

**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. Narendra Menaria,
Official with
Designation
- (iv) Date of Inspection : 14-JAN-23
- (v) Prev.inspection date : 07-MAY-22

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 : 588.19
- (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
 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	A total 61 BHs have been proposed during previous year 2020-21.	No exploratory work during previous year 2020-21.	Boreholes could not be drilled due to Covid 19 pandemic and lockdown.
1b	Exploration over lease area for geological axis 1 or 2	61 Holes with 3400 m of drilling to prove mineral continuity in depth.	51 Holes with 2395 m of drilling.	Violation of rule 11(1) of MCDR, 2017 issued.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal.	Agency: B K Associates. Expenditure: Rs. 52,69,000/-	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per approved document dated 19/07/2021, entire potentially mineralized area of 217.52 hectare explored under G1 level of exploration.	As per approved document dated 19/07/2021, entire potentially mineralized area of 217.52 hectare explored under G1 level of exploration.	NIL.
1e	Balance reserve as on 01/04/20	As per approved document dated 19/07/2021, the position of reserve and resource was 82.41 and 10.0 million tons respectively.	The position of reserve and resource as on 01/04/2022 was 79.59 and 10.0 million tons respectively.	Depletion of 2.82 million tons.

1f	General remarks of inspecting officers on geology, exploration etc	61 Holes with 3400 m of drilling to prove mineral continuity in depth.	51 Holes with 2395 m of drilling.	Geologically area belongs to Vindhyan Super group of rocks. Violation of rule 11(1) of MCDR, 2017 issued for shortfall in exploratory drilling.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Total four locations were proposed: Bherda Pit, Jai pit, Surjana pit & Nagri Pit.	Development carried out in three location namely Jai pit, Surjana pit & Nagri Pit	No work in Bherda Pit.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil proposed to scrape and utilization of green belt development. Separate removal of OB and mineral.	Generated top soil of 2200 tons utilized for green belt development. Limestone and Waste/OB has been removed separately.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0.16 CuM/CuM	1:0.24 CuM/CuM	Violation of rule 11(1) of MCDR, 2017 issued.
2d	Quantity of topsoil generation in m3	No proposal of top soil generation.	A total of 2200 tons of top soil generated and utilized for plantation.	NIL.
2e	Quantity of overburden generation in m3	328061 CuM	288583 CuM	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Opencast method of development was proposed.	Opencast method of development is in practice.	No issue relate to method development.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	4 pits (Jai, Bherda, Nagri and Surjana)	3 pits (Jai, Nagri and Surjana)	No work in Bherda Pit.
3b	Quantity of ROM mineral production proposed	48.92 lac Tonnes	28.25 lac Tonnes	Less production due to Plant shut down for expansion.
3c	Recovery of sailable/usable mineral from ROM production	43.06 lac Tonnes	28.21 lac Tonnes	Less production due to Plant shut down for expansion.
3d	Quantity of mineral reject generation	5.85lac Tonnes (Screen Reject)	0.039 lac Tones (Screen Reject)	NIL.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	Cao < 34% Mgo >1%	NIL.
3f	Quantity of sub grade mineral generation.	No proposal of sub-grade generation.	Not applicable.	NIL.
3g	Grade of sub grade mineral generation	No proposal.	Not applicable.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method (Crushing and screening).	Mechanized method (Crushing and screening).	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any beneficiation.	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.	Mechanical mining splitters are also deployed in which DTH drill are used.
3k	Provision of mining machineries in mineral benches	Excavator , Rock Breaker, Dumper, Dozer, Water Tanker, Splitter etc.	Excavator, Rock Breaker, Dumper, Dozer, Water Tanker, Splitter etc.	NIL.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes, suitably proposed.	Yes, as per proposal.	NIL.
3m	Total area covered under excavation/pits	195.46 Hectare at the end of year 2021-22.	193.04 Hectare at the end of year 2021-22.	Including 16.4 hectare reclaimed area of Bherda pit.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.16 CuM/CuM	1:0.24 CuM/CuM	Violation of rule 11(1) of MCDR, 2017 issued.
3o	Total area put in use under different heads at the end of year	293.4396 Hectare at the end of 2024-25	261.2296 Hectare at the end of 2021-22.	Including 16.4 hectare reclaimed area of Bherda pit.
3p	Production of ROM mineral during the last five year period as applicable	2017-18:49.60lac tonne 2018-19:49.60 lac tonne 2019-20: 49.60 lac tonne 2020-21:43.17 lac tonne 2021-22:48.92 lac tonne	2017-18:23.28 lac tonne 2018-19:28.57 lac tonne 2019-20:27.21 lac tonne 2020-21:27.05 lac tonne 2021-22:28.24 lac tonne	Less production during RY due to Plant shut down for expansion.
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining is proposed.	Opencast method of mining is in practice.	The method of mining is best

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 proposed to scrape and utilization of green belt development. Separate dumping of OB/waste, screen reject and mineral.	Generated top soil of 2200 tons utilized for green belt development. Mineral and Waste/OB has been dumped.	NIL.

