

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

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/CDP/LST-6/HYD

Mine code : 38APR04008

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri K.V.S. Sharma Mine Manager, Sri. Raghavendra, Ge
Official with
Designation
- (iv) Date of Inspection : 13-SEP-21
- (v) Prev.inspection date : 07-JAN-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ZUARI**
- (b) **Registration NO.** : **IBM/996/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ANDHRA PRADESH**
- District : **CUDDAPAH**
- Village : **VALASAPALLI**
- Taluka : **KAMALAPURAM**
- Post office : **KRISHNA NAGAR**
- Pin Code : **516311**
- FAX No. : **08563 - 275106**
- E-mail : **SK.TIWARI@HEIDELBERGCEMENT**
- Phone :
- (f) **Police Station** : **YERRAGUNTLA**
- (g) **First opening date** : **14-MAY-82**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **M/S ZUARI CEMENT**
correspondance **KRISHNA NAGAR, YERRAGUNTLA**
CUDDAPAH DIST-516 311
3. (a) **Lease Number** : **APR0023**
- (b) **Lease area** : **656.68**
- (c) **Period of lease** : **40**
- (d) **Date of Expiry** : **13-MAY-22**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : ZUARI CEMENT
 HALL 10TH MAIN ROAD
 JEEVANBHEEMANAGAR BANGLORE
 URBAN KARNATAKA
 Phone:0805207610
 FAX :0805207622

Owner : SUSHIL KUMAR TIWARI
 KRISHNA NAGAR VALASAPALLI
 VILLAGE YERRAGUTLA MANDAL
 CUDDAPAH ANDHRA PRADESH
 Phone: 8800577222
 FAX :

Agent : K V S SHARMA
 M/S ZUARI CEMENT KRISHNA
 NAGAR VALASAPALLI
 VILLAGE, YERRAGUNTLA MAN
 CUDDAPAH ANDHRA PRADESH
 Phone: 9676404562
 FAX :

Mining Engineer

Name : S RAGHURAM, Full Time
 Qualification : B TECH MINING
 Appointment/ : 26-MAR-12
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	19-DEC-96
Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	26-JUN-01
	:	Modif.of approved Mining Plan	11-OCT-04
	:	Modif.of approved Mining Plan	22-AUG-05
	:	Modif.approved Mining Scheme	15-NOV-07
	:	MP review under 17(1) MCR 2016	05-JAN-17
	:	MP modif under 17(3) MCR 2016	12-FEB-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal in 2020-21	Nil	
1b	Exploration over lease area for geological axis 1 or 2	2020-21 - Nil 2021-22 - 13 Nos.	2020-21 - Nil 2021-22 - 04 Nos. core boreholes drilled and drilling is in progress for the remaining holes.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal in 2020-21	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	G1 - 535.56 Ha G2 - 121.12 Ha	
1e	Balance reserve as on 01/04/20	----	Proved Mineral Reserves as on 01/04/2021 - 324.99 million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			Exploration is in progress to convert the G3 level area of 121.12 Ha into to G1 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1850-2780 E240-1680	Work done within the proposed co-ordinates	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Seperate bench proposed in topsoil and mineral	One topsoil bench and three mineral benches developed.	
2c	Stripping ratio or ore to OB ratio	No proposal	Nil	
2d	Quantity of topsoil generation in m3	2020-21 - 113750 cu.m	2020-21 - 105097 cu.m	

2e	Quantity of overburden generation in m3	No proposal	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No OB is generated in the proposed mining area and the limestone is found just below the top soil horizon of around 2m thickness.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	2020-21 - 4530500 Te	2020-21 - 2690000 Te	
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	Nil	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	Nil	

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	Drilling and blasting proposed in the mineral benches.	During inspection it was observed that Wagon drill being used for drilling with a blast hole dia of 150 mm & depth of 9 m, spacing of 8 meters and burden of 5 meters. Blasting with slurry explosives with NONELS as initiating system.
3k	Provision of mining machineries in mineral benches	It was proposed to use wagon drills, excavators & dumpers for drilling, loading & transporting of ore to crushing plant.	During inspection, it was observed that wagon drills, dumpers & excavators are being used for drilling, loading & transportation of ore to crushing plant
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	It was proposed to maintain the bench height of 9 meters	Bench height is being maintained between 8-9 m and digging height of the excavators are compatible with bench height
3m	Total area covered under excavation/pits	181.46 Ha	159.0 Ha
3n	Ore to OB ratio for the pit/mine during the year.	No proposal	Nil

3o	Total area put in use under different heads at the end of year	Total area put in use at the end of Mar 2021 1.current working (O/C) = 159 Ha 2.occupied by plant, building, residential, roads & welfare buildings =14.24 Ha 3. other purpose(plantation and topsoil dump) = 28.25 Ha	Actual area put in use at the end of Mar 2021 1.current working (O/C) = 156.1 Ha 2.occupied by plant, building, residential, roads & welfare buildings =14.24 Ha 3. other purpose(plantation and topsoil dump) = 26.64 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 5385802 tonnes 2017-18: 5385060 tonnes 2018-19: 5385510 tonnes 2019-20: 5131770 tonnes 2020-21 - 2690000 tonnes	2016-17: 4150000 tonnes 2017-18: 3450000 tonnes 2018-19: 4425000 tonnes 2019-20: 3600000 tonnes 2020-21: 2690000 Te	
3q	General remarks of inspecting officers on method of mining etc.			Mining is carried out by fully mechanised method by deploying HEMM.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Seperate dumping of topsoil proposed	Topsoil is stacked in the earmarked area.	

4b	Location of topsoil, OB and mineral reject dumps	N2348-2777 E1240-1684	Topsoil is being stacked in the proposed co-ordinates.	
4c	Number of dumps within lease area and outside of lease area	Three dumps within the lease area	Three dumps within the lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump proposed outside UPL	Dumps developed outside UPL	
4e	Number of active and alive dumps.	01	01	
4f	Number of dead dumps.	02	02	
4g	Number of dumps established.	No new dumps proposed to be established in the year 2020-21	No new dumps established in the year 2020-21	
4h	Whether Retaining wall or garland drain all along dumps are there.	2020-21 - 350 meters	2020-21 - 150 meters	Around 150 meters length of retaining wall constructed against the proposal of 350 meters. Violation issued as per rule.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - 350 meters Garland drain - 660 meters	Retaining wall - 150 meters Garland drain - 660 meters	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Retaining wall not constructed as per proposal. Violation issued as per rule.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Nil	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The pit is not mined out upto its ultimate pit limit to start backfilling.

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).	To be submitted	Submitted	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	2020-21- 1.0 Ha	2020-21 - 1.43 Ha	
6d	No. of saplings planted during the year	2020-21 - 1500 Nos.	2020-21 - 2147 Nos.	
6f	Any other method of rehabilitation	No proposal	Nil	

6g	Cost incurred on watch and care during the year	No proposal	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil
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
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	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly environmental monitoring of core and buffer zone.	Quarterly environmental monitoring carried out during 2020-21 and all the parameters are within the permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No area of pit has reached its ultimate pit limit to start Reclamation and Rehabilitation and backfilling activities.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal	Nil	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Nil	
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	

7d	Any beneficiation process at mines .	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No sub grade has been generated. Beneficiation is not required as the entire ROM mineral is utilised for captive plant.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Seperate removal of topsoil and utilisation proposed	Topsoil removed seperately. Partly used for plantation and remaining quantity is stacked in the dump.	
8b	Concurrent use or storage of topsoil	Utilising for plantation	Partly used for plantation and remaining quantity is being stacked.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	
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)	2020-21 - 1500 Nos in 1.0 Ha	2020-21 - 2147 Nos. in 1.43 Ha	
8g	Survival rate	No proposal	80%	
8h	Water sprinkling on roads to control airborne dust	Water Tankers to be provided for dust suppression.	01 no. of 30 KL water tanker & 01 no. of 20 KL water tanker engaged for water sprinkling on haul road.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation is done in the 7.5m safety zone.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	To be submitted as per rule	Submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager-KVS Sarma, Mining Engineer- G.Narendra, Geologist- P.Kumara Raghavendra	Manager-Sri.KVS Sarma, Mining Engineer- Sri. G.Narendra, Geologist- Sri. P.Kumara Raghavendra	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Current working (O/C) = 174 Ha 2.occupied by plant, building, residential, roads & welfare buildings =14.24 Ha 3. other purpose(plantation and topsoil dump) = 28.25 Ha	Same as submitted
9d	Scrutiny of Annual return on afforestation	2147 Nos.	Broadly as submission and same quantity is verified in afforestation register maintained.
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	Nil	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production reported as Rs.207.94/-	Total depreciation are not matching with the cost per tonne calculation. Advised to correct the annual returns since it has been referred back by the MMS division.
9h	Scrutiny of Annual return on fixed assets	The value of fixed assets reported by the lessee in annual returns is Rs.8281164209/ -	Fixed assest could not be verified. High depreciation value reported since cement plant cost is included in the fixed assets. Advised to correct the annual returns since it has been referred back by the MMS division.

9k Scrutiny of Excavator - 03 All proposed machineries
Annual return on Nos. found in the
mining Dumpers - 7 mining area.
machineries Nos.
 Drill machine
 - 01 No.
 Dozer - 1 No.
 Explosive Van
 - 1 No.
 Water Tanker -
 1No.

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)	21-SEP-21			

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines