

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/CHT/LST-11

Mine code : 38RAJ09009

- (i) Name of the Inspecting : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh. M.K. Bokadia, HOD(Mines)
Official with
Designation
- (iv) Date of Inspection : 13-AUG-19
- (v) Prev.inspection date : 16-JUL-18

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BHATKOTRI**
- (b) **Registration NO.** : **IBM/226/2011**
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : RAJASTHAN
- District : CHITTORGARH
- Village : NIMBAHERA
- Taluka : NIMBAHERA
- Post office : NIMBAHERA
- Pin Code : 312601
- FAX No. : +91-1477-307333
- E-mail : nbh.mines@wondercement.com
- Phone : 91-1477-307000, 0294-66022:
- (f) **Police Station** : NIMBEHERA
- (g) **First opening date** : 16-JAN-11
- (h) **Weekly day of rest** : SUN
2. **Address for** : R.K. NAGAR,
correspondance NIMBEHERA
DIST. - CHITTORGARH (RAJ.)
3. (a) **Lease Number** : RAJ3224
- (b) **Lease area** : 740.93
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 08-SEP-58
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : WONDER CEMENT LTD
 R.K. NAGAR POST NIMBAHERA
 DIST. - CHITTORGARH (RAJ.)
 CHITTORGARH RAJASTHAN
 Phone:
 FAX :

Owner : P. PATIDAR
 WONDER CEMENT LTD. VILLAGE
 - NIMBAHERA DIST. -
 CHITTORGARH (RAJ.)
 CHITTORGARH RAJASTHAN
 Phone:
 FAX :

Agent : S.M. JOSHI
 WONDER CEMENT LTD. VILLAGE
 BHATKOTRI, TAL - NIMBAHERA
 DIST. - CHITTORGARH (RAJ.)
 CHITTORGARH RAJASTHAN
 Phone:
 FAX :

Mining Engineer

Name : Sunil Bora, Full Time
 Qualification : B.E. Mining
 Appointment/ : 24-JUN-12
 Termination date

Geologist

Name : Kuldeep Chobisa, Full Time
 Qualification : M.Sc.(Geology)
 Appointment/ : 01-APR-14
 Termination date

Manager

Name : ASHOK KUMAR
 Qualification : BE (Mining)
 Appointment/ : 01-APR-11
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	20-JUL-11
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	08-JUL-13
		MP review under 17(1) MCR 2016	19-DEC-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	Nil	
1b	Exploration over lease area for geological axis 1 or 2	G1-337.07Ha. G2-27.93 Ha. Non Mineralised - 375.93Ha.	G1-337.07Ha. G2-27.93 Ha. Non Mineralised - 375.93Ha.	Proposal has been incorporated for more depth & convert G2 level to G1 level in the current mining plan period.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	During the year 2018-19 no proposal.	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal for the year 2018-19.	Nil	Entire mineralised area(365 hect.) has been explored up to G1 level(337.07 hect.) & G2 level(27.93 hect.).Proposal has been incorporated for depth continuity of mineral & convert G2 level to G1 level in the current mining plan period.
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2019 111 - 322.65 mt 122 - 106.56 mt	Balance reserves as on 01.04.2019 111 - 322.65 mt 122 - 106.56 mt	

1f	General remarks of inspecting officers on geology, exploration etc	Entire mineralised area(365 hect.) has been explored up to G1 level(337.07 hect.) & G2 level(27.93 hect.).Proposal has been incorporated for depth continuity of mineral & convert G2 level to G1 level in the current mining plan period.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In the existing pit North Eastern part of the lease area.	In the existing pit North Eastern part of the lease area.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes as per proposal.	
2c	Stripping ratio or ore to OB ratio	Ore to OB ratio (MT:m3) 45.33:1	Ore to OB ratio (MT:m3) 26.45:1	Due to deviation in Ore to OB ratio, violation of rule 11(1) of MCDR 2017 issued to the lessee.
2d	Quantity of topsoil generation in m3	2018-19: 36490 m3	2018-19: 37246 m3	
2e	Quantity of overburden generation in m3	2018-19: 136642 m3	2018-19: 185222 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of mine pit is satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	145,36,000 MT	75,19,942.00 MT	EC for 9.1 MTPA ROM production.
3c	Recovery of sailable/usable mineral from ROM production	141,00,000 MT	72,93,625.00 MT	
3d	Quantity of mineral reject generation	174,433 m3	90,527 m3	
3e	Grade of mineral rejects generation and threshold value declared.	<34% CaO	<34% CaO	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method adopted for segregating from ROM	Mechanised method adopted for segregating from ROM	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting proposed.	Deep hole drilling & blasting as per permission from DGMS	
3k	Provision of mining machineries in mineral benches	HEMM excavator & dumpers combination.	HEMM excavator & dumpers are deployed.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes, height of benches in overburden and mineral suitable for method of mining proposed in approved mining plan.	

3m	Total area covered under excavation/pits	65 hect.	68.5 hect. area.	
3n	Ore to OB ratio for the pit/mine during the year.	45.33:1	26.45:1	Unit = MT : m3
3o	Total area put in use under different heads at the end of year	120.18 hect.	120.8 hect.	
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 4500000 MT 2015-16: 9100000 MT 2016-17: 9100000 MT 2017-18: 9100000 MT 2018-19: 14100000 MT	2014-15: 3379775.00 MT 2015-16: 4163422.00 MT 2016-17: 4819473.00 MT 2017-18: 6661725.00 MT 2018-19: 7519942.00 MT	
3q	General remarks of inspecting officers on method of mining etc.			Method of mining is suitable to the 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	Yes as per proposal.	

