

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

**MCDR inspection REPORT**

**Nagpur regional office**

**Mine file No :** MP/NMC/LST-8/NGP

**Mine code :** 38MPR51001

- (i) Name of the Inspecting : **K014** ) **NARESH KUMAR KATARIYA**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Mr. Subhash Nigam (Sr. VP, Agent)  
Official with  
Designation
- (iv) Date of Inspection : 01-SEP-21
- (v) Prev.inspection date : 21-JAN-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **VIKRAM CEMENT LIMESTONE M**
- (b) **Registration NO.** : **IBM/441/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : MADHYA PRADESH  
District : NIMACH  
Village : SUVAKHEDA, MOKA, MAHES  
Taluka : JAWAD  
Post office : KHOR  
Pin Code : 458470  
FAX No. : 07420-235524  
E-mail : vcmail@adityabirla.com  
Phone : 07420-230830
- (f) Police Station : JAWAD
- (g) First opening date : 29-DEC-07
- (h) Weekly day of rest : SUN
2. Address for : VIKRAM CEMENT WORKS  
correspondance PO : KHOR, TAH : JAWAD  
DISTRICT NEEMUCH (M.P.)
3. (a) Lease Number : MPR2209  
(b) Lease area : 342.61  
(c) Period of lease : 50  
(d) Date of Expiry : 27-JAN-52
4. Mineral worked : LIMESTONE Main

## 5. Name and Address of the

Lessee : M/S GRASIM INDUSTRIES LTD.  
RAIPUR CHHATTISGARH  
Phone:  
FAX :

Owner : M/s Grasim Cement  
M/s Grasim Cement B-1,  
Golcha Appartment Shankar  
Nagar, Raipur RAIPUR  
CHHATTISGARH  
Phone: 0771--424827, 4  
FAX : 0771--425721

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	21-MAR-01
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	11-APR-11
	:	Mining Scheme rule 12 MCDR1988	24-JUN-15

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for geological axis 1 or 2	NIL	NIL	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	NIL	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	Balance area to be explored under G-1 category: G2 - 3.98 Hect which is proposed to be explored in the 2021-22.
1e	Balance reserve as on 01/04/20		Balance reserves as on 01.04.2021 - 61.65 MnT	
1f	General remarks of inspecting officers on geology, exploration etc			Exploration was not proposed in the RY 2020-21.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development was proposed in Pit no-1, Pit no-2 & Pit no.-3.	Mine development was carried out in Pit no-1, Pit no-2 & Pit no.-3.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil and OB will be removed in advanced keep sufficient distance from working bench.	Found as per proposal.	

2c	Stripping ratio or ore to OB ratio	1:0.30	1:0.19	During the year 2020-21, it was proposed to generate 1.65 MT overburden for mine development. But, only 0.75 MT overburden was generated. Stripping ratio is distorted due to lagging in mine development. Violation pointed out for the same under rule 11(1) of MCDR-2017.
2d	Quantity of topsoil generation in m3	22425	19829	
2e	Quantity of overburden generation in m3	16,50,000	7,47,685	Mine development was lagging from the approved proposal. Stripping ratio is distorted due to lagging in mine development. Violation pointed out for the same under rule 11(1) of MCDR-2017.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			During the year 2020-21, it was proposed to generate 1.65 MT overburden for mine development. But, only 0.75 MT overburden was generated. Stripping ratio is distorted due to lagging in mine development. Violation pointed out for the same under rule 11(1) of MCDR-2017.

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Exploitation:

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Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3 nos	3 nos	
3b	Quantity of ROM mineral production proposed	50,00,000	38,73,113	
3c	Recovery of sailable/usable mineral from ROM production	47,00,000 (93%)	38,73,113 (100%)	No rejects as per provided records.
3d	Quantity of mineral reject generation	3,00,000	NIL	No mineral reject generated.
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	NIL	
3f	Quantity of sub grade mineral generation.	No proposal for Generation / stacking of sub grade Mineral	2,47,762	No stacking and simultaneously used with blending.
3g	Grade of sub grade mineral generation	Not specified	Cao- 39.56%, Sio2- 15.68%	Average Value
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method	Mechanised method	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Not done	
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & controlled blasting with large dia hole	Drilling of 115 mm hole dia & using slurry &ANFO in connection with NONEL delay detonators for blasting	

3k	Provision of mining machineries in mineral benches	Yes	SHOVEL (Hydraulic) 4 CUM. 01 no. DUMPER35 TONNER 02 nos. BLAST HOST DRILL115 MM 01 no. WATER TANKER 20KL 01 no.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench height 5m - 8 m is suitable for OB & Limestone	Bench height observed 5m -8m	
3m	Total area covered under excavation/pits	134.18 ha (end of plan period)	75.407 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.30	1:0.19	During the year 2020-21, it was proposed to generate 1.65 MT overburden for mine development. But, only 0.75 MT overburden was generated. Stripping ratio is distorted due to lagging in mine development. Violation pointed out under rule 11(1) of MCDR-2017.
3o	Total area put in use under different heads at the end of year	164.35 ha	100.332 ha	
3p	Production of ROM mineral during the last five year period as applicable	2016-17 5.50MnT 2017-18 5.50MnT 2018-19 5.50MnT 2019-20 5.50MnT 2020-21 5.00MnT	2016-17 1.87MnT 2017-18 3.25MnT 2018-19 4.46MnT 2019-20 3.34MnT 2020-21 3.87MnT	

3q General remarks of inspecting officers on method of mining etc.

Opencast method of mining adopted as per approved document considering geological conditions.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Top soil utilized, OB used in backfilling	Coordinated of proposed area as per approved proposal.
4b	Location of topsoil, OB and mineral reject dumps	Not proposed, Top soil utilisation for plantation and OB to be used for backfilling	Top soil utilized, OB used in backfilling	Coordinated of proposed area as per approved document.
4c	Number of dumps within lease area and outside of lease area	Within ML- 2nos	Within ML- 2nos	Old dumps.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL	Dumps are located outside the UPL as per available records
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	1 Nos	1 Nos	
4g	Number of dumps established.	1 Nos	1 Nos	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Retaining wall & garland drains are made at periphery of OB dump	

4i	Length of Retaining wall or garland drain all along dumps	Not specified	Garland Drain-220m Retaining Wall-100m	
4j	Number of settling ponds	Not proposed	Not done	Previous settling tank are maintained operational
4k	Specific comments of inspecting officer on waste dump management			Top soil utilized for plantation and overburden used for backfilling.

#### 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.	Area to be backfilled, where the limestone fully extracted.	After full extraction, Simultaneously backfilling is being done.	Coordinated of proposed area as per approved document.
5b	Area under backfilling of mined out area	5.6 ha	4.273 ha	Backfilling was done as per availability of OB. Backfilling was proposed in 5.60 Hect area. But, backfilling was done only in 4.27 Hect. area. Violation pointed out under 11(1) of MCDR-2017.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil to be used for plantation with in ML area.	Top soil is being utilising for plantation with in ML area.	
5d	Total area fully reclaimed and rehabilitated	2.00 Ha.	2.00 Ha.	



5e	General remarks of inspecting officers on backfilling and reclamation etc.	After full extraction, Simultaneously backfilling is being done as per availability of OB.
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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	PMCP report submitted on 28/06/2021	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	NIL	NIL	
6d	No. of saplings planted during the year	NIL	NIL	
6e	Cumulative no .of plants	Not specified	57671	
6f	Any other method of rehabilitation	Not proposed	Not done	
6g	Cost incurred on watch and care during the year	Not specified	Not specified	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	7 ha	7 ha	

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6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	5.6 ha	4.273 ha	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	1.00 ha	1.00 ha	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed	Not done	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	3.00 ha	0.5 ha	Cumulative Plantation on Backfilling area is 57671 and area covered 19.80 ha.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.5 ha	0.5 ha	
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)	Yes	Yes	Air, water & Noise monitoring is being done regularly.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No benches has been reached at conceptual stage hence no area for rehabilitation is available at mined out benches. Cumulative Plantation on Backfilling area is 57671 and area covered 19.80 ha.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mineral dispatch	Production 3873113 MT Despatch 3873113 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not proposed	Not done	
7c	Different grade of mineral sorted out at mines.	Not applicable	Not applicable	
7d	Any beneficiation process at mines	No, Only crushing & screening	Only crushing was done.	Screening based on the requirement
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Complete ROM utilized for captive use as per available records.

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## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Removed separately & utilised for plantation.	Top soil is being removed separately for plantation purpose.	Simultaneously utilising for plantation purpose within ML area.
8b	Concurrent use or storage of topsoil	Temporarily	Concurrent use for plantation purpose within ML area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB dump	As per proposal	Overburden used for backfilling as per proposal.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB is proposed to be utilized for backfilling purpose	OB used for backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Simultaneously backfilling of mined out area is in practice	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposal given	Plantation done as per proposal	Plantation is being done over OB Dump & slope of dump backfilled area and along the lease boundary
8g	Survival rate	Not Specified	82 %	
8h	Water sprinkling on roads to control airborne dust	Sprayed the water on mine road during every shift working.	Water is being sprayed through water tanker on mine road.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Cumulative Plantation on Backfilling area is 57671 and area covered 19.80 ha.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly returns up to July-2021 Annual returns up to 2020-21 submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer-Lokesh Kumar Gupta (14/12/20) Geologist- Sanjay Kumar Sharma (18/07/2018)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	As per Annual Return	
9d	Scrutiny of Annual return on afforestation	Yes	Total Afforestation Area-19.80 Ha Afforestation on Backfilling area-6.03 ha Afforestation on OB Dump-4.28 ha Afforestation on Green Belt-4.308 ha Afforestation on Surface-5.18 ha	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	Production 3873113 MT Despatch 3873113 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex- Mine Price- Rs.178.63 Production Cost: - Rs. 178.63	
9h	Scrutiny of Annual return on fixed assets	Yes	Fixed Asset Cost Rs. 42.28 Crores	Common for all mines

9k	Scrutiny of Annual return on mining machineries	Yes	SHOVEL (Hydraulic) 4 CUM. 01 no. DUMPER35 TONNER 02 nos. BLAST HOST DRILL115 MM 01 no. WATER TANKER 20KL 01 no.
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**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	14-SEP-21			

**Date :**

**(NARESH KUMAR KATARIYA)**

Indian Bureau of Mines