

I/15743/2023

MCDR inspection REPORT

Jabalpur regional office

Mine file No : MP/STN/OCH-98

Mine code : 32MPR35043

- (i) Name of the Inspecting : **G007**) **RAGHUBIR SHARAN GARG**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Pradeep Kumar Gupta, Mining Engineer and Shri Pa
Official with
Designation
- (iv) Date of Inspection : 29-JUL-23
- (v) Prev.inspection date : 16-AUG-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BARUI (8.178 HA)**
- (b) **Registration NO.** : **IBM/6677/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : SATNA
Village : BARUI
Taluka : MAJHGAMA
Post office : DEORA
Pin Code :
FAX No. : 07671274327
E-mail : kunjilalishwariprsad@gmail
Phone : 09425172715
- (f) Police Station : Sabhapur
- (g) First opening date : 13-MAR-81
- (h) Weekly day of rest : MON
2. Address for : M/S KUNJILAL ISHWARI PRASAD AGRAWAL
correspondance P.O. JAITWARA, DIST. SATNA (M.P.) 485221
3. (a) Lease Number : MPR2002
- (b) Lease area : 20
- (c) Period of lease : 20
- (d) Date of Expiry : 26-DEC-00
4. Mineral worked : BAUXITE Associated
KAOLIN Associated
LATERITE Associated
OCHRE Main
CLAY (OTHERS) Associated

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5. Name and Address of the

Lessee : KUNJILAL ISHWARI PRASAD AGRAWAL
AT & P.O. JAITWARA
DIST.SATNA M.P SATNA MADHYA
PRADESH
Phone:09425172715
FAX :N. A.

Owner : KUNJILAL ISHWARI PRASAD AGRAWAL
AT & P.O. JAITWARA DIST.
SATNA M.P SATNA MADHYA
PRADESH
Phone: 09425172715
FAX : N. A.

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	05-JUN-97
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	28-APR-06
		Renewal under rule 24 MCR1960	15-FEB-12
		Mining Scheme rule 12 MCDR1988	10-NOV-15
		MP modif under 17(3) MCR 2016	30-SEP-20

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was no backlog of proposed exploration work of previous year	There was no exploration work done as a backlog of previous year	No deviation
1b	Exploration over lease area for geological axis 1 or 2	There was no proposal of exploration over lease area for geological axis of 1 or 2	Reportedly no exploration work carried out during the year under review.	No deviation
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Not applicable as no exploration work was carried out by the lessee during the year.	No deviation
1d	Balance area to be explored to bring Geological axis in 1 or 2	There was no proposal for balance area to explored under G1 or G2 level	Reportedly there was no additional exploration work during the year under review.	No deviation.
1e	Balance reserve as on 01/04/20	Reserves as on 01/04/2023 in Tonnes Probable (122)-64709 MT Resources Pre-Feasibility(22): 9082 MT	Reserves in Tonnes as on 01/04/2023 Probable (122)-95150 MT Resources Pre-Feasibility(22): 9082 MT	

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1f	General remarks of inspecting officers on geology, exploration etc	In the light of amended MCDRules entire Lease area explored upto G1 Level as per approved proposal given in MOM vide letter dated 30/09/2020. Based on exploration a Geological Study Report (GSR) was supposed to be submitted after addition exploration which had not been prepared and submitted by the lessee so far. Violation of rule12(4B) has been pointed out vide letter dated 08/08/2023.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During the year excavation was proposed in Quarry-3 in between N2750540 to N2750600 & E494270 to E494330 and in Quarry-1 in between N2750610 to N2750740 & E494490 to E494630 by formation of three benches (1 Bauxite bench & 2 ochre+ white clay bench)	Overall mine working was carried out as per the proposed locations.	Deposit is of very complex in nature as the bauxite ore, Ochre mineralisation & white clay mineralisation get mixed to each other and becomes difficult to segregate the individual ore/mineral. But, due skilled manpower separation of these ore by manual soring was being done.

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2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches were proposed for exacation of Yellow Ochare & white clay.	The benches were found developed almost as per approved document. Mineralisation is complex nature resulting achieving of mineral wise envisaged production appears dificult.	Besides pits developed almost as per proposal- slicing down from top to bottom, mineral wise actual production differ with envisaged one. Although deviation in mineralwise production, quantity of OB removal etc pointed out through violation of rule 11(1) but it appears that it happen mainly due to complex nature of mineralisation.
2c	Stripping ratio or ore to OB ratio	1:0.35	1:0.479	OK
2d	Quantity of topsoil generation in m3	No Proposals	Nil	No top soil occured in the mining lease area.
2e	Quantity of overburden generation in m3	6903cum	7000cum	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Besides pits developed almost as per proposal- slicing down from top to bottom, mineral wise actual production differ with envisaged one. Although deviation in mineralwise production, quantity of OB removal etc pointed out through violation of rule 11(1) but it appears that it happen mainly due to complex nature of mineralisation.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	Two pits , Pit-1 and Pit-3.	As per proposal.	
3b	Quantity of ROM mineral production proposed	During the year 2022-23 proposed mineral wise production was as follow:- bauxite -13018 tonnes White clay-1860cum laterite -7075cum and Ochre-5090cum	During the year 2022-23 reported mineral wise production was as follow:- bauxite -Nil tonnes White clay-Nil laterite -6100cum and Ochre-8500cum	Deviation pointedout through violation of rule 11(1) vide letter dated 08/08/2023.
3c	Recovery of sailable/usable mineral from ROM production	Not proposed	Not applicable	IN ROM 80% recovery of ore considered and rest 20% s a mine waste, IB etc. Ratio of recovery of different minerals varies as a mineralisation is very complex in nature.
3d	Quantity of mineral reject generation	Not proposed	Not applicable.	-
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed	Not applicable	
3f	Quantity of sub grade mineral generation.	Not envisaged	Not applicable as there is no sub grade mineral generation in the mine.	
3g	Grade of sub grade mineral generation	Not proposed	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	As per proposal	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Not done	

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3j	Provision of drilling and blasting in mineral benches	Not proposed	Not required.	
3k	Provision of mining machineries in mineral benches	Hyd. Excavator-L&T PC-200-(0.9 CuM, 210 H.P.) TATA Dumper, 10 Tonner capacity - 03 Nos for within lease area and TATA Dumper, 27 Tonner capacity - 04 Nos for mine to destination	Hyd. Excavator-L&T PC-200-(0.9 CuM, 210 H.P.) TATA Dumper, 10 Tonner capacity - 03 Nos for within lease area and TATA Dumper, 27 Tonner capacity - 04 Nos for mine to destination Water Tanker-5KL, 90 HP - 01 Nos	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	The benches were found developed almost as per approved document.	
3m	Total area covered under excavation/pits	4.69 ha	3.45hect	Two years proposals i.e for year 2023-24 and 2024-25 are yet remains.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.35	1:0.47	
3o	Total area put in use under different heads at the end of year	Envisaged status as on 31/03/2025 Pits-4.69 Ha Waste dumps-0.50 Ha Haul road-0.4hect Infrastructure -0.640 Ha Road-0.40 Ha	Status as on date of inspection. Pits-3.0 Ha Waste dumps-0.00 Ha Infrastructure-0.640 Ha Road-0.40 Ha	

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3p	Production of ROM mineral during the last five year period as applicable	2018-19-: 3,915 MT 2019-20-: 7,477 MT 2020-21-: 5,166 MT 2021-22 -: 127058 MT 2022-23 -: 13018 MT	2018-19-: 2292 MT 2019-20-: 490 MT 2020-21-: Nil MT 2021-22-: 7900 MT 2022-23-: Nil MT	Besides development of pits, almost as per proposal, mineral wise actual production differ with envisaged one. Although deviation in mineralwise production, quantity of OB removal etc pointed out through violation of rule 11(1) but it appears that it happen mainly due to complex nature of mineralisation.
3q	General remarks of inspecting officers on method of mining etc.			Besides development of pits, almost as per proposal, mineral wise actual production differ with envisaged one. Although deviation in mineralwise production, quantity of OB removal etc pointed out through violation of rule 11(1) but it appears that it happen mainly due to complex nature of mineralisation.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Yes	
4b	Location of topsoil, OB and mineral reject dumps	1. East and Northern side of quarry-3 2. On Northern side and central part of of Quarry 1	1. East and Northern side of quarry-3 2. On Northern side and central part of of Quarry 1	

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4c	Number of dumps within lease area and outside of lease area	Three dumps within lease area and simultaneous reclamation of 50mx50m mined out area of quarry no.3	Three dumps within lease area, Simultaneous reclamation of quarry 3 could not started as pit has not reached upto the proposed depth. Mineralisation of ochre in pit bottom were seen during the site inspection of the mine.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within UPL	Within UPL	rehndling of dumps will be required in future.
4e	Number of active and alive dumps.	Three	Three	
4f	Number of dead dumps.	Nil	Nil	-
4g	Number of dumps established.	Not proposed as there is no inactive dump within lease area.	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Not done	
4i	Length of Retaining wall or garland drain all along dumps	NA	NA	
4j	Number of settling ponds	One	One	
4k	Specific comments of inspecting officer on waste dump management			Need of preparation of Retaining wall on toe of the dump / garland drain are there as these dumps are on scarp of the hillock. Advise was extended to Mining engineer of the mine Shri Pradeep Gupta and he has given their wards for the completion of retaining wall / garland drain just below side of the existing dumps.

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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.	Proposed over 50mX50m mined out are.	None of part of lease area has been fully mineral exhausted.	Scope of backfilling not yet generated
5b	Area under backfilling of mined out area	4000sqm	Nil	Scope of backfilling not yet generated
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed	Scope of backfilling not yet generated	
5d	Total area fully reclaimed and rehabilitated	Top area of proposed reclamation 3500sqm	Scope of backfilling not yet generated	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Presently scope of reclamation by backfilling doesn't exist as mineral still existed in pit area.

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 for the year 2022-23 had submitted on line by the lessee.	
6b	Area available for rehabilitation (ha) .	Bottom area 4000sqm Top area 3500sqm	Presently scope of reclamation by backfilling doesn't exist as mineral still existed in pit area.	

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6c	afforestation done (ha).	100	300 with 80% survival	Lease area constitute two hilocks in a gap of about 200m. Both the hillocks are found full of greenery. On vally of hillocks particularly in nearby area of Northern lease boundary lines saplings planted by the lessee were seen with healthy status.
6d	No. of saplings planted during the year	100	300	Including naturally grown saplings.
6e	Cumulative no .of plants	NA	NA	
6f	Any other method of rehabilitation	Not proposed	Not adopted	
6g	Cost incurred on watch and care during the year	Not proposed	Noty maintained.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.26hect	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.16	Nil	Pit not reached upto ultimate pit depth.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	0.1hect	Nil	Pit not reached upto Utimate pit depth.

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6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Nil.	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	300saplings reortedly planted on 7.5m statutory barrier zone along lease boundary particularly shown on Northern lease boundary line.	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	About an area of 200mX7.5m barrier zone plantation were seen.	
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)	Periodical Air, Water, Noise monitoring Proposed	Yes,Compliances of environmental monitoring is being carried out.	Env. monitoring reports were produced during mine inspection

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6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Pit not reached yet upto Ultimate pit depth resulting reclamation and rehabilitation work in full fledged not started. In to some extent preparation of retaining wall were seenbut the same is yet to be completed. 1m wide and about 0.75m high bund were observed allaround the mining lease area.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch 13018tone. Grade wise sorting proposed within lease area for cement & chemical grade of bauxite proposed	ROM dispatch ;-Nil grade wise sorting :- 4743tone cement grade Dispatch 1. 4743t cement grade bauxite 2. 768t chemical grade	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual sorting being practised	
7c	Different grade of mineral sorted out at mines.	Bauxite having Al2O3 + 52%, SiO2-: -5% and Fe2O3-: 3 to 5% proposed for chemical grade use. Bauxite having Al2O3 -42%, SiO2-: 10 to 12% and Fe2O3-: 18 to 22% proposed for cement grade use	During the year 4743tone cement grade sorted ore dispatched and and 768tone chemical grade dispatched.	

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7d	Any beneficiation process at mines .	Not proposed except manual sorting.	Only manual sorting is adopted for separation of chemical grade and cement grade bauxite.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral is being conserved by grade wise sorting in the lease area. Bauxite having Al ₂ O ₃ + 52%, SiO ₂ -5% and Fe ₂ O ₃ - 3 to 5% used for chemical grade use. Bauxite having Al ₂ O ₃ - 42%, SiO ₂ 10 to 12% and Fe ₂ O ₃ 18 to 22% used for cement grade use.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	No top soil is available in the area	
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping was proposed towards eastern side & northern side of of quarry-3 and Norther site of quarry lalso.	As per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Partly proposed	Not done as pit has not reached upto ultimate pit depth.	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Not done as pit has not reached upto ultimate pit depth.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the year 100 nos of saplings covering 0.1 Ha was proposed	Plantation carried out by 300 saplings covering 0.20 Ha area on 7.5m statutory barrier zone	
8g	Survival rate	80%	60%	As reported during inspecting, reason for low survival rate is due scarcity of nearby water sources & upper stony feild.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is being practised by water tanker	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around mine area is not so effected by mining activities as low level of mining are being carrid out. Entire lease area is a waste land havingh two hillocks of an average height of 20-25m from the near by area. Bushes of average height of 2-3m seen in the area giving very nice look perticulary on the day of inspection(rainy season).Bund had also made around the lease area. A good number of saplings also done on statutory barrier zone.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	GStatutory Monthly and Annual Returns submitted	M.R. submitted upto-Jul- 2023 A.R. submitted upto-2022-23	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	1. Shri Pradeep Kumar Mining Engineer and 2. Dharmendra Kumar Singh, Geologist.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Area under O/c working-3.25hecta Reclaimed/Rehabilitated-0.40hect Infrastructures-0.64 Ha Used for wasate disposal 0.35hect	Information given regarding relamation rehabilitation are not based on fact.
9d	Scrutiny of Annual return on afforestation	Given	300 saplings	Due to poor survival actual plats remains in the lease area are about 200.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Given	Reject generation quantity -Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	RoM stock-2557tone Graded Ore stock ; -2344.29tone Chemical Grade	

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9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex Mine Price Cement Grade Rs.731/- Chemical Grade Rs.800/- Sale value Cement Grade Rs.731/- Chemical Grade Rs.800/- Cost of Production Rs.404/10	In calculation of cost of production following defficiencies obseved and communicated to lessee through violation of rule 45(7): I. In calculation of cost of production along with royalty dead rent also has taken into account which is not correct.. ii. In calculation of cost of production as a taxes Rs. 0 had taken into account which is not correct.
9h	Scrutiny of Annual return on fixed assets	Given	Value of fixed assets Rs. 110000/-	-
9k	Scrutiny of Annual return on mining machineries	Given	Back Hoe - 0.90cum - 1 Water Tanker - 8000 Ltr - 1 Nos.	Details of dumpers not furnished in the returen.

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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
Rule 45(7)	08-AUG-23				
MCDR17 Rule 11(1)	08-AUG-23				
MCDR17 Rule 12(4)	08-AUG-23				
MCDR17 Rule 33	08-AUG-23				

Date :**(RAGHUBIR SHARAN GARG)**

Indian Bureau of Mines