

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/SATNA/OCHRE-17

Mine code : 32MPR35037

- (i) Name of the Inspecting : **G007**) **RAGHUBIR SHARAN GARG**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri R.C.Bansal, ME, Shri K.K.Bansal Partner of firm
Official with
Designation
- (iv) Date of Inspection : 21-SEP-21
- (v) Prev.inspection date : 15-JAN-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PAMARIYA (KH.NO. 80)**
- (b) **Registration NO.** : **IBM/6953/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : SATNA
Village : PAMARIYA
Taluka :
Post office :
Pin Code :
FAX No. : N. A.
E-mail : N. A.
Phone : N. A.
- (f) Police Station : MAJHAGAWAN
- (g) First opening date : 09-DEC-64
- (h) Weekly day of rest : MON
2. Address for : M/ S HIRALAL RAMESHWAR PRASAD
correspondance P.O. JAITWARA, DIST. SATNA (M.P.) 485221
3. (a) Lease Number :
(b) Lease area :
(c) Period of lease :
(d) Date of Expiry :
4. Mineral worked : BAUXITE Associated
OCHRE Main
CLAY (OTHERS) Associated
LATERITE Associated

5. Name and Address of the

Lessee : HIRALAL RAMESHWAR PRASAD
P.O. JAITWARA SATNA
MADHYA PRADESH
Phone:N. A.
FAX :N. A.

Owner : HIRALAL RAMESHWAR PRASAD
P.O. JAITWARA SATNA
MADHYA PRADESH
Phone: N. A.
FAX : N. A.

6. Date of approval of Mining	:	Renewal under rule 24 MCR1960	29-JUL-04
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	08-NOV-12
		Mining Scheme rule 12 MCDR1988	24-OCT-14
		MP review under 17(1) MCR 2016	07-MAR-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Two pits of 3mX3mX5m	Two pits of proposed size carried out	On pits bauxite is not exposed. only occurrences of ochre seen
1b	Exploration over lease area for geological axis 1 or 2	No	Entire lease area has already been considered geologically explored at G1 level at the time of approval of Review of Mining plan under review. Although there were proposal of 2 -2 pits of 3.0mX3.0mX5.0m size against year 2019-20 and 2020-21 . All the proposed pits were found digged. These pits also conform themineralisation considered for reserve estimation.	Exploratory work of lease area conforms mineralisation under G1 axis.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Lessee themselves carried out the all the proposed 4 pits .	Fearm themselves carried out the exploratory work.
1d	Balance area to be explored to bring Geological axis in 1 or 2	None	NA	Entire area already explored at G1 Axis at the time of approval of Review of Mining plan.
1e	Balance reserve as on 01/04/20	As on 01/04/2018 mineral reserve of bauxite was 391677tonne	Actual Production against 2018-19&2019-20 were 48300 & 47210tone respectively. Thus total production was 95510tonne. So as on 01/04/2020 there was reserve of bauxite of 296167tonne	Lease area is valid upto Nov.2024 and entire lease is explored on G1 Axis.

1f	General remarks of inspecting officers on geology, exploration etc	Deposit of the lease area belongs to Upper Rewa Sand Stone group of Vindhyan Supper Group. lease area is hilly having slope towards South. The surface area is covered by blanket of lateritic soil/laterit/bauxite.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposal in two pits First one in Grid of N2751550 to 2751760 and E489650 to 489820 and second one grid of N2751615 to 2751780 and EE 489490 to 489530	Actal also in two pits First one between Grid of N2751550 to 2751780 and E489640 to 489800 and second one grid of N2751615 to 2751780 and EE 489490 to 489530	Mining operation extended in proposed direction and almost nearer upto the proposed location.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Only one bench in laterite/ bauxite	AS proposed one bench	

2c	Stripping ratio or ore to OB ratio	1:1.07	1:0.6038	Stripping ration decrease reasons behind appears that as a minor mineral laterite is also granted in the lease area. and certain part of mine waste of Bauxite have a market as a laerite resulting quantum of mine waste reduced drastically.
2d	Quantity of topsoil generation in m3	0	0	There is no Top soil over bauxite mineralisation.
2e	Quantity of overburden generation in m3	44762CUM	15000CUM	Lease for Laterite is also granted and accordingly alongwith extraction and dispach of Bauxite Laterite is also extracted during mining. So certain part of mine waste of bauxite have a market as laterite resulting less quantumof OB/ mine waste generation.

2f	General remarks - of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Alongwith recovery of Bauxite from the proposed first bench laterite is also recovered. So in fact there areno separate benches in bauxite and laterite . Further more Fireclay and ochre are also included in the lease area as a minor mineral , both are found below the deposition of Bauxite / laterite capping. Both the above stated minor mineral also extracted from the lease area simultaneously. Near Boundary Pillar No 7 all the benches are closer to murgwith each other with Bx bench at top.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	2	No deviation
3b	Quantity of ROM mineral production proposed	58325tonne	24840tonne	Less production than the envisaged one.

3c	Recovery of sailable/usable mineral from ROM production	75%	75%	Recovery of bauxite is almost 75% as envisaged. Laterite is also recovered from the bauxite / laterite zone. Thus mine waste is nominal in Bauxite / laterite zone which appears to be 10-12% of ROM.
3d	Quantity of mineral reject generation	none	none	There is no mineral reject generation as certain part of mine waste of bauxite also have a market as laterite.
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	None	There is no mineral reject of bauxite mineral.
3f	Quantity of sub grade mineral generation.	0	0	There is no generation of sub grade mineral of bauxite.
3g	Grade of sub grade mineral generation	Not Applicable	Nil	There is no sub grade of bauxite mineral.
3h	Manual / Mechanised method adopted for segregating from ROM	Mannual as well as Mechanised	By manual and by Screening	Asper proposal
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	NA	No deviation
3j	Provision of drilling and blasting in mineral benches	Not proposed.	Not carried out	No need of drilling and blasting for extraction of mineral.

3k	Provision of mining machineries in mineral benches	Hydraulic Excavator and dumper combination	As per proposal extraction of mineral carried out with the use of Excavator and dumper combination.	No deviation.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	2.0m bench in mineral , there is no overburden. Beside mineral bench there are proposal of one bench each in weathered sand stone and in ochre of 4.5m and 1.8m height.	As per proposal there is one bench of 2.0m height in mineral Bauxite/laterite , There is no overburden. benches in weatherd sand stone as well as in ochre were also seen as per proposal.	There is no deviation with respect to bench height in Bauxite/ laterite , weathered sand stone as well as in ochre..
3m	Total area covered under excavation/pits	1.69hect proposed area for 2020-21.	3.5hectareacumulative broken out area of both the pits where proposal made	Entire pit area of bothe proposed site given under actual work.
3n	Ore to OB ratio for the pit/mine during the year.	1:1.07	1:0.6	No remarkable deviation as exploitation of both the minerals i.e bauxite and laterite is done by forming a single bench and on screening of ROM.
3o	Total area put in use under different heads at the end of year	As per proposal at the end of 2020-21, 3.6hect additional area were required for excavation .	In fact active cumellative active area as on year ending 2020-21 it was 3.5hect including mineral stacksetc.	Cumelative area put under use for the purpose of financial assurance concerned it appears there is no excessive area under putin use under mining and allied activities than the proposed one.

3p	Production of ROM mineral during the last five year period as applicable	2016-17 48516 2017-18 48321 2018-19 48300 2019-20 58650 2020-21 58325	2016-17 2017-18 2018-19 2019-20 2020-21	17180 48290 48300 47210 24840	There is no excess production than the proposed one.
3q	General remarks of inspecting officers on method of mining etc.				Method of mining adopted in mine are as per approved proposals. There is no suggestion for any changes in method of mining.

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 there is no top soil.	NA	OK
4b	Location of topsoil, OB and mineral reject dumps	Top soil-No top soil OB - 11900square metre Mineral reject-No proposal	Top Soil -NA OB -Entire OB/Mine waste generated so far generated had been utilised for backfilling purpose. total backfilled area about +4hect area.It is true that over backfilled areas there are mineral stacks covering an area of about 1.02hect Mineral reject-NA	Location of top soil, OB and mineral reject concerned progress as per proposal seen.
4c	Number of dumps within lease area and outside of lease area	Not proposed	Asper proposal	no deviation.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	Not applicable as simultaneous backfilling is in practice.	Nod deviation.

4e	Number of active and alive dumps.	Not proposed.	Not applicable as simultaneous backfilling is in practice.	Nod deviation.
4f	Number of dead dumps.	Not proposed	There is no dead dump	no deviation.
4g	Number of dumps established.	Not proposed	Not Applicable	No deviation
4h	Whether Retaining wall or garland drain all along dumps are there.	Not applicable	NA	NA
4i	Length of Retaining wall or garland drain all along dumps	NA	NA	NA
4j	Number of settling ponds	Not proposed.	None	There was no settling ponds in the area.
4k	Specific comments of inspecting officer on waste dump management	-	-	Overall whatsoever waste generated utilised for simultaneous reclamation of mined out area.

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.	2.90hect already mined out area at the bigining of plan period +3.8 hect proposed area upto end of 2020-21. Thus total area for backfiikling was 6.7hect	Total area evacuated from mineral upto the end of year 2020-21 reportedly was 1.75hectarea. Thus total area available for backfilling was 4.65hect.	Actual production is less than the proposedone accordingly availability of matured area forbackfilling differ with the proposed one.

5b	Area under backfilling of mined out area	4.49hect upto the end of 2020-21	about 4.0hect	Actual production is less than the proposedone accordingly availability of matured area forbackfilling differ with the proposed one.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	There is no top soil in the area. hence not proposed	Not Applicable	There is no top soilgeneration.
5d	Total area fully reclaimed and rehabilitated	@ 1.4hect per year Total area rehabilitation upto the end of year 2020-21 3.5hect	As the level of actual production from the proposedone is about 60% from . Thus actual reclamation and rehabilitation is also 60% ofthe proposed one. Thus total area reclaimed and rehabilitated upto the end of year2021 was 2.13hect.	Actual production is less than the proposedone accordingly availability of matured area forbackfilling differ with the proposed one.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Simultaneous reclamation and rehabilitation practice was noticed during inspection. As the level of production is about 60% of the envisaged one so, actual reclamation and rehabilitation was also proportiionally 60% from the proposed one .

Progressive Mine Clousre Plan:

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).	Yes	Not submitted	violation pointed out.
6b	Area available for rehabilitation (ha) .	1.3hect	0.84hect	rehabilitation work is in progress.
6c	afforestation done (ha).	1.3hect	0.84hect	Rehabilitation work is in progress
6d	No. of saplings planted during the year	16000	3000	Although actual plantation is less than the proposed one but health of planted saplings were found OK
6e	Cumulative no .of plants	19900	5000	Plantation work is in progress.
6f	Any other method of rehabilitation	No	NA	NA
6g	Cost incurred on watch and care during the year	Not given	NA	NA
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.19	0.70	Actually backfilling of void is not carried out. In fact whatever mine waste is generated from exploitation of mineral is utilised either leveling of the scarp or leveling of exploited slice of the hill.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1.1hect	As stated earlier.	Actually backfilling of void is not carried out. In fact whatever mine waste is generated from exploitation of mineral is utilised either leveling of the scarp or leveling of exploited slice of the hill.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	1.3hect	0.8hect	work is in progress.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	NA	NA

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	NA	NA
6p	Compliance of environmental monitoring (core zone and buffer zone)	NA	NA	NA
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	PMCPcompliance is in progress.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	58325 tonne Bauxite	7305.4 tonne Chemical Grade and 6063tonne Cement Grade	As per grade mineral is dispatched from the mine.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	manual as well as screening	As proposed sorting of grade wise mineral carried out by the lessee.	As per proposal sorting of mineral carried out by the lessee.
7c	Different grade of mineral sorted out at mines.	NA	During the year 7305tonne Chemical Grade Bauxite and 6063tonne cement bauxite dispatched from the mine.	Sorting of mineral part is satisfactory.
7d	Any beneficiation process at mines	Not Proposed	Only screening practice is adopted by the lessee.	Ok

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	Mineral conservation aspect is completely covered by the lessee. Manual / screening practice is adopted by the lessee for grade wise sorting.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	There is no top soil	NA	NA
8b	Concurrent use or storage of topsoil	Not Applicable As there is no top soil.	NA	OK
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	44762CUM	As per proposal whatever mine waste is generated utilised for leveling of pit as well as leveling of scarp of the hill.	Find ok although level of exploitation of mineral is proportionatly about 60% than the proposed one.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	proposed 1.19hect	About 0.7hect broken out area leveled.	Considering actual production with respect to proposed one it appears that restoration of land by backfilling is satisfactory.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	-	Simultaneous restoration of affected land were seen.	OK

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	NA	NA
8g	Survival rate	-	70%	OK
8h	Water sprinkling on roads to control airborne dust	Proposed	Reportedly sprinkling practice in lese area is ther.	Inspection of mine carried out in monsoon season . Duringinspection need of sprinkling of haul road were not necessary. Reportedly in other than monsoon sprinkling of haul road is carried out by the lessee.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	Lease area is away from habitation and lies in forest land. Palntation carried out by the lessee over reclaimed and levelled areahave a nice seen. Growth of plantion carriedoutby the lessee were very good. It appears that if the reclamatuion / levelling of worked out portion of the lease and plantation over it isbeing continued the aesthetic beauty of the lease area may have no adverse effect in future also.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Requisite Monthlyas well as Annual Returns are timely being submitted by the lessee.	Some shortcomings in Annual Return for the year 2020-21 were noticed and accordingly pointed out through violation of rule 45(7) of MCDR,2017	Violation of rule 45(7) pointed out for noticed shortcomings.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Name of Mining Engineer and mining Geologist furnished.	Although Name of Shri R.C.Bansal, as a Mining Engineer given in AR,2020-21. It is observed that Shri R.C. bansal is also a qualified person and in business of preparation of mining plan of other mines also. As mine is A category, a full time qualified mining engineer need to be appointed in the mine.Accordingly violation of rule 55(1) pointed out.	Violation of rule 55(1) pointed out.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details given in AR,2020-21	land use pattern furnished	-
9d	Scrutiny of Annual return on afforestation	5000 plantation carried out during the year 2020-21 furnished	Overall plantation carried out sofar is more than the indicated figure.	OK
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Generation mineral reject is not envisaged in approved mining Plan.	generation of mineral reject is not noticed in the mine