

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

**MCDR inspection REPORT  
Jabalpur regional office**

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

**Mine code :** 38MPR18096

- (i) Name of the Inspecting : **P014** ) **JAY KUMAR PANDEY**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Sh. P.D.Awasthi, rep. of lessee & Sh. Abhisek Tiwari,  
Official with  
Designation
- (iv) Date of Inspection : 20-SEP-21
- (v) Prev.inspection date : 06-FEB-20

**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 : 10  
(d) Date of Expiry : 07-SEP-03
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.	Core/bore logs preserved but record in form J not maintained, for which violation of rule 48(1) of MCDR, 2017 pointed out.
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	Not proposed.	The Balance reserves as on 01/04/2021 is 1457000 tonnes under 122 category & resources 877000 tonnes under 222 category.	

1f	General remarks of inspecting officers on geology, exploration etc	Not proposed.	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 and West side of existing pit and also lease area.	Development 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	1:0.51	1:0.30	

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2d	Quantity of topsoil generation in m3	6606 cu.m.	About 10000 cu.m. 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	19314 cu.m.	About 12880 cu.m.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not proposed.	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 development done in proposed site.

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#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit (advancemen t 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	127080 tonnes	Actual 85116 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.	

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3f	Quantity of sub grade mineral generation.	Not proposed	Not generated.
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	.53ha.	About .5ha. during the year and cumulative about 1.8ha. The size of old pit was 15-140mx75-140mx10-19m was extended towards north & west side of lease area & existing pit extending 25-30x 100-110mx20-22m. additionally.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.51	1:0.30
3o	Total area put in use under different heads at the end of year	The total area put in use under different heads at the end of 2020-21 was proposed about 3.0ha.	During inspection it was observed that about 1.8ha. area occupied by existing pit, 0.6ha. area occupied by existing dumps & protective bund and .15ha. area by roads and infrastructure & .2 ha. for plantation near mine office and road side..
3p	Production of ROM mineral during the last five year period as applicable	The production proposed in 2016-17--- 113980t, 2017-18---109452t, 2018-19--- 100595t, 2019-20---147888t & 2020-21--- 127080t.	The yearwise production of limestone achieved from this mine was as below:- 2016-17- 0 tonnes, 2017-18- 0 tonnes, 2018-19- 102756tonnes, 2019-20- 128600tonnes & 2020-21 - 85116tonnes.
3q	General remarks of inspecting officers on method of mining etc.	Not proposed.	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 backfillinf in 7.5m. excavated area in existing pit.

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Solid Waste Management - Dumping:

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Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Topsoil/soil proposed for protective bund ,o/b and waste generation proposed for dumping.	As proposed topsoil/soil generated about 10000 cu.m. used/dumped and made protective bund cumulative so for 120x7x3m in northern side of lease area to arrest the rain water inrush in existing pit ,o/b and waste generation proposed for dumping during the year 2020-21 but as waste/over burden generation is less during 2019-20 hence proposed backfilling in 7.5m. excavated barrier zone was backfilled this year and some quantity dumped in western side as proposed..
4b	Location of topsoil, OB and mineral reject dumps	Topsoil/soil proposed for protective bund location not shown,o/b and waste generation proposed for dumping in west side of lease.	As proposed made protective bund cumulative so for 120x7x3m in northern side of lease area ,o/b and waste generation proposed for dumping during the year 2020-21 but some quantity used for backfilling in 7.5m. excavated barrier zone and some quantity dumped in western side as proposed..
4c	Number of dumps within lease area and outside of lease area	One waste dump within lease area.	One protective dump of top soil/soil and one waste dump of 50x20x3m. in western part of lease area as proposed also backfilling carried out in remaining area of 7.5m. excavated lease boundary during this year. Old 04 waste and soil dumps exists in the 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 protective bund.
4f	Number of dead dumps.	Not proposed	04 old waste and soil dumps.
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 in 2020-21.	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 in 2020-21.	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	Not proposed	. The waste disposed as proposed for backfilling of excavated 7.5m. barrier zone and dumped in proposed site also topsoil/soil dumped for protective bund as proposed in northern side of lease boundary to arrest the rain water to inrush in working pit.

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Solid Waste Management - Backfilling:

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Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Backfilling not proposed in the RMP as full extraction of mineral from lease area not done ,however backfilling proposed in the year 2019-20 in 7.5. excavated barrier zone about 2000 square meter area.	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 and remaining part backfilled in 2020-21 about 9000 cu.m. generated waste/over burden utilised for backfilling.
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.	Proposed and utilised for protective bund during the year 2020-21 about 50x7x3m. size of bund made.
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Not applicable.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed.	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 and remaining part backfilled in 2020-21 about 9000 cu.m. generated waste/over burden utilised for backfilling.

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Progressive Mine Clousre Plan:

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Sl.No.	Item	Propasals	Actual work	Remarks
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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 not submitted .	Hence violation of rule 26(2) pointed out.
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 250-300 saplings planted over protective bund.	
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.	About 1.5 lakh rupees during 2020-21.	
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)	Environmental 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.	Not proposed .	Lessee has not submitted yearly PMCP report. During inspection mine pit was found water logged, dewatering work in progress.Plantation done in the lease area,backfilling done as proposed ,protective bund made as proposed and done plantation over it.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual sizing and sorting of minral limestone proposed for the year 2020-21.	Done as proposed.	
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	Not proposed.	Only manual sizing & sorting .	The Manual sizing and sorting of minral limestone carried out.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal of 6606cum top soil/soil proposed and utilisation for making protective bund proposed.	About 10000cum. top soil/soil generated during the year and utilised for making protective bund as proposed.
8b	Concurrent use or storage of topsoil	utilisation for making protective bund proposed.	Done as proposed.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed separate waste dumps for o/b,waste rocks.	one waste dump of 50x20x3m. in western part of lease area as proposed also backfilling carried out in remaining area of 7.5m. excavated lease boundary during this year as 12880cum waste & o/b generated .
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 in 7.5m. excavated barrier zone.
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 250-300 trees planted.

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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	Not proposed.	Not applicable.	During the year about 250-300 trees planted. 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. Due to plantation the aesthetic beauty in and around mines area seems good.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	The monthly and annual returns submitted generally online in due date. The monthly return submitted upto August 2021 & Annual return submitted upto 2020-21.	The monthly returns submitted upto August 2021 & Annual returns submitted upto 2020-21.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not given.	Sh. Abhisek Tiwari, Mining engineer appointed.	violation of rule 46 pointed out as Mining Engineer appointed in the mine but the intimation in form H not given in this office .

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use pattern under different heads filled.	Land use pattern data under different heads filled and observed about correct. Pits-1.8ha., Waste disposal-1.05ha.infrastructure & Roads-.4ha	The updated plans/sections as required under rule 32 of MCDR ,2017 not submitted in this office ,hence violation of rule 33 pointed out.
9d	Scrutiny of Annual return on afforestation	300 trees plantation reported in AR.	About 250-300 trees newly plantation observed.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Not given as reject not generated.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock- nil, Graded ore SMS grade limestone- 21195tonnes.	The quantity of ROM stock-nil & graded ore observed about 20000tonnes correct.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price- Rs 356/-, Sale value- approximate Rs 356/- & cost of production given Rs 317/-	The details given seems to be correct.	
9h	Scrutiny of Annual return on fixed assets	Fixed assets not mentioned.	Discussed with representative of lessee regarding this issue.	
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.	

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**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 26(2)	29-SEP-21			
MCDR17	Rule 33	29-SEP-21			
MCDR17	Rule 46(b)	29-SEP-21			
MCDR17	Rule 48	29-SEP-21			

**Date :**

**(JAY KUMAR PANDEY)**

Indian Bureau of Mines