

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/REWA/LST-46

Mine code : 38MPR33034

- (i) Name of the Inspecting : **G007**) **RAGHUBIR SHARAN GARG**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri S.K.Shartma, Vice President (Mines)
Official with
Designation
- (iv) Date of Inspection : 03-MAR-22
- (v) Prev.inspection date : 10-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BANKUIYAN (54.613 HA)**
- (b) **Registration NO.** : **IBM/720/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : REWA
Village : MARHA
Taluka : HUZUR
Post office : JAYPEE NAGAR
Pin Code : 486450
FAX No. : 07662-29218
E-mail : jrp.mines@jalindia.co.in
Phone : 07662-400700
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : JAIPRAKASH ASSOCIATES LTD.
correspondance P.O. JAYPEE NAGAR, DIST. REWA (M.P.) 486450
3. (a) Lease Number : MPR2134
(b) Lease area : 54.61
(c) Period of lease : 50
(d) Date of Expiry : 31-DEC-54
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : JAIPRAKASH ASSOCIATES LTD.
 P.O. JAYPEE NAGAR, REWA
 MADHYA PRADESH
 Phone:N. A.
 FAX :N. A.

Owner : JAIPRAKASH ASSOCIATES LTD.
 P.O. JAYPEE NAGAR, REWA
 MADHYA PRADESH
 Phone: +911126141540
 FAX : N. A.

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	28-MAY-03
Plan/Scheme of Mining		Fresh under rule 22 MCR1960	24-MAY-07
		Mining Scheme rule 12 MCDR1988	18-MAY-11
		Mining Scheme rule 12 MCDR1988	25-JUL-16

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Ttotal 7 nos. of exploratory bore holes (03 & 04 nos. of exploratory bore holes for each year 2016-17 and 2017-18 backlog) .	Not Carried out	Violation pointed
1b	Exploration over lease area for geological axis 1 or 2	6 boreholes proposed	not carried out	In fact a new document having prioposal from 2021-22 to 2025-26 has been approved on 25/06/2021. As there were backlog of exploratory work, 6 boreholes againproposed against year 2021-22 in the light of rule 12(40 of MCDR,2017. But upto the almost end of 2021-22 such proposed exploratory work was not get started. Violation pointed out.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Prioposed	Not Applicable as exploration not carried out	proposed Exploration not carried out.
1d	Balance area to be explored to bring Geological axis in 1 or 2	5.15hect	Not Carried out	There is a need of completion of exploratory work , violation pointed out.

1e	Balance reserve as on 01/04/20	Ason 01/04/2021 3134903 tonne under G1 LEVEL AND 336900Tonne under G2 LEVEL	Actual production in year 2021-22 was 349020tonne. So as on 01/04/2022 mineral reserves under G1 level is 2785883tonne and 336900Tonne under G2 LEVEL	Exploratory work not carried out. However there are remains reserves for another 4-5 years based on proposed rate of production i.e 600000tonne per year.
1f	General remarks of inspecting officers on geology, exploration etc			In fact a new document having prioposal from 2021-22 to 2025-26 had been approved on 25/06/2021. As there were backlog of exploratory work, 6 boreholes again proposed against year 2021-22 in the light of rule 12(4) of MCDR,2017. But upto the almost end of 2021-22 such proposed exploratory work was not get started. Violation pointed out.However there are remains reserves for another 4-5 years based on proposed rate of production i.e 600000tonne per year

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	<p>year 2020-21 First pit N2300 to N2530 W1620 to W1420</p> <p>year 2021-22 between N272300 & 2723200 and E518800 & E519400 Second pit N2170 to N2490 W1220 to W870 year 2021-22</p>	Actual development not reached upto the site and production benches also lagging.	Violation pointed out
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	<p>proposed, in OB bench consist of top soil , height varies from 1-8m and in mineral, bench height of frist bench is proposed 7m and second bench is 4.0m</p>	Bench height and apparting distances between them were observed more or less as per proposal	OK
2c	Stripping ratio or ore to OB ratio	Year 2020-21 1:0.24	1:0.19	Comparatively little Less developmentof OB bench.
2d	Quantity of topsoil generation in m3	100800cum	35669cum	Actual development were lagging. The deviations have taken in toconsideration in new document approved on 25/06/2021 for the period from 2021-22to 2025-26.
2e	Quantity of overburden generation in m3	100800cum	35669cum	Top soil is it self of overburden.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Actual development were lagging. The deviations have taken into consideration in new document approved on 25/06/2021 for the period from 2021-22 to 2025-26. Mine is developed removing ob of 0-7 mtr and mining limestone 4-8 mtr thick by mechanized mining using shovel and tipper. waste is backfilled in mines. Waste and limestone benches are separately formed as per thickness. Violation pointed out.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Year 2020-21 2 2021-22 1	Year 2020-21 2 2021-22 1	
3b	Quantity of ROM mineral production proposed	Year 2020-21 602000tonne 2021-22 602075tonne	Year 2020-21 371106tonne 2021-22 349020 tonne	
3c	Recovery of sailable/usable mineral from ROM production	Entire mineral produced as a ROM considered suitable for dispatch to captive cement plant.	As proposed	no deviation.
3d	Quantity of mineral reject generation	not Proposed	not Applicable	No deviation

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 Applicable as there is no sub grade mineral.	Not Applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Not proposed as entire ROM ore is usable.	Not Applicable
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	Proposed with blast design of 3.0mX4.0m X 6-7m bench height	As per proposal

3k	Provision of mining machineries in mineral benches	SHOVEL (HYDRAULIC) 2.400 CUM 1No. Non Electrical DUMPER 22 to 32 TONNE to 5 No. Non Electrical DOZER 400.000 HP 1 no. Non Electrical ROCK DRILL 100-153mm 1 No. Diesel	SHOVEL (HYDRAULIC) 2.4 CUM 1No. Non Electrical DUMPER 18 tonner 10 No. Non Electrical DOZER 320 HP 1 no. Non Electrical ROCK DRILL 100mm 1 No. Diesel	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	suitable for mechanised mining.	
3m	Total area covered under excavation/pits	Year 2021-22 13.52hect	11.25hect	Development as well production is lagging .
3n	Ore to OB ratio for the pit/mine during the year.	1:0.24	1:0.19	

3o	Total area put in use under different heads at the end of year	Excavetted area 13.52hect Road 2.23hect (Upto end of 2025-26) infrastructure 0.5hect.	Excavetted area 12.012hect Road & infrastructure 2.00hect
3p	Production of ROM mineral during the last five year period as applicable	2016-17 59 6173 2017-18 600000 2018-19 520050 2019-20 605250 2020-21 602000	2016-17 77580 2017-18 499572 2018-19 381312 2019-20 581922 2020-21 371106
3q	General remarks of inspecting officers on method of mining etc.		Adopted method of mining is as per proposals given in the approved document. Advancement of Ob benches are comperatively less than the proposed one. bench heights were observed as per the proposal. Mechineries deployed in the mine are more or less as per the proposal.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dumping of top soil,OB not proposed .	Top soil/ overburden generated during mining operation were found utilised for backfilling of mined out area. There is no generation of mineral reject so separate dumping of mineral reject is not applicable in this case.	

4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	not Applicable	
4c	Number of dumps within lease area and outside of lease area	None	Not Applicable as whatever top soil/ OB are generated utilised for backfilling of mined out area / plantation of in 50m barrier zone of rewa Semariya Road.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not Proposed	Not Applicable	
4e	Number of active and alive dumps.	Not proposed	Not Applicable	
4f	Number of dead dumps.	None	Not Applicable	
4g	Number of dumps established.	None	Not Applicable	
4h	Whether Retaining wall or garland drain all along dumps are there.	NA	Not done	
4i	Length of Retaining wall or garland drain all along dumps	Nil	NA	
4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer on waste dump management			Waste dump management may be improved by backfilling of mined out area from one end and followed by topping by top soil over it. in place of scattered manner.

Solid Waste Management - Backfilling:

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.	yes	Done	
5b	Area under backfilling of mined out area	1.68hect	1.0hect	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent	Concurrent	bacfilled area is not matiured for rehabilitationr.
5d	Total area fully reclaimed and rehabilitated	2.258	None	There is a need to backfilling of mined out area from one end in place of scattered manner.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			There is a need to backfilling of mined out area from one end in place of scattered manner.

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, proposed	Not submitted	Violation pointed out.
6b	Area available for rehabilitation (ha) .	0.7	Backfilling of mined out area are in progress,	
6c	afforestation done (ha) .	1.4hect	None in proposed reclaimed area.	Plantation carred out on 50m barrier zone of Rewa Semariya Road over an area of about 1.0hect

6d	No. of saplings planted during the year	1400	1000	Plantation done on 50m statutory barrier zone on Rewa Semariya Road
6e	Cumulative no .of plants	1400	1000	
6f	Any other method of rehabilitation	Not Proposed	Not adopted	
6g	Cost incurred on watch and care during the year	Not Proposed	Not Available	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	0.843hect	Out of 2.3hect available area for backfilling almost 1.89hect area is under backfilling.	None of the bckfilled area are matured for rehabilitation. Advise were given to accomapaining officials at the site for comact backfilling in place of scattered so that reclaimed area should be available for simultaneous rehabailitation purpose.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	None	NA	

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	0.7hect	None	None of the backfilled area are matured for rehabilitation. Advice were given to accompanying officials at the site for compact backfilling in place of scattered so that reclaimed area should be available for simultaneous rehabilitation purpose. About 1000 plantation were seen on 50.0m barrier zone of Rewa Semariya Road over an area of about 1.5hect area.
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.	Not proposed	Not adopted	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not Proposed	Not carried out	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.5hect	1.0hect	Plantation on 50m barrier zone of Rewa Semariya road.

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation carried out.	Plantation on 50m barrier zone of Rewa Semariya road.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes proposed	Environmental monitoring regularly carried out.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Backfilling were carried out in scattered manner in place of compact due to such rehabilitation work of backfilled area could not be started so far. Advise were given at the site in this regard so that simultaneous rehabilitation work can be started as soon as possible.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	602075tonne	371106tonne	Shorting is not required as entire ROM mineral is suitable for cement manufacture.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not proposed	Not required	Entire ROM is utilised in cement manufacturing.
7c	Different grade of mineral sorted out at mines.	Not Proposed	Not required	

7d	Any beneficiation process at mines .	Not Proposed	Not done	Not required
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			limestone cement grade is mined and sent to plant for cement making.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	yes	Done	
8b	Concurrent use or storage of topsoil	Concurrent use proposed	Concurrently utilised.	OK
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not proposed	Not required and not carried out.	Not required as the entire Overburden/waste rock generated during mining operation is utilised for backfilling of mined out area. Further there is no generation of other rejects and fines for which separate dumping is required.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	proposed	carried out	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	proposed reclamation and rehabilitation of mining affected area.	Work towards reclamation is in progress. Area under reclamation is not matured for rehabilitation.	Area under reclamation is not matured for rehabilitation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	None	NA	
8g	Survival rate	80%	80%	No deviation.
8h	Water sprinkling on roads to control airborne dust	proposed	Water sprinkling were evidenced at mine site.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation on 50.0m barrier zone of Rewa Semariya Road have nice growth due to proper care and regular watering. Upkeep of haul roads needs improvement and compact backfilling of mined out area in place of scattered is essential so that rehabilitation of backfilled area could be started very soon. Nearby area of lease area is agriculture land and at the time of inspection crops of wheat, gram and sarso were giving nice look.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return up to March,2022 and Annual Return for year 2020-21 received	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Name of Mining Engineer, Geologist and Manager are properly given	Mining Engineer : Shri Bajrang Shrivastava Geologist : Shri Biplab Kumar Banerjee Manager : Shri S.K Mahapatra	OK
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Part I-general & Labour Reclaimed/Rehabilitated : 1.5hect	Area claimed as reclaimed and rehabilitated is not correct as there is no mined out reclaimed and rehabilitated so far. Correction in this regard is required.	violation pointed out
9d	Scrutiny of Annual return on afforestation	1600	about 1000 plants were seen in 50m barrierzone of Rewa Semariya road	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Given	As there is no mineral reject generation so quantity of mineral reject indicated as 0 is correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given as 0	ROM produced from themine is directly send to their cement plant.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine Price Rs. 296.92 and Cost of Production Rs. 296.92	Mining cost is taken as Rs 167.62 per tone. As per data given in return total cost of component of mining costs (labour and supervision cost, Explosive cost & material cost) comes about Rs. 97.0 per tone. Thus indicated mining cost not match with the ingredients cost of it.	Violation pointyed out in this regard.

9h	Scrutiny of Annual return on fixed assets	Given Rs. 652895893/-	Overall depreciation cost per tone of limestone produced from the mine goes upto Rs.432.56 per tone which is not correct. It appears that deployed machineries are in sharing with other mining leases. If, it is true the mine code number of such leases should have been furnished under item no. 1 of the return.	Violation pointed out.
9k	Scrutiny of Annual return on mining machineries	SHOVEL (HYDRAULIC) : 2.4cum 2no. DUMPER 18tonner 10 No. DOZER : 320HP 1 No. AIR COMPRESSOR ; 100.00CUM/per minute 1 No. ROCK DRILL (NON Elect) : 100mm 1no.	List of machines provided in the AR.	

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)	11-MAR-22			
MCDR17	Rule 12(4)	11-MAR-22			
MCDR17	Rule 27(1)	11-MAR-22			
MCDR17	Rule 45(7) (a)	11-MAR-22			

Date :

(RAGHUBIR SHARAN GARG)

Indian Bureau of Mines