

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-5

Mine code : 38RAJ09002

- (i) Name of the Inspecting : **P022**) **PANKAJ KULSHRESTHA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Piyush Kumar Ameta, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 22/08/2024
- (v) Prev.inspection date : 16/08/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KARUNDA**
- (b) **Registration NO.** : **IBM/418/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : RAJASTHAN
- District : CHITTORGARH
- Village : KARUNDA
- Taluka : NIMBAHERA
- Post office : KARUNDA
- Pin Code : 312617
- FAX No. : 01477-220027,220562
- E-mail : mines.nbh@jkcement.com
- Phone : 01477-220087
- (f) Police Station : Nimbahera sadar
- (g) First opening date : 06/03/1985
- (h) Weekly day of rest : WED
2. Address for : VILLAGE& POST-KARUNDA
correspondance : TEH-NIMBAHERA
DISTT-CHITTORGARH
3. (a) Lease Number : RAJ00006
- (b) Lease area : 240.86
- (c) Period of lease : 50
- (d) Date of Expiry : 12/12/2034
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 : KAILASH NATH
 50 MIG BUNGLOW W BLOCK JUHI
 KESHAV NAGAR KANPUR UP
 CHITTORGARH RAJASTHAN
 Phone: 0512-2371478-81
 FAX : 0512-2332665

Agent : MAHEEM KACHWAHA
 J.K.CEMENT WORKS NIMBAEHRA
 CHITTORGARH CHITTORGARH
 RAJASTHAN
 Phone: 01477-22087
 FAX : 01477-220027

Mining Engineer

Name : Peeyush kumar ameta,Full Time
 Qualification : Diploma mining, & AMIE
 Appointment/ : 06/03/2013
 Termination date

Geologist

Name : Kapil vasita,Full Time
 Qualification : Msc.Geology
 Appointment/ : 07/07/2015 07/06/2019
 Termination date

Geologist

Name : Sh. Prashant Tiwari,Full Time
 Qualification : MSC Geology
 Appointment/ : 07/06/2019
 Termination date

Manager

Name : P.K.AMETA
 Qualification : DIP. MINING & AMIE Ist CLASS
 Appointment/ : 06/03/2013
 Termination date

Manager

Name : Shri R C Purohit
 Qualification : Diploma in Mining AMIE FCC
 Appointment/ : 06/05/2009 06/03/2015
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	17/03/2003
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	29/01/2007
	:	PMCP under 23B(2) for Existing	27/06/2007
	:	Modif.of approved Mining Plan	03/03/2009
	:	Mining Scheme rule 12 MCDR1988	06/05/2014
	:	MP review under 17(1) MCR 2016	28/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Not applicable	
1b	Exploration over lease area for geological axis 1 or 2	Nil	The area has been explored.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Not applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	NA	
1e	Balance reserve as on 01/04/20	Proved reserves (111) : 139.171 mill.tonnes Probable reserves (121) : 40.688 Million Tonnes	Proved reserves (111) : 139.171 mill.tonnes Probable reserves (121) : 40.688 Million Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc	NA	Exploration has been done as per proposal. During the year 2019-20 drilled 4 Nos. of core borehole (405 mts.), 2020-21 drilled 40 Nos. of core boreholes (3709.50 mts.), 2021 - 22 drilled 27 Nos. of Core boreholes (3066 mts.). The present status on Geology and exploration may be considered as satisfactory.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	<p>North Pit :--</p> <p>Bench Ist - upto RL424m</p> <p>Bench 2nd - upto RL 416 m , Bench 3rd - upto RL 408 m , Bench 4th - upto RL 400 m , Bench 5th - upto RL 392 m , Bench 6th - Between ML 15 to ML 16 ML 13 to ML 14(upto RL 384 m)South</p> <p>Pit :--</p> <p>Bench Ist - upto RL 424 m, Bench 2nd - upto RL 416 m, Bench 3rd upto RL 408 m, Bench 4th Upto RL 400 m ,Bench 5th - Upto RL 392 m</p>	<p>North Pit :--Bench Ist - upto RL 424 m, Bench 2nd - Upto RL 416 m,Bench 3rd - upto RL 411.70 m, Bench 4th - Nil , Bench 5th - Nil, Bench 6th - Nil</p> <p>South Pit :- Bench Ist - upto RL 424 m, Bench 2nd Upto RL 416 m, Bench 3rd - upto RL 408 m, Bench 4th - Upto RL 400 m, Bench 5th - Upto RL 392.01 m</p> <p>Pit 1 E/W 461119 460536 N/S 2732550 2731756</p> <p>Pit 2 E/W 461561 460720 N/S 2732042 2731408</p>
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	<p>Top soil thickness 0.5 - 2 m,</p> <p>Overburden thickness - Nil, Mineral Limestone - 6 Benches (Height + 8.5 m, width 20 m)</p>	<p>Overburden - Nil, Mineral Limestone - 5 Benches (+ 8.5 Height), Width 20 m</p>
2c	Stripping ratio or ore to OB ratio	1 : 0.05	1 : 0.031
2d	Quantity of topsoil generation in m3	7692.31 Cu.m. (11,000 Tonnes)	7272.73 Cu.m. (10400 Tonnes)
2e	Quantity of overburden generation in m3	<p>Waste (Interstitial clay) -81818.18 Cu.m. (117000 Tonnes) & 50349.65 Cu.m. (72000 Tonnes) from operation of existing dump</p>	<p>Waste (Interstitial clay) -71888.11 Cu.m (or 102800 Tonne) & Nil from exisiting dump</p>

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	The development of pit w.r.t type of deposit may be considered as satisfactory.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two pits proposed for production during the year 2023-24	
3b	Quantity of ROM mineral production proposed	Limestone - 34,00,000 Tons & 48,000 Tons from operation of existing dump Subgrade - 1,52,000 Tons Total ROM - 36,00,000 Tons	Limestone - 33,46,176.50 Tons & Nil from operation of existing dump Subgrade- 19,720 Tons Total ROM - 33,65,896.50 Tons	
3c	Recovery of sailable/usable mineral from ROM production	Limestone - 34,00,000 Tons & 48,000 Tons from operation of existing dump	Limestone - 33,46,176.50 Tons & Nil from operation of existing dump	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	NA	Not applicable	
3f	Quantity of sub grade mineral generation.	1,52,000 Tons	19,720 Tons	
3g	Grade of sub grade mineral generation	CaO -- 40.50 MgO -- 0.79	CaO -- 39.99 MgO -- 0.68	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised method	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	Not applicable, however borehole and blast hole samples were drawn.
3j	Provision of drilling and blasting in mineral benches	Yes, drilling and blasting proposed	Yes, drilling is done by Nakoda Indus (4.5 inch dia), DTH drills holes are blasted by explosive (Kelvex 600 and ANFO).
3k	Provision of mining machineries in mineral benches	Yes	Yes, Hyd. Excavator, Drill Mach., Dozer, Tipper deployed
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes, 8 meter height of benches in mineral is suitable for method of mining proposed in MP
3m	Total area covered under excavation/pits	73.435 Hects.(As on 31.03.2024)	67.852 Hects. (as on 31.03.2024)
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.05	1 : 0.031
3o	Total area put in use under different heads at the end of year	88.697 Hects. (As on 31.03.2024)	81.127 Hects. (As on 31.03.2024)
3p	Production of ROM mineral during the last five year period as applicable	2019-20 : 2530759 T 2020-21 : 2840144.60 T 2021-22 : 3080960.42 T 2022-23 : 3600000 T 2023-24 : 3600000 T	2019-20 : 1044149.61 T 2020-21 : 1979055.42 T 2021-22 : 2277573.42 T 2022-23 : 3497052.32 T 2023-24 : 3365896.50 T
3q	General remarks of inspecting officers on method of mining etc.	NA	The present status of method of mining may be considered as satisfactory.

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)	Top soil -- 11000 Tonnes , , Interstitial clay / Screen rejects- 117000 Tons + 72000 Tons from operation of exisitng dump Mineral Rejects. - 152000 Tons	Top soil -- 10400 Tonnes Interstitial clay /Screen rejects-- 102800 Tons & Nil from existing dump (Out of which 11,700 Tons stacked as dump whereas 91,100 Tons used for filling and road work). Mineral Rejects. - 19720 Tons
4b	Location of topsoil, OB and mineral reject dumps	No proposal for storing Top soil. OB / interstitial clay & Mineral reject as Subgrade will be stacked in existing dumps Dump-2 (West side)-- (E/W 460368 - 460247) (N/S 2732150 -- 2731900) Mineral reject dumps -- stacked as Subgrade grade material (E/W 460351 - 460254) (N/S 2732530 - 2732150)	Top soil dump-- Nil (all Top soil generated is used for plantation purpose) OB / Interstial clay stacked in existing dumps. Dump-2 (West side) -- (E/W 461555 -- 461180) (N/S 2731419 -- 2731271) Mineral reject dumps -- stacked as Subgrade grade material (E/W 461124 -- 460650) (N/S 2731378 -- 2731121)
4c	Number of dumps within lease area and outside of lease area	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 3 Nos. Subgrade -- 3 Nos.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	5 Nos. of dumps (2 Nos. of Interstitial clay dump outside Ultimate pit limit & 3 Nos. of Subgrade stacked dump out of which 1 Nos. within Ultimate pit limit and 1 Nos. lie partial within Ultimate pit limit) & 1 Nos. outside Ultimate limit.	6 Nos. of dumps (3 Nos. of Interstitial clay dump outside Ultimate pit limit & 3 Nos. of Subgrade stacked dump out of which 1 Nos. within Ultimate pit limit and 1 Nos. lie partial within Ultimate pit limit) & 1 Nos. outside Ultimate limit.
4e	Number of active and alive dumps.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 3 Nos. Subgrade -- 3 Nos.
4f	Number of dead dumps.	Nil	Not applicable
4g	Number of dumps established.	Nil	Not applicable
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall in west side	Retaining wall is there all along dump constructed earlier. During 2023-24 - No Retaining wall Constructed.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - 130 mts. Garland drain- 80 mts.	'Retaining wall - Nil Garland drain- 80 mts.
4j	Number of settling ponds	Nil	Not applicable
4k	Specific comments of inspecting officer on waste dump management	NA	The overall status of dump management may be considered as satisfactory.

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.	NA	Area not matured for backfilling.
5b	Area under backfilling of mined out area	NA	Not applicable
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	Not applicable
5d	Total area fully reclaimed and rehabilitated	NA	The area is not matured for reclamation and rehabilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	The area is not matured for reclamation and rehabilitation.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Yes, as per rule.	
6b	Area available for rehabilitation (ha) .	1.0 Hects. (Afforestation)	110 Hects. (Afforestation) and gap area	
6c	afforestation done (ha).	1.0 Hects. (Afforestation)	1.10 Hects. (Afforestation) and gap area	
6d	No. of saplings planted during the year	1000 Nos.	4131 Nos. of saplings planted within lease during the year 2023-24	
6e	Cumulative no .of plants	NA	Within Lease -- 74861 Nos. Outside Lease -- 4850 Nos.	
6f	Any other method of rehabilitation	NA	Not applicable	

6g	Cost incurred on watch and care during the year	Rs. 0.75 Lacs	Rs.10.018 Lacs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NA	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1.0 Hects. (Afforestation)	Within lease 1.10 Hects. (Afforestation) & gap area
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.0 Hects. (Afforestation)	Within lease 1.10 Hects. (Afforestation) & gap area

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Afforestation
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes,as per rule	Yes , last compliance was sent on 17.07.2024 for the quarter April 2024- June 2024.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	The present status of PMCP compliance and progressive closure operation may be considered as satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Usable Limestone for Cement manufacturing -- 3400000 Tonnes (113.45 LSF) & 48000 Tons from operation of existing dump & Stacking of Subgrade material-- 152000 Tonnes (Cao-40.50%, MgO-0.79%)	Used Limestone for Cement manufacturing -- 3346176.50 Tons (113.15 LSF), Nil (Limestone) from existing dump & Subgrade material stacked -- 19720 Tons (Cao-39.99%, MgO-0.68%)	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Yes. Mechanical	As above	
7c	Different grade of mineral sorted out at mines.	Subgrade mineral CaO -- 40.50 MgO -- 0.79	Subgrade mineral CaO -- 39.99 MgO -- 0.68	
7d	Any beneficiation process at mines .	No	Not applicable	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	The present status on Mineral Conservation may be considered as satisfactory.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil 11000 Tonnes	10400 Tonnes (Top soil)	
8b	Concurrent use or storage of topsoil	Yes, it was proposed to spread top soil for proposed plantation.	Top soil spread over plantation site.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No overburden, waste rock. Therefore no proposal.	Interstitial clay dumped in already existing dump.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No overburden, waste rock. Therefore no proposal.	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	Not applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1000 Nos. of plants covering 1.00 Hects. area.	4131 Nos. of plants planted covering 1.10 Hects. & gap area of exisiting plantation within lease. Survival rate 91%. (2023-24)	
8g	Survival rate	90%	91% during the year 2023-24	

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul road to arrest fugitive dust.	Water sprinkling on haul road to arrest fugitive dust is being done.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	THE present status on aesthetic beauty in and around mines area may be considered as satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Mining Engineer - Sh. P.K. Ameta Geologist - Sh. Ashish Dabhi Manager - Sh. P.K. Ameta	As above.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Proposed Actual (Ha.) (Ha.) Pit 73.435 67.852 Reclaimed Nil Nil Area Subgrade 7.035 7.703 Dump Waste dump 4.178 3.093 (Interstitial clay) Infrastructure 2.42 2.02 (including road) Embankment 0.459 0.459 Plantation (Cumulative) Within lease 21.0 29.62 Outside lease 1.5 1.5	As above
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	4131 Nos. (1.10 Ha. & gap area)	4131 Nos. (1.10 Ha. & gap area)
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	As above

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock -- Nil , (Subgrade) -- 19720 Tons Cumulative ROM Stock upto 2023-24 ROM Stock -- Nil Subgrade -- 2349261.25 Tons	As above
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive use Ex- Mine Price - Rs. 183.88/- per tonne	The above mentioned information seems to be correct.
9h	Scrutiny of Annual return on fixed assets	Fixed assets - Rs. 452713209/-.	As above
9k	Scrutiny of Annual return on mining machineries	Hyd. Excavator, Drill Mach., Dozer, Tipper	As above

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

Date :

(PANKAJ KULSHRESTHA)

Indian Bureau of Mines