4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil dumping, OB/IB Dump: South Eastern portion of the lease area along the lease boundary pillars AB. Screen Reject Dump: One is North Eastern portion of the lease area near boundary pillar F' and another is Northern side of proposed waste dump.	OB/IB Dump: South Eastern portion of the lease area along the lease boundary pillars AB. Screen Reject Dump: North Eastern portion of the lease area near boundary pillar F'.	Some deviation in location of OB/IB waste dump during the year 2018-19 observed hence violation of rule 11(1) of MCDR 2017 issued to the lessee.
4c	Number of dumps within lease area and outside of lease area	Two waste waste dump & two screen reject dumps within lease area.	Two waste dumps & one screen reject dump within the lease area.	
4e	Number of active and alive dumps.	One OB/IB dumps & two screen reject dumps.	One OB/IB dumps & one screen reject dumps.	
4f	Number of dead dumps.	01	01	
4g	Number of dumps established.	Not speccified	01 old waste dump	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes,	Yes	
4i	Length of Retaining wall or garland drain all along dumps	Proposal not specified.	Cummulative 650 meters retaining wall and 2500 M garland drain	
4j	Number of settling ponds	2 nos.	4 nos.	
4k	Specific comments of inspecting officer on waste dump management			Some deviation in location of OB/IB waste dump during the year 2018-19 observed hence violation of rule 11(1) of MCDR 2017 issued to the lessee.

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.	Nil	
5b	Area under backfilling of mined out area	No backfilling proposal during the last year 2018-19.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Plantation.	Plantation.	
5d	Total area fully reclaimed and rehabilitated	No proposal	None	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Area is not matured for backfilling & reclamation.

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).	Yes Submitted	Yes Submitted within time limit.	
6b	Area available for rehabilitation (ha) .	0.5 Hect. along the lease boundary. 0.5 hect. lod waste dumps.	0.74 hect. along the lease boundary. 0.5 hect. lod waste dumps.	
6c	afforestation done (ha).	Total 1.0 hect. area (0.5 Hect. along the lease boundary & 0.5 hect. on old waste dump).	Total 1.24 hect. area (0.74 Hect. along the lease boundary & 0.5 hect. on old waste dump).	
6d	No. of saplings planted during the year	1000 Nos.	1086 nos.	

6e	Cumulative no .of plants	Not specified	55428 nos. up to year 2018-19.	
6f	Any other method of rehabilitation	No proposal	Not applicable.	
6g	Cost incurred on watch and care during the year	Rs 3 lacks	Rs . 3.258 lacks	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	Rain water acuumulated in pit bottom.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	None	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Total 1.0 hect. area (0.5 Hect. along the lease boundary & 0.5 hect. on old waste dump).	Total 1.24 hect. area (0.74 Hect. along the lease boundary & 0.5 hect. on old waste dump).	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Total 1.0 hect. area (0.5 Hect. along the lease boundary & 0.5 hect. on old waste dump).	Total 1.24 hect. area (0.74 Hect. along the lease boundary & 0.5 hect. on old waste dump).	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation.	Plantation.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per EC Condition compliance.	Monitoring done quarterly in core & buffer zone	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance of the mine is satisfactory.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM feed to crusher and clay is separated by screening before crushing & after crushing all limestone feed to captive cement plant.	ROM feed to crusher and clay is separated by screening before crushing & after crushing all limestone feed to captive cement plant.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	None	
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	

7d	Any beneficiation process at mines	No proposal	Not applicable.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issue were observed related to mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal & use for plantation.	Separate removal & use for plantation.	
8b	Concurrent use or storage of topsoil	Concurrent use in plantation.	Concurrent use in plantation.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes.	Separate dumps for waste(OB/IB) & screen reject.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	None	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation was proposed over old waste dump.	Plantation has been carried out over old waste dump.	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 2018-19 plantation was proposed over an area 1.0 hect. (0.5 Hect. along the lease boundary & 0.5 hect. on old waste dump).	During the year 2018-19 plantation has been carried out over an area 1.24 hect. (0.74 Hect. along the lease boundary & 0.5 hect. on old waste dump). Total 55428 nos. cumulative plantation has been carried out up to year 2018-19.	
8g	Survival rate	Not specified	92%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling was proposed.	2 nos. of water sprinklers are being used for water spraying on haul roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The general aesthetic beauty in and around mine area was satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to July 2019 A.R. Submitted upto Year 2018-19	Returns are being submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer Sh. Sunil Bora, Geologist Sh. Kuldeep Choubisa, and Manager Sh.Ashok Acharya	Details found ok	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given	Found ok	
9d	Scrutiny of Annual return on afforestation	1086nos. plantation within lease area during the area.	Found ok	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject: 226317 MT (CaO<34)	Found ok
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stcok Nil	Found ok
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production 216.58 (in Rupees Per Tonne)	Found ok
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rs.) 1238676796	Found in order.
9k	Scrutiny of Annual return on mining machineries	Details given in AR	Found in order.

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)	05-SEP-19			
MCDR17	Rule 45(7)(a)	05-SEP-19			

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines