

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

**MCDR inspection REPORT**

**Bangalore regional office**

**Mine file No :** KNT/GLB/LST/17/BNG

**Mine code :** 38KAR10003

- (i) Name of the Inspecting : **S47** ) **DR. Sudhakara T.L**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri.Shiojee Roy Mines Manager, Vinayaka B S-Geologist  
Official with  
Designation
- (iv) Date of Inspection : 19/10/2021
- (v) Prev.inspection date : 09/08/2017

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **INJEPALLI (ML 2417 AND 2475)**
- (b) **Registration NO.** : **IBM/245/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : KARNATAKA
- District : GULBARGA
- Village : INJEPALLI
- Taluka : SEDAM
- Post office : SEDAM
- Pin Code : 585222
- FAX No. : 033-221094 (F)
- E-mail : mines@vasavadattacement.coi
- Phone : 08441-276005,EXT.406/524 0:
- (f) Police Station : Sedam
- (g) First opening date : 09/12/1982
- (h) Weekly day of rest : SUN
2. Address for : M/s KESORAM INDUSTRIES LIMITED,M/s Vasavadatta C  
correspondance At & po-Sedam  
Dist-Gulbarga, Karnataka-585 222
3. (a) Lease Number : KAR0099
- (b) Lease area : 897.86
- (c) Period of lease : 20
- (d) Date of Expiry : 04/09/2023
4. Mineral worked : SHALE Associated  
LIMESTONE Main

## 5. Name and Address of the

Lessee : VASAVADATTA CEMENTS  
 SEDAM, GULBARGA, GULBARGA  
 KARNATAKA  
 Phone:08441-676005,676277,676256  
 FAX :08441-676139,676408

Owner : P Radhkrishna , Nominated owner  
 Birla Building, 8th Floor,  
 9/1, R.N. Mukherjee Road,  
 Kolkata - 700001 KOLKATA  
 WEST BENGAL  
 Phone:  
 FAX :

Agent : RAVINDRA LAGWANKAR  
 Vasavadatta Cement Sedam-  
 585222 kalburgi GULBARGA  
 KARNATAKA  
 Phone: 03322435453, 9449876640  
 FAX :

## Mining Engineer

Name : PV Phani Krishna Kumar, Full Time  
 Qualification : B.E (Mining)  
 Appointment/ :  
 Termination date

## Geologist

Name : B.S.VINAYAKA, Full Time  
 Qualification : M.SC GEOLOGY  
 Appointment/ : 01/05/2018  
 Termination date

## Manager

Name : SHIOJEE ROY  
 Qualification : BE Mining, First Class Mines manager Cer  
 Appointment/ : 01/05/2018  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	13/02/1992
		Mining Scheme rule 12 MCDR1988	24/09/1996
		Mining Scheme rule 12 MCDR1988	21/08/2000
		Renewal under rule 22 MCR1960	27/11/2002
		Fresh under rule 22 MCR1960	20/07/2004
		Mining Scheme rule 12 MCDR1988	11/08/2006
		Modif.approved Mining Scheme	22/04/2010
		Mining Scheme rule 12 MCDR1988	04/01/2013
		MP review under 17(1) MCR 2016	29/11/2016
		MP modif under 17(3) MCR 2016	15/12/2017

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	50 Bore holes with a total metargae of 2165m during the year 2020-21.	NIL	During the year 2020-21 & 2021-22 lessee has proposed 50 No's (with a total metargae of 2165m) & 55 No's of boreholes (1980m) respectively in each year. However, lessee has not commenced the drilling activity. Violation pointed out.
1b	Exploration over lease area for geological axis 1 or 2	G2 to G1	G1- 258.58 Ha. G2- 409.30 Ha. G3- 229.98 Ha.	As per Approved Modified & Review of Mining Plan.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	Exploration not carried out
1d	Balance area to be explored to bring Geological axis in 1 or 2	Area in G2- 409.30 Ha. Area in G3- 229.98 Ha.	Exploration not carried out.	As per Approved Modified & Review of Mining Plan
1e	Balance reserve as on 01/04/20	Limestone 214.94 MMT and Shale 44.81MMT (as on 30.11.2017).	Limestone-196.06 MMT & Shale-44.69 MMT (as on 1.4.2021).	Reserves reported in Annual Returns 2020-21 are Geological Reserves, advised lessee to do the rectification in Annual Return submitted.
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Lessee has not carried out the proposed drilling activity for the year 2020-21 and not commenced the drilling proposed during the year 2021-22. Violation pointed out under Rule 11(1) of MCDR.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	2 Pits proposed Pit-A-NE Coroner, F-F' to H-H' (N-125 to 1171 & E - 910 to 1487) Pit-B-NE-Coroner, B-B' (N-(-) 26 to (-) 175 & E - 0 to 369).	Pit-A-NE Coroner, E-E' to H-H' (N-997.75 to 400.00) & E-889 to 1484) Pit-B-NE-Coroner- AA'-EE' -N(-) 17.57 to N (-) 200 & E-136 to E-230.	Developments are within the proposed extent. However, lessee has achieved about 58% of proposed production and not reached upto to the proposed extent, lacking in proposed development and bench advancement observed. Violation pointed out.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in Top Soil - 01 No's Mineral - 05 No's.	Separate benches for Top Soil - 01 No's Mineral - 05 No's.	Separate benches for top soil and mineral maintained as proposed.
2c	Stripping ratio or ore to OB ratio	1:0.0612	1:0.0873	Ratio of top Working Benches.
2d	Quantity of topsoil generation in m3	214371	176969 m3	Bulk Density 1.6 (m3 to MT) 283150 tons
2e	Quantity of overburden generation in m3	No Proposal	Nil	Only top soil generated.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			There is lacking proposed development and bench advancement due to less production. Violation pointed out under Rule 11(1)

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	2 Pits proposed Pit-A-NE Coroner, E-E' to H-H' (N-133 to 1144 & E - 905 to 1480) Pit-B-NE-Coroner, B-B' to E-E' (N-49 to (-) 158 & E - 97 to 879).	Actual work in 02 pits Pit-A-NE Coroner, E-E' to G-G' (N-980.50 to 434 & E -848 to 1462) Pit-B-NE-Coroner, B-B' to F-F' (N-80 to(-) 115 & E -105 to 1021).	Actual working was carried out in Pit-A (NE Corner) & Pit-B (NE Corner) of ML Area.  Approximate dimension of Pit-A - 1635 x 850 x 55 Pit-B - 1336.54 x 491x55
3b	Quantity of ROM mineral production proposed	Limestone - 8752570 Tons, Shale - 497536 Tons Total = 92,50,106 Tons	Limestone- 50,65,325 Tons, Shale - 30,903 Tons Total = 50,96,228 Tons	Against 8752570 Tons production proposal of Limestone, lessee has produced 50,63,325 tons of limestone and against 497536 Tons of proposed production of shale, lessee has produced 30,903 Tons. Violation pointed out.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	As per the Annual Return for the year 2020-21 submitted.
3d	Quantity of mineral reject generation	No proposal	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal for Mineral Rejects	Mine produces are with the threshold value	The mineral produced above the threshold value are used for captive purpose. CaO: Min 34%, Mgo: Max 5%
3f	Quantity of sub grade mineral generation.	No proposal	NIL	No sub-Grade Mineral generated.
3g	Grade of sub grade mineral generation	No proposal	NIL	No sub-Grade Mineral generated.

3h	Manual / Mechanised method adopted for segregating from ROM	No proposal for segregating from ROM.	Nil	All the blasted limestone from the mine face is transported to the crusher within ML.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not Required	There is no Sub- Grade Mineral available in our mines.
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed in Mineral benches.	Deep hole drilling & blasting carried out.	Drilling by sandvik DI 500 (150mm) dia and Blasting by slury explosive in conjunction with ANFO and NONEL.
3k	Provision of mining machineries in mineral benches	Shovel dumper combination in No's. Excavator: 06 Loader: 02 Dumper: 20	Excavator: 06 No's Loader: 02 No's Dumper: 19No's  Drill: 02No's	Fully Mechanized mines.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	OB: 1 to 2 Mtr Mineral: Bench height - 10Mtr & Bench width 50 Mtrs.	OB: 1.5 Mtr Mineral: Bench height - 10Mtr & Bench width 30 Mtrs.	Permission of DGMS for bench height is 12m. Benches height are maintained about 10m as proposed.
3m	Total area covered under excavation/pits	178.69 Ha at the end of plan period.	156.00Ha. (The end of FY 2020- 21)	Lacking in proposed development, bench advancement and area observed due to less production.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.0612 (Limestone)	1:0.0559 (Limestone)	Limestone 5065325 tonnes OB (Top Soil) 283150 tonnes

3o	Total area put in use under different heads at the end of year	At the end of plan period Area under Mining-178.69 Ha, Storage for top soil - 19.72 Ha, Mineral Storage - 2.26 Ha, Infrastructure - 2.95 Ha, Roads 7.41 Ha, Mineral Separation plant (Crusher) 0.61 Ha, Others (Green belt)- 11.33 Ha.	Covered under current (O/C) Workings- 156 Ha, R&R(Hydro Reclamation)- 5.23 Ha, Used for waste disposal (Black Cotton Soil)- 19.20 Ha, Occupied by plant, buildings, residential, welfare buildings & roads- 11.09 Ha, Plantation 0.50 Ha	Proposal is for 5year (upto 31.3.2022) and actual is upto 31.3.2021.
3p	Production of ROM mineral during the last five year period as applicable	Limestone (figures in MMT): 2016-17: 11.03 2017-18: 10.01 2018-19: 08.75 2019-20: 08.74 2020-21: 08.75 Shale: 2016-17: 00.66 2017-18: 00.39 2018-19: 00.50 2019-20: 00.50 2020-21: 00.50	Limestone (figures in MMT): 2016-17: 05.33 2017-18: 05.01 2018-19: 06.27 2019-20: 05.48 2020-21: 05.065 Shale: 2016-17: 00.056 2017-18: 00.018 2018-19: 00.051 2019-20: 00.015 2020-21: 00.030	Production data from Annual Return.
3q	General remarks of inspecting officers on method of mining etc.	-	-	Mining was carried in 2 pits with 100% recovery. HEMM were used for Mine operations in combination with drilling and blasting.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB is proposed	Separate dumping of OB carried out.	OB is top soil.
4b	Location of topsoil, OB and mineral reject dumps	Top Soil Dump: Dump within 50 Mtrs - E335 to 405 & 610 to 680. N-(-) 505 to (-) 570 & (-) 685 to 560.  Location of dump near nallha. E 135 to 205 & N590 to 665.	Top soil Dump NW corner E-1376 to 1471. N 640 to N800. E- (-) 83 to 192 & N-790 to 875.00. This dump is near Crusher.	There is a deviation in proposed Top soil Dump location. It was informed by lessee that, the top soil was temporarily stocked at this location and will be utilized for plantation and bund formation along the lease boundary.
4c	Number of dumps within lease area and outside of lease area	WLA-4 (Top Soil) OLA-0	WLA-4 (Top Soil) OLA-0	All the 04 dumps are within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Inside the UPL	Inside the UPL	Entire lease area is mineralized.
4e	Number of active and alive dumps.	1	1	
4f	Number of dead dumps.	3	3	3 dumps stabilized with plantation.
4g	Number of dumps established.	3	3	3 dumps stabilized with plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	Garland drain is made at foot of Dump.
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	Retaining wall 378m Garland drain - 380 Mtrs completed for 2018-19.
4j	Number of settling ponds	No proposal	Nil	



4k	Specific comments of inspecting officer on waste dump management	-	-	Lessee has carried out plantation on 03 stabilized dumps and constructed Garland drain and Retaining wall during the previous years. Top soil generated has been used for plantation and bund formation along the lease boundary.
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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.	No proposal	Nil	The waste generation is very less in the mine and there is no backfilling proposal. Lessee has used the Generated OB (top soil) for Bund Formation along the Lease Boundary.
5b	Area under backfilling of mined out area	No Proposal	Nil	The waste generation is very less in the mine and there is no backfilling proposal.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil generated is proposed for bund formation.	Top soil generated is used for bund formation and also for plantation.	The waste generation is very less in the mine and there is no backfilling proposal. Lessee has used the Generated OB(top soil) for Bund Formation along the Lease Boundary and plantation.
5d	Total area fully reclaimed and rehabilitated	No Proposal	Nil	About 5.23 Ha is converted into water reservoir.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	There is no proposal for back filling. The part of the existing pit is converted into water reservoir.
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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 on PMCP to be submitted before 1stJuly every year	PMCP report submitted dtd. 16.06.2021.	PMCP report Submitted within stipulated time.
6b	Area available for rehabilitation (ha) .	No proposal	No proposal	NIL
6c	afforestation done (ha).	0.40 Ha	0.50 Ha	Within lease area.Drip irrigation arrangements made to plants.
6d	No. of saplings planted during the year	3000 (1500 fresh & 1500 Gap Planation) saplings proposed.	4150(1600 fresh & 2550 Gap Planation)	Within the lease area
6e	Cumulative no .of plants	152089	162124	within the lease area
6f	Any other method of rehabilitation	No Proposal	Nil	
6g	Cost incurred on watch and care during the year	Rs.984000	Rs.1361200	Figures as per PMCP report submitted.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No Proposal	Nil	Part of the existing pit 5.23 Ha is being utilized as water reservoir.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	No backfilling Proposal
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No Proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Nil	part of the existing pit 5.23 Ha is being utilized as 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	No Proposal	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No Proposal	-	There is no waste land in ML area
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No Proposal	-	There is no waste land in ML area
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring proposed in core and buffer zone.	Done regularly in core and buffer zone.	Environmental monitoring has been carried out by M/s BS Envi Tech Hyderabad

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The leasee has carried out PMCP activities as per the proposal. 4150 no's of sampling planted in the lease area during the year 2020-21.
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All the ROM Mineral are dispatch for captive consumption	Direct ROM dispatched to plant via crusher hopper.	Limestone and shale produced were used for their captive cement plant of 6.00 million ton clinker capacity.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	NIL	Bench wise blending of limestone and shale done as per requirement of plant
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	Bench wise blending of limestone and shale done as per requirement of plant
7d	Any beneficiation process at mines .	No proposal	NIL	Crusher capacity of 1400 TPH and stand by crusher of 800 TPH
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Beneficiation of limestone is not required as entire limestone excavated is being utilized with proper blending in the cement manufacturing plant.

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	The top soil generated is proposed to be utilized for bund making along the lease boundary.	0.283 Million cubic meter of top soil is generated during the year 2020-21 was utilized for bund making as proposed.	100 % utilization of Black Cotton Soil for Green belt development within in and outside mining Lease area.
8b	Concurrent use or storage of topsoil	Top soil generated was proposed to stacked and utilized for bund making	Bund was made along the boundary safety zone and stabilized by plantation.	nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for OB, Top soil generated used for formation of bund.	No proposal for OB, Top soil generated used for formation of bund stabilized by plantation.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden dumped in safety barrier of lease area.	Overburden dumped in safety barrier of lease area.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposed to Plant 3000 no's (1500 Fresh plants & 1500 Gap Filling) an area of 0.40 Ha.	4150 no's samplings were planted covering an area of 0.50 Ha.	Species: Cona Corpous (Dubai Plant), Pongamia, Casia Sania.
8g	Survival rate	65%	80%	Drip system adopted

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to control airborne dust.	Regular water sprinkling is carried out static water sprinklers are provide on haul road, unloading station, ramps & view point.	NIVIS dust suppression system & Three water tankers of 18KL each provided with rain gun and pressurized sprinkler arrangements and drip irrigation system.
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 lease has carried out afforestation and other environmental protective measures as per the proposals.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Sept 2021 A.R. Submitted up to 2020-2021	Annual Retrun and Monthly return submitted within stipulated time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager mining: Shiojee Roy Mining Engineer: P V Phani Krishan Kumar Geologist: Vinayaka B S	Shiojee Roy, Manager mining, PV Phani Krishan Kumar , Mining Engineer and Geologist Vinayaka BS were present on the day of inspection	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land Use Pattern Current (O/C) Workings: 156.00Ha Reclamation: 5.23Ha Dumps :19.20 Roads/Infrastr ucture: 11.09Ha Others (Green Belt): 0.50Ha	Appears to be correct	Nil

9d	Scrutiny of Annual return on afforestation	Within Mining lease- 4150 No's @ 80% survival rate Outside Mining Lease - 1510 No's @ 80% survival rate.	Appears to be correct	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	No Mineral Reject generation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Limestone (values in tonnes) Cement Grade Opening Stock: 541869 ROM: 5065325 Dispatch: 5067483 Closing Stock: 539711 Shale Opening Stock: 2182 ROM: 30903 Dispatch:32064 Closing Stock:1021	Appears to be correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost & Ex-mine price Rs. 166.98 per MT for Limestone Rs. 157.62 per MT for Shale	No sale value this is a captive mine. NMET, DMF and other taxes not considered in Production cost.	Violation Pointed out
9h	Scrutiny of Annual return on fixed assets	Rs. 1,004.96 Lakhs including plant machinery and transport equipment.	Rs 45,20,000/- shown as depreciation of land value.	Violation pointed out.

9k      Scrutiny of      Excavator:      Appears to be correct  
Annual return on 06 No's  
mining      Loader:  
machineries      02 No's  
Dumper:  
19 No's  
Dozer:  
02No's  
Drill:  
02No's  
Water Tanker:  
03No's  
NIVIS water  
system:  
  
01No's  
Bulk Mixing &  
Delivery  
Truck:  
01No's

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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)	26/10/2021			
MCDR17	Rule 45(7)(a)	26/10/2021			

**Date :**

(DR. Sudhakara T.L)

Indian Bureau of Mines