

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-9

Mine code : 38RAJ09001

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Kashi Kant Singh, Agent & Sh. Digendra Solanki,
Official with
Designation
- (iv) Date of Inspection : 20-OCT-23
- (v) Prev.inspection date : 14-JAN-23

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JAI SURJANA (BIRLA)**
- (b) **Registration NO.** : **IBM/4349/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : RAJASTHAN
- District : CHITTORGARH
- Village : JAI SURJANA & BHERDA
- Taluka : CHITTORGARH
- Post office : CEMENT FACTORY
- Pin Code : 312021
- FAX No. : 01472-256609,
- E-mail : mines@birlacement.com
- Phone : 01472-256601 TO 256608
- (f) Police Station : CHANDERIYA
- (g) First opening date : 17-AUG-94
- (h) Weekly day of rest : SUN
2. Address for : Birla Cement Works , JAI SURJANA
correspondance CEMENT FACTORY
CHITTORGARH, Rajasthan
3. (a) Lease Number : RAJ0005
- (b) Lease area : 588.59
- (c) Period of lease :
- (d) Date of Expiry : 31-MAR-30
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : Birla Cement Works
 Madhavnagar, P.O. Cement
 Factory, Chittorgarh PIN
 312021 CHITTORGARH
 RAJASTHAN
 Phone:
 FAX :

Owner : Shri Sandip Ghose
 Shakespeare Sarani IInd
 floor Kolkata 700071 West
 Bangal KOLKATA WEST BENGAL
 Phone: 033-224828872
 FAX : 033-224828872

Agent : Kashi Kant Singh
 Birla Cement Works P.O.
 Cement Factory Madhav Nagar
 Chanderia CHITTORGARH
 RAJASTHAN
 Phone: 9116009421
 FAX :

Mining Engineer

Name : Rajesh Choudhry, Full Time
 Qualification : B E (Mining Engg)
 Appointment/ : 16-MAR-17
 Termination date

Geologist

Name : Shri Narendra Manaria, Full Time
 Qualification : M Tech Geology
 Appointment/ : 09-FEB-15 31-AUG-23
 Termination date

Geologist

Name : Sri Digendra Singh Solanki, Full Time
 Qualification :
 Appointment/ : 01-SEP-23
 Termination date

Manager

Name : Shri Biswaranjan Mohanty
 Qualification : BE (Mining)
 Appointment/ : 18-DEC-19
 Termination date

6. Date of approval of Mining : Renewal under rule 22 MCR1960 23-MAY-03
 Plan/Scheme of Mining Modif. of approved Mining Plan 17-JAN-07
 Mining Scheme rule 12 MCDR1988 08-SEP-08
 Mining Scheme rule 12 MCDR1988 06-APR-15
 MP review under 17(1) MCR 2016 02-DEC-19
 MP modif under 17(3) MCR 2016 19-JUL-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	61 Borehole with 3400 mts of drilling during previous 2021-22.	51 Borehole with 2395 mts of drilling during previous year 2021-22.	Backlog of 10 BHs which was completed in the year 2022-23.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration during the RY 2022-23.	A total of 66 BHs with 3275 mts of drilling.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal of exploration agency and expenditure.	Agency: B K Associates and expenditure of Rs. 7695500/-	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration proposed to prove depth continuity of the mineralization.	As per approved MMP dated 19/07/2021 entire mineralized area explored under G1 level of exploration.	Nil
1e	Balance reserve as on 01/04/20	The position of reserve and resource as on 31/03/2021 was 82.41 and 10.0 million tons respectively.	The position of reserve and resource as on 01/04/2023 was 76.01 and 10.00 Million tons respectively.	Nil
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration during the RY 2022-23.	A total of 66 BHs with 3275 mts of drilling.	Entire mineralized area explored under G1 level of exploration. However, exploration was carried out to prove depth continuity of the mineralization.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	The development was proposed in the Bherda, Surjana, Jai and Nagri pits.	The development was carried out in Surjana and Nagri pits.	No development in Bherda and Jai pit due to local villager problem.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal of top soil generation. Separate removal of OB and Mineral.	Top soil generated used for plantation. Separate removal of OB and Mineral.	Top soil of 3050 tons was generated during RY 2022-23.
2c	Stripping ratio or ore to OB ratio	1:0.10 CuM/CuM	1:0.11 CuM/CuM	Nil
2d	Quantity of topsoil generation in m3	No proposal.	3050 tons.	Utilized in plantation.
2e	Quantity of overburden generation in m3	211643 m3	172796 m3.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Opencast method of development has been proposed.	Opencast method of development is being practiced.	Development method proposed is suitable for the kind of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	4 pits (Jai, Bherda, Nagri and Surjana)	2 pits (Nagri and Surjana)	No development in Bherda and Jai pit due to local villager problem.
3b	Quantity of ROM mineral production proposed	49.02 lac Tonnes	35.80 lac Tonnes	Nil
3c	Recovery of sailable/usable mineral from ROM production	43.19 lac Tonnes	35.75 lac Tonnes	Nil
3d	Quantity of mineral reject generation	5.88 lac Tonnes	0.048 lac Tones	Screen Reject figures.
3e	Grade of mineral rejects generation and threshold value declared.	Cao < 34% Mgo >1%	Cao < 34% Mgo >1%	Nil

3f	Quantity of sub grade mineral generation.	No proposal.	10650 tons.	Nil
3g	Grade of sub grade mineral generation	No proposal.	36.59% CaO	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized (Crushing and screening).	Mechanized (Crushing and screening).	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Not applicable.	Nil
3j	Provision of drilling and blasting in mineral benches	Proposal of Drilling & Blasting is Subjected to decision of Honorable Court.	Worked with Mechanical means without Blasting using Rock breaker only.	In mechanical mining splitter are also deployed in which DTH drill are used.
3k	Provision of mining machineries in mineral benches	Excavator and dumper combination.	Excavator and dumper combination.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 meters.	Not maintained as per proposal.	Violation of rule 11(1) of MCDR, 2017 issued.
3m	Total area covered under excavation/pits	195.459 Hectare at the end of year 22-23.	193.039 Hectare at the end of year 22-23	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.10 CuM/CuM	1:0.11 CuM/CuM	Nil
3o	Total area put in use under different heads at the end of year	293.4396 Hectare at the end of plan period i.e. 2024-25	261.2296 Hectare at the end of RY 2022-23.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2018-19:49.60 2019-20: 49.60 2020-21:43.17 2021-22:48.92 2022-23: 49.08	2018-19:28.57 2019-20:27.21 2020-21:27.05 2021-22:28.24 2022-23: 35.80	All figures in lac tins.

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.	Method of mining proposed is suitable for 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)	Separate dumping of OB and screen rejects.	Separate dumping of OB and screen rejects.	Top soil of 3050 tons has been generated & same used plantation purposes.
4b	Location of topsoil, OB and mineral reject dumps	Dumping of waste proposed on existing dumps of Jai, Surjana, Nagri pits.	Waste dumping has been carried out beyond the approved limits.	Violation of rule 11(1) of MCDR, 2017 issued for deviation in waste dumping.
4c	Number of dumps within lease area and outside of lease area	Dumping proposed within lease area.	Dumping during RY observed within lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside ultimate pit limit.	Outside ultimate pit limit.	Nil
4e	Number of active and alive dumps.	09 dumps including bunds.	09 dumps including bunds.	Nil
4f	Number of dead dumps.	No proposal.	Not applicable.	Nil
4g	Number of dumps established.	One.	One.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	Nil
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - 320m and Garland drian-363m	Retaining wall -350 m and Garland drian-400m	Nil
4j	Number of settling ponds	No proposal.	Not applicable.	Nil
4k	Specific comments of inspecting officer on waste dump management	Dumping of waste proposed on existing dumps of Jai, Surjana, Nagri pits.	Waste dumping has been carried out beyond the approved limits.	Violation of rule 11(1) of MCDR, 2017 issued for deviation in waste 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 proposal.	Not applicable.	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	A total of 3050 tons of top soil generated during RY and utilized for plantation	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal.	Not applicable.	16.40 hectare of Bherad pit is rehabilitated as water reservoir.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of backfilling.	Nil	None of the 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).	As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2022-23 has been submitted.	Nil
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	Nil
6c	afforestation done (ha).	1.0 hectare	1.30 hectare	Nil
6d	No. of saplings planted during the year	1000 Plants.	1320 Plants.	Nil
6e	Cumulative no .of plants	Not specified.	137858 as on 01/04/2023 within lease area.	Nil
6f	Any other method of rehabilitation	No proposal.	Not applicable.	Nil

6g	Cost incurred on watch and care during the year	No proposal.	6.50 Lacs	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 Plants.	1320 Plants.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.00 hectare	1.30 hectare	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)	Compliance as per MoEF guidelines.	Monitoring is being carried out regularly.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	An area of 1.0 hectare with 1000 nos of saplings has been proposed to plant.	An area of 1.30 hectare with 1320 nos of saplings has been planted.	PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Limestone dispatch after crushing and screening.	As per proposal.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical (Crushing and screening).	Mechanical (Crushing and screening).	Nil
7c	Different grade of mineral sorted out at mines.	No proposal of grade wise sorting.	Not applicable.	Nil
7d	Any beneficiation process at mines	No proposal.	Not applicable.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	ROM processing through Crushing and Screening.	ROM is being processed through Crushing and Screening.	No issue related to mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	Top soil of 3050 tons was generated utilized in plantation during RY.	Nil
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	Generated top soil used concurrently.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste and Screen reject.	As per proposal.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Not applicable.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Not applicable.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	An area of 1.0 hectare with 1000 nos of saplings has been proposed to plant.	An area of 1.30 hectare with 1320 nos of saplings has been planted.	Nil
8g	Survival rate	No proposal.	98 % as per AR 2022-23.	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed.	Two tankers of 15000 liters capacity and fitted with water guns and water spreading system are being used.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Separate dumping of waste and Screen reject.	Dumping of waste and screen reject is being done separately.	Aesthetic beauty in and around lease area is being maintained.

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 rule 45 of MCDR, 2017 monthly and annual returns to be submitted.	Annual and Monthly returns of RY have been submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information of Manager, Mining Engineer and Geologist is furnished.	Manager, Mining Engineer and geologist are appointed.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	298.92 Hectare including plantation area.	Found in order.	Nil
9d	Scrutiny of Annual return on afforestation	1320 number of saplings.	Information furnished appears in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	10650 tons of sub-grade mineral.	Generated sub-grade mineral has been used through blending with high grade material.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM and graded stock: NIL	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: 602.79/ ton. No sale being a captive use.	Found in order.	Nil
9h	Scrutiny of Annual return on fixed assets	Rs. 752481052/-	Information furnished appears in order.	Nil
9k	Scrutiny of Annual return on mining machineries	Back Hoe, dumper, Dozer, front end loader, crusher, conveyor, Water Tanker, Explosive van, crane etc.	Back Hoe, dumper, Dozer, front end loader, crusher, conveyor, Water Tanker, Explosive van, crane etc.	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)	01-DEC-23			

Date :

(DILIP JAIN)

Indian Bureau of Mines