4b	Location of topsoil, OB and mineral reject dumps	Top soil proposed to scrape and utilization of green belt development. OB & Screen reject dumping has been proposed near existing pits namely Jai, Nagri and Surjana.	Generated top soil of 2200 tons utilized for green belt development. Dumping of waste and mineral reject has been observed as per proposal.	NIL.
4c	Number of dumps within lease area and outside of lease area	During the year 2021-22, Within lease: 09 dump and outside lease: = Nil	During the year 2021-22, Within lease: 09 dump and outside lease: = Nil	There exists protective bund at many places within lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL.	Outside UPL.	NIL.
4e	Number of active and alive dumps.	A total of 07 dumps in block-C.	A total of 07 dumps in block-C.	NIL.
4f	Number of dead dumps.	No proposal.	Not applicable.	NIL.
4g	Number of dumps established.	No proposal stabilisation during the RY.	Two waste dumps of Bherda pit (block-B) have been rehabilitated by the way of plantation.	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal of retaining wall and garland drain has been given.	Retaining wall and garland drain observed.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall - 540m Garland drian- 590m	Retaining wall -600m Garland drian-500m	Violation of rule 11(1) of MCDR 2017 issued for shortfall in garland drain.
4j	Number of settling ponds	No proposal.	Not applicable.	NIL.

4k	Specific comments of inspecting officer on waste dump management	Top soil proposed to scrape and utilization of green belt development. Separate dumping of OB/waste, screen reject and mineral.	Generated top soil of 2200 tons utilized for green belt development. Mineral and Waste/OB has been dumped.	No issue related to waste dumping.
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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 full mineral extraction during RY.	Not applicable.	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 2200 tons of top soil generated and utilized for plantation.	NIL.
5d	Total area fully reclaimed and rehabilitated	No proposal.	Not applicable.	An area of 16.40 hectare of Bherda Pit has been considered as fully reclaimed and used as water storage. PHED is supplying drinking water from it.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of full mineral extraction during RY.	Not applicable.	None of the area matured for backfilling.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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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 2021-22 is not yet due for submission.	NIL.
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	NIL.
6c	afforestation done (ha) .	1.0 hectare	1.7 hectare	Within lease area.
6d	No. of saplings planted during the year	1000 Plant	1882 Plant	Within lease area
6f	Any other method of rehabilitation	No proposal.	Not applicable.	NIL.
6g	Cost incurred on watch and care during the year	No proposal.	Not applicable.	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal for the reporting year.	Not applicable.	An area of 16.40 hectare of Bherda Pit has been considered as fully reclaimed and used as water storage. PHED is supplying drinking water from it.
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 Plant	1882 Plant	Within lease area.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	1.0 hectare	1.70 hectare	Within lease area.
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)	Regularly monitoring as per the condition of mining plan as well as Environment Clearance and SPCB.	Periodic compliance report is regularly submitted to concerned authorities.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	A total of 1000 number of saplings have been proposed over an area of 1.0 hectare.	A total of 1882 nos. of saplings have been planted over an area of 1.70 hectare.	PMCP compliances are satisfactory.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	During the year limestone dispatch of 43.06 lac Tonnes.	Actual limestone dispatch of 28.21 lac Tonnes	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Cursing and screening of ROM.	As per proposal.	NIL.

7c	Different grade of mineral sorted out at mines.	Cement grade and Screen Reject.	As per proposal.	NIL.
7d	Any beneficiation process at mines	No proposal of any beneficiation.	Not applicable.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Cursing and screening of ROM.	As per proposal.	No issue related to mineral conservation.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	A total of 2200 tons of top soil generated and utilized for plantation.	NIL.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	A total of 2200 tons of top soil generated and utilized for plantation.	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste and screen reject.	Separate dumping of waste and screen reject.	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)	Proposal was of 1 .0 hectare with 1000 plants.	An area of 1.70 hectare with 1882 plats.	Within Lease area.
8g	Survival rate	No proposal.	95%	During 2021-22
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	Proposal was of 1 .0 hectare with 1000 plants.	An area of 1.70 hectare with 1882 plats.	The general aesthetic beauty is satisfactory in and around mine area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual returns to be submitted.	Monthly and annual returns for RY have been submitted.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri Rajesh Choudhary, Geologist: Shri Narendera Menaria and Manager: Shri Biswaranjan Mohanty	Manager, Mining Engineer and Geologist are appointed.	Scrutiny of AR 2021-22.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 193.04 ha, waste disposal: 25.16 ha, infrastructure : 13.77 ha.	The information of land use furnished appears in order.	NIL.
9d	Scrutiny of Annual return on afforestation	Within Lease - 1882 plants.	Found in order.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Quantity = 3900 tonnes Grade - Total Carbonate < 60 %	Quantity of screen reject has been furnished.	NIL.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM and graded ore stock: NIL	No stock all excavated mineral consumed in captive cement plant.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value: NIL. Ex Mine Price- Rs 623.92 Cost of Production - Rs 623.92	Appears to be in order.	NIL.
9h	Scrutiny of Annual return on fixed assets	Fixed asset: Rs. 81,24,92,033	Appears to be in order.	NIL.
9k	Scrutiny of Annual return on mining machineries	Back hoe, Dozer, Dumper, Rock Drilling Machine, Water Tanker, Explosive Van etc.	Back hoe, Dozer, Dumper, Rock Drilling Machine, Water Tanker, Explosive Van 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

Date :

(DILIP JAIN)

Indian Bureau of Mines