# MCDR-MiFLOLST/52/2023-JBP-IBM\_RO\_JBP INDIAN BUREAU OF MINES

#### MINERALS DEVELOPMENT AND REGULATION DIVISION

#### Review and updation of Mining Plan REPORT

### Nagpur regional office

Mine file No : MP/MND/LST-2/NGP Mine code : 38MPR23002

(i) Name of the Inspecting : GQ05 ) SANJAY M. GIRHE

Officer and ID No.

1/8692/2023

(ii) Designation : Regional Mining Geologist

(iii) Accompaning mine

Official with Designation

(iv) Date of Inspection : 11-OCT-22

(v) Prev.inspection date :

PART-I : GENERAL INFORMATION

. (a) Mine Name : VIKRAM CEMENT

(b) Registration NO. :

(c) Category : A Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : MADHYA PRADESH

District : NIMACH

Village : KHOR, KHEDARATHOR ETC

Taluka : JAWAD
Post office : KHOR
Pin Code : 458470

FAX No. : (0712) 533041

E-mail : vikram.cement@gems.vsnl.net

Phone : 533603, 522794

(f) Police Station : KHOR

(g) First opening date : 10-MAY-84

(h) Weekly day of rest : MON

2. Address for : M/S GRASIM INDUSTRIES LTD.,

correspondance VIKRAM CEMENT, VIKRAM NAGAR,

P.O. KHAR 458 470, DISTT. NEEMUCH (M.P)

3. (a) Lease Number : MPR0304
(b) Lease area : 442.92

(c) Period of lease : 50

(d) Date of Expiry : 10-NOV-32

4. Mineral worked : LIMESTONE Main

#### 1/8692/2023

5. Name and Address of the

Lessee : M/S VIKRAM CEMENT

VIKRAMNAGAR, P.O. KHOR - 458 470 DIST. NEEMUCH (MP) NIMACH MADHYA PRADESH

Phone: 07420 - 35514 , 30830

FAX :07420 - 35524

Owner : SHRI V.T.MOORTHY

UNIDENTIFIED TAMIL NADU

Phone: FAX:

Agent : S.C.PARIK

VIKRAM CEMENT LIMESTONE MINES P.O-KHOR NIMACH. NIMACH MADHYA PRADESH

Phone: FAX:

Mining Engineer

Name : S.C.NIGAM, Full Time Qualification : B.TECH (MININIG)

Appointment/ : 24-SEP-09

Termination date

Geologist

Name : SHRI R.K.TIWARI, Full Time

Qualification : M.SC GEOLOGY

Appointment/ : Termination date

Manager

Name : S.C.NIGAM

Qualification : B.TECH (MINING)

Appointment/ : 24-SEP-09

Termination date

6. Date of approval of Mining : Modif.approved Mining Scheme 06-OCT-00 Plan/Scheme of Mining Renewal under rule 22 MCR1960 21-OCT-02 Modif.of approved Mining Plan 07-NOV-03 Mining Scheme rule 12 MCDR1988 05-SEP-08 Modif.approved Mining Scheme 22-MAR-12 Mining Scheme rule 12 MCDR1988 16-APR-15

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

| Sl.No. | Item  | Proposals   | Actual work   | Remarks   |
|--------|---|---|---|---|
| 1a     | Backlog of previous year  | No<br>exploration<br>proposed<br>during the<br>year 2021-22 | No exploration proposed during the year 2021-22                 | Most of the ML area already explored in G1 level of exploration |
| 1b     | Exploration over lease area for geological axis 1 or 2                  | No<br>exploration<br>proposed<br>during the<br>year 2021-22 | No exploration proposed during the year 2021-22                 |   |
| 1c     | Exploration Agencies and Expenditure in lakh rupees during the year     | No<br>exploration<br>proposed<br>during the<br>year 2021-22 | No exploration proposed during the year 2021-22                 |   |
| 1d     | Balance area to<br>be explored to<br>bring Geological<br>axis in 1 or 2 | No<br>exploration<br>proposed<br>during the<br>year 2021-22 | G1 - 330.72 ha<br>G2 - 9.69 ha<br>Non Mineralized - 92.80<br>ha |   |
| 1e     | Balance reserve as on 01/04/20  |   |   |   |
| 1f     | General remarks of inspecting officers on geology, exploration etc      | NA  | NA  |   |

# Development :

|        | <u> </u>   |  |   |  |
|--------|--|--|---|--|
| Sl.No. | Item   | Propasals  | Actual work   | Remarks  |
| 2a     | Location of development w.r.t.lease area                                   | worked between   | Working carried out<br>between the grid E-<br>485334 to 485386 N-<br>2716111 to 2716174 | Working carried out in proposed location           |
| 2b     | Separate benches<br>in topsoil,<br>overburden and<br>minerals (Rule<br>15) | Separate benches in topsoil, overburden and mineral proposed | Separate benches in topsoil, overburden and mineral maintained                          | Benches in OB and limestone were mainted very well |

| 2c | Stripping ratio<br>or ore to OB<br>ratio  | Proposed as 1:0.56 Tonne/CuM | Acheived -Nil | Nil OB / IB<br>generation in<br>actual, due to<br>land issue in<br>proposed area.   |
|----|---|------------------------------|---------------|---|
| 2d | Quantity of topsoil generation in m3  | No Proposals                 | Nil           | During the year 2021-22, no top soil generated  |
| 2e | Quantity of overburden generation in m3   | Proposed as 72337 CuM        | Nil           | Nil OB / IB<br>generation in<br>actual, due to<br>land issue in<br>proposed area.   |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | NA                           | NA            | Presently there are total 3 working pits namely Khor, SK-1 & SK-2 and its dimensions are Khor Pit (2030m x 423m x 41m), SK-1: (960m x 542m x 41m) & SK-2 (2271m x 435m x 41m). Limestone mineralisation very well seen in the working pits. |

# Exploitation:

| Sl.No. | Item  | Propasals   | Actual work                              | Remarks                                      |
|--------|---|---|--|--|
| 3a     | Number of pit proposed for production                   | Development & excavation proposed in single Pit-1 | Working carried out as per the proposals |  |
| 3b     | Quantity of ROM mineral production proposed             | Proposed as 320000 Tonnes                         | Acheived as 22349 Tonnes                 | Less production due to land acquiring issues |
| 3с     | Recovery of sailable/usable mineral from ROM production | Proposed as 93.75 %                               | Acheived about 93%                       |  |

| 3d | Quantity of mineral reject generation   | Proposed as 20000 MT                                       | Acheived as Nil  | Due to very less production of limestone mineral reject generation has not been occured  |
|----|---|--|--|--|
| 3e | Grade of mineral rejects generation and threshold value declared.   | Proposed as<br>Less than 34.0<br>Ca0%                      | Nil  | No mineral rejects<br>generated in 2021-<br>22   |
| 3f | Quantity of sub grade mineral generation.   | Proposed as<br>10800 MT                                    | Acheived as 300 MT   | very less sub-<br>grade limestone<br>generated during<br>the year due to<br>very less<br>production during<br>the year 2021-22 |
| 3g | Grade of sub<br>grade mineral<br>generation   | CaO - 39 %   | CaO - 39 %   | very less sub-<br>grade limestone<br>generated during<br>the year due to<br>very less<br>production during<br>the year 2021-22 |
| 3h | Manual / Mechanised method adopted for segregating from ROM   | Mechanized<br>(Screening)                                  | Mechanized (Screening)   |  |
| 3i | Any analysis or<br>beneficiation<br>study proposed<br>and carried out<br>for sub grade<br>mineral and<br>rejects. | No Proposals   | Nil  | Nil  |
| 3j | Provision of drilling and blasting in mineral benches   | Yes, deep hole drilling & blasting was proposed            | Yes, deep hole drilling & blasting was carried out as proposed | Drilling & blasting carried for both OB and in limestone benches   |
| 3k | Provision of mining machineries in mineral benches  | HEMM proposals<br>in both OB &<br>Mineral<br>benches given | HEMM deployed in both OB & Mineral benches                     | HEMM selection as<br>per production and<br>total development<br>target proposed<br>per annum                                   |

| 31 | Whether height<br>of benches in<br>overburden and<br>mineral suitable<br>for method of<br>mining proposed<br>in MP/SOM | proposed in OB   | Yes, bench height 5 to<br>8m maintained in OB and<br>limestone   |   |
|----|--|--|--|---|
| 3m | Total area covered under excavation/pits   | 240.53 Ha<br>proposed as<br>per ROMP<br>approved on<br>11.01.2018  | 238.90 Ha as on 01.04.2022 as online annual return   |   |
| 3n | Ore to OB ratio for the pit/mine during the year.  |  | Nil  | Nil OB / IB generation in actual, due to land issue in proposed area. |
| 30 | Total area put in use under different heads at the end of year   | As per the previous approved ROMP dtd 11.01.2018 Pits-240.53Ha OB Dumps-24.90Ha Top soil Storage-0.50Ha Mineral Storage-1.57Ha Infrastructure -3.54Ha Road-10.49Ha Others-17.41 Ha |  |   |
| 3p | Production of<br>ROM mineral<br>during the last<br>five year period<br>as applicable                                   | 2018-19 -: 320000 MT 2019-20 -: 320000 MT 2020-21 -: 320000 MT 2021-22 -: 320000 MT 2022-23 -: 320000 MT   | 2018-19 -: 28,887 MT<br>2019-20 -: 14,043 MT<br>2020-21 -: 13,570 MT<br>2021-22 -: 22,349 MT<br>2022-23 -: Nil (Up to<br>Oct-2022) | Production details as per annual returns                              |

| 3q | General remarks  | NA | NA | Open cast          |
|----|------------------|----|----|--------------------|
|    | of inspecting    |    |    | mechanised mining  |
|    | officers on      |    |    | operation with     |
|    | method of mining |    |    | combination of     |
|    | etc.             |    |    | HEMM and deep hole |
|    |                  |    |    | drilling &         |
|    |                  |    |    | blasting was being |
|    |                  |    |    | practsed.          |
|    |                  |    |    | Provision of rock  |
|    |                  |    |    | breaker also given |
|    |                  |    |    | in zone where      |
|    |                  |    |    | drilling &         |
|    |                  |    |    | blasting was not   |
|    |                  |    |    | feasible.          |

# Solid Waste Management - Dumping:

| Sl.No. | Item   | Propasals   | Actual work  | Remarks   |
|--------|--|---|--|---|
| 4a     | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)     | Separate stacking for top soil & mineral reject was proposed. OB utilization for backfilling was proposed | _  |   |
| 4b     | Location of topsoil, OB and mineral reject dumps                     | No Proposals  | Nil  | Concurrent use for backfilling was proposed         |
| 4c     | Number of dumps<br>within lease<br>area and outside<br>of lease area | Total 12 nos of OB dumps located in lease area at different locations                                     | Total 12 nos of OB dumps located in lease area at different locations            | Locations of dumps marked on all the relevant plans |
| 4d     | Location of dumps w.r.t. ultimate pit limit (Rule 16)                | Total 12 nos of OB dumps located in lease area at different locations ouside UPL                          | Total 12 nos of OB dumps located in lease area at different locations ouside UPL |   |
| 4e     | Number of active and alive dumps.                                    | No Proposals  | No active dumps in mining lease area   |   |
| 4 f    | Number of dead dumps.  | NA  | No dead dumps in mining lease area   |   |

| 4g  | Number of dumps established.                                       | 12 numbers of<br>OB dumps<br>stabalized | 12 numbers of OB dumps stabalized                    | These are old OB<br>dumps located in<br>ML area   |
|-----|--|---|--|---|
| 4h  | Whether Retaining wall or garland drain all along dumps are there. | No Proposals                            | No additional proposal, existing is being maintained |   |
| 4i  | Length of<br>Retaining wall<br>or garland drain<br>all along dumps | No Proposals                            | No additional proposal, existing is being maintained |   |
| 4 ј | Number of settling ponds   | No Proposals                            | Nil  | Nil   |
| 4k  | Specific comments of inspecting officer on waste dump management   | NA                                      | NA   | There are total 12 numbers of OB dumps which are old one. These dumps material proposed for backfilling in worked/mined out pits area as per the approved document. |

# 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. | proposed<br>before<br>commencement | No Backfilling was done , as no waste material generated during the year 2021-22 | No Backfilling was done , as no waste material generated during the year 2021-22 |
| 5b     | Area under<br>backfilling of<br>mined out area  | 1.23 На                            | No backfilling carried out during the year 2021-22                               | No overburden material generated during the year 2021-22                         |
| 5c     | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)     | Proposed by<br>2100 CuM            | Nil  | No top soil<br>generated during<br>the year 2021-22                              |

| 5d | Total area fully reclaimed and rehabilitated                               | 93.44 На | 82.76 На | Cumulative reclaimed and rehabilitated area in mining lease.   |
|----|--|----------|----------|--|
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | NA       | NA       | Scope of reclaimation and rehabiltation very well exists in some mined out pits area and accordingly proposals were also give but due no OB generation no works carried out. |

## 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). | To be submitted before 1st July of every year | PMCP report Submitted as per rule 26(2) of MCDR-2017 on 22.06.2022 |         |
| 6b     | Area available for rehabilitation (ha) .                                     | NA  | NA   |         |
| 6c     | afforestation done (ha).   | NA  | NA   |         |
| 6d     | No. of saplings planted during the year                                      | No Proposals                                  | Nil  |         |
| 6e     | Cumulative no .of plants   | NA  | 300415 plants  |         |
| 6f     | Any other method of rehabilitation   | No Proposals                                  | Nil  | Nil     |
| 6g     | Cost incurred on watch and care during the year                              | Not Specified                                 | Not Specified  | Nil     |

| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D | Proposed as 14.0Ha     | Acheived during the year<br>Nil | Total 11 Ha cumulative as on date    |
|----|--|------------------------|---------------------------------|--------------------------------------|
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings          | Proposed as<br>1.23 Ha | Acheived as Nil                 | Total 82.76 Ha cumulative as on date |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestati on on backfilled area        | Proposed as 0.40 ha    | Acheived as 0.40 ha             | Cumulative as on date about 37.72    |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir  | No Proposals           | Nil                             | Nil                                  |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.                  | No Proposals           | Nil                             | Nil                                  |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation                                   | No Proposals           | Nil                             | Nil                                  |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)                      | No Proposals           | Nil                             | Nil                                  |

| 60 | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation            | No Proposals                                     | Nil  | Nil   |
|----|---|--|--|---|
| 6p | Compliance of environmental monitoring (core zone and buffer zone)                                | Periodical Air, Water, Noise monitoring Proposed | Yes, Compliances of environmental monitoring is being carried out. | Analysis reports<br>were provided   |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | NA   | NA   | Scope of backfilling/reclam ation & rehabilitation very well exists in some mined out pits area and accordingly proposals are also given but due less/Nil generation of OB work couln't be acheived. Periodic monitoring is being carried out by outsourced consultant. |

### Mineral Conservation:

| Sl.No. | Item   | Propasals   | Actual work                                   | Remarks   |
|--------|--|---|---|---|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                 | 3,20,000 MT production proposed during the year 2021-22 | ROM /Cement grade -<br>22349 (Dispatched ) MT | Less production due to Land issue of proposed working area. |
| 7b     | Method of grade-<br>wise mineral<br>sorting i.e.<br>manual or<br>mechanical. | Mechanized<br>(Screening)                               | Mechanized (Screening)                        |   |
| 7c     | Different grade of mineral sorted out at mines.                              | No Proposals  | Nil   | Only Cement Grade<br>& Reject<br>separation                 |

| 7d | Any beneficiation process at mines .   | No Proposals | Nil, Screening system available, however in 2021-22 no screening was done. | Screening system available, however in 2021-22 no screening was done.  |
|----|--|--------------|--|--|
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | NA           | NA   | ROM scrushing and screening facility is available in mining lease area. This is captive mine hence entire ROM is being consumed in cement plant. |

### Environment:

| Sl.No. | Item  | Propasals   | Actual work   | Remarks   |
|--------|---|---|---|---|
| 8a     | Separate removal and utilization of topsoil (Rule 32)   | removal and   | Nil, no top soil<br>generated during the<br>year 2021-22    | No top soil<br>generated during<br>the year 2021-22               |
| 8b     | Concurrent use or storage of topsoil  | Concurrent utilization proposed for bunds formation proposed                | Nil   | No top soil generated during the year 2021-22                     |
| 8c     | Separate dumps<br>for overburden,<br>waste rock,<br>rejects and<br>fines (Rule 33)                | Overburden generated & its utilization for backfilling purpose was proposed | Nil   | No overburden<br>material generated<br>during the year<br>2021-22 |
| 8d     | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | OB to be disposed inside of pit for backfilling purpose.                    | OB, waste rock, rejects are not generated during this year. | No OB generated during the year 2012-22                           |

| 8e     | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Phased restoration was proposed by backfilling and plantation. | Not done  | No OB generated in the RY.   |
|--------|---|--|---|--|
| 8f     | Baseline information on existence of plantation and additional plantation done (Rule 41)                    | Not Specified  | Cumulative Plantation on Backfilling area is 300415       |  |
| 8g     | Survival rate   | Proposed as 85%  | Acheived about 80%  |  |
| 8h     | Water sprinkling<br>on roads to<br>control airborne<br>dust   | water on mine  | Water is being sprayed through water tanker on mine road. | Water tanker of 5KL capacity is provided for the purpose   |
| 8i<br> | General remarks of inspecting officer on aesthetic beauty in and around mines area                          | NA   | NA  | Aesthetic beauty in and around mine area is very much satisfactory as the huge plantation have been done in the lease area. Different species of saplings have been planted. |

# Compliance of Rule 45:

| Sl.No. | Item  | Propasals | Actual work  | Remarks   |
|--------|---|-----------|--|---|
| 9a     | Status of<br>submission of<br>Monthly and<br>Annual returns |           | Annual Return for the year 2021-22 submitted within time limit | Annual and monthly returns submitted copies were produced during mines inspection |

| 9b     | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Given     | Mines Manager cum Mining Engineer- Sh. Mukesh Kumar Thawait (w.e.f. 03/11/2020) Geologist- Sh. Manish Kumar Dixit (w.e.f 31/10/2019) Geologist - Mr. Shri Vipin Kumar Gautam (w.e.f 20-06-2022) | Both mining eng<br>and geologist were<br>present during<br>mines inspection |
|--------|---|-----------|---|---|
| 9c     | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Given     | Pits-238.90 Ha Reclaimed & Rehabilitated-38.64Ha OB Dumps-24.90Ha Infrastructure-14.03Ha Others-21.04 Ha  |   |
| 9d     | Scrutiny of<br>Annual return on<br>afforestation  | Given     | 2300 nos. of saplings planted in ML area and 1107 nos planted in outside ML area  |   |
| 9e     | Scrutiny of Annual return on mineral reject generation (Grade and quantity)                   | Not Given | No mineral rejects generated during the year 2021-22  | No mineral rejects<br>generated during<br>the year 2021-22                  |
| 9f     | Scrutiny of<br>Annual return on<br>ROM stock and/or<br>graded ore                             | Given     | Cement Grade:  O/S-Nil  Despatch-22349 MT  C/S-Nil  |   |
| 9g     | Scrutiny of Annual return on sale value, Ex. Mine price and production cost                   | Given     | Ex-Mine: Rs -169/Tonne, Captive consumption   | Captive<br>consumption  |
| 9h     | Scrutiny of<br>Annual return on<br>fixed assets   | Given     | Value of Fixed Assets-<br>Rs 466964255  |   |
| 9k<br> | Scrutiny of Annual return on mining machineries   | Given     | SHOVEL (Hydraulic) 4<br>CUM. 01 no.<br>DUMPER35 TONNER 02 nos.<br>BLAST HOST DRILL115 MM<br>01 no.<br>WATER TANKER 20KL 01 no.  |   |

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| Details of violations observed during current inspection and compliance position of violation pointed out |                         |                     |                         |  |
|---|-------------------------|---------------------|-------------------------|--|
| Viola   | tion observed           | Show couse position |                         |  |
| Rule NO.  | Issued on Compliance on | Rule NO.            | Issued on Compliance on |  |

Date : (SANJAY M. GIRHE)

Indian Bureau of Mines