------------------|-----------|
| 6. Date of approval of Mining Plan/Scheme of Mining | : | Existing rule 11 MCDR1988      | 16-AUG-90 |
|   |   | Mining Scheme rule 12 MCDR1988 | 13-NOV-95 |
|   |   | Renewal under rule 22 MCR1960  | 13-NOV-00 |
|   |   | Renewal under rule 22 MCR1960  | 03-JUN-05 |
|   |   | Mining Scheme rule 12 MCDR1988 | 31-MAY-10 |
|   |   | Mining Scheme rule 12 MCDR1988 | 12-AUG-15 |
|   |   | MP modif under 17(3) MCR 2016  | 21-JUL-17 |
|   |   | Modif.of approved Mining Plan  | 20-NOV-18 |

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

## Exploration :

| Sl.No. | Item  | Proposals  | Actual work   | Remarks |
|--------|---|--|---|---------|
| 1a     | Backlog of previous year  | 762 m by drilling 24 boreholes on 200 X 200 m grid interval  | 762 m by drilling 24 boreholes on 200 X 200 m grid interval during 2018-19. |         |
| 1b     | Exploration over lease area for geological axis 1 or 2              | Exploration propped in G 3 area of 250 ha by drilling 50 nos of Bore holes in the year 2020-21 in non forest area. | Not applicable as it is for 2018-19   |         |
| 1c     | Exploration Agencies and Expenditure in lakh rupees during the year | DSS Infra and Geotechnic Srvcies, Kolhapur, Expenditure not specified for exploration during 2020-21.              | Not applicable as it is the 2018-19   |         |
| 1d     | Balance area to be explored to bring Geological axis in 1 or 2      | 250 ha under G 3 in non forest land & 303.6 under G 3 in forest land   | 250 ha under G 3 in non forest land & 303.6 under G 3 in forest land        |         |
| 1e     | Balance reserve as on 01/04/20                                      | Not specified  | 114.27 Lakh Tonnes as on 1/4/2019.  |         |
| 1f     | General remarks of inspecting officers on geology, exploration etc  | Not applicable   | No issue regarding exploration in the mine.                                 |         |

## Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

|    |   |   |   |  |
|----|---|---|---|--|
| 2a | Location of development w.r.t.lease area  | P 3 Lower ML- 00 to ML-5 (RL 256 - RL220), P 3 Upper ML- 2 to ML- 3 (RL- 274- RL 256), Utrana- ML 72 - ML74 (RL 253- 231), Sakhoda (RL 225- RL 215) mRL | P 3 Lower ML- 00 to ML-5 (RL 256 - RL222), P 3 Upper ML- 2 to ML- 3 (RL- 274- RL 252), Utrana- ML 72 - ML74 (RL 253- 231), Sakhoda (RL 225- RL 215) mRL |  |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15)                          | Yes   | YES   |  |
| 2c | Stripping ratio or ore to OB ratio  | 1 : 1.57  | 1 : 1.20  | The less proportional development in O/B proposed to be pointed out as Violation of rule 11 (1). |
| 2d | Quantity of topsoil generation in m3  | No top Soil excavation proposed.  | Nil   |  |
| 2e | Quantity of overburden generation in m3   | 1821637.1 T   | 1391054 T   |  |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Not applicable  | The less proportional development in O/B proposed to be pointed out as Violation of rule 11 (1).  |  |

### Exploitation:

| Sl.No. | Item  | Propasals  | Actual work | Remarks |
|--------|---|------------|-------------|---------|
| 3a     | Number of pit proposed for production                   | Four       | Four        |         |
| 3b     | Quantity of ROM mineral production proposed             | 11582457 T | 1157250.7 T |         |
| 3c     | Recovery of sailable/usable mineral from ROM production | 100 %      | 100 %       |         |

