

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/GLB/LST-52/BNG

Mine code : 38KAR10023

- (i) Name of the Inspecting : **M003**) **G C MEENA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Shri Kiran Naidu, AGM(Geology) and Sadique Bhasha, Min
Official with
Designation
- (iv) Date of Inspection : 20/11/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KODLA LIMESTONE MINE ML 2**
- (b) **Registration NO.** : **IBM/960/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **GULBARGA**
- Village : **KODLA & BENKANHALLI**
- Taluka : **SEDAM**
- Post office : **SEDAM**
- Pin Code : **585222**
- FAX No. : **01462-228117**
- E-mail : **SHREEBWR@SHREECEMENTLTD.COI**
- Phone : **01462-228101**
- (f) **Police Station** :
- (g) **First opening date** : **05/11/2018**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **KODLA VILLAGE**
SEDAM TALUK
GULBARGA DISTRICT, KARNATAKA
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 : SHREE CEMENT LTD.
P B No. 33, Bangur Nagar
Beawar P O BEAWAR
RAJASTHAN
Phone:
FAX :

6. Date of approval of Mining :
Plan/Scheme of Mining

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---------------------------------------------------------------------|--------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1a | Backlog of previous year | No proposals | NIL | The whole potential mineralized area (517.61 ha) has already been explored at G1 level |
| 1b | Exploration over lease area for geological axis 1 or 2 | G1 | G1-517.61 Ha | Total of 122 core bore holes drilled at 200 mts grid interval in the past |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | No proposal | DMG Karnataka (phase-1) & in house (phase -2) | Expenditure incurred in the past: Rs.65,41,100/- |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | No proposal | NIL | The whole potential mineralised area has already been explored |
| 1e | Balance reserve as on 01/04/20 | NIL | 222 Million Tonnes | As per AR submitted for FY 2018-19 |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | The entire potential mineralized area has already been explored in two phases in the past. Total of 122 core bore holes drilled at 200 mts grid interval. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|
| 2a | Location of development w.r.t.lease area | Location of development : In grid lines -S3 to S11 & E3 to E11 | Actual location of development: In grid lines -S5 to S9 & E5 to E9 | Actual location of development with in the proposed grids |

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| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Separate Bench proposed for Topsoil, overburden and Mineral. | Separate Bench maintained for overburden and Mineral. | Topsoil : 20 - 25 CM Overburden : approx. 75 - 80 CM & Mineral : approx. 9 mtrs |
| 2c | Stripping ratio or ore to OB ratio | 1:0.06 | 1:0.2 | NIL |
| 2d | Quantity of topsoil generation in m3 | 92800Tons | 92800Tons | Used for plantation purpose |
| 2e | Quantity of overburden generation in m3 | 92800 Tons | 103896 Tons | NIL |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | | Development was carried out within the proposed grids, however violation was issued for mixing of top soil with overburden which has been complied. |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---------------------------------------------------------|-------------------|------------------------|----------------------------------------------------------------------------|
| 3a | Number of pit proposed for production | 1 pit proposed | Working in 1 Pit only. | Approx.dimension of the pit: 410m (L)X380m (W)X 15m (D) |
| 3b | Quantity of ROM mineral production proposed | 3.84 Million Tons | 0.51 Million Tons | |
| 3c | Recovery of sailable/usable mineral from ROM production | 92% | 100% | Whole ROM is usable for Captive Consumption. |
| 3d | Quantity of mineral reject generation | No Proposal | NIL | No generation of mineral reject. Complete ROM is usable for making cement. |

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| 3e | Grade of mineral rejects generation and threshold value declared. | Mineral Reject : No Proposal, Threshold Value Declared: 35 % of CaO. | No generation of mineral reject | ROM above threshold value is being used completely for making Cement. |
| 3f | Quantity of sub grade mineral generation. | No Proposal | NIL | NIL |
| 3g | Grade of sub grade mineral generation | No Proposal | NIL | NIL |
| 3h | Manual / Mechanised method adopted for segregating from ROM | No proposal for segregating from ROM | All excavated ROM is supplied to the crusher | NIL |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposal | No such beneficiation study carried out | NIL |
| 3j | Provision of drilling and blasting in mineral benches | Provision made for Deep hole drilling and blasting | Deep hole drilling and blasting is carried by as per proposal | 150 mm drill dia used (2 Nos.), blasting carried out using slurry explosive in conjunction with NONEL. |
| 3k | Provision of mining machineries in mineral benches | Provision of mining machineries made in mineral benches | Mining machineries were used to win the limestone | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Height of Bench in OB- 1 meter, Height of Bench in Limestone - 12 meter proposed | Height of Bench in OB- 1 meter, Height of Bench in Limestone - 9 meter maintained | NIL |
| 3m | Total area covered under excavation/pits | 47.2 Ha at the end of plan period | 12.5 ha covered under open cast working | Less area covered under excavation due to (i) No production in 2017-18 as consent to operate (CFO) received on 07.09.2018. (ii) Plant commissioned on dated 09.11.2018. |

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| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0.06 | 1:0.2 | NIL |
| 3o | Total area put in use under different heads at the end of year | Area under mining- 47.2 ha, Top Soil Storage -3 ha, Waste Dump- 5.2 ha, Infra & roads - 1.5 ha, Others (Captive solar power plant) - 71.8 ha at the end of plan period | Covered under opencast working-12.5 Ha, Waste disposal- 2Ha, Infrastructure & Roads- 4.70Ha, others (Mineral stock)-1.8 Ha at the end of the reporting year | NIL |
| 3p | Production of ROM mineral during the last five year period as applicable | 2014-15: Nil 2015-16: 3.54 2016-17: 3.83 2017-18: 0.96 2018-19: 3.84 (in Million tonnes) | 2014-15: Nil 2015-16: Nil 2016-17: Nil 2017-18: Nil 2018-19: 0.51 (in Million tonnes) | Production started in 2018-19 only. |
| 3q | General remarks of inspecting officers on method of mining etc. | | | Fully mechanized Opencast mines with deep hole drilling & blasting were adopted to extract the limestone. |

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 OB proposed | Separate dumping of OB carried out | Top soil was concurrently used for plantation. |
| 4b | Location of topsoil, OB and mineral reject dumps | (i) Top Soil stock: S2-S4 & E6-E8, (ii) OB dump: S6-S8 & E0-E1 and S3 & E3-E7(screen waste dump) | (i) Concurrent use of Topsoil done hence, no stacking (ii) OB dumped :S1-S3 & E8-E11 | |

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| 4c | Number of dumps within lease area and outside of lease area | With In Lease Area : 2 Nos. of dumps proposed, OML- Nil | With In Lease Area : 2 Nos. of dumps proposed, OML- Nil | NIL |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Temporary dumps proposed within UPL | Temporary dumps were made within UPL | Entire area is mineralized. Dumps are temporary in nature & is proposed to be rehandled for backfilling at the conceptual stage of mining |
| 4e | Number of active and alive dumps. | 2 Nos. of dumps were proposed to be active & alive | 2 Nos. | NIL |
| 4f | Number of dead dumps. | No proposal | NIL | NIL |
| 4g | Number of dumps established. | No proposal | NIL | NIL |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Retaining wall and garland drain all along dumps proposed | Retaining wall and garland drain not constructed | |
| 4i | Length of Retaining wall or garland drain all along dumps | RW : 350 Mtr GD : 390 Mtr | NIL | |
| 4j | Number of settling ponds | No proposal | NIL | NIL |
| 4k | Specific comments of inspecting officer on waste dump management | | | |

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. | No proposal | NIL | NIL |
| 5b | Area under backfilling of mined out area | No proposal | NIL | NIL |

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|----|-------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------|
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Concurrent use as well as stacking of Topsoil proposed | Concurrent use of Topsoil done for plantation. | NIL |
| 5d | Total area fully reclaimed and rehabilitated | No proposal | NIL | NIL |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | | Limestone persist in depth and pit is not matured for back filling. |

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 on PMCP to be submitted before 1st July every year | Annual report on PMCP submitted for FY 2018-19 on 18.06.2019 | NIL |
| 6b | Area available for rehabilitation (ha) . | No proposal | NIL | NIL |
| 6c | afforestation done (ha). | No proposal | NIL | NIL |
| 6d | No. of saplings planted during the year | No proposal | NIL | NIL |
| 6e | Cumulative no .of plants | No proposal | NIL | NIL |
| 6f | Any other method of rehabilitation | No proposal | NIL | NIL |
| 6g | Cost incurred on watch and care during the year | No proposal | NIL | NIL |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No proposal | NIL | NIL |

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|----|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No proposal | NIL | NIL |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area | No proposal | NIL | NIL |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposal | NIL | NIL |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | No proposal | NIL | NIL |
| 6m | Compliance of rehabilitation of waste land within lease (i) afforestation | 7800 Saplings proposed | WML- 643 nos @ 90% survival rate, OML- 2894 nos @ 90% survival rate | NIL |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | 3.12 Ha | More than 4 Ha covered | NIL |
| 6o | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | By plantation | Plantation carried out | NIL |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Quarterly monitoring of air & noise & half yearly monitoring of water quality proposed in the core & buffer zone | Air & noise monitoring is carried out on monthly basis and water quality monitoring on quarterly basis | All environment parameters were observed to be within limits |

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| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | The lessee had carried out PMCP activities as per the proposals |
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Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Direct ROM proposed to dispatch to the captive cement plant after crushing | Direct ROM dispatched to their captive cement plant | NIL |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | No grade wise sorting proposed | All the blasted material is transported to crusher for further sizing | Crusher of 1200 TPH is installed for sizing |
| 7c | Different grade of mineral sorted out at mines. | Direct ROM dispatched to crusher | Direct ROM dispatched to crusher having 1200 TPH capacity | NIL |
| 7d | Any beneficiation process at mines | No proposal | Not applicable | NIL |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | | Beneficiation of Limestone is not required and entire ROM produced is being utilized in Cement plant |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|-------------------------------------------------------|------------------------------------------------------|----------------------------------------------|---------------------------------------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Separate removal and utilization of topsoil proposed | Topsoil generated is utilized for Plantation | NIL |
| 8b | Concurrent use or storage of topsoil | Concurrent use and storage of topsoil is proposed | Concurrent use of topsoil is carried out | Topsoil is concurrently used for plantation |

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|----|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dump proposed for waste dump- one nos. | Separate dump maintained for waste dump- one nos. | NIL |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No proposal | NIL | Limestone is not exhausted and pit is not matured for back filling. |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | NIL | Backfilling proposed in part of the ML area at the conceptual stage of mining |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Baseline information on existence of plantation available | WML- 643 nos @ 90% survival rate, OML- 2894 nos @ 90% survival rate | NIL |
| 8g | Survival rate | 85 % | 90% | NIL |
| 8h | Water sprinkling on roads to control airborne dust | Water tanker sprinkler on haul road to control dust is proposed | Regular spraying of water is done to control fugitive dust emission | Water Tanker having capacity of 18 KL. Special type of sprinkling nozzles for creating Mist of water. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | | The aesthetic beauty in and around the mine is good as lessee had carried out afforestation and environmental protective measure as per the approved document. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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| 9a | Status of submission of Monthly and Annual returns | M.R. Submitted upto Dec- 20 A.R. submitted upto 18 - 19 | AR submitted on 28.06.2019 | NIL |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Mining Engineer- Sh. Saddique Basha Geologist- Sh GNS Rangarao Manager- Kiran Mohan Naidu | Same officers were present during the course of inspection | NIL |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Covered under opencast working-12.5 Ha,Waste disposal- 2Ha,Infrastructure & Roads- 4.70Ha,others(Mineral stock)-1.8 Ha | Appears to be correct | NIL |
| 9d | Scrutiny of Annual return on afforestation | WML- 643 nos @ 90% survival rate, OML- 2894 nos @ 90% survival rate | Appears to be correct | NIL |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | NIL | No mineral reject generated | NIL |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | ROM: OS- Nil,Production -515284 Tons,CS-Nil | Appears to be correct | NIL |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Sale Value & Ex Mine Price -Nil Production cost- Rs.182.31/Ton | Captive consumption | NIL |
| 9h | Scrutiny of Annual return on fixed assets | NIL | 7.2 crores of finance lease | NIL |
| 9k | Scrutiny of Annual return on mining machineries | Excavator-4 Nos, Dumpers - 12 Nos, Drills & Wheel loader -2 Nos each ,Dozer- 3Nos,Crusher-1 No & WT_01 No. | Appears to be correct | NIL |

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 |
| MCDR17 | Rule 11(1) | 29/11/2019 | 10/02/2020 | | | | |
| MCDR17 | Rule 36(3) | 29/11/2019 | 10/02/2020 | | | | |

Date :**(G C MEENA)**

Indian Bureau of Mines