

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

**MCDR INSPECTION REPORT**

**Gandhinagar regional office**

**Mine file No :** RAJ/CHT/LST-3

**Mine code :** 38RAJ09004

- (i) Name of the Inspecting : **G021** ) **DATA RAM GURJAR**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. R.C Vyas, Mine Manager & Sh. Om Prakash Sharma, G  
Official with  
Designation
- (iv) Date of Inspection : 20-SEP-22
- (v) Prev.inspection date : 21-SEP-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MANGROL TILAKHERA**
- (b) **Registration NO.** : **IBM/418/2017**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : RAJASTHAN  
District : CHITTORGARH  
Village : MANGROL, TILAKHERA  
Taluka : NIMBAHERA  
Post office : MANGROL  
Pin Code : 312617  
FAX No. : 91-512-2332665, 2399854  
E-mail : manish.toshniwal@jkcement.  
Phone : 91-512-2371478, 2371479, 2371
- (f) Police Station : NIMBAHERA
- (g) First opening date : 09-MAY-79
- (h) Weekly day of rest : WED
2. Address for : VILLAGE-MANGROL & TILAKHERA  
correspondance : POST-MANGROL  
DISTT-CHITTORGARH
3. (a) Lease Number : RAJ0009
- (b) Lease area : 299.2
- (c) Period of lease : 50
- (d) Date of Expiry : 31-MAR-30
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : J.K.Cement Works  
 Kailashnagar Nimbahera  
 CHITTORGARH RAJASTHAN  
 Phone:01477-220087  
 FAX :01477-220027

Owner : Ajay Kumar Saraogi  
 J.K. Cement Ltd Kamla  
 Tower, Kanpur KANPUR URBAN  
 UTTAR PRADESH  
 Phone: 0512 - 2311478  
 FAX : 0512 - 2364250

Agent : Manish Toshniwal  
 J K Cement Works Kailash  
 Nagar, Nimbahera  
 CHITTORGARH RAJASTHAN  
 Phone: 01477-20087,220562  
 FAX : 01477-20087,220

## Mining Engineer

Name : Nand Kishrore Dhakar,Full Time  
 Qualification : BE Mining  
 Appointment/ : 19-SEP-21  
 Termination date

## Geologist

Name : Om Prakash Sharma,Full Time  
 Qualification : MSC Geology  
 Appointment/ : 01-JUL-15  
 Termination date

## Manager

Name : L.S.POKHARNA  
 Qualification : BE MINING  
 Appointment/ : 11-NOV-18 18-AUG-21  
 Termination date

## Manager

Name : R.C.Vyas  
 Qualification : Diploma in mining and FCC  
 Appointment/ : 19-AUG-21  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Mining Scheme rule 12 MCDR1988 01-OCT-04  
 FMCP under 23C(1) 24-JAN-07  
 Mining Scheme rule 12 MCDR1988 04-AUG-10  
 Modif.approved Mining Scheme 25-JUL-11  
 Mining Scheme rule 12 MCDR1988 06-APR-15  
 MP review under 17(1) MCR 2016 16-NOV-17  
 MP modif under 17(3) MCR 2016 03-JAN-19

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There is 1 bore hole backlog of the previous year 2020-21.	The backlog of 1 bore hole completed in the year 2021-22.	No backlog pending.
1b	Exploration over lease area for geological axis 1 or 2	During the year 2021-22 exploration drilling was proposed by 12 bore holes (780m) for G1 level.	During the year 2021-22 exploration drilling was carried out by 13bore holes (1475m) for G1 level.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration Agency- Departmental drilling proposed. Expenditures not specified.	Exploration Agency- Departmental drilling( M/s J K Cement Limited) & m/s Synergy Geotech Pvt Ltd, Nagpur Expenditures- Rs.4.50 Lkah (Departmently Drilling) & Rs. 11.31 Lakh(Synergy Geotech Pvt Ltd, Nagpur)	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per modified mining plan approved for the period 2019-20 to 2021-22. Total minearlised area 76.007 Ha ( G1 level-66.43 ha, G2 level- 9.64 ha) Exploration proposed during the year 2019-20 to 2021-22 to convert G2 level into G1 level.	Entire mineralised area 76.007 hect. has been covered under G1 level up to year 2021-22.	Nil
1e	Balance reserve as on 01/04/20	No specific proposal given in this regard.	Balance reserves as on 01.04.2022 20.31 mill. Tons	Nil

1f	General remarks of inspecting officers on geology, exploration etc	No issue observed related to geology & exploration.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Northern side & southern side of the lease area.	Northern side & southern side of the lease area.	During the year 2021-22, some mine development work has been extended towards Eastern side in the Northern Pit between section lines ML5 to ML8 which was not proposed, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 03.10.2022.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches proposed in mineral .	As per proposal.	Nil
2c	Stripping ratio or ore to OB ratio	2021-22 : 1:0.017	2021-22: 1:0.012	Nil
2d	Quantity of topsoil generation in m3	2021-22: 6993.0	2021-22: 5958.04	Nil
2e	Quantity of overburden generation in m3	2021-22: 27972.02	2021-22: 17553.84	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			During the year 2021-22, some mine development work has been extended towards Eastern side in the Northern Pit between section lines ML5 to ML8 which was not proposed, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 03.10.2022.

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## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2021-22:2 Pits (North pit & South Pit)	2021-22:2 Pits (North pit & South Pit)	Nil
3b	Quantity of ROM mineral production proposed	2021-22: 23,50,000 tonnes	2021-22: 20,75,834.25 tonnes	Nil
3c	Recovery of sailable/usable mineral from ROM production	2021-22: 18,00,000 tonnes	2021-22: 15,55,688.25 tonnes	Nil
3d	Quantity of mineral reject generation	No proposal during the year	Not generated during the year	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable as no mineral reject generated during the year.	Nil
3f	Quantity of sub grade mineral generation.	2021-22: 5,50,000 tonnes	2021-22: 5,20,146 tonnes	Nil
3g	Grade of sub grade mineral generation	CaO:40.36% & MgO:1.02%	CaO:41.21% & MgO:1.03%	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	None	Nil
3j	Provision of drilling and blasting in mineral benches	Yes, proposed	As per proposal	Nil
3k	Provision of mining machineries in mineral benches	Using Hyd. Excavator, Drill machine, Dozer and Tipper.	As per proposal	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Nil

3m	Total area covered under excavation/pits	2021-22: 44.107 Ha.	2021-22: 44.28 Ha.	Up to year 2021-22.
3n	Ore to OB ratio for the pit/mine during the year.	2021-22 : 1:0.017	2021-22: 1:0.012	Nil
3o	Total area put in use under different heads at the end of year	It is proposed that at the end of mining plan period i.e 2022-23 total area put to use under different heads-143.249 Ha. (Including plantation)	At the end of year 2021-22 total area put ot use under different heads- 136.514 hect. (Including plantation)	Nil
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 13,69,966.00 T 2018-19: 19,09,129.50 T 2019-20: 18,57,868.03 T 2020-21: 19,67,443.32 T 2021-22: 23,50,000 T 2022-23: 23,50,000 T	2017-18: 13,19,700.70 T 2018-19: 14,92,276.13 T 2019-20: 13,27,998.85 T 2020-21: 15,43,237.06 T 2021-22: 20,75,834.25 T, 2022-23: 11,22,676.36 T (up to Aug 2022)	Nil
3q	General remarks of inspecting officers on method of mining etc.			Open cast fully mechanised mining method adopted which is suitable to the type of deposit.

## 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 proposal of interstitial clay/waste & Subgrade mineral.	Separate dumping of interstitial clay/waste & subgrade mineral.	Nil

4b	Location of topsoil, OB and mineral reject dumps	2021-22: Top soil :Use for Plantation Interstitial clay/waste dump : Between section lines ML 5 to ML10 Subgrade : Between section lines ML6 to M112.	2021-22: Top soil use for plantation Interstitial clay/waste dump : Between section lines ML 2 to ML6 Subgrade : Between section lines ML5 to M112.	During the year 2021-22, interstitial clay/waste dumping has been proposed between section lines ML5 to ML10 whereas actual dumping has been carried out between section lines ML2 to ML6 and subgrade dumping has been proposed between section lines ML6 to ML12 whereas actual dumping has been carried out between section lines ML5 to ML12, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 03.10.2022.
4c	Number of dumps within lease area and outside of lease area	02 Subgrade dump 03 Interstitial clay/waste dump	02 Subgrade dump 03 Interstitial clay/waste dump	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of UPL	Outside of UPL	Nil
4e	Number of active and alive dumps.	All dumps are active	All dumps are active	Nil
4f	Number of dead dumps.	No proposal	Nil	Nil
4g	Number of dumps established.	No proposal	None	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Garland drain was there.	Nil
4i	Length of Retaining wall or garland drain all along dumps	2021-22: 148m garland drain proposed	2021-22: 150m garland drain reported	Nil
4j	Number of settling ponds	No proposal	Nil	Nil

4k	Specific comments of inspecting officer on waste dump management	During the year 2021-22, interstitial clay/waste dumping has been proposed between section lines ML5 to ML10 whereas actual dumping has been carried out between section lines ML2 to ML6 and subgrade dumping has been proposed between section lines ML6 to ML12 whereas actual dumping has been carried out between section lines ML5 to ML12, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 03.10.2022.
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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.	Not proposed	Nil	Nil
5b	Area under backfilling of mined out area	No proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed for plantation	Used 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.	Pits are active hence backfilling has not been carried out.
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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).	PMCP report shall be submit up to 1 july for the previous financial year.	PMCP report for the year 2021-22 submitted on time.	Nil
6b	Area available for rehabilitation (ha) .	2021-22: 2.0 hect.	2021-22: 4.0 hect.	Nil
6c	afforestation done (ha).	2021-22: 2.0 hect	2021-22: 4.0 hect.	Nil
6d	No. of saplings planted during the year	2021-22: 2000 nos.	2021-22: 13766 nos.	Nil
6e	Cumulative no .of plants	Not specified	60151 nos. up to year 2021-22.	Nil
6f	Any other method of rehabilitation	No proposal	None	Nil
6g	Cost incurred on watch and care during the year	Rs.3,75,00.00	Rs.7,60,093.00	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	None	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	None	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	No proposal	None	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	However rain water accumulated at the pit bottom	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	None	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	2021-22: 2000 nos.	2021-22: 13766 nos.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	2021-22: 2.0 hect.	2021-22: 4.0 hect.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation	Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring proposed.	Regular monitoring is being carried out.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliances is satisfactory.

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Mineral Conservation:

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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Cement grade limestone will be disptached to captive cement plant & sabgrade mineral will be stack at designated place.	As per proposal	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Cement grade & subgrade	Cement grade & subgrade	Nil
7d	Any beneficiation process at mines .	No proposal	None	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue was observed related to mineral conservation.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes proposal given for separate removal & utilisation of top soil.	As per proposal	Nil
8b	Concurrent use or storage of topsoil	Concurrent use in plantation	As per proposal	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal given for waste dump & subgrade dumps	Separate dumping of waste & subgrade.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	None	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	None	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2000 nos. sapling proposed over an area 2.0 ha during the year 2021-22.	13766 nos. sapling planted over an area 4.0 hect. area during the year 2021-22.	Nil
8g	Survival rate	Not specified	85%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling was observed.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is good in and around mine area.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR monthly & annual return to be submitted.	Monthly & annual return of the mine is being submitted on time as per time line of MCDR 2017.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Sh. Nandkishor Dhaker, Geologist: O P Sharma, Mine Manager: Sh. Ramesh Chandra Vyas	Found Ok	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR 2021-22:	Seems corrected	Nil
9d	Scrutiny of Annual return on afforestation	No. of trees planted : 13766 (Inside lease area)	Seems corrected	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Subgrade: 5,20,146.00 tons	Seems corrected	Subgrade reported as mineral reject.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock- Nil, Graded Stock- 1457456 tonnes.	Seems to be correct.	Subgrade stock
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production & exmine price shown-Rs. 212.31 per tonne	Seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed assets. Rs. 437949430	Seems to be correct.	Nil
9k	Scrutiny of Annual return on mining machineries	Machineries details given	Found correct.	Nil

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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)	03-OCT-22			
MCDR17	Rule 31(4)	03-OCT-22			

**Date :**

**(DATA RAM GURJAR)**

Indian Bureau of Mines