

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

**MCDR INSPECTION REPORT**

**Goa regional office**

**Mine file No :** KNT/BJP/LST-61/GOA

**Mine code :** 38KAR26058

- (i) Name of the Inspecting : **K04** ) **DR. Y.G.KALE**  
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : PAVANKUMAR DESHMUKH, MINES MANAGER  
Official with  
Designation
- (iv) Date of Inspection : 25/08/2016
- (v) Prev.inspection date : 07/10/2014

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MUDDAPUR(2343)**
- (b) **Registration NO.** : **IBM/418/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : KARNATAKA  
District : BAGALKOT  
Village : muddapur  
Taluka : mudhol  
Post office : muddapur  
Pin Code : 587313  
FAX No. : 08350-289001  
E-mail : factory.muddapur@jkcement.c  
Phone : 08350-289000
- (f) Police Station : LOKAPUR
- (g) First opening date : 01/12/2007
- (h) Weekly day of rest : SUN
2. Address for : J.K.CEMENT WORKS, MUDDAPUR  
correspondance P.O.-MUDDAPUR, TQ-MUDHOL  
DIST.-BAGALKOT, KARNATAKA
3. (a) Lease Number : KAR1526
- (b) Lease area : 161.88
- (c) Period of lease : 20
- (d) Date of Expiry : 03/05/2022
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : J.K.CEMENT LTD  
 KAMLA TOWER KANPUR UP  
 KANPUR UTTAR PRADESH  
 Phone:0512-2371478  
 FAX :0512-2399854

Owner : K. N. Khandelwal  
 Kamla Tower KANPUR URBAN  
 UTTAR PRADESH  
 Phone:  
 FAX : 05122399854

Agent : ANTRIKSHA KUMAR JAIN  
 J. K. Cement Works,  
 Village-Muddapur Taluka-  
 Mudhol BAGALKOT KARNATAKA  
 Phone: 08350-289104, 9686502250  
 FAX : 08350-289001

## Mining Engineer

Name : NITIN PUROHIT, Full Time  
 Qualification : B.E MINING WITH 23 YEARS EXPERIENCE  
 Appointment/ : 07/11/2014  
 Termination date

## Geologist

Name : Hemant Verma, Full Time  
 Qualification : M. Tech Applied Geology)  
 Appointment/ : 16/04/2011  
 Termination date

## Manager

Name : PAVAN KUMAR DESHMUKH  
 Qualification : BE MINING WITH FCC CERTIFICATE  
 Appointment/ : 15/04/2016  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	01/12/2006
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	22/08/2011
	:	Modif.approved Mining Scheme	04/03/2014
	:	MP modif under MCR 1960	03/03/2016

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was proposal to drill 14 boreholes in the year 2015-16.	No exploration was carried out as the mine was temporarily discontinued from 01.08.2015 to 05.04.2016.	Mining plan was modified on 03.03.2016 and fresh proposals were made for exploration during 2016-17 & 2017-18.
1b	Exploration over lease area for geological axis 1 or 2		About 119.43Ha is explored under G-1 level and 5.01 ha is explored under G-2 level.	Proposal are made in the approved modified mining plan dated 03.03.2016 to explore entire mineralized area under G-1 level of exploration.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals were made in the approved document for Exploration Agencies and Expenditure.	No exploration was carried out during the year 2014-15 and 2015-16.	Total expenditure incurred on exploration so far is about Rs.166 lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	37.43 ha.	Exploration proposed during 2016-17 & 2017-18.	As per the approved document dated 03.03.2016, proposals are made in the year 2016-17 and 2017-18.

1e	Balance reserve as on 01/04/20	Reserves as on 01.04.2016 Classification UNFC code      Quantity in tons Proved Resrves 111 54920635 Probable Reserves 121 & 122 2716000 Feasibility Resources 211 4378000 Pre Feasibility Resources   221 & 222 1885000 Inferred Resources 333 25531000
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1f	General remarks of inspecting officers on geology, exploration etc	Most of the area is explored under G-1 level of exploration and proposals are made to convert entire mineralized area under G-1 level during 2016-17 & 2017-18.
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Development :

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Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	In the year 2014-15 it was proposed to work b/w sections of 6-6' to 10-10' in pit no-1 and 16-16' to 18-18' in pit no-2. In the year 2015-16 proposals were made on sections 6-6' to 10-10' in pit no-1 and sections 17-17' to 19-19' of pit no-2.and for the year 2016-17 proposal are made b/w sections 1.5-1.5' to 4.4-4.5' of pit no-3, sections 16.5-16.5' to 18.5-18.5' of pit no-2 and sections 26.5-26.5' to 30.5-30.5' of pit no-4. (Fresh Area)	In the year 2015-16 working has been carriedout b/w sections 5.5-5.5' to 10-10' of pit no-1 and 15-15' to 19-19' of pit no-2. In the year 2016-17 (upto Aug-2016) working has been carriedout in the sections 3.5-3.5' to 4.5-4.5' of pit no-3.	The mine was temporarily discontinued from 01.08.2015 to 05.04.2016 due to transportation issues and therefore, development is lagging behind. Further some of area where proposals are made is not acquired by the lessee. However, lagging proposals were rectified in the modified Mining Plan.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	It was proposed to work three benches in the year 2015-16 and all are in ore only.	Working has been done in three benches by forming systematic benches as proposed.	All the benches are in ore only.
2c	Stripping ratio or ore to OB ratio	1:0.017 ( for the year 2015-16)	1:0.003 ( for the year 2015-16)	
2d	Quantity of topsoil generation in m3	2450 (for the year 2015-16)	Nil (for the year 2015-16)	The mine was temporarily discontinued during 2015-16

2e	Quantity of overburden generation in m3	228540 (for the year 2015-16)	347m3	The mine was temporarily discontinued during 2015-16.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			In general the mine working is systematic. However, due to transportation problem during major portion of 2015-16, the mine was temporarily suspended. Further, surface rights over intermittent patches in the lease area are yet to be acquired by the lessee. This creates problem for systematic development.

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Total two pits were proposed during the year 2015-16.	During 2015-16 working has been carried out in two pits Pit No-1 and pit No-2 as proposed.	During the inspection it was observed that Pit No.4 (Fresh area has been opened up as proposed in the year 2016-17)
3b	Quantity of ROM mineral production proposed	2.0 M.T. during the year 2015-16	0.18 M.T. (189365 Tonnes)	The mine was temporarily discontinued from 01.08.2015 to 05.04.2016 due to transportation issue.
3c	Recovery of sailable/usable mineral from ROM production	95%	100%	
3d	Quantity of mineral reject generation	Nil	Nil	

3e	Grade of mineral rejects generation and threshold value declared.	Nil	Threshold value for limestone of Karnataka is Cao minimum 35% . The ore which is produced is above the threshold value and saleable.	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Nil.	Nil.	
3h	Manual / Mechanised method adopted for segregating from ROM	Nil	Nil	No crushing and screening activity in the lease area. The ROM is being consumed at the company's cement plant.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	For beneficiation studies on low grade siliceous limestone, sample below 35% Cao sent to RODL, IBM, Bengaluru.		The lessee sponsored laboratory scale sample for reduction of silica. The result shows substantial improvement in the low grade limestone with floatation (wet) method. The RODL, Bengaluru suggested for Pilot Plant Scale investigation and lessee has been requested to take up Pilot Plant investigations.
3j	Provision of drilling and blasting in mineral benches	It is proposed to drill by DTH drill of 115mm dia and controlled blasting using nonels.	Drilling and Blasting is going on as per the proposals.	

3k	Provision of mining machineries in mineral benches	Two Hydraulic Excavators of 100m <sup>3</sup> /hr capacity, one Hydraulic Excavator with Rock Breaker of 30tons/hr capacity and two DTH drill with compressor unit for drilling is proposed.	Machineries were engaged as per the proposal. The working is done through contractor.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8mtr bench height is proposed.	Benches were maintained at 6-8m height and found suitable for method of mining proposed in the approved document.	
3m	Total area covered under excavation/pits	Approximately 20.22ha upto 2015-16.	Approximately 21.27 ha upto 2015-16.	Toal area covered under excavation is 21.27Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.017	1:0.003	
3o	Total area put in use under different heads at the end of year		Area under Mining - 21.270 Ha., Waste Dump - 0.250 Ha., Infrastructure - 0.083 Ha. and Other (Afforestation, Road, Buffer Zone etc.) - 16.780 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2016-17 1999928 tons 2015-16 2000000 tons 2014-15 2000000 tons 2013-14 1998000 tons 2012-13 1950000 tons 2011-12 1968000 tons	2016-17 469800 tons (upto July 2016) 2015-16 189365 tons 2014-15 1433126 tons 2013-14 1084865 tons 2012-13 1304035 tons 2011-12 1324631 tons	



3q General remarks of inspecting officers on method of mining etc.

The Mining Operations are being carried out systematically and scientific manner.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dumping proposals were made separately for topsoil, OB and Minerals rejects.	The overburden quantity removed during the year 2015-16 is about 347m <sup>3</sup> only and dumped in the area enmarked for dumping OB.	No top soil and mineral reject is generated during the year 2015-16 and no dump is formed for top soil and mineral rejection as during 2015-16, for major time, the mine working was temporarily discontinued.
4b	Location of topsoil, OB and mineral reject dumps	During the year 2015-16 it is proposed to dump overburden b/w sections 19.5-19.5' to 23-23'.	As the mine was discontinued, the waste generated during the year 2015-16 is very less and is about 347m <sup>3</sup> . The waste generated is dumped as per the proposals.	No topsoil and mineral rejects were handled in the year 2015-16.
4c	Number of dumps within lease area and outside of lease area	Total 03 dumps were proposed within the lease area one for topsoil, one for OB and one for mineral reject.	One waste dump is formed.	No topsoil and mineral reject were generated during the year 2015-16.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	proposed dump locations were outside the UPL.	Dumping was made as per the proposal.	The proposed waste dump is proved for non-mineralized area.
4e	Number of active and alive dumps.	Three, one for top soil, one for OB and one for mineral reject.	One for OB.	No topsoil is handled and no mineral reject is generated in the year 2015-16.

4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	03	01	
4h	Whether Retaining wall or garland drain all along dumps are there.	No year wise proposals were made. However retaining wall of total 470mtrs, Parapet wall of about 3645mtrs and garland drain of 1180 mtrs were proposed in the 5 years plan period.	Nil.	Dump was not formed as proposed because the mine was discontinued for the period August-2015 to April 2016.
4i	Length of Retaining wall or garland drain all along dumps	NA	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management		A small quantity of waste was generated in the year 2015-16 and dumping was made as per the proposal.	The dump (quantity) is not formed as per the proposal due to discontinuity of the mining operations.

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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.	Nil	Nil	
5b	Area under backfilling of mined out area	Nil	Nil	

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5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA
5d	Total area fully reclaimed and rehabilitated	NA	NA
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Nil	The mineral is proved upto a depth of 55m and present working is not reached the proved depth so no proposals were made for backfilling and reclamation etc.

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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).	Annual report required under Rule 23(E)(2) of MCDR-1988, is not submitted for the year 2015-16.	Violation is pointed out for the same.	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.75 in 2015-16	0.06 in 2015-16	The mine was discontinued for major period of 2015-16
6d	No. of saplings planted during the year	1875 saplings in the year 2015-16	1150 saplings were planted in 2015-16.	
6e	Cumulative no .of plants	15875 plants.	10748 upto July 2016.	
6f	Any other method of rehabilitation	Nil	Nil	

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6g	Cost incurred on watch and care during the year		1.60 Lakhs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NA	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA
6p	Compliance of environmental monitoring (core zone and buffer zone)		Lessee is regularly monitoring ambient air quality, water quality and all are found within permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		As the dump was not formed as per the proposal, construction of parapet wall, retaining wall and garland drains have not started. The lessee has incurred expenditure of about Rs. 1.60 Lakh in 2015-16 towards various environmental protective measures including monitoring.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area		About 220449 tons of cement grade ore is despatched in the year 2015-16.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Nil	Average grade of the limestone is of cement grade only and same is being utilized for captive cement plant.	
7c	Different grade of mineral sorted out at mines.	Nil	No sorting is being done. Entire ore is utilized for captive cement plant.	

7d	Any beneficiation process at mines .	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Based on laboratory scale investigations RODL, Bangaluru has suggested to take up pilot plant scale investigations for reduction of silica content. Lessee is being persuaded to take up study.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)		No topsoil is generated in the year 2015-16 and 2016-17 upto July 2016. The topsoil removed earlier is utilized for plantation within and outside the lease area.	
8b	Concurrent use or storage of topsoil		The topsoil generated is utilized for plantation within and outside the lease area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	03 dumps were proposed, one for topsoil, one for OB and one for mineral reject.	One OB dump is done within the lease area as per the proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	The area is devoid of trees except bushes & shrubs.	Total 10748 saplings were planted by the lessee In and around mining lease area
8g	Survival rate		85-90%
8h	Water sprinkling on roads to control airborne dust		Regular water spraying is being done on haul roads and working areas using water tanks.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The benches were systematically developed. Plantation was made in the 7.5 safety zone and in the waste land within the lease area. Different variety of plantation was done outside the lease area around the mine office. The lessee has been advised to clear the boulders within the pit to improve aesthetic beauty.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Lessee is submitting Monthly and Annual returns within time.	

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9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	In the annual returns submitted for the year 2015-16 , Mr.Nitin Purohit has shown as mining engineer and Mr.Hemant Verma as Geologist.	Same as mentioned in the Annual returns.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining - 21.270 ha, Waste disposa l- 0.250 ha, Infrastructure - 0.083 ha and for Afforestation, road, safety zone etc- 16.780 ha.	Area is matching as shown in Annual Retuns.
9d	Scrutiny of Annual return on afforestation	As per annual returns 2015-16, saplings planted within lease is 1150 nos. with survival rate of 93% and 1760 nos. outside lease with survival rate 91%.	Almost matching with annual returns.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil



9f	Scrutiny of Annual return on ROM stock and/or graded ore	In part - vi(2), grade wise opening stock is shown as 158601.67 tons and production - 220449.230 tons, despatch- 220449.230 tons and closing stock as 127517.440 tons.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	As per annual returns submitted for the year 2015-16, Ex.mine price is mentioned as - Rs.180.49 and Production cost also Rs.180.49	Since the ore is used for captive consumption, sale value is not shown in the annual returns.
9h	Scrutiny of Annual return on fixed assets	Total value of fixed assets is mentioned as Rs. 6855794992.	
9k	Scrutiny of Annual return on mining machineries	Back hoe machinery of 2.1m3 capacity - 2 nos, 1.5m3 capacity - 01 no, dozer-01, drill and compressor-01 no.	

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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
Rule 13(1)	19/09/2016	07/10/2016			
Rule 23E(2)	19/09/2016	07/10/2016			
Rule 63	19/09/2016	07/10/2016			

**Date :**

**(DR. Y.G.KALE)**

Indian Bureau of Mines