

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

**MCDR inspection REPORT**

**Jabalpur regional office**

**Mine file No :** MP/KATNI/LST-146

**Mine code :** 38MPR18096

- (i) Name of the Inspecting : **G006** ) **ABHISHEK RANJAN GAUTAM**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri P D Awasthi - Reprmentative, Shri Punit Shukla, G  
Official with  
Designation
- (iv) Date of Inspection : 31-JAN-23
- (v) Prev.inspection date : 20-SEP-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **JAMUWANI**
- (b) **Registration NO.** : **IBM/19502/2015**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **MADHYA PRADESH**
- District : **KATNI**
- Village : **JAMUWANI KHURD**
- Taluka : **V.GARH**
- Post office : **JAMUWANI**
- Pin Code :
- FAX No. : **NA**
- E-mail : **pd\_awasthi@rediffmail.com**
- Phone : **8458989480**
- (f) **Police Station** : **Kymore**
- (g) **First opening date** : **09-SEP-83**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **S/o Late LAL RAJENDRA SINGH BAGHEL**  
**correspondance** **VIJAYRAGHOGARH, KATNI (M.P.) 483775**
3. (a) **Lease Number** : **MPR0252**
- (b) **Lease area** : **5.96**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **07-SEP-33**
4. **Mineral worked** : **LIMESTONE** **Main**

## 5. Name and Address of the

Lessee : Arunesh Pratap singh  
 S/o Late Rajendra Singh  
 Baghel, P.O Vijairaghogarth  
 District Katni KATNI MADHYA  
 PRADESH  
 Phone:  
 FAX :

Owner : Arunesh Pratap singh  
 S/o Late Rajendra Singh  
 Baghel P.O.Vijairaghogarth  
 District Katni (MP)483775  
 KATNI MADHYA PRADESH  
 Phone:  
 FAX :

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	21-JUN-00
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	25-FEB-10
		Mining Scheme rule 12 MCDR1988	04-NOV-15
		MP review under 17(1) MCR 2016	03-APR-19

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	The RMP was approved on 03/04/2019, for the period 2019-20 to 2023-24. In which 02 boreholes ,total meterage 80m. proposed in the year 2019-20.	During 2019-20 not done. 02 Boreholes done in the year 2020-21.	
1b	Exploration over lease area for geological axis 1 or 2	02 boreholes ,total meterage 80m. proposed in the year 2019-20 for exploration over lease area for geological axis 1.	Proposed exploration done in 2020-21. Total lease area 5.958ha. has been categorised under the G2 category .	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed.	02 Boreholes done in the year 2020-21 .The boreholes were drilled by local agencies ,the expenses in two boreholes about 1.5lakh rupees.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	02 boreholes ,total meterage 80m. proposed in the year 2019-20 for exploration over lease area for geological axis 1.	Proposed exploration done in 2020-21. Total lease area 5.958ha. has been categorised under the G2 category .The further exploration done as proposed to ascertain existence of any limestone band beyond shale in depth.	
1e	Balance reserve as on 01/04/20		The Balance reserves as on 01/04/2021 is 1773853 tonnes under 122 category & resources 866000 tonnes under 222 category.	

1f	General remarks of inspecting officers on geology, exploration etc	The lease area lies along the foot hill of kymore hill range, the limestone strata dip 4 degree to 45 degree nothernly. The strike direction varies from N 60degree E-S 60degree W to N 70degree E-S 70degree W .Total lease area 5.958ha. has been categorised under the G2 category .The further exploration done as proposed to ascertain existence of any limestone band beyond shale in depth.
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## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North, West side and in depth of existing pit and also lease area.	Developement done in proposed area.	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	One bench of 4.5m. hight in topsoil/shale and 3 benches in mineral of 6m. hight proposed .	The existing single pit was found waterlogged below 4-5m. depth during inspection. As per representative of lessee/mining engineer the topsoil/shale as overburden encounter upto 10m. depth in northern face while in western side it varies from 5- 6m.Hence two o/b bench of average 4.5m. hight in northern face & one in western face of 4.5-5m. hight with 02 limestone bench of 5-6m. hight with maximum depth of 20-21m. worked as proposed.	
2c	Stripping ratio or ore to OB ratio	1:0.44	1:0.14	
2d	Quantity of topsoil generation in m3	4792 cubic meter	About 4500 cubic meter Topsoil/soil generated which is more compare to proposals as about 10m. hight of topsoil/soil encounter in northern face in place of 4.5m. topsoil/shale.	
2e	Quantity of overburden generation in m3	17706 cubic meter	17210 cubic meter	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The topsoil/soil generation increased and o/b and waste generation decreased compare to proposals as northern side of face incresed hight of topsoil/soil. The developement done in proposed site.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	One pit(advancement towards North & West side)	Actual one pit(advancement towards North & West side) of lease area and existing pit.
3b	Quantity of ROM mineral production proposed	129132 tonnes	Actual 115710 tonnes
3c	Recovery of sailable/usable mineral from ROM production	80%	About 75%
3d	Quantity of mineral reject generation	Not proposed	Not generated.
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not Applicable.
3f	Quantity of sub grade mineral generation.	Not proposed	Not Applicable.
3g	Grade of sub grade mineral generation	Not proposed	Not Applicable.
3h	Manual / Mechanised method adopted for segregating from ROM	Only manual sizing & sorting	Done manually.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Not Applicable.
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed in mineral benches.	Drilling & blasting carried out as proposed.
3k	Provision of mining machineries in mineral benches	Excavator & dumpers combination proposed in mineral benches.	One Excavator of 1.2cu.m. bucket capacity & ten dumpers of 10tonnes capacity deployed as proposed in mineral benches.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	One bench of 4.5m. hight in topsoil/shale and 3 benches in mineral of 6m. hight proposed .	The existing single pit was found waterlogged below 4-5m. depth during inspection. As per representative of lessee/mining engineer the topsoil/shale as overburden encounter upto 10m. depth in northern face while in western side it varies from 5- 6m.Hence two o/b bench of average 4.5m. hight in northern face & one in western face of 4.5-5m. hight with 02 limestone bench of 5-6m. hight with maximum depth of 20-21m. worked as proposed.
3m	Total area covered under excavation/pits	2.10 ha	As per proposal
3n	Ore to OB ratio for the pit/mine during the year.	1:0.44	1:0.14
3o	Total area put in use under different heads at the end of year		Corrent working - 2.10 ha Dump - 1.20 ha Reclaimed - 0.10 ha Infrastructure - 0.450 ha
3p	Production of ROM mineral during the last five year period as applicable	The production proposed in 2017-18--- 109452 tonnes, 2018-19--- 100595 tonnes, 2019-20--- 147888 tonnes 2020-21--- 127080 tonnes 2021-22 - 129132 tonnes.	The yearwise production of limestone achieved from this mine was as below:- 2017-18---00 tonnes, 2018-19---102756 tonnes, 2019-20---128600 tonnes 2020-21---85116 tonnes 2021-22 - 115710 tonnes.

3q	General remarks of inspecting officers on method of mining etc.	The mine working carried out as proposed by drilling, blasting and using excavator and dumper combination for loading mineral and o/b in proposed site. The protective bund made as proposed with backfilling in 7.5m. excavated area in existing pit.
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#### Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Topsoil/soil proposed for dumping in South side of the lease area ,o/b and waste generation proposed for dumping.	Dumping done as per proposal but bakcfilling not done.	
4b	Location of topsoil, OB and mineral reject dumps	Topsoil/soil proposed for dumping in South side of the lease area, o/b and waste generation proposed for dumping in west side of lease.	Dumping done as per proposal but bakcfilling not done.	
4c	Number of dumps within lease area and outside of lease area	One waste dump within lease area.	One waste dump within lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	In western side of lease area beyond UPL.	Protective bund and waste dumps beyond UPL.	
4e	Number of active and alive dumps.	One waste dump	Actual one waste dump and one top soil/soil bund.	
4f	Number of dead dumps.	Not proposed	Not applicable	



4g	Number of dumps established.	Not proposed	04 old waste and soil dumps naturally /established by plantation over waste and soil dumps.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Garland drain made south side of active waste dump and made channel for wash out of rain water over protective bund.	
4i	Length of Retaining wall or garland drain all along dumps	Not proposed	Garland drain made about 50m. length south side of active waste dump and made channel for wash out of rain water along over protective bund.	
4j	Number of settling ponds	Not proposed	. Not Applicable.	
4k	Specific comments of inspecting officer on waste dump management			Dumping done as per proposal but bakcfilling not done.

#### 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.	Full extractionproposed	full extraction adopted	
5b	Area under backfilling of mined out area	Not proposed.	About 1000 square meter 7.5m. barrier zone backfilled in 2020-21 & so for about 0.2ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Top soil dumping done in proposed site	
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Not applicable.	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	At present the lease area is not exploited at full minable depth hence not applicable. However as proposed 2000 square meter excavated 7.5m. barrier zone backfilled in 2019-20
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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The annual report of PMCP to be submitted.	The annual report of PMCP for the year 2020-21 submitted .	
6b	Area available for rehabilitation (ha) .	Not proposed.	Not applicable.	
6c	afforestation done (ha).	0.001ha.	Actually about 0.084ha.	
6d	No. of saplings planted during the year	The afforestation of 10 trees proposed .	Actually during the year about 200-250 saplings planted over protective bund. but backfilling & plantation not done.	
6e	Cumulative no .of plants	Not proposed.	Cumulative plantation about 500 trees over old dumps, near mine office over protective dumps. Also apart from this about 50-60 old trees present in the lease area.	
6f	Any other method of rehabilitation	Not proposed.	Not applicable.	
6g	Cost incurred on watch and care during the year	Not proposed.	Not applicable	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not proposed	. Cumulative about 0.2ha. area of 7.5m. excavated barrier zone was backfilled as proposed and it will be rehabilitated by plantation.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	. However as proposed 2000 square meter excavated 7.5m. barrier zone backfilled in 2019-20 and remaining part backfilled in 2020-21 about 9000 cu.m. generated waste/over burden utilised for backfilling.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Plantation proposed over 500 sq.m. backfilled area.	Backfilling lagging and completed later hence afforestation will be scheduled over this. Lessee has already planted 250-300 trees this year against 10 proposals.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	. Not applicable.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	. Not applicable.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	. Not applicable.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	. Not applicable.

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed .	Not applicable.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Envirnomenta l monitoring Proposed .	Monitoring of water and ambient air quality done in the mine in core zone and buffer zone & which is well within permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Lessee has submitted yearly PMCP report.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal - 129132 tonns	Achieved - 115710 tonnes Dispatch - 125013 tonnes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Grading proposed for BF ,SMS & Cement grades of limestone.	Done as proposed .	
7d	Any beneficiation process at mines .	Not proposed.	Not applicable.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			The Manual sizing and sorting of minral limestone carried out.

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#### Environment:

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Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, proposed	Top soil stacked in separate dump	
8b	Concurrent use or storage of topsoil	Used for plantation over backfilled area.	Done as proposed.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed separate waste dumps for o/b,waste rocks.	Done as proposed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed waste dumping & backfilling in 7.5m. excavated barrier.	Done dumping & remaining backfilled proposed in 7.5m. excavated barrier zone. but Backfilling not done as proposed	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed.	Not Applicable.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Protection of existing trees as well plantation of 10 trees .	Cumulative plantation about 500 trees over old dumps,near mine office over protective dumps.Also apart from this about 50-60 old trees present in the lease area.During the year about 125 trees planted.	
8g	Survival rate	80%	About 80%	
8h	Water sprinkling on roads to control airborne dust	Proposed as required.	water sprinkling done as and when required.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Due to plantation the asthetic beauty in and around mines area seems good.

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. submitted upto-Jan-2023 A.R. submitted upto-2021-22	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer - Shri Abhishek Tiwari Geologist - Shri Punit Shukla	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		Corrent working - 2.10 ha Dump - 1.20 ha Reclaimed - 0.10 ha Infrastructure - 0.450 ha	
9d	Scrutiny of Annual return on afforestation		125 Tree planted	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		Not given as reject not generated.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		Opening stock - 21195 Production - 115710 Tonnes Dispatch - 125013 Tonnes Closing Stock - 11892 Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Ex mine price - Rs 425/- Production cost - Rs 253/-	
9h	Scrutiny of Annual return on fixed assets		Value of Fixed Assets (in .) Rs 564675/-	
9k	Scrutiny of Annual return on mining machineries		Shovel 01 of 1.2cu.m. capacity & dumpers 10 of 10tonnes deployed.	The details given seems to be correct.

**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)	16-MAR-23			
MCDR17	Rule 27(1)	16-MAR-23			
MCDR17	Rule 34(1)	16-MAR-23			

**Date :**

**(ABHISHEK RANJAN GAUTAM)**

Indian Bureau of Mines