

**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 : 25-NOV-22
- (v) Prev.inspection date : 22-SEP-21

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.
Phone : 01477-220087
- (f) Police Station : Nimbahera sadar
- (g) First opening date : 06-MAR-85
- (h) Weekly day of rest : WED
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	No backlog of previous year 2020-21.	N/A	Nil
1b	Exploration over lease area for geological axis 1 or 2	2021-22: Core boreholes 27 Nos. (2250 mts.)	During 2021-22: Drilled 27 Nos. of Boreholes (3066 mts.)	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Departmently (Lessee Himself) & M/s Synergy Geotech Private Ltd., Nagpur Expenditures- Not specified	Departmently (Lessee Himself) & M/s Synergy Geotech Private Ltd., Nagpur Expenditures- Rs. 4.538	12 Nos. of Boreholes by M/s Synergy Geotech Pvt. Ltd & 15 Nos. Departmentally (by lessee himself)
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 reagrd.	As on 01.04.2022 Proved Mineral Reserve (111) - 90.809 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 2021-22: 1 : 0.04	Year 2021-22: 1 : 0.024	Ton:Ton
2d	Quantity of topsoil generation in m3	2021-22: 6993.01 Cu.m. (10,000 Tonnes)	2021-22: 5258.74 Cu.m. (7520 Tonnes)	Nil
2e	Quantity of overburden generation in m3	Waste (Interstitial clay) -62937.06 Cu.m. (90000 Tonnes) & 20979.02 Cu.m. (30000 Tonnes) from operation of existing dump	Waste (Interstitial clay) -38461.54 Cu.m (or 55000 Tonne) & Nil from exisiting dump	No OB generated during the year. Only IB (Interstitial clay waste) generated during the year 2021-22.
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	2021-22: Total ROM - 30,80,960.42 Tons (Limestone - 29,00,000.42 Tons & 20,000 Tons from operation of existing dump, Subgrade - 1,60,960 Tons)	2021-22: Total ROM - 22,77,573.42 Tons (Limestone - 22,62,573.10 Tons & Nil from operation of existing dump, Subgrade- 15,000.32 Tons)	Nil

3c	Recovery of sailable/usable mineral from ROM production	2021-22: Limestone - 29,00,000.42 Tons & 20,000 Tons from operation of existing dump	2021-22: Limestone - 22,62,573.10 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.	2021-22: 1,60,960 Tons	2021-22: 15,000.32 Tons	Nil
3g	Grade of sub grade mineral generation	CaO -- 39.8 MgO -- 0.80	CaO -- 37.21 MgO -- 0.60	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	66.338 Hects. (As on 31.03.2022)	63.81 Hects. (as on 31.03.2022)	Nil
3n	Ore to OB ratio for the pit/mine during the year.	2021-22: 1 : 0.04	2021-22: 1 : 0.024	Ton: Ton
3o	Total area put in use under different heads at the end of year	80.529 Hects. (As on 31.03.2022) "	76.948 Hects. (As on 31.03.2022) "	Nil
3p	Production of ROM mineral during the last five year period as applicable	2017 - 18: 1974930.03 Tons, 2018 - 19: 4085982.32 Tons 2019 - 20: 2530759 Tons 2020 - 21: 2840144.60 Tons 2021- 22: 3080960.42 Tons 2022 -23: 3600000 Tons	2017-18- 132084.76 Tons, 2018-19- 1513378.52 Tons, 2019-20- 1044149.61 Tons 2020-21- 1979055.42 Tons 2021-22- 2277573.42 Tons 2022-23- 1453519.67 Tons (up to Oct 2022)	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
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes, Year 2021-22: Top soil -- 10000 Tonnes , Interstitial clay / Screen rejects- 90000 Tons + 30000 Tons from opertion of exisitng dump Mineral Rejects. - 160960 Tons (Subgrade)	2021-22: Top soil -- 7520 Tonnes , Interstitial clay /Screen rejects-- 55000 Tons & Nil from existing dump, Mineral Rejects. - 15000.32 Tons as Subgrade	Nil
4b	Location of topsoil, OB and mineral reject dumps	No proposal for storing Top soil.	During the year 2021-22 dumping has been carried out within proposed limit.	Nil
		OB / interstitial clay will be stacked in existing dumps		
		Dump-1 -- (E/W 461540 - 461155) (N/S 2731420 -- 2731272) & Dump-2 -- (E/W 460368 - 460247) (N/S 2732148 -- 2731900)		
		Mineral reject dumps -- stacked as Subgrade grade material (E/W 461078 - 460657) (N/S 2731334 -- 2731115)		
4c	Number of dumps within lease area and outside of lease area	Interstitial clay -- 2 Nos. Subgrade -- 3 Nos.	Interstitial clay -- 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 2021-22, proposal of retaining wall & garland drain given.	During the year 2021-22, garland drain made & retaining wall was not made.	During the year 2021-22, total 130m retaining wall was proposed at the bottom of the waste dump but no such retaining wall was made during the year, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 13.12.2022.

4i	Length of Retaining wall or garland drain all along dumps	Year 2021-22: Galrland Drain-80m, Retaining Wall-130m	Year 2021-22: Galrland Drain-80m, Retaining Wall-Nil	During the year 2021-22, total 130m retaining wall was proposed at the bottom of the waste dump but no such retaining wall was made during the year, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 13.12.2022.
4j	Number of settling ponds	No proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management			During the year 2021-22, total 130m retaining wall was proposed at the bottom of the waste dump but no such retaining wall was made during the year, hence violation of Rule 11(1) of MCDR 2017 issued vide letter dated 13.12.2022.

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 2021-22.	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 2021-22.	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 Closure 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 2021-22.	Timely submission
6b	Area available for rehabilitation (ha) .	2021-22: 1.0 hect	2021-22: 3.15 hect.	Nil
6c	afforestation done (ha).	2021-22: 1.0 hect	2021-22: 3.15 hect.	Nil
6d	No. of saplings planted during the year	2021-22: 1000 nos.	2021-22: 15723 nos.	Nil
6e	Cumulative no .of plants	Not specified	Within Lease -- 53492 Nos. Outside Lease -- 1000 Nos.	Up to year 2021-22
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. 5.726 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 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 2021-22 afforestation was proposed over an area 1 hect.	During the year 2021-22 afforestation has been carried over an area 3.15 hect.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	1.0 hect.	3.15 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 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 -- 2900000.42 Tonnes (114.24 LSF) & 20000 Tons from operation of existing dump & Stacking of Subgrade material -- 160960 Tonnes (Cao-39.8%, MgO-0.80%)	Used Limestone for Cement manufacturing -- 2262573.10 Tons (114.91 LSF), Nil (Limestone) from existing dump & Subgrade material stacked -- 15000.32 Tons (Cao-37.21%, MgO-0.60%)	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 10000 Tonnes	Yes, 7520 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 separte dumping of IB(Interstial clay) & subgrade mineral was proposed.	As per proposal.	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 2021-22, total 1000 nos. plants will be planted over an area 1.0 hect.	During the year 2021-22 total 15273 nos. plants planted over an area 3.15 hect within lease area.	Nil
8g	Survival rate	Not specified	90.5%	As per AR 2021-22.
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 up to 10 Day of Month & AR to be submitted up to 30 June.	M.R. Submitted upto Month of Nov. 2022 AR Submitted up to year 2021-22.	Timely returns submissions.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - Sh. P.K. Ameta Geologist - Ms. Khushboo 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 2021-22.	Seems corrected	Nil
9d	Scrutiny of Annual return on afforestation	15723 Nos	Seems corrected	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject reported in AR	Seems corrected.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Subgrade Stock - 1293014 Tons	Seems to be correct.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Captive use Ex- Mine Price - Rs. 175.06/- per tonne	Seems to be correct.	Nil
9h	Scrutiny of Annual return on fixed assets	Value of Fixed assets reported Rs. 522495497	Seems corrected.	Nil
9k	Scrutiny of Annual return on mining machineries	Details given	Found correct.	Nil

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)	13-DEC-22			

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines