

**INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

**MCDR INSPECTION REPORT**

**Bangalore regional office**

**Mine file No :** KNT/GLB/LST/50/BNG

**Mine code :** 38KAR10016

- (i) Name of the Inspecting : **256** ) **PUKHRAJ NENIVAL**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : V.Balasubramani, DGM- Mines, N.Nagaraju, Sr.Manager -  
Official with  
Designation
- (iv) Date of Inspection : 25/09/2013
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KALLUR LIMESTONE MINE ML**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : KARNATAKA
- District : GULBARGA
- Village : KALLUR
- Taluka : CHINCHOLI
- Post office : KALLUR
- Pin Code : 585305
- FAX No. : 08475-295608
- E-mail : subramani.v@chettinadcement
- Phone : 9480832622
- (e) Police Station : Miryan
- (f) First opening date : 07/03/2012
2. Address for : KALLUR VILLAGE, GARAGAPALLI POST,  
correspondance CHANDAPUR, CHINCHOLI TALUK  
GULBARGA - 585 320.
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : CHETTINAD CEMENT CORPORATION LIMITED  
 KALLUR VILLAGE, GARAGAPALLI  
 POST CHANDAPUR, CHINCHOLI  
 TALUK GULBARGA - 585305  
 GULBARGA KARNATAKA  
 Phone:  
 FAX :

Owner : L.MUTHUKRISHNAN  
 Nominated owner, Rani  
 Seethai Hall Building, IV &  
 V 603, Anna Salai,  
 Chennai, Tamilnadu CHENGAI-  
 ANNA TAMIL NADU  
 Phone:  
 FAX :

Agent : R A Krishna Kumar  
 Rani Seethai Hall Building,  
 IV & V Floors, 603, Anna  
 Salai, Chennai, Tamilnadu  
 CHENGAI-ANNA TAMIL NADU  
 Phone:  
 FAX :

Mining Engineer  
 Name : V.Rami Reddy, Full Time  
 Qualification : B.TECH(MINING) SECOND CLASS MINES MANAGE  
 Appointment/ : 10/06/2013  
 Termination date

Geologist  
 Name : K.V.SUBBA REDDY, Full Time  
 Qualification : M.Sc.(GEOLOGY)  
 Appointment/ : 10/06/2013  
 Termination date

Manager Name : V.BALASUBRAMANI Qualification : D.MIN.ENGG.& 1st CLASS COMPETENCY CERTIF Appointment/ : 07/03/2012 Termination date
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6. Date of approval of Mining :  
 Plan/Scheme of Mining

## PART - II : TECHNICAL DETAILS/COMMENTS

## 1. Details about Average employment :

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
<b>DIRECT</b>		
Managerial	6	344
Supervisory	10	344
<b>CONTRACT</b>		
Workers		344

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
<b>General</b>					
Water supply		14.50		15.37	
Sanitation		10.40		10.46	
Health		22.36		22.36	
<b>Sub total</b>		<b>47.26</b>		<b>48.19</b>	
<b>Infrastructure</b>					
Public transport			20.76	20.76	
<b>Sub total</b>			<b>47.26</b>	<b>20.76</b>	
<b>Training</b>			<b>31.81</b>	<b>31.81</b>	
<b>Others</b>			<b>14.30</b>	<b>22.36</b>	
<b>Total</b>			<b>114.13</b>	<b>123.12</b>	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

This is the first MCDR inspection & the provisions of rules 13(1), 21, 46 & 48 of mcdr 1988 were observed & pointed out on 04/10/2013.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

No such recommendation have been made under 56 of MCDR 1988.

Not applicable.

## 5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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## A. Exploration (Rule 13)

a.Type of prospecting : 12Bore holes 360 M and exploration i.e. pitting, drilling 15 Core holes - 570 mts

b.Total area covered : 35 ha 40.00 Hect

## B. Working (Rule 13)

a.Number and size of each pit (LxWxH) : 1 pit 450M (W) x 270M (L) x 10.5m(H) Width-450mts ,Length-475mts Height-13.5mts

b.Bench size(LxWxH)length can be defined as regular/irregular : OB - 1.7m x 10m Lst - 9m x 10m Regular

1 L-450, W-475, H-1.5 (OB)  
2.L-350, W-275, H-7.0 (Ore)  
3.L-200, W-130, H-5.0 (Ore)  
Regular

c.Ore to waste ratio : 1: 0.10 pit wise if possible otherwise for mine 1: 0.33

d.Total area covered : 12.15 ha under excavation/pits 20.12 Hect.

## C. Waste disposal (Rule 13)

a.Location of dumps : Along the ML boundary covering safety barrier of 7.5m width. Along the ML boundary covering safety barrier of 7.5m width.

e.Yearly generation of waste quantity : 205522 Cub .mtr. 99414 Cub .mtr.

b.Method of dumping whether advancing/retreat : Advancing Advancing

c.Total area covered under waste dump : 2.7 ha 1.3 ha

d.No.and size of each waste dump with No of steps/lift/bench : - -

## D. Production

b.Year wise production of last five year. : 2009-10 3088800 2009-10 - NIL  
2010-11 3861000 2010-11 - NIL  
2011-12 4187960 2011-12 - 10000  
2012-13 4999995 2012-13 - 9,76,286  
2013-14 9999990 2013-14 - 5,51,575 up to 31.08.2013

Production as achieved 19.25% of proposals during 2012-13 . Accordingly violation has been pointed out .

## D. Reserve

a.Reserve position as per latest MP/MS and : 32.77 Million Tonnes(111 of UNFC) 32.77 Million Tonnes(111 of UNFC)

at the time of inspection. UNFC) 180 Million Tonnes (332 of UNFC)  
 180 Million Tonnes of UNFC)  
 (332 of UNFC)

**RESERVE POSITION AS ON 01/04/2013**

<b>LIMESTONE</b>		
Category	Quantity in Tonnes	Grade
Proved	31783714	Cao - 46.5% & SiO2 -11.10
Probable		
Possible	180000000	
Total	211783714	

**PRODUCTION FOR THE PREVIOUS YEAR 2012 - 2013**

Mineral	Production	Unit
LIMESTONE	9726286	TON

**6. Conservation of Mineral - both quantitative and qualitative****Beneficiation (Rule 20 and 26)**

Efforts for improving low grade and sub grade mineral. : NA

Efforts for improving percentage of recovery of ore. : NA

**Mineral Rule 15**

Percentage of recovery of ore pitwise w.r.t. ROM and total material : 95%

Number of benches in ore and waste. : Ore:02, BC Soil:01

**Sub/grd mineral/fines (Rule16)**

Qty of yearly generation and total qty available during inspection with grade : NIL

Number and size of each stack : NIL

Location of stacking. : NIL

Separate stacking from waste : NIL

Total area covered for stacking : NIL

**Exploration data as on 31/03/ 2013**

No. of Boreholes	No. of Pits	No. of Trenches
15	0	0
27	0	0

**OVERBURDEN HANDLED DURING PREVIOUS YEAR 2012 - 2013**

Overburden/waste removed (in m3) :	59460
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**Utilisation of Sub Grade Mineral and Mineral Rejects**

Generated	Utilised	Stacked	(In Ton.)

## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : The topography of the core zone will be changed due to the mining operation in the form of digging / leveling of land and dumping of soil etc. These have the potential to affect in the form of land erosion, changes in ground cover by vegetation etc. However, these changes are restricted to the mining site only.
- b. Aesthetic environment : The mine is newly opened mine and Maintaining proper benches dressing and neat floors. Water pipe line already laid for all along the mines haul roads for suppressing fugitive dust emissions while transporting the limestone from mine pit to unloading point at crusher hopper. The BCS already generated has been used for forming the bund for the rainwater harvesting ponds and further generation of BCS will be used for developing bund all along the boundary of mining lease area.
- c. Soil and land use pattern : Soil is an essential component of the terrestrial eco-system. Soil also acts as a medium of transport to various dissolved materials to the underlying ground water. Hence, the impact of the proposed activity on soil needs to be understood to properly plan the mitigation measures wherever required. k Accordingly, a study on assessment of the soil quality has been carried out.
- d. Agriculture : At present agriculture in this area is not affected by the mining, the agriculture fields are spread over all the buffer zone.
- e. Forest(flora and fauna) : As the ML area falls in patta land and surrounded by other patta lands the major florals are bushes and grass etc ., no faunal species are observed, except, monkey, mouse, honeybee etc.,
- f. Vegetation : Static dump tops and slopes will be stabilized by planting tree saplings, grass and good root bearing saplings. Garland drains will be made to channelize the rain water out of the dumping area. Sufficient numbers of toe-walls of suitable size will be constructed around the base of the dumps to prevent sling and wash off of the material.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : There are no public buildings or places of worship, monuments of historic importance, in the ML area.

### B Water environment.

- a. Surface water : No perennial rivers or springs are present in the area. Natural slope drain the rainwater. There is a nallah running north-south on the western border and a nallah running west-east cutting across the area. Which are seasonal. The slopes are drained in North west to South East, direction.
- b. Ground water : Even though the top black cotton soil is highly impervious, the trap rocks, weathered Limestone and limestone with joints acts as good aquifers. The depth of water table varies from 10 mts to 40 mts. Depending upon the topography.

- c. Quality of water : Quality of groundwater as well as surface water resources within 10 km radius of lease area has been studied for assessing the water environment. Ground water and surface water sources covering 10 km radial distance were collected from the bore wells and dug wells and three surface water samples were collected from the villages in the study area. These samples were taken as grab samples and were analyzed for various parameters & found to be within permissible limits.

### C. Air environment

- a. Noise : Noise monitoring has been conducted for determinations of noise levels at four villages in the study area. The noise levels monitoring at each location was recorded using a digital sound level meter.
- b. Air : The air quality with respect to the study zone of 10 kms radius around the ML area forms the baseline information. The sources of air pollution in the region are mining, vehicular traffic dust arising from unpaved village roads and domestic fuel burning.
- c. Climatic condition : Climatic conditions: The area enjoys tropical climate with an annual average rain fall of 900mm. Maximum temperature in summer days is around 44°C and minimum temperature during winter night's record around 14°C and minimum temperature during winter nights record around 14°C to 20°C humidity varies between 35% to 85%.

### D. Socio economic environment

- a. Social and demographic profile. : There is no historical monument within 5 kms radius. As a part of Environment Impact Assessment of the mining operation information collected are most of the houses in village are electrified. Market facilities are not available in all villages. All villages are well connected by approachable roads. Major drinking water source is ground water. Every village has dug well and bore well. Female literacy is less than the male literacy.
- b. Recommending health and safety. : The following safety and security measures are being implemented. The area/part of the area will be fenced out. Security personnel are posted in every shift to avoid unauthorized entry in the mine. Warning is displayed on "Notice Board". No unauthorized person will be allowed to enter in the mine without prior permission of the management. Mine benches are being cleaned and properly sloped for its stability. Garland drains are made around the mine to prevent water flow towards mine
- c. Human settlement : There are no human settlements located within the lease area. The Kallur village is adjacent to the area at a distance of 300 mts with a population of 3025.
- |                |         |            |      |
|----------------|---------|------------|------|
| Somalingahalli | 3kms    | North east | 1575 |
| Bhathampalli   | 1.5 kms | South West | 629  |
| Ganapur        | 2 kms   | South West | 1163 |
| Polakapalli    | 3 kms   | North west |      |
| 2912           |         |            |      |
| Sangam.K       | 2 kms   | South      |      |



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d. Recreational facility. : Company is provided recreation club for family members of mines employees and separate parks for children and employees & constructed Temple.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u> <u>2012 - 2013</u>					
Within lease area			Outside lease area		
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate
4.04	9200	80	31.45	48562	60

Area in Hect.

<u>TOP SOIL MANAGEMENT</u>	
Quantity as on 31/03/2013	

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

The annual return for the year 2012-13 has been scrutinized & the following observations were made.

Opening Stock is : 9460 MT

Production is : 976286 MT

PMV is : Rs.151.80

Dispatches are : 6,75,160 MT

Closing stock : 3,10,586 MT

Cost of Operation : Rs.68.76

Mineral rejects : NIL

Fixed assets : Rs. 73,77,540

Reserves : 211.79 Million Tonnes.

**PART - III : PERFORMANCE OF MINE OWNER**  
(In case of lease expiring within 2 years - as per guidelines)

a. Compliance of terms and conditions of lease deed.

NA

b. Compliance of the provisions of MCDR, 88 and advise given.

NA

c. Conduct with regard to adoption of safety measures and forest wealth, ecology and environment in the mining lease area.

NA

d. Whether the mine owner has carried out exploration and exploitation on the basis on surface mapping, pitting, trenching and core drilling taking in to consideration the mode of occurrences of mineral deposit.

NA

e. Whether production from mining area is commensurate with the reserves and the long term progress of utilization of mineral.

NA

f. Whether adequate investment has been made by the lessee on the development of mine on mining machinery, operational and administrative building, residential accommodation for the employees.

NA

g. Measures taken by the lessee for protection of environment and ecology.

NA

h. In case leases where the mineralisation tends to exhaust within the present period, the status of closing operation in phases and the special issues including human issues to be addressed at the time of closing of mine.

NA

**PART - IV : PROPOSALS FOR FURTHER ACTION FOR :**

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

NIL

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

It was observed that boundary pillars were erected as per the CCOM's circular 01/2009 furnishing the details of ML no , Boundary pillar No; longitude , latitude, etc. The lessee may be advised to erect the same within a period of 30 days.

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

NIL

Date :

(PUKHRAJ NENIVAL)

Indian Bureau of Mines