

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

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/KSN/LST-12/HYD

Mine code : 38APR10004

- (i) Name of the Inspecting : **K007**) **SHAIVAL KARTIKEYA**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Ravi Kumar Kulkarni, AGM & Manager (Mines)
Official with
Designation
- (iv) Date of Inspection : 31-JAN-23
- (v) Prev.inspection date : 08-NOV-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KAKATIYA**
- (b) **Registration NO.** : **IBM/985/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : ANDHRA PRADESH
District : KRISHNA
Village : SRINIVASANAGAR
Taluka : JAGGAYYAPET
Post office : JAGGAYYAPET
Pin Code : 521175
FAX No. : 040-7630172
E-mail : info@kakatiyacements.com
Phone : 7637717, 7633627
- (f) Police Station : JAGGAYAPET
- (g) First opening date : 12-JAN-83
- (h) Weekly day of rest : MON
2. Address for : KAKATIYA LIMESTONE MINE
correspondance : SRINIVASNAGAR COLONY, JAGGAYYAPETA
KRISHNA DIST.
3. (a) Lease Number : APR0060
- (b) Lease area : 121.41
- (c) Period of lease : 50
- (d) Date of Expiry : 19-MAY-32
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : KAKATIYA CEMENT SUGAR INDUSTRIES LTD
 H.NO 1/10/140/1 ASHOKNAGAR
 HYDERABAD HYDERABAD
 TELANGANA
 Phone:
 FAX :

Owner : K Venkat rao
 M/s Kakatiya Cement Sugar &
 Industries Ltd Gurukrupa
 Ashok Nagar HYDERABAD
 TELANGANA
 Phone:
 FAX :

Agent : D G K Raju
 M/s kakatiya Cements &
 Sugars Ltd Srinivasa Nagar
 Jaggayyapeta Mandal KRISHNA
 ANDHRA PRADESH
 Phone: 08654-200014
 FAX :

Mining Engineer

Name : M Devanand, Full Time
 Qualification : B TECH MINING
 Appointment/ : 05-MAR-10
 Termination date

Geologist

Name : N.VITTAL BABU, Full Time
 Qualification : M.Sc (GEOLOGY)
 Appointment/ :
 Termination date

Manager

Name : B. Chandrashekhar Gupta
 Qualification : B TECH MINING
 Appointment/ : 05-SEP-19
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	13-MAY-02
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	08-FEB-07
		Mining Scheme rule 12 MCDR1988	05-JUN-12
		Mining Scheme rule 12 MCDR1988	15-OCT-12
		MP modif under 17(3) MCR 2016	24-MAR-17
		MP review under 17(1) MCR 2016	01-APR-22

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	Nil.	80.41 Ha. potentially mineralized area has been converted into G1 level of exploration during Review Period.
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	Nil.	-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	Nil.	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal.	Nil.	G2: 11.95 Ha and G3: 29.419 Ha. potentially mineralized area will be converted in to G1 level of exploration during F.Y. 2022-23 and 2023-24.
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2022 Under (111): 46.3659 Million Tonnes	Balance reserves as on 01.04.2022 Under (111): 46.3659 Million Tonnes	Updated reserves has been obtained from the latest approved Review of Mining Plan dated 01/04/2022 Average Grade: CaO: 35 - 49% MgO: 0.31 - 2.94% SiO2: 7.92 - 13.92 Fe2O3: 0.65 - 3.5%

1f	General remarks of inspecting officers on geology, exploration etc	The lenear the north- eastern tip of the Kadapa basin and form the eastern most extent of Palnad sub basin, comprises Jammalamadugu series of the sedimentary of the Proterozoic era.	The Jammalamadugu Shales are reported to be greenish while the limestone are described in three varieties- viz., "Pure Massive Limestonestone, Agrillaceous Flaggy Limestone and Argillacious Massive Limestone". The bedding of limestone is in general NE-SW directions with dip of 10-40 degree towards SE.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	F.Y. 2021-22: In between local co- ordinates N300 to N600 and E000 to E400	F.Y. 2021-22: In between local co-ordinates N300 to N600 and E000 to E400	Broadly development and production have been carried out within the proposed co- ordinates.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil/OB: Nil Mineral/Ore: 05 nos.	Topsoil/OB: Nil Mineral/Ore: 05 nos.	-
2c	Stripping ratio or ore to OB ratio	1 : 0.05	1 : 0.008	-
2d	Quantity of topsoil generation in m3	No proposal.	Nil.	-
2e	Quantity of overburden generation in m3	10265.70 CuM	3712.50 CuM	-

