

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-13

Mine code : 38RAJ09013

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sohan Das Vairagi, Mine Manager and Om prakash Sharma
Official with
Designation
- (iv) Date of Inspection : 13-OCT-21
- (v) Prev.inspection date : 10-SEP-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MANGROL**
- (b) **Registration NO.** : **IBM/418/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : CHITTORGARH
Village : MANGROL
Taluka : NIMBAHERA
Post office : MANGROL
Pin Code : 312617
FAX No. : 01477-20087,220562
E-mail : maheem.kachhwaha@jkcement.
Phone : 01477-20087,220562
- (f) Police Station : Nimbahera sadar
- (g) First opening date : 10-JUN-13
- (h) Weekly day of rest : WED
2. Address for : PO- MANGROL
correspondance : DISTT CHITTORGARH
RAJASTHAN
3. (a) Lease Number : RAJ4468
- (b) Lease area : 132
- (c) Period of lease : 50
- (d) Date of Expiry : 03-JAN-62
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 : Sh. Jitendra Kumar Nagar,Full Time
 Qualification : BE Mining.
 Appointment/ : 19-SEP-19
 Termination date

Geologist

Name : Manish Madhav,Full Time
 Qualification : M Sc Geology
 Appointment/ : 09-JUL-15
 Termination date

Manager

Name : Sh. Sohan Das Vairagi
 Qualification : BE Mining.
 Appointment/ : 19-AUG-21
 Termination date

Manager

Name : R.C.Vyas
 Qualification : Diploma in mining and FCC
 Appointment/ : 11-APR-13 18-AUG-21
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 22-MAR-10

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of exploration during previous year 2019-20.	No exploration during previous year 2019-20.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration during RY.	09 BHs with 749 mts of drilling during 2020-21.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	M/s. Synergy Geotech Private Ltd. M/s. J K Cement Works, Nimbahera. Expenditure: Around 8.38 lacs.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not applicable as no proposal of exploration during the RY.	Not applicable as no proposal fo exploration.	NIL.
1e	Balance reserve as on 01/04/20	As per approved MP dated 02/12/2016, the position of Reserve and resource as on 31/08/2016 was 47.811 and 82.998 million tons respectively.	The position of reserve and resources as on 01/04/2021 are 41.97 and 82.998 million tonnes respectively.	Depletion from approved figures are 5.84 million tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration.	A total of 09 BHs with 749.00 mts of drilling has been carried out.	It is tabular deposit of regular habit.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E/W 467963 to 467542, N/S 2733220 to 2732150.	Development has been carried out within proposed limit.	NIL.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate removal of top soil and mineral.	As per proposal.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0.008 CuM/T	1:0.008 CuM/T	NIL.
2d	Quantity of topsoil generation in m3	16456.40 tones or 11508.00 CuM	11180.00 tones or 7818.18 CuM	NIL.
2e	Quantity of overburden generation in m3	No proposal.	Not applicable.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed through opencast method.	Development has been carried out as per proposal.	No issue related to method of development and best suitable for type of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit.	1 pit.	NIL.
3b	Quantity of ROM mineral production proposed	14,98,768.30 tons	9,74,836.35 tons	Less production due to low demand and COVID-19 pandemic.
3c	Recovery of sailable/usable mineral from ROM production	13,99,768.30 Tons	9,39,658.35 Tons	Less production due to low demand and COVID-19 pandemic.
3d	Quantity of mineral reject generation	99,000.00 Tons	35,178.00 Tons	Less production due to low demand and COVID-19 pandemic.
3e	Grade of mineral rejects generation and threshold value declared.	Between 34 % to 42 % CaO.	41.23 CaO.	Cutoff-42% CaO.
3f	Quantity of sub grade mineral generation.	No proposal of sub-grade generation.	No sub-grade generated.	NIL.
3g	Grade of sub grade mineral generation	No proposal.	Not applicable.	NIL.

3h	Manual / Mechanised method adopted for segregating from ROM	No proposal.v	MR and usable limestone was segregated at face.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any beneficiation.	Not applicable as no proposal.	NIL.
3j	Provision of drilling and blasting in mineral benches	Burden-3.5m, Spacing-4.5 depth-8m, Blasting- charge/hole cap- & Non cap-, PF-10	Burden-3.5m, Spacing-4.5 depth-8m, Blasting- charge/hole cap- & Non cap-, PF-10	NIL.
3k	Provision of mining machineries in mineral benches	Excavator, Drill machine, Dozer and Tipper etc.	Excavator, Drill machine, Dozer and Tipper etc.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches have been to 8 mts.	Height of the benches has been maintained as per proposal and suitable for method of mining.	NIL.
3m	Total area covered under excavation/pits	29.624 Ha.	22.623 Ha.	NIL.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.008 CuM/T	1:0.008 CuM/T	NIL.
3o	Total area put in use under different heads at the end of year	40.242 hectare at the end of 2021-22.	32.383 Hectare at the end of 2020-21.	NIL.
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 14,91,080 2017-18: 18,99,000 2018-19: 18,99,393 2019-20: 16,74,357 2020-21: 14,98,768	2016-17: 10,42,313 2017-18: 15,02,338 2018-19: 14,16,889 2019-20: 13,89,693 2020-21: 9,74,836	All figures in tones.

3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining has been proposed.	Opencast method of mining is being practiced.	The open cast mechanized method has been adopted which is best suited to the type of deposit.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil for plantation and Mineral reject proposed to stack. No proposal of OB/Waste generation.	Top soil used for plantation and Mineral reject stacked at designated places. Waste/OB has not been generated.	NIL.
4b	Location of topsoil, OB and mineral reject dumps	Top soil and waste: No proposal. Mineral reject/Sub-grade dumping proposed as per following: Subgrade dump no.1 - Between section lines ML 0-4, Subgrade dump no.2 - Between section lines ML A-1 Subgrade dump no.3 - Between section lines ML 8-10	Mineral Reject/Subgrade dumping is being carried out on proposed locations: Subgrade dump no.1 - Between section lines ML 0-4 Subgrade dump no.2 - Between section lines ML A-1 Subgrade dump no.3 - Between section lines ML 8-10	NIL.
4c	Number of dumps within lease area and outside of lease area	03 Mineral reject/Sub-grade dumps.	03 Mineral reject/Sub-grade dumps.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All dumps of MR have been proposed outside UPL.	Observed outside UPL.	NIL.
4e	Number of active and alive dumps.	03 Mineral reject/Sub-grade dumps.	03 Mineral reject/Sub-grade dumps.	NIL.
4f	Number of dead dumps.	No proposal.	Not applicable.	NIL.
4g	Number of dumps established.	No proposal.	Not applicable.	NIL.

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for RY.	Garland drain observed at necessary paces.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal for RY.	Not applicable.	NIL.
4j	Number of settling ponds	No proposal for RY.	2 (setting tank).	NIL.
4k	Specific comments of inspecting officer on waste dump management	No proposal of waste dumping. Mineral reject stacking has been proposed to stack at three locations.	No waste generation and dumping. Mineral reject has been stacked at designated places.	No issue related to dumping.

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 of part or full extraction of mineral.	Not applicable as no proposal.	NIL.
5b	Area under backfilling of mined out area	No area matured for backfilling.	Not applicable.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil proposed to use for plantation purpose.	Top soil generated has been utilized for plantation purpose.	A total of 11180.00 tones of top soil generated during the RY.
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation	Not applicable.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal as no area matured for backfilling.	No area matured for backfilling.	No area matured for backfilling.

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).	Annual report on PMCP shall be submitted by 1 July for the previous year i.e. 2020-21.	Annual report of PMCP for the year 2020-21 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	0.80 Ha.	1.09 Ha.	NIL.
6c	afforestation done (ha).	0.80 Ha.	1.09 Ha.	NIL.
6d	No. of saplings planted during the year	1000 nos.	1320 nos.	NIL.
6e	Cumulative no .of plants	6844 nos.	7808 nos.	NIL.
6f	Any other method of rehabilitation	No proposal.	Not applicable.	NIL.
6g	Cost incurred on watch and care during the year	Rs. 75,000.00	Rs. 2,34,440.00	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No 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.	Not applicable.	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	Not applicable.	NIL.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal.	Not applicable.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 nos.	1320 nos.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.80 Ha.	1.09 Ha.	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)	Environment parameters to be monitor for EC and other Conditions compliance.	Environment parameters are being monitored.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Afforestation has been proposed over 0.80 Ha. area with 1000 number of saplings.	Afforestation carried out over 1.09 Ha. area with 1320 number of saplings.	PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal of grade wise sorting.	MR and usable limestone is being segregated at face.	MR in form of Shaly Limestone.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal.	Not applicable.	NIL.

7c	Different grade of mineral sorted out at mines.	CaO>42 % and CaO between 34 to 42 %.	CaO>42 % and CaO between 34 to 42 %.	NIL.
7d	Any beneficiation process at mines	No proposal.	Not applicable.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No proposal of any beneficiation.	Not applicable.	Mineral Reject is being stacked separately at designated place.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	16,456.40 tons.	11,180.00 tons.	Used for Plantation.
8b	Concurrent use or storage of topsoil	Top soil proposed to use for plantation purpose.	Used for Plantation.	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for OB/waste dumping. MR proposed to stack separately.	No OB/Waste Generation during the RY. MT stacked at designated places.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Not applicable.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Not applicable.	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1000 nos. (0.80 Ha.)	1320 nos. (1.09 Ha.)	During the year 2020-21.
8g	Survival rate	No specific proposal on rate of survival.	90%	NIL.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to control airborne dust	Water sprinkling observed.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Generation and utilization of top soil was proposed. Plantation over waste land was also proposed.	Top soil generated was utilized for plantation purpose.	The general aesthetic beauty of the mine is satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual return to be submitted to competent authority.	Monthly and annual returns have been submitted for the RY.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer : Sh. P K Joshi, Geologist : Sh. Manish Madhav and Mines Manager: Sh. R C Vyas.	Mining Engineer, Geologist and Manager has been appointed in the mine.	Scrutiny of AR 2020-21.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit area : 22.623 Ha., Subgrade : 6.495 Ha., Infrastructure : 3.265 Ha	Information furnished on land use appears to be in order.	NIL.
9d	Scrutiny of Annual return on afforestation	Inside Lease: 1320 and Outside Lease: NIL.	Found in order.	NIL.

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	35178 tonnes of 41.23 % CaO.	Found in order.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock: NIL Graded Stock: 1058436 tones.	Found in Order.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price and Cost of production: Rs. 194.03 per tones.	The information furnished appears to be in order.	NIL.
9h	Scrutiny of Annual return on fixed assets	Fixed assets. Rs. 756620113.00	Combined information for Mangrol and Mangrol till Khera Limestone Mine of the company.	NIL.
9k	Scrutiny of Annual return on mining machineries	Shovel, Dozer, Rock Drill, Ripper, Water Tanker, Pumps, Explosive Van, etc. Road Roller, Jeep etc.	Shovel, Dozer, Rock Drill, Ripper, Water Tanker, Pumps, Explosive Van, Road Roller, Jeep	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

Date :

(DILIP JAIN)

Indian Bureau of Mines