

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

**MCDR INSPECTION REPORT**

**Jabalpur regional office**

**Mine file No :** MP/KTN/LST-283

**Mine code :** 38MPR47123

- (i) Name of the Inspecting : **S021** ) **GIRISH SHRIVASTAVA**  
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine : Shri Arpit Agrawal  
Official with  
Designation
- (iv) Date of Inspection : 22/06/2016
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **NANHWARA (18.09 HA)**
- (b) **Registration NO.** :
- (c) **Category** : B Manual
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : **MADHYA PRADESH**
- District : **KATNI**
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. : **NA**
- E-mail : **NA**
- Phone : **NA**
- (f) **Police Station** :
- (g) **First opening date** : 01/06/2007
- (h) **Weekly day of rest** :
2. **Address for** : **SHRI RAJ KISHORE AGRAWAL**  
**correspondance** **C/O GANESH MOTORS, JABALPUR ROAD,**  
**KATNI (M.P.) 483501**
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : **DOLOMITE** **Associated**  
**LIMESTONE** **Main**

## 5. Name and Address of the

Lessee : RAJ KISHORE AGRAWAL  
CIVIL LINES KATNI MADHYA  
PRADESH  
Phone:N. A.  
FAX :N. A.

Owner : RAJ KISHORE AGRAWAL  
CIVIL LINES KATNI MADHYA  
PRADESH  
Phone: N. A.  
FAX : N. A.

6. Date of approval of Mining : Modif.of approved Mining Plan 06/10/2008  
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 01/10/2012

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

## Exploration :

| Sl.No. | Item  | Proposals   | Actual work  | Remarks |
|--------|---|---|--|---------|
| 1a     | Backlog of previous year  | 06 boreholes and 03 boreholes were proposed during 12-13 and 13-14 respectively . | None, as informed by the lessee , backlock is due to financial constraint .  |         |
| 1b     | Exploration over lease area for geological axis 1 or 2              | The 1.123 ha area has been categorised under G-2 category .                       | The ML area is consist of 04 discontinous blocks and surface right is acquired over an area of 10.47 ha only.Out of 4 blocks two blocks are categorised under (122)on the basis of pit where as remaining twobloks are categorised under (333). The existing pit of main block having 30 m depth is considered under G-2. Though the mineral is existing in depth but as no proposal of borehole is given in pit botton therefore depth continuity may not be proved beyond 30 m .The proposed BH is 30m depth |         |
| 1c     | Exploration Agencies and Expenditure in lakh rupees during the year | None  | None   |         |
| 1d     | Balance area to be explored to bring Geological axis in 1 or 2      | 11.23 ha ha area is to be explored under G-1 and 6.86 ha under G-2 and G-1        | The backlock of exploration is there . The depth of existing pit i.e. 30 m and its influence may be categories under G-1 ( in next document which is due in DEC 16 . ) .   |         |
| 1e     | Balance reserve as on 01/04/20                                      | 2920195 tonnes as on 01/04/16   | 2947714 tonnes as on 01/04/16 . if the proposed production of 16-17 is achieved the balanace reserves will be 2902827 tonnes as on 10/04/17 . existing proposal is upto 01/04/17 .   |         |

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| 1f | General remarks of inspecting officers on geology, exploration etc | None | In order to prove the lateral extention of deposit ,the proposed exploration is adequate but to know the depth continuity beyond 30 m depth which is exposed depth of existing pit , the exploration in pit bottom need to be proposed in next document . . |
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#### Development :

| Sl.No. | Item  | Propasals   | Actual work  | Remarks   |
|--------|---|---|--|---|
| 2a     | Location of development w.r.t.lease area  | Between grid 2656310 to 2656330 (N-S) and 454540 to 454680 (E-W)  | The working during 15-16 was carried out at the proposed site.   |   |
| 2b     | Separate benches in topsoil, overburden and minerals (Rule 15)                          | One bench each in soil and overburden and 4 benches in Limestone .  | Separate bench in soil and shale and Limestone has been developed .  |   |
| 2c     | Stripping ratio or ore to OB ratio  | 1.092   | 1.032  |   |
| 2d     | Quantity of topsoil generation in m3  | 8100 cu. m  | 5000cu m   |   |
| 2e     | Quantity of overburden generation in m3   | Shale - 6600 cu m   | 8800 cu m  |   |
| 2f     | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Proposal was to developed one bench of 3m height in soil and one banch in shale of 3m height and 4 bench in Limestone of 6 m height . | The pit has been developed at the proposed site . The soil bench is 1-1.5 m height and shale bench is 2.5 to 4m .Three mineral benches are developed and varies in hight 6 m to 14 m . | The volation of rule 13(1) of MCDR 88 was issued for bench height of 14 m . |

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#### 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   | !5-16 - 25500 cu m  | Production of Limestone during 15-16 - 44443 tonnes   |
| 3c | Recovery of sailable/usable mineral from ROM production   | 44625 tonnes - 15-16  | 44443 tonnes -15-16   |
| 3d | Quantity of mineral reject generation   | None  | none  |
| 3e | Grade of mineral rejects generation and threshold value declared.                               | None  | none  |
| 3f | Quantity of sub grade mineral generation.   | None  | None  |
| 3h | Manual / Mechanised method adopted for segregating from ROM                                     | Mechanised method   | Mineral is segregated mechanically .  |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | None  | None  |
| 3j | Provision of drilling and blasting in mineral benches   | Drilling by Jackhammer , 32 mm hole of 1.5 m depth . Explosive - Powder gel /ANFO , detonating fuse and safety fuse | Balsting done in sub benches with the help of Jackhammer , 32 mm hole of 1.5 m depth given by Jackhammer. The balsting is carried out for heaving and fragmentation fo masive Limestone . The ANFO and powder gel was used as explosive . |

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|----|--|---|---|---|
| 3k | Provision of mining machineries in mineral benches   | Dumper and shovel combination , shovel of 1.2 cu m and dumpers 10 to 22 cu m capacity ,. Drilling by Jack hammer and compressor | The mining has been done wiht the help of Shovel -dumper combination .The excavator is of 1.2 cu m L& T Pc -200 , Drilling has been caried out with Jackhammer and altas compressor . The transportation of mineral has been done with help of dumpers of 10 cu m                     |   |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | 3 m each in Soil and shale and 6 m height in mineral  | The height of soil bench is 1- 1.5 m and shale - 3-4m whereas height of mineral bench varies between 6m 14 m . Since it is 'A category OTFM mine ,The mecahnised proposal has been given for mining and the proposed height is suitable for for the method of mining prposed in SOM . |   |
| 3m | Total area covered under excavation/pits   | 1.96 ha   | The size of pit was 2.24 ha as on date of inspection  | The size of pit is due to proposal of 16-17 |
| 3n | Ore to OB ratio for the pit/mine during the year.  | 1.092   | 1.032   |   |
| 3o | Total area put in use under different heads at the end of year                                       | Pit 1.5 ha , soil dump -0.8 , Waste dump - 1.2 ha , site services -0.09 ha  | Pit - 2.24 ha , One soil dump - 0. 0. 24 ha , two waste dump -1.02 ha , site services -0.09 ha  |   |
| 3p | Production of ROM mineral during the last five year period as applicable                             | 12 -13 - 44975 tonnes , 13- 14 -44625 tonnes , 14-15 - 44940 tonne , 15-16- 44625 tonnes  | 12 - 13 - 25231 tonnes , 13-14 - 37302 tonnes , 14-15 -44669 tonnes , 15-16 - 44443 tonnes  |   |

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| 3q | General remarks of inspecting officers on method of mining etc. | Proposal was given for 'A' category of mine ( OTFM ) , mining was proposed with the help of shovel -dumper combination, drilling and blasting with help of Jack hammer ( 32 dia and 1.5 m depth ) . two benches in OB and 4 benches in mineral was proposed . | The mining has been carried out at the proposed site . The mining has been done with shovel of 1. 2 cu m and dumper of 10 cu m capacity . The jack hammer has been used for drilling holes . The separate benches has been developed in OB and mineral . The mineral benches have not been developed as per proposal , height of benches in mineral varies between 6 to 14 m .The tranporattion of mineral from pit botom to surface is done by the dumper |
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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 dumps for top soil and OB /waste                                       | Separate dumping has been carried out. One Top soil and two waste/OB dump were observed .  |         |
| 4b     | Location of topsoil, OB and mineral reject dumps                 | Soil dump - NE corner of block . Two waste dump -1- south of pit 2- east of pit | Soil dump of 40m x50 m x2.5 m was observed at NE corner of block and waste dump of 60mx 50 m x5 m size is situated at south of existing pit and another dump of 80m x90 m x15 m is situated towards east side of existing pi t.                                    |         |
| 4d     | Location of dumps w.r.t. ultimate pit limit (Rule 16)            | The dumps are proposed within UPL   | ALL dumps are stuated within UPL . soil dump of 40m x50 m x2.5 m was observed at NE corner of block and waste dump of 60mx 50 m x5 m size is situated at south of existing pit and another dump of 80m x90 m x15 m is situated towards east side of existing pi t. |         |
| 4e     | Number of active and alive dumps.                                | Three active dumps  | One soil dump and two waste dumps situated within Ml area are active dumps .   |         |

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| 4f | Number of dead dumps.  | None  | None  |
| 4g | Number of dumps established.                                       | None  | None  |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | None , however it is stated that the non active sites will be stablised , vegetated and suitably terraced .         | None  |
| 4i | Length of Retaining wall or garland drain all along dumps          | None  | None  |
| 4j | Number of settling ponds   | None  | None  |
| 4k | Specific comments of inspecting officer on waste dump management   | The proposed side of dump are temp. It is proposed that the dupms will be rehandle on availability of matured area. | Though the dumps are kept withing UPL but theses dumps are kept at distance of 100m to 200 m from existing pit . Therefore, immediatly there is no spacific problem related to dumps management . However, the retaining wall / graland drain etc need to be proposed in next document which is due on Dec 16 . |

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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. | There is no matured area for backfilling therefore there is no proposal | None        |         |
| 5b     | Area under backfilling of mined out area  | None  | None        |         |
| 5d     | Total area fully reclaimed and rehabilitated  | No area is matured for reclamation and rehabilitation                   | None        |         |



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|----|--|--|---|
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | No area is matured for recalation and rehabilitation | Since the mineral is persisting in depth therefore no area is matured for reclamation . There is no proposals of reclamation / rehabilitation in the approved scheme of mining also . |
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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).                               | None                 | None  |         |
| 6b     | Area available for rehabilitation (ha) .   | None                 | None  |         |
| 6c     | afforestation done (ha).   | 20 plants every year | 200- 250 plants were observed   |         |
| 6d     | No. of saplings planted during the year  | 20 saplings          | 20 saplings   |         |
| 6e     | Cumulative no .of plants   | None                 | 200-250 plants were observed along the western boundary   |         |
| 6f     | Any other method of rehabilitation   | None                 | None  |         |
| 6g     | Cost incurred on watch and care during the year  | 20000/-              | not available   |         |
| 6h     | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D | None                 | Mineral is persisting in depth as such ther is no matutured area for reclamation / rehabilitation |         |
| 6i     | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings          | None                 | Mineral is persisting in depth as such ther is no matutured area for reclamation / rehabilitation |         |

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|----|---|---|---|
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area         | None  | Mineral is persisting in depth as such there is no matured area for reclamation / rehabilitation/ backfilling   |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | None  | None  |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.                  | None  | Mineral is persisting in depth as such there is no matured area for reclamation / rehabilitation  |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation                                  | None  | There is no waste land , however 200-250 plants were observed along western boundary  |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)                      | None  | None  |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation                     | None  | None  |
| 6p | Compliance of environmental monitoring (core zone and buffer zone)  | Environment monitoring station within core zone | The environment monitoring has not been done on regular basis and no data has been maintained .   |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.         | None  | Mineral is persisting in depth as such there is no matured area for reclamation / rehabilitation. The afforestation has been done at western boundary by 200-250 plants . The retaining wall need to be proposed around the soil dump in next document which is due in Dec . 16 . |

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 Mineral Conservation:
 

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| Sl.No. | Item   | Propasals                           | Actual work   | Remarks |
|--------|--|-------------------------------------|---|---------|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                           | 44625 tonnes during 15-16           | 44443 tonnes during 15-16   |         |
| 7b     | Method of grade-wise mineral sorting i.e. manual or mechanical.                        | Grade-wise sorting was not proposed | The Limestone is of SMS grade and grade -wise sorting is not required .   |         |
| 7c     | Different grade of mineral sorted out at mines.  | None                                | The Limestone is of SMS grade and grade -wise sorting is not required .   |         |
| 7d     | Any beneficiation process at mines .   | None                                | None  |         |
| 7e     | General remarks of inspecting officer on Mineral conservation and beneficiation issues | None                                | The mineral is of SMS grade and sorting of Limestone from ROM has been done mechanically . There is no sub grade or reject, as such there is no problem in respect of conservation of mineral .The complete mineral is saleable . |         |

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## Environment:

| Sl.No. | Item  | Propasals   | Actual work  | Remarks |
|--------|---|---|--|---------|
| 8a     | Separate removal and utilization of topsoil (Rule 32) | Separate Ob bench and separate dump of top soil has been proposed . | One bench in soil has been developed and soil is kept as separate dump at NE corner . Since no area is matured for backfilling /rehabilitation , the top soil has not been utilized. |         |
| 8b     | Concurrent use or storage of topsoil                  | None  | soil is kept as separate dump .  |         |

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| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33)                                      | One dump of soil and two dumps of waste /Ob was proposed . | The separate dumps are made for soil and waste /OB .  |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use           | None   | No area is matured for backfilling therefore soil/ Ob /waste dump has not been utilized for any restoration . |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | None   | Since the mineral is persisting in depth, no matured land is there at present for restoration .               |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41)                    | 20 plants every year                                       | 200-250 plants were observed along the western boundray .   |
| 8g | Survival rate   | None   | 200-250 plants were observed  |
| 8h | Water sprinkling on roads to control airborne dust  | None   | None  |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area                          | None   | The aesthetic beauty in and around the mine is in goog condition .  |

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Compliance of Rule 45:

| Sl.No. | Item   | Propasals  | Actual work   | Remarks |
|--------|--|--|---|---------|
| 9a     | Status of submission of Monthly and Annual returns | Annual return for 15-16 has not been submitted . | The annual return for 15-16 has not been submitted however monthly returns upto May 2016 has been received in this office . |         |

|    |   |  |                               |
|----|---|--|-------------------------------|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Annual return for 15-16 has not been submitted . | A R for 15-16 not submitted . |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9d | Scrutiny of Annual return on afforestation  | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity)                   | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore                                      | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost                   | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9h | Scrutiny of Annual return on fixed assets   | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |
| 9k | Scrutiny of Annual return on mining machineries   | AR for 15-16 not submitted                       | AR for 15-16 not submitted    |

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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 |
| Rule 13(1)         | 18/07/2016 |               |                     |           |               |
| Rule 45(5)(b)      | 18/07/2016 |               |                     |           |               |

**Date :****(GIRISH SHRIVASTAVA)**

Indian Bureau of Mines