

**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 : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. Peeyush Kumar Ameta, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 20-OCT-23
- (v) Prev.inspection date : 25-NOV-22

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 : **manish.toshniwal@jkcement.co**
- Phone : **01477-220087**
- (f) **Police Station** : **Nimbahera sadar**
- (g) **First opening date** : **06-MAR-85**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VILLAGE& POST-KARUNDA**
correspondance : **TEH-NIMBAHERA**
: **DISTT-CHITTORGARH**
3. (a) **Lease Number** : **RAJ0006**
- (b) **Lease area** : **240.86**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **12-DEC-34**
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 : Peeyush kumar ameta,Full Time
 Qualification : Diploma mining, & AMIE
 Appointment/ : 06-MAR-13
 Termination date

Geologist
 Name : Sh. Prashant Tiwari,Full Time
 Qualification : MSC Geology
 Appointment/ : 07-JUN-19 06-AUG-21
 Termination date

Geologist
 Name : Kapil vasita,Full Time
 Qualification : Msc.Geology
 Appointment/ : 07-JUL-15 07-JUN-19
 Termination date

Geologist
 Name : Ashish Dabi,Full Time
 Qualification : MSC Geology
 Appointment/ : 10-JUN-22
 Termination date

Geologist
 Name : Miss Khushbu,Full Time
 Qualification : M Sc(Applied Geology)
 Appointment/ : 02-AUG-21 10-JUN-22
 Termination date

Manager
 Name : P.K.AMETA
 Qualification : DIP. MINING & AMIE Ist CLASS
 Appointment/ : 06-MAR-13
 Termination date

Manager

Name : Shri R C Purohit
Qualification : Diploma in Mining AMIE FCC
Appointment/ : 06-MAY-09 06-MAR-15
Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	17-MAR-03
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	29-JAN-07
		PMCP under 23B(2) for Existing	27-JUN-07
		Modif.of approved Mining Plan	03-MAR-09
		Mining Scheme rule 12 MCDR1988	06-MAY-14
		MP review under 17(1) MCR 2016	28-NOV-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2021-22: Core boreholes 27 Nos. (2250 mts.)	During 2021-22: Drilled 27 Nos. of Boreholes (3066 mts.)	No backlog of previous year 2021-22.
1b	Exploration over lease area for geological axis 1 or 2	No proposal during the year 2022-23.	None during the year 2022-23.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration proposal during the year 2022-23.	Not applicable	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	It was proposed that entire lease area will be explored under G1 level up to year 2021-22.	Entire lease area has been explored under G1 level up to year 2021-22.	Nil
1e	Balance reserve as on 01/04/20	No specific proposal given in this regard.	As on 01.04.2023 Proved Mineral Reserve (111) - 87.313 Mill. Tonnes, Probable Mineral Reserve (121) - 2.96 Mill. Tonnes & (122)- 7.726 Mill. Tons	Nil
1f	General remarks of inspecting officers on geology, exploration etc			No issue observed related to Geology & Exploration.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Two pits namely North Pit & South Pit	Two pits namely North Pit & South Pit	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes as per proposal	Nil

2c	Stripping ratio or ore to OB ratio	Year 2022-23: 1 : 0.052	Year 2022-23: 1 : 0.024	Ton:Ton
2d	Quantity of topsoil generation in m3	2022-23: 8391.61 Cu.m. (12,000 Tonnes)	2022-23: 7661.33 Cu.m. (10,960 Tonnes)	Nil
2e	Quantity of overburden generation in m3	Waste (Interstitial clay) -81118.88 Cu.m. (116000 Tonnes) & 50349.65 Cu.m. (72000 Tonnes) from operation of existing dump	Waste (Interstitial clay) -59384.61 Cu.m (or 84920 Tonne) & Nil from exisiting dump	No OB generated during the year. Only IB (Interstitial clay waste) generated during the year 2022-23.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine development work is satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	Nil
3b	Quantity of ROM mineral production proposed	2022-23: Total ROM - 3600000 Tons (Limestone - 3379000 Tons & 48000 Tons from operation of existing dump,Subgrade - 1730000 Tons)	2022-23: Total ROM - 3497052.32 Tons (Limestone - 33,48,252.32 Tons & Nil from operation of existing dump,Subgrade - 148000 Tons)	Nil
3c	Recovery of sailable/usable mineral from ROM production	2022-23: Limestone - 33,79,000 Tons & 48,000 Tons from operation of existing dump	2022-23: Limestone - 33,48,252.32 Tons & Nil from operation of existing dump	Nil
3d	Quantity of mineral reject generation	Nil	Nil	Nil

3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	Nil
3f	Quantity of sub grade mineral generation.	2022-23: 1,73,000 Tons	2022-23: 1,48,800 Tons	Nil
3g	Grade of sub grade mineral generation	CaO -- 40.36 MgO -- 0.88	CaO -- 40.56 MgO -- 0.78	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised Method	Mechanised Method	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	Not applicable	Nil
3j	Provision of drilling and blasting in mineral benches	Yes, drilling will be done by LM-100 (IR) (4 - 4.5 inch dia), DTH drills holes will be blasted by explosive (Kelvex 600 and ANFO).	Being done as per proposal.	Nil
3k	Provision of mining machineries in mineral benches	Yes by using HEMM i.e. Hyd. Excavator, Drill Machines., Dozer, Tipper etc.	Yes by using HEMM i.e. Hyd. Excavator, Drill Machines., Dozer, Tipper etc.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes as per proposal.	Nil
3m	Total area covered under excavation/pits	70.598 Hects.(As on 31.03.2023)	64.10 Hect.(As on 31.03.2023)	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Year 2022-23: 1 : 0.052	Year 2022-23: 1 : 0.024	Ton:Ton

3o	Total area put in use under different heads at the end of year	85.328 Hects. (As on 31.03.2023)	78.389 Hects. (As on 31.03.2023)	Nil
3p	Production of ROM mineral during the last five year period as applicable	2018 - 19: 4085982.32 Tons 2019 - 20: 2530759 Tons 2020 - 21: 2840144.60 Tons 2021- 22: 3080960.42 Tons 2022 -23: 3600000 Tons 2023-24: 3600000 Tons	2018-19- 1513378.52 Tons, 2019-20- 1044149.61 Tons 2020-21- 1979055.42 Tons 2021-22- 2277573.42 Tons 2022-23- 3497052.32 Tons 2023-24- 1667001.73 Tons (up to Sep 2023)	Nil
3q	General remarks of inspecting officers on method of mining etc.			The mine has been developed by mechanised opencast method by using HEMM, 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)	Yes, Year 2022-23: Top soil -No dumping proposal Interstitial clay / Screen rejects- Dumping proposal given. Mineral Rejects (Subgrade) - Stacking proposal given.	2022-23: Top soil -- Concurrently used in plantation. Interstitial clay /Screen rejects-- Dumped in existing dumps Mineral Rejects(Subgrade dump)--Stacking in existing stacks.	Nil

4b	Location of topsoil, OB and mineral reject dumps	Top soil- No proposal OB/IB-460247E to 460368E & 2731900N to 2732150N (western side of North Pit), Subgrade-460254E to 460351E & 2732151N to 2732530N (western side of North Pit), Subgrade-460657E to 461078E & 2731120N to 2731330N (Southern side of South Pit)	Top soil- Concurrently used in plantation, OB/IB-460276E to 460339E & 2732025N to 2732404N (western side of North Pit), Subgrade-460301E to 460390E & 2731904N to 2732114N (western side of North Pit), Subgrade-460655E to 461125E & 2731121N to 2731378N(Southern side of South Pit)	During the year 2022-23 deviation observed with respect to IB dumping & subgrade stacking locations with respect to approved proposal, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 14.12.2023.
4c	Number of dumps within lease area and outside of lease area	Interstitial clay/IB -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay/IB -- 2 Nos. Subgrade -- 3 Nos.	Nil
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 , 1 Nos. lie partial within Ultimate pit limit and 1 no.is out of UPL).	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 , 1 Nos. lie partial within Ultimate pit limit and 1 no.is out of UPL).	Nil
4e	Number of active and alive dumps.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Nil
4f	Number of dead dumps.	Nil	Nil	Nil

4g	Number of dumps established.	No proposal	Not applicable	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	During the year 2022-23, proposal of retaining wall & garland drain given.	During the year 2022-23, garland drain made & retaining wall was reported as per proposal.	Nil
4i	Length of Retaining wall or garland drain all along dumps	Year 2022-23: Galrland Drain-80m, Retaining Wall-130m	Year 2022-23: Galrland Drain-80m, Retaining Wall-130m	Nil
4j	Number of settling ponds	No proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management			During the year 2022-23 deviation observed with respect to IB dumping & subgrade stacking locations with respect to approved proposal, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 14.12.2023.

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 backfilling proposal for the year 2022-23.	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)	For plantation.	For plantation.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal during the year 2022-23.	Nil	Area is not fully matured for reclamation and backfilling.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Area is not fully matured for reclamation and backfilling as limestone mineral depth is continue.
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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).	It should be submitted up to 1st july for previous year.	Submitted for the year 2022-23.	Timely submission
6b	Area available for rehabilitation (ha) .	2022-23: 1.0 hect	2022-23: 2.37 hect.	Nil
6c	afforestation done (ha).	2022-23: 1.0 hect	2022-23: 2.37 hect.	Nil
6d	No. of saplings planted during the year	2022-23: 1000 nos.	2022-23: 17238 nos.	Over an area 2.37 hect. & gap filling plantation within existing plantation area.
6e	Cumulative no .of plants	Not specified	Within Lease -- 70730 Nos. Outside Lease -- 4850 Nos.	Up to year 2022-23
6f	Any other method of rehabilitation	No proposal	None	Nil
6g	Cost incurred on watch and care during the year	Rs. 0.75 Lacs	Rs.10.518 Lacs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No backfilling proposal	Not applicable	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	However in pit bottom rain water accumulated.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	During the year 2022-23 afforestation was proposed over an area 1 hect.	During the year 2022-23 afforestation has been carried over an area 2.37 hect.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.0 hect.	2.37 hect.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By Plantation	By Plantation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per MOEFCC & SPCB norms.	Regular monitoring is being done as per MOEFCC & SPCB norms.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP Compliances is 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 -- 3379000 Tonnes (114.73 LSF) & 48000 Tons from operation of existing dump & Stacking of Subgrade material -- 173000 Tonnes (Cao-40.36%, MgO-0.88%)	Useble Limestone for Cement manufacturing -- 3348252.32 Tons (115.37 LSF), Nil (Limestone) from existing dump & Subgrade material stacked -- 148800 Tons (Cao-40.56%, MgO-0.78%)	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Yes. Mechanical	Yes. Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Usable grade & subgrade	Usable 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 regarding mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, Top soil 12000 Tonnes	Yes, 10960 Tonnes (Top soil)	Nil
8b	Concurrent use or storage of topsoil	Concurrent use for plantation.	Concurrent use for plantation.	Nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No OB generation, however sepearte dumping of IB(Interstial clay) & subgrade mineral was proposed.	No OB generation, however sepearte dumping of IB(Interstial clay) & subgrade mineral was observed.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	None	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for the last year.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2022-23, total 1000 nos. plants will be planted over an area 1.0 hect.	During the year 2021-22 total 17238 nos. plants planted over an area 2.37 hect area within lease area & in gap filling of existing plantation area.	Nil
8g	Survival rate	Not specified	93%	As per AR 2022-23
8h	Water sprinkling on roads to control airborne dust	Water sprinkling was proposed on haul road to arrest fugitive dust.	Water sprinkling was observed.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in and around the mines is satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	As per MCDR 2017, MR to be submitted before 10 Day of Month & AR to be submitted up to 30 June.	M.R. Submitted upto Month of Nov. 2023 AR Submitted up to year 2022-23.	Timely submission of returns.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Sh. P.K. Ameta Geologist - Sh. Ashish Dabhi Manager - Sh. P.K. Ameta	Found correct	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR 2022-23.	Seems corrected.	Nil
9d	Scrutiny of Annual return on afforestation	17238 Nos. within lease area having 93% survival rate	Seems corrected	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Subgrade mineral reported in AR. Generated- 148800 tonnes.	Seems corrected.	Some discrepancies related to subgrade stacking & OB reporting observed in AR 2022-23, hence show cause notice issued to the party vide letter dated 14.12.2023.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM-Stock- Nil Cement Grade stock-1441818 tonnes	Same stock has been reported under subgrade stock.	Duplicacy of subgrade stack reported in annual return 2022-23, hence show cause notice issued to the lessee vide letter dated 14.12.2023.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive use Ex- Mine Price - Rs. 180.08/- per tonne	Seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	Value of Fixed assets reported Rs. 484554462	Seems corrected.	Nil

9k	Scrutiny of Annual return on mining 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)	14-DEC-23		MCDR17 Rule 45(7)	14-DEC-23	
MCDR17 Rule 45(7)(a)	14-DEC-23				

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines