

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/REWA/LST-24

Mine code : 38MPR33008

- (i) Name of the Inspecting Officer and ID No. : **G007) RAGHUBIR SHARAN GARG**
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine Official with Designation : Shri Navin Singh Baghel, AGM(Mines0, Shri N.K.Dixit, A
- (iv) Date of Inspection : 04-MAR-22
- (v) Prev.inspection date : 04-FEB-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JAYPEE (70.127 HA)**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : REWA
Village : BAIJNATH, SORNA, HINOT
Taluka : HUZUR
Post office : JAYPEE NAGAR
Pin Code : 486450
FAX No. : N. A.
E-mail : N. A.
Phone : N. A.
- (f) Police Station :
- (g) First opening date : 15-FEB-85
- (h) Weekly day of rest : SUN
2. Address for correspondence : M/S JAIPRAKASH ASSOCIATES LTD.
P.O. JAYPEE NAGAR, DIST. REWA (M.P.) 486450
3. (a) Lease Number : MPR0360
(b) Lease area : 70.13
(c) Period of lease : 50
(d) Date of Expiry : 14-FEB-35
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	:	Mining Scheme rule 12 MCDR1988	27-MAY-03
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	10-JUN-04
		Mining Scheme rule 12 MCDR1988	15-OCT-09
		Mining Scheme rule 12 MCDR1988	31-OCT-14
		MP review under 17(1) MCR 2016	03-JAN-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	6 Boreholes with 300meterage proposed against 2019-20	4 borholes with 200meterage were carried out in previous year. In the year under review no additional core drilling carried out.	Violation under 11(1) pointed out.
1b	Exploration over lease area for geological axis 1 or 2	6boreholes with 300meterage .	No carried out	Violation under 11(1) pointed out.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	G.K.Agrovision , Rewa Reporttedly expenditure of 4 boreholes of Rs. 366700/-	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Geological Axis G1- 19.292hect Geological Axis G2- 8.297hect	From 4 addional borehole drillings about 9.0hect area of G2 axis converted into G1 Axis.	With complition of 8 another bore holes drillings entire area will be converted into G1 Axis level.

1e	Balance reserve as on 01/04/20	As on 01/04/2022 balence resereves in the lease area under G1 category was to be 4.06MT	Year wise actual production fromthe mine were as : 2020-21 497102tonne 2021-22 476861tonne Thus as on 01/04/2022 actual reserves in the lease area was 5.249MT	As the level ofactual production against proposaed one is less and an additional area about 9.0hect under G2 level have been upgraded under G1 level reserves so there is no prominent issue with regards to reserves in the lease area. It is true that an additional area of about 18.0hect of g2 have to be upgraded into G1 level by addional 8 boreholes drilling whichhave not been copleted upto the end of 2020-21.Reportedly drilling activities are going on it will be completed by the end of 2022-23
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1f	General remarks of inspecting officers on geology, exploration etc	As the level of actual production against proposed one is less and an additional area about 9.0 hect under G2 level have been upgraded under G1 reserves so there is no prominent issue with regards to reserves in the lease area. It is true that an additional area of about 18.0 hect of G2 & G3 have to be upgraded into G1 level by additional 8 boreholes drilling which have not been completed upto the end of 2020-21. Reportedly drilling activities are going on it will be completed by the end of 2022-23
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Southern portion of lease area	Southern portion of lease area	Level of production is low against the proposed one
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	OBS bench 0.5 - 2.0 UGL 1.0 - 6.0 MSH-1 (7.5 m) MSH-2 (7.5 m) NDS-1 (6.0 m) LGL-1 (7 m) LGL-2 (3 m)	OBS bench 0.5 - 2.0 UGL 1.0 - 6.0 MSH-1 (5-7.5 m) MSH-2 (5-7.5 m) NDS-1 (4- 6.0 m) LGL-1 (5-7 m) LGL-2 (2-3 m)	

2c	Stripping ratio or ore to OB ratio	1:0.59	1: 0.736 (Production and OB generation of 2020-21)	-
2d	Quantity of topsoil generation in m3	29080cum	21000	-
2e	Quantity of overburden generation in m3	255529	362244	-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mine development was lagging from the proposal and not as per the approved proposals of approved document.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	01 Nos	01 Nos	
3b	Quantity of ROM mineral production proposed	950,000 tonne	476861tonne	Less production than the proposed one , violation pointed out.
3c	Recovery of sailable/usable mineral from ROM production	Entire ROM produced from the mine is utilised.	As per prioposal entire ROM mineral produced from the mine is utilised.	100% recovery
3d	Quantity of mineral reject generation	Generation of mineral reject is not envisaged	Mineral reject is not produced from the mine.	There is no mineral reject in the lease area.
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable as there is no envisagement of mineral reject generation .	not Applicable	-
3f	Quantity of sub grade mineral generation.	Thereis no envisagement of sub grade mineral generation.	There is no produce of sub grade mineral from the lease area.	sub grade mineral is not found in the lease area.

3g	Grade of sub grade mineral generation	Not Applicable as there is no envisagement of sub grade mineral generation .	Not Applicable	sub grade mineral is not found in the lease
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed	Mechanised method adopted	Entire ROM produced from the mine is utilised in fact there is no segregation of mineral
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	YES with drilling of 4.5" hole dia.	YES with drilling of 4.5" hole dia.	
3k	Provision of mining machineries in mineral benches	Yes, Excavator 4.no. capacity vary from 3.2Cum,4cum & 6.5cum. Dumper -16 of capacity 35 to 60tonners, Dozer Wheel -3 of 9CUM and 5cum capacity Drill Machine 2Nos of 150mm &110mm dia Rock Breaker 1No. of 220HP & Moter Graader 1no of 112HP	Yes, Excavator 4.no. capacity vary from 3.2Cum,4cum & 6.5cum. Back Hoe 1No. of 4.5cum, Dumper -10of capacity 35 to 60tonners, Dozer Wheel -180HP AND 408HP Drill Machine 3Nos of 150mm &110mm dia Rock Breaker 1No. of 220HP & Moter Graader 1no of 112HP	Considering actual production from the mine no. of machineries deployed in the mine is appears on highrter side.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	suitable for mining	suitable as per approved mining pla	

3m	Total area covered under excavation/pits	1.45hect.addti onal area proposed against the year under review and with this total area covered under excavation was to be 36.97hect	35.65	Development and production are lagging with respect of proposed one.Violation pointed out.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.37	1:0.73	
3o	Total area put in use under different heads at the end of year	Area putin use at the beginning of valid MPLN 34.29hect Total area proposed to put in use against 2019-20 and 2020-21. 2.68hect , Thus grand Total area put in use at the end of year was to be 36.97hect	Area putin use at the beginning of valid MPLN 34.29hect Total area proposed to put in use against 2019-20 and 2020-21- 1.368hect , Thus grand Total area put in use at the end of year was 35.65hect	
3p	Production of ROM mineral during the last five year period as applicable	16-17 908438 17-18 909063 18-19 902500 19-20 950,000 20-21 950,000	2016-17 253440 2017-18 414678 2018-19 572601 2019-20 688,984 2020-21 476,861	Actual production are considerably less than the proposed one over the years. Violation pointed out in this regard.
3q	General remarks of inspecting officers on method of mining etc.			Actual production , development are substantial less than the proposed one over the years. Violation pointed out in this regard.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not proposed	Not Applicable	
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	Not Proposed	Not Applicable	
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.	NA	Not Applicable	
4g	Number of dumps established.	Not Applicabe	NA	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	300 m maintained	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	300 m maintained	
4j	Number of settling ponds	Not proposed	Not Applicable	
4k	Specific comments of inspecting officer on waste dump management			Entire overburden / Mine Waste generated during mining opration is utilised for reclamation and rehabilitation of mined out area in the light of proposal given in the approved mining Plan. .

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 extraction proposed	Full extraction of mineral adopted	
5b	Area under backfilling of mined out area	0.83 hect	0.96hect	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	top soil to be used in plantation	top soil used for plantation	
5d	Total area fully reclaimed and rehabilitated	0.83hect during 2020-21 and with this total area reclaimed and rehabilitated are 10.02hect	Against 0.83hect area 0.96hect mined out area reclaimed durng the year and withthis all the targetted mined out area have been reclaimed. Against rehabilitation work is in progress by plantatation after top soil layering over reclaimed area.	Reclamation of mined out area found satisfactory as per proposal whereas rehabailiation work was found going on.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Reclamation of mined out area found satisfactory as per proposal whereas rehabailiation work was found going on.

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).	proposed	Submitted	
6c	afforestation done (ha).	0.5hect	0.96hect	OK

6d	No. of saplings planted during the year	1000	2500	Survival rate of plantation was found less. Only 1000 plant saplings /bushes were seen on the reclaimed area.
6f	Any other method of rehabilitation	Not proposed	Not applied	-
6g	Cost incurred on watch and care during the year	Not Proposed	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.83hect	0.83hect	Area backfilled.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.83hect	0.83hect	Area backfilled.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	0.5hect	0.5	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	NA	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	NA	Not Adopted

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	plantation	plantation	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Plantation	Plantation	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Reports on Periodical monitoring with respect to Air, Water, noise and Ground vibration were seen.	Periodal monitoring on environment were seen.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Periodic monitoring of enviroment are being carried out by the lessee.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch proposed	ROM is being dispatched to captive cement plant	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not Proposed	Not Applicable	Entire mineral produced from the mine is dispatched to their captive cement plant.
7c	Different grade of mineral sorted out at mines.	Not Proposed	Not Applicable	

7d	Any beneficiation process at mines .	Not Proposed	Not Applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Entire mineral produced from the mine is dispatched to their captive cement plant.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed	top soil is being removed separately	
8b	Concurrent use or storage of topsoil	Proposed	top soil is being used in plantation over backfilled area	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not propiosed as mineral reject is not generated and entire overburden, mine waste is proposed for backfilling of mined out area.	OB and waste are being used for backfilling of previous mined out area continuously so there is no dump	Separate dumping of OB & Mine Waste is not required as entire OB & waste material is utilised for backfilling of mined out area.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed	As per proposal entire overburden, mine waste generated during mining operation were utilised for backfilling of mined out area.	No issue.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	proposed reclamation of 0.83hect mined out area .	Achieved	No issue.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	proposed	as per proposal	
8g	Survival rate	90%	75%	Survival rate is little low than the proposed one
8h	Water sprinkling on roads to control airborne dust	proposed	water sprinkling were evidenced in the mine during inspection.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Efforts towards care of plantation done in the past, upkeep of haul roads, sprinkling over haul roads were found satisfactory. Survival rate of plantation carried out in last year over reclaimed area were found little low.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	MR submitted till March,2022 and AR submitted for FY 2020-21	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Manager - Mr. Naveen Singh Baghel, Geologist - Debasis Panda, Mining Engineer - Mr. Lalit Singh Chouhan
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Area already exploited & abandoned by opencast (O/C) mining -35.04 Ha. covered under current (O/C) Workings - 0.61 Ha. Occupied by plant, buildings, residential, welfare buildings & roads - 00 Ha.
9d	Scrutiny of Annual return on afforestation	given	Number of trees planted during the year 2500 no. in ML with survival rate 85% claimed whereas actual survival rate was little less
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Given	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	given	RS 483/41 PER TONNE	Rs.77.57 per royalty has been taken in to account whereas in case of limestone royalty is fixed as 80/-per tone. ii) Mining cost is taken as Rs 195.22 per tone. As per data given in return total cost of components of mining costs (labour and supervision cost & material cost) comes about Rs. 385.09per tonne. iii) In other expenses salary(item no. viii) taken into account for the computation of cost of production.
9h	Scrutiny of Annual return on fixed assets	Given	Depriciation cost goes upto 59/50 per tonne i.e. acceptable keeping mechineries under use.	
9k	Scrutiny of Annual return on mining machineries	Given	Type of Machinery DUMPER 60 T 10 SHOVEL (HYDRAULIC) 4.000 CUM 1 SHOVEL (HYDRAULIC) 3.200 CUM 2 SHOVEL (HYDRAULIC) 6.500 CUM 1 BACK HOE 4.500 CUM 1 Non DOZER 180 HP 1 DOZER 408 HP 1 ROCK DRILL 3 Motor Grader 150HP 1 MOTOR GRADER 1	Utilisation of mehineries are not justified as about 12,31590 tonne material handled during the year with the use of 4 no. of shovels and 1 backhoe. .

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
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