|    |  |   |  |              |
|----|--|---|--|--------------|
| 3d | Quantity of mineral reject generation  | No proposal   | Nil  |              |
| 3e | Grade of mineral rejects generation and threshold value declared.                                    | Not applicable  | Not applicable   |              |
| 3f | Quantity of sub grade mineral generation.  | No proposal   | Not applicable   |              |
| 3g | Grade of sub grade mineral generation  | Not applicable  | Not applicable   |              |
| 3h | Manual / Mechanised method adopted for segregating from ROM  | Mechanised  | Mechanized   | Wobler Plant |
| 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  | Three drills of 115 mm dia & blasting using ANFO & Slurry explosives  | Three drills of 115 mm dia & blasting using ANFO & Slurry explosives |              |
| 3k | Provision of mining machineries in mineral benches   | 3 nos shovel of bucket capacity of 2.8 Cu M & 4.5 Cu M, 4 dumpers of 40 T & 2 dumpers of 50 T, one dozer & one wobler of 400 TPH capacity | Being done   |              |
| 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   | 133.2 ha  | 137.2 ha   |              |

|    |  |   |   |
|----|--|---|---|
| 3n | Ore to OB ratio for the pit/mine during the year.                        | 1 : 1.57  | 1 : 1.2   |
| 3o | Total area put in use under different heads at the end of year           | Under mining 133.2 ha, waste dumping- 30.43 ha, Water reservoir- 30.43 ha, Roads- 11.5 ha, Railways- 22.94 ha, Infrastructure - 30.2 ha | Under mining 137.2 ha, waste dumping- 35.73 ha, Water reservoir- 30.43 ha, Roads- 11.5 ha, Railways- 22.94 ha, Infrastructure- 30.2 ha                |
| 3p | Production of ROM mineral during the last five year period as applicable | 2014-15- 1071840 T, 2015-16- 1020000 T, 2016-17- 1020000 T, 2017-18- 1000000 T, 2018-19- 1158245 T                                      | 2014-15- 613872 T, 2015-16- 584773 T, 2016-17- 791582.6 T, 2017-18- 807761 T, 2018-19- 1157250.7 T  |
| 3q | General remarks of inspecting officers on method of mining etc.          | Not applicable  | The opencast method with use of HEMM has been used for carrying out the mining operations in the lease area which is suitable to the type of deposit. |

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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) | No proposal for top soil dumping, Dumping of waste proposed. | Nil for top soil, waste dumped separately. |         |
| 4b     | Location of topsoil, OB and mineral reject dumps                 | Lower series ML 70 & P 3                                     | As per proposal                            |         |
| 4c     | Number of dumps within lease area and outside of lease area      | 22   | 22   |         |
| 4d     | Location of dumps w.r.t. ultimate pit limit (Rule 16)            | Outside UPL  | Out side UPL                               |         |

|    |  |                |  |  |
|----|--|----------------|--|--|
| 4e | Number of active and alive dumps.                                  | 02             | 02   |  |
| 4f | Number of dead dumps.  | 20             | 20   |  |
| 4g | Number of dumps established.                                       | 20             | 20   | The dumps had been stabilized by spreading seeds of Babool but retaining wall required has not been provided in all the dumps. |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Yes            | Yes  |  |
| 4i | Length of Retaining wall or garland drain all along dumps          | No proposal    | Not applicable   |  |
| 4j | Number of settling ponds   | No proposal    | Nil  |  |
| 4k | Specific comments of inspecting officer on waste dump management   | Not applicable | The dumps had been stabilized by spreading seeds of Babool but retaining wall required has not been provided in all the dumps. |  |

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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. | After full extraction, one third of area proposed to be backfilled. | After full extraction, one third of area is backfilled. |         |
| 5b     | Area under backfilling of mined out area  | 13.8 ha   | 5.63 ha   |         |
| 5c     | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)     | No proposal   | Not applicable  |         |
| 5d     | Total area fully reclaimed and rehabilitated  | 1.0 ha  | 1.0 ha  |         |

5e General remarks Not applicable The work of backfilling of inspecting officers on backfilling and reclamation etc. was progressing as per proposal.

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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 as per rule                             | The annual report for the year 2018-19 required to be submitted before 1 July 2019 has not been submitted.     | The Violation of rule 26 (2) proposed to be pointed out for it. |
| 6b     | Area available for rehabilitation (ha) .   | 8.0   | 1. ha (Pits of Lower series are partialy backfilled & plantation done & parly converted in to water reservoir) |   |
| 6c     | afforestation done (ha).   | 2.0 ha                                      | 2.0 ha   |   |
| 6d     | No. of saplings planted during the year  | 25000 nos                                   | 15000 nos  |   |
| 6e     | Cumulative no .of plants   | No specfied proposal                        | Not applicable   |   |
| 6f     | Any other method of rehabilitation   | No proposal                                 | Nil  |   |
| 6g     | Cost incurred on watch and care during the year  | Not specified                               | Not applicable   |   |
| 6h     | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D | P 3- 12 ha, Sakoda- 1.3 ha & utarana 0.5 ha | P 3- 5.33 ha, Sakoda- 0.3 ha & Utarana 0.03 ha   |   |
| 6i     | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings          | One third of excavated area                 | Approximately one third of excavated area  |   |



|    |   |                              |  |
|----|---|------------------------------|--|
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area      | 2.0 ha                       | 2.0 ha   |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Not specified                | Approximately two third of excavated area left for water reservoir.  |
| 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                                  | 2 ha per year                | 2 ha   |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)                      | 2 ha during 2018-19          | 1 ha   |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation                     | Plantation & water reservoir | Plantation & water reservoir   |
| 6p | Compliance of environmental monitoring (core zone and buffer zone)  | Yes                          | Being done   |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.         | Not applicable               | The annual report for the year 2018-19 required to be submitted before 1 July 2019 has not been submitted, for which Violation of rule 26(2) is being pointed out. |

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Mineral Conservation:

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| Sl.No. | Item   | Propasals      | Actual work  | Remarks |
|--------|--|----------------|--|---------|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                           | 1158245 T      | 1157250 T  |         |
| 7b     | Method of grade-wise mineral sorting i.e. manual or mechanical.                        | Mechanized     | Mechanized   |         |
| 7c     | Different grade of mineral sorted out at mines.  | Cement grade   | Cement grade   |         |
| 7d     | Any beneficiation process at mines   | No proposal    | Nil  |         |
| 7e     | General remarks of inspecting officer on Mineral conservation and beneficiation issues | Not applicable | No issue regarding mineral conservation in the mine. |         |

## Environment:

| Sl.No. | Item  | Propasals                               | Actual work       | Remarks |
|--------|---|---|-------------------|---------|
| 8a     | Separate removal and utilization of topsoil (Rule 32)   | No top soil excavation proposed.        | Not applicable    |         |
| 8b     | Concurrent use or storage of topsoil  | Not applicable                          | Not applicable    |         |
| 8c     | Separate dumps for overburden, waste rock, rejects and fines (Rule 33)                            | Seperate dumps of waste proposed.       | Being done        |         |
| 8d     | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | One third of mined out area backfilled. | As per proposals. |         |

|    |   |                      |  |
|----|---|----------------------|--|
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal          | Not applicable                                     |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41)                    | No specific proposal | Not applicable                                     |
| 8g | Survival rate   | 85 %                 | 90 %.  |
| 8h | Water sprinkling on roads to control airborne dust  | Yes                  | Yes  |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area                          | Not applicable       | Aesthetic beauty was satisfactory in & around mine |

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Compliance of Rule 45:

| Sl.No. | Item  | Proposals      | Actual work  | Remarks |
|--------|---|----------------|--|---------|
| 9a     | Status of submission of Monthly and Annual returns  | Not applicable | The M/R submitted up to November 2019.<br>The A/R submitted for 2018-19. |         |
| 9b     | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Given          | Found in order   |         |
| 9c     | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Given          | Found in order   |         |
| 9d     | Scrutiny of Annual return on afforestation  | Given          | Found in order   |         |

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|    |   |   |   |
|----|---|---|---|
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Reject generation- NIL  | found in order  |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore                    | Given   | Found in order  |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | The Cost of Production & Ex- Mine price stated as Rs. 314.30 per tonne.             | During 2018-19 a total of Rs. 210998505 had been expensed to raise a production of 1157250.70 T, there by the cost of production come about Rs 182.32 per tonne, which has been stated as Rs 314.30 per tonne. The correct information has not been furnished in the annual return of the year 2018-19. |
| 9h | Scrutiny of Annual return on fixed assets                                   | The value of fixed assets given but its depreciation during the year stated as Nil. | The old buildings & plants may require maintainance thus it cannot be NIL completely.   |
| 9k | Scrutiny of Annual return on mining machineries                             | Details given   | Found in order  |

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**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