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development and production is being done through fully mechanized means.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	01 no.	01 no.	-
3b	Quantity of ROM mineral production proposed	513285.00 Metric Tonnes	432500.00 Metric Tonnes	-
3c	Recovery of sailable/usable mineral from ROM production	95%	95%	-
3d	Quantity of mineral reject generation	No proposal.	Nil.	-
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	Nil.	-
3f	Quantity of sub grade mineral generation.	No proposal.	Nil.	-
3g	Grade of sub grade mineral generation	No proposal.	Nil.	-
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal.	Produced mineral/ore is being directly dispatched to the captive plant.	-
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	Diameter: 115 mm Burden: 4.00 m Spacing: 3.00 m Depth: 7.00 m Explosive: ANFO	Diameter: 115 mm Burden: 4.00 m Spacing: 3.00 m Depth: 7.00 m Explosive: ANFO	-
3k	Provision of mining machineries in mineral benches	1. Excavator 02 nos. with 0.9 CuM bucket capacity. 2. Drilling Machine 02 nos. with 115 mm diameter bit. 3. Compressor 02 nos. with 450 CFM capacity 4. Tipper 10 nos. with 10 Metric Tonnes capacity 5. Wheel Loader 01 no. with 1.8 CuM bucket capacity 6. Rock Breaker 01 no. 7. Water Pump 02 nos. with 18.5 KW capacity 8. Water Tanker 01 no. with 5.0 CuM capacity	1. Back Hoe 02 nos. with 0.9 CuM bucket capacity 2. Front End Loader 01 no. with 1.80 CuM bucket capacity 3. Tippers 05 nos. with 12.0 Metric Tonnes capacity 4. Air Compressor 01 no. with 450CuM/Mn capacity 5. Drilling Machine 01 no. with 115.0 mm diameter bit. 6. Pumps 02 nos. with 1980.0 L/Mn capacity	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Mineral/Ore: 6.0 meters.	Mineral/Ore: 6.0 meters.	-

3m	Total area covered under excavation/pits	37.661 Ha. up to end of F.Y. 2021-22	33.647 Ha. up to end of F.Y. 2021-22	-
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.05	1 : 0.008	-
3o	Total area put in use under different heads at the end of year	Pit: 37.661 Ha. Waste/reject- 2.38 Ha. Others- 15.88 Ha. Up to end of F.Y. 2021-22	Pit: 33.647 Ha. Waste/reject- 2.770 Ha. Others- 15.839 Ha. Up to end of F.Y. 2021-22	-
3p	Production of ROM mineral during the last five year period as applicable	Yr. 2017-18: 511275.00 Metric Tonnes Yr. 2018-19: 513315.00 Metric Tonnes Yr. 2019-20: 491775.00 Metric Tonnes Yr. 2020-21: 516855.00 Metric Tonnes Yr. 2021-22: 513285.00 Metric Tonnes	Yr. 2017-18: 228100.00 Metric Tonnes Yr. 2018-19: 296527.00 Metric Tonnes Yr. 2019-20: 393253.00 Metric Tonnes Yr. 2020-21: 292223.39 Metric Tonnes Yr. 2021-22: 432500.00 Metric Tonnes	-
3q	General remarks of inspecting officers on method of mining etc.			Mining has been carried out through the opencast method with fully mechanized means using conventional 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)	Proposal has been given in the approved document for separate dumping of waste in between local co-ordinates S0450 to S0220 and E0160 to E0420	Separate dumping of waste has been done in between local co-ordinates S0450 to S0220 and E0160 to E0420	-
4b	Location of topsoil, OB and mineral reject dumps	OB/Waste Dump: In between local co-ordinates S0450 to S0220 and E0160 to E0420	OB/Waste Dump: In between local co-ordinates S0450 to S0220 and E0160 to E0420	-
4c	Number of dumps within lease area and outside of lease area	01 no.	01 no.	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed within ultimate pit limit.	Situated within ultimate pit limit.	Temporary dumping has been done.
4e	Number of active and alive dumps.	01 no.	01 no.	-
4f	Number of dead dumps.	No proposal.	Nil.	-
4g	Number of dumps established.	No proposal.	Nil.	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal has been given in the approved document for construction of retaining wall and the garland drain along waste dump.	Retaining wall and the garland drain have not been constructed.	Violation has been pointed out.
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall: 94.0 CuM (0.0094 Ha.) Garland Drain: 91 CuM (0.0091 Ha.)	Not constructed.	-do-

4j	Number of settling ponds	No proposal.	Nil.	-
4k	Specific comments of inspecting officer on waste dump management			The existing protective measures taken around the Waste Dump no. 1 are insufficient and it was found that the waste material were falling from the waste dump slopes. Hence, suitable protective measures should be taken to arrest the fall and stabilise the dump. Violation has been pointed out.

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.	-
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	F.Y. 2021-22: 0.015 Ha. area will be utilized for plantation of 30 nos. of saplings.	F.Y. 2021-22: 0.08 Ha. area has been utilized for plantation of 250 nos. of saplings.	-

5e General remarks of inspecting officers on backfilling and reclamation etc. Nil.

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).	As per rule 26(2), lessee has to submit the annual report before 1st day of July of every year.	Submitted before due date. Information has been cross verified during inspection.	No major deviation has been observed.
6b	Area available for rehabilitation (ha) .	No proposal.	Nil.	-
6c	afforestation done (ha).	No proposal.	Nil.	-
6d	No. of saplings planted during the year	No proposal.	Nil.	-
6e	Cumulative no .of plants	No proposal.	Nil.	-
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	30 nos.	250 nos.	-
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.015 Ha.	0.08 Ha.	-
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	By Plantation	By Plantation	-

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal has been given in the approved document for regular monitoring of the environmental parameters in the core and buffer zone.	Being done as per proposal.	All the parameters are within the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Nil.

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			Nil.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal.	Nil.	-
8b	Concurrent use or storage of topsoil	No Proposal.	Nil.	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal has been given in the approved document for separate dumping of waste in between local co-ordinates S0450 to S0220 and E0160 to E0420	Separate dumping of waste has been done in between local co-ordinates S0450 to S0220 and E0160 to E0420	-
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)	F.Y. 2021-22: 0.015 Ha. area will be utilized for plantation of 30 nos. of saplings.	F.Y. 2021-22: 0.08 Ha. area has been utilized for plantation of 250 nos. of saplings.	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	30 nos. of saplings will be planted over 0.015 Ha. area.	250 nos. of saplings have been planted over 0.080 Ha. area.	-
8g	Survival rate	No proposal.	Approx 70%	-

8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads to control airborne dust through the water tanker.	Being done as per proposal.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Nil.

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 January 2023 A. R. Submitted up to F.Y. 2021-22	M. R. Submitted up to January 2023 A. R. Submitted up to F.Y. 2021-22	Nil.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Shri Ravi Kumar Kulkarni Mining Engineer: Shri M. S. Syam Sundar Reddy Geologist: Shri T. Dileep	Manager: Shri Ravi Kumar Kulkarni Mining Engineer: Shri M. S. Syam Sundar Reddy Geologist: Shri T. Dileep	Nil.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 33.647 Ha. Waste/reject- 2.770 Ha. Others- 15.839 Ha. Up to end of F.Y. 2021-22	Pit: 33.647 Ha. Waste/reject- 2.770 Ha. Others- 15.839 Ha. Up to end of F.Y. 2021-22	Nil.

9d	Scrutiny of Annual return on afforestation	Within Lease area: 250 nos. with 70% survival rate.	Within Lease area: 250 nos. with approx. 70% survival rate.	Nil.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral-reject: NIL Grade: NIL	Mineral-reject: NIL Grade: NIL	Nil.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock ROM: NIL Graded Ore: NIL	Closing Stock ROM: NIL Graded Ore: NIL	Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value: Nil. Ex-mine Price: Rs. 230.0 Per Metric Tonne Cost of Production: Rs. 230.34 Per Metric Tonne	Sale value: Nil. Ex-mine Price: Rs. 230.0 Per Metric Tonne Cost of Production: Rs. 230.34 Per Metric Tonne	Nil.
9h	Scrutiny of Annual return on fixed assets	Rs. 374784/-	Rs. 374784/-	Nil.

9k	Scrutiny of Annual return on mining machineries	1. Back Hoe 02 nos. with 0.9 CuM bucket capacity 2. Front End Loader 01 no. with 1.80 CuM bucket capacity 3. Tippers 05 nos. with 12.0 Metric Tonnes capacity 4. Air Compressor 01 no. with 450CuM/Mn capacity 5. Drilling Machine 01 no. with 115.0 mm diameter bit. 6. Pumps 02 nos. with 1980.0 L/Mn capacity	1. Back Hoe 02 nos. with 0.9 CuM bucket capacity 2. Front End Loader 01 no. with 1.80 CuM bucket capacity 3. Tippers 05 nos. with 12.0 Metric Tonnes capacity 4. Air Compressor 01 no. with 450CuM/Mn capacity 5. Drilling Machine 01 no. with 115.0 mm diameter bit. 6. Pumps 02 nos. with 1980.0 L/Mn capacity	Cross verified from the machinery logbooks.
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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 14(3)	31-JAN-23	08-MAY-23				
MCDR17	Rule 33	31-JAN-23	08-MAY-23				
MCDR17	Rule 37(2)	31-JAN-23	08-MAY-23				

Date :

(SHAIVAL KARTIKEYA)

Indian Bureau of Mines