

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

**MCDR inspection REPORT**

**Jabalpur regional office**

**Mine file No :** MP/ANUP/BX-4

**Mine code :** 07MPR38003

- (i) Name of the Inspecting : **G007** ) **RAGHUBIR SHARAN GARG**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri Yogesh Pandey, Mines Manager.  
Official with  
Designation
- (iv) Date of Inspection : 29-APR-23
- (v) Prev.inspection date : 09-JUL-22

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **CHACHANDIH( 148.181 HA)**
- (b) **Registration NO.** : **IBM/7404/2011**
- (c) **Category** : **A Other Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **MADHYA PRADESH**
- District : **SHAHDOL**
- Village : **CHACHANDIH**
- Taluka : **PUSPARAJGARH**
- Post office : **RAJANDRAGRAM**
- Pin Code : **484881**
- FAX No. : **07629-268683**
- E-mail : **mpsmcl\_pbl@sancharnet.com**
- Phone : **07629-268683**
- (f) **Police Station** : **Rajandragram**
- (g) **First opening date** : **28-DEC-06**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **M.P.STATE MINING CORPORATION**  
**Block No. 1, Second Floor, Pariwash Bhawanm**  
**Jail Road, Arera Hillsm Bhopal (M.P.)**
3. (a) **Lease Number** : **MPR2171**
- (b) **Lease area** : **148.18**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **04-JUL-35**
4. **Mineral worked** : **BAUXITE** **Main**

## 5. Name and Address of the

Lessee : M.P.STATE MINING CORPORATION  
 PARYAVAS BHAVAN ARERA  
 HILLS, BLOCK-1 JAIL ROAD  
 BHOPAL MADHYA PRADESH  
 Phone:0755-763391  
 FAX :0755-763394

Owner : M.P.STATE MINING CORPORATION  
 PARYAVAS BHAVAN ARERA  
 HILLS, BLOCK-1 JAIL ROAD  
 BHOPAL MADHYA PRADESH  
 Phone: N. A.  
 FAX : N. A.

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	26-MAY-05
Plan/Scheme of Mining		Modif.of approved Mining Plan	28-OCT-05
		Modif.of approved Mining Plan	10-MAR-08
		Mining Scheme rule 12 MCDR1988	17-FEB-12
		Mining Scheme rule 12 MCDR1988	25-FEB-16
		MP review under 17(1) MCR 2016	12-MAY-21

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Not proposed	Reportedly not carried out.	No deviation
1b	Exploration over lease area for geological axis 1 or 2	There were no proposal for exploration over lease area for converting geological axis 2. However there were proposal against 2021-22 for converting the exploration under G1 Axis which was already carried out during the year 2021-22.	No exploratory work required as entire lease area already converted in to G1 Axis	Al though exploratory work for converting the exploration work into G1 axis in last year itself. There after there was a need of preparation of Geological Study Report(GSR) based on an additional exploration which was not submitted by the lessee. Thus, violation of rule 12(4B) of MCDR,2017 pershist After present inspection violation of rule 12(4B) pointed out through violation cum SCN issued on 15/05/2023
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Not applicable	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed	Not applicable	-
1e	Balance reserve as on 01/04/20	Reserves in 122-3593507T Resources in 222-305643T	Reserves in 122-3617515T Resources in 222-305643T	There is a slightly less production resulting remaining reserves are more than the proposed one.

1f	General remarks of inspecting officers on geology, exploration etc	This is a hill top deposit of bauxite. Lateritic with soil of 0.25 to 2.0 mtr , followed by 0-2 mtr lateritic murum and 4-7 mtr bauxite. rock belongs to upper gondwana system of deccan trap. The proposed exploration done by lessee. Entire mineralised area had already explored under G1 level thus, there is no need of further exploration. Based on additional exploration GSR should have been prepared by the lessee which had not been submitted to this office. Violation of rule 12(4B) pointed out .
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## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Quarry 1,2,3 in the lease area.	In actual during year 2022-23 the mainly advancement of faces were observed in quarry 2 & in certain extent to quarry 3 as proposed but very in case of quarry 1 advancement of faces were observed very less than the proposed one.	based on observation violation of rule 11(1) pointed out through Violation cum SCN dated 15/05/2023.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, one in lateritic soil, one in lateritic murum & one in mineral Bauxite.	In actual, one bench of 1.5m in lateritic soil, one bench of 2m. in lateritic murum & one bench of 5-6m. in mineral Bauxite.	
2c	Stripping ratio or ore to OB ratio	1:1.2	1:1.08	Nearer to proposed one.

2d	Quantity of topsoil generation in m3	18204cum	18500cum	Almost as per proposal
2e	Quantity of overburden generation in m3	46239cum	47100cum	No diviation
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mine working carried out in all three quarries by forming three separate benches one each in lateritic soil, murum & mineral bauxite upto maximum 8.5 to 10m. depth ,the simultaneous backfilling carried out in the mine leaving distance for movement of mine vehicles as proposed in RMP. There is deviation in mine working mainly in Quarry -1 in year 2022-23 ,hence violation of rule 11(1)(a) pointed out.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	In 03 diffrent quarries.	In actual in 03 diffrent quarries.	-
3b	Quantity of ROM mineral production proposed	123946tonne	100000tonne	-
3c	Recovery of sailable/usable mineral from ROM production	70%	In actual about 70%	-
3d	Quantity of mineral reject generation	Not proposed	Reject not generated hence not applicable.	

3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not applicable	-
3f	Quantity of sub grade mineral generation.	Not proposed	Sub grade not generated hence not applicable.	-
3g	Grade of sub grade mineral generation	Not proposed	Not applicable	-
3h	Manual / Mechanised method adopted for segregating from ROM	Manual, However screening for the segregation of silica is proposed	Manual. Screening for the segregation of silica reportedly also in practic.	No deviation
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Any beneficiation study not proposed	Reportedly any beneficiation not carried out during reporting year.	0 boreholes were carried out during 2021-22 as per proposal. Chemical analysis report of minerals found w.r.t these all the boreholes were submitted by the lessee.
3j	Provision of drilling and blasting in mineral benches	proposed with blast design of 2.0-202mX2.4-2.5mX3.0m(SpecingXBurdenXdepth of hole)	As per proposal	No deviation
3k	Provision of mining machineries in mineral benches	Yes excavator & dumpers(tippers) proposed.	Excavators & dumpers deployed as proposed.	no deviation
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	2 to 6m.	Maximum height 6m. is suitable for mechnised mining.	
3m	Total area covered under excavation/pits	52.865hect	53.5hect	No measure change
3n	Ore to OB ratio for the pit/mine during the year.	1:1.2	1:1.08	

3o	Total area put in use under different heads at the end of year	PIT=52.00 INFRA 0.55	Pit 53.5.0 0.55 PLANT/MACH
3p	Production of ROM mineral during the last five year period as applicable	18-19 124936 19-20 124936 20-21 124936 21-22 124992 22-23 123946	18-19 124935 19-20 124935 20-21 99400 21-22 124930 22-23 100000

3q	General remarks of inspecting officers on method of mining etc.	The mines has been producing up to the proposals. Mining is done by shovel/ tripper for waste & mineral. Ore is sorted on face manually. 3/4 benches are made of upto 5mtr ht. main deviation in working in Quarry- 1 and backfilling in Quarry 1 & 3 observed.violation of rule 11(1) pointed out.
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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)	Not proposed.	As per proposal soil generated during mining oiperation utilised for carpetting of backfilled area.	-
4b	Location of topsoil, OB and mineral reject dumps	O/B waste for only backfilling & lateritic top soil for topping over it for future plantation.	In actual backfilling & topping it by lateritic soil and plantation over it done as proposed.	-
4c	Number of dumps within lease area and outside of lease area	Nil	Simultaneous backfilling is in practice.	-

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps not proposed so question of location of dump does not arise,	Not applicable as dumping is not in a practice, simultaneous reclamation is in practice.	
4e	Number of active and alive dumps.	None as not proposed.	Not applicable as simultaneous reclamation is in practice.	
4f	Number of dead dumps.	None	Not applicable as from beginning simultaneous reclamation is in practice.	
4g	Number of dumps established.	Not proposed.	NA	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain proposed near lease boundary.	Garland drain as proposed made in lease area.	
4i	Length of Retaining wall or garland drain all along dumps	3000m. length of garland drain.	About 1800m. length of garland drain observed.	
4j	Number of settling ponds	02 nos. of settling tank proposed.	In actual 02 nos. of settling tank observed near garland drain in lease boundary.	
4k	Specific comments of inspecting officer on waste dump management			Only backfilling done as proposed. temporary storage of soil is done for short period ( lateritic soil ) which is used for topping over backfilling for plantation purpose.

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**Solid Waste Management - Backfilling:**

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Yes, backfilling proposed after full depth of bauxite extracted from lease area.	In actual backfilling done as proposed after full depth of bauxite extracted from lease area .	



5b	Area under backfilling of mined out area	Proposed bottom portion area of backfilled area 1.68hect	Backfilling were noticed as per the proposal. About 1.6hect mined out area backfilled during the year under review were noticed during inspection	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposal for Topping over backfilled area in the document.	As per proposal top soil generated during mining operation utilised for topping of backfiled area.	
5d	Total area fully reclaimed and rehabilitated	1.35 hect reclaimed area was proposed to be rehabilitated by making plantation over it.	Plantation over backfilled area were seen. Simultaneous reclamation and then plantation over reclaimed area is the way of mining in the lease area. I	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			During 2022-23 backfilling done over 1.6ha. fully mined out lease area & Plantation of 2000 saplings done on 2 hect. backfilled Area. Two large patches of approx 4 hect each have good growth of trees.

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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).	yes,	PMCP report against 2022-23 not submitted yet,As per statute last date of submission of PMCP report is 30/06/2023.	As the last due date for submission of PMCP report for 2022-23 is yet to be come so violation in this regard not issued.
6b	Area available for rehabilitation (ha) .	1.35hect	2000 no of saplings planted over backfilled area carried out as per proposal	
6c	afforestation done (ha).	1.35hect by saplings of 1350 plants	As per proposal	

6d	No. of saplings planted during the year	1350	2000	
6e	Cumulative no .of plants	2350 from 2021-22 and onward	As per proposal	
6f	Any other method of rehabilitation	Not proposed	Not adopted	
6g	Cost incurred on watch and care during the year	Not proposed	Record on matter concerned found not maintained.	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	7 hect mined out area area	As per proposal	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1.681hect	about 1.60hect	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	1.35hect	As per proposal	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not in practice	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not in application.	-
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Plantion in nearby area of mine office carried out	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Not in a practice	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	not in a practice.	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	yes, periodical monitoring proposed .	The envirnomental monitoring done periodically.	-
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			In actual about 53.5ha. area degraded by quarries out of that about 42ha. fully mined out and out of that about 30ha. mined out lease area backfilled partly or fully & out of 15ha. fully backfilled area about 12ha. rehabilitated by 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 sorting of metal & cement grade before dispatch.	Sorting done as proposed.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual, Screening of fines also proposed.	After manual sorting , screening practice also adopted as proposed in approved RMP.	
7c	Different grade of mineral sorted out at mines.	Metal & cement grade bauxite	As proposed Metal and Cement grade	

7d	Any beneficiation process at mines	Not proposed only screening is proposed	As per proposal only screening iof fines is in a practice.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Existance of metal grade bauxite are there in lease area. Extraction of such grade also being carried out. Ratio of meatal grade and cement grade in production could not be ascertained. There is an issue of market of metal grade bauxite of the area. Earlier metal grade bauxite were dispatched to Renkoot Allumina plant .From fey years back there is no demond from them. Under the circumstances entire bauxite is supplied to cement plants lies in katni , Satna areas.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Lateritic top soil removal & its utilisation before backfilling proposed.	The lateritic top soil removed & utilised for topping over backfilling before plantation.	
8b	Concurrent use or storage of topsoil	Concurrent use of top soil proposed	As per proposal	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not proposed	Not done	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	In backfilling Proposed	As per proposal OB, waste rock reject etc utilised in backfilling of mined out area.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2000 trees plantation	In actual 2000 trees planted during the year & cumulative about 22000 trees survived so far. Some big old trees exists in the lease area.	
8g	Survival rate	70%	About 60%	
8h	Water sprinkling on roads to control airborne dust	proposed	Evidences of water sprinkling were noticed during inspection of mine.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Lease area lies in remote area in high altitude having forest in near by area/ adjoining areas. Aesthetic buty of the area itself very lovely and pleasantful. Growth of plantation done by the lessee as well as in adjoining lease area were seen encouraging .

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR & AR submitted	MR for March, 2023 and AR for 2021-22 received timely as per statute. AR for 2022-23 yet not submitted .	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mr Yogesh pandey ME, Mr Anil kumar - geologist	Mr yogesh pandey ME, Mr was present during inpection whereas Shri Anil kumar -geologist was reportesly on leave to attend ritual function at their home town..	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	1. Lease area (surface area) utilisation as at the end of year Already exploited & abandoned by opencast (O/C) minin 44.0hect 2. Covered under current (O/C) Workings 1.00hect 3 Occupied by plant, buildings, residential, welfare buildings & roads 0.6hect	1. Lease area (surface area) utilisation as at the end of year Already exploited & abandoned by opencast (O/C) minin 5.5hect 2. Covered under current (O/C) Workings 1.00hect 3 Occupied by plant, buildings, residential, welfare buildings & roads 0.6hect	
9d	Scrutiny of Annual return on afforestation	2000nos	About 2000 nos. new plantation observed.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not mentioned	Mineral reject not generated.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock 69557.488 tonnes graded ore nil.	In actual about 68577.188 tonne tonnes ROM stock observed. Gradwe wise stock Nil	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value & ex mine price of cement grade -Rs. 713.96/t Cost of Production - 553/T.	In indicated cost of production following anomalies observed: i. Mining cost is taken as Rs 290 per tone mismatches with cost of its components.ii. Overhead expenses mismatches,iii. Taxes (GST, NMET, DMF etc.) paid have not taken in to account for calculation of cost of production.	Anomolies pointed out through violation cum show cause notice of rule 45(7) of MCD Rules. vide letter dated 15/05/2023

9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets Rs. 0/- totally Incorrect	Anomolies pointed out through violation cum show cause notice of rule 45(7) of MCD Rules. vide letter dated 15/05/2023
9k	Scrutiny of Annual return on mining machineries	Dumpers(tipper ) & excavator combination	In actual dumpers(tippers) & excavator deployed.

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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 11(1)	15-MAY-23	MCDR17	Rule 11(1)	15-MAY-23
MCDR17	Rule 12(4)	15-MAY-23	Rule 45(7)	15-MAY-23	
MCDR17	Rule 31(4)	15-MAY-23			
	Rule 45(7)	15-MAY-23			

**Date :**

(RAGHUBIR SHARAN GARG)

Indian Bureau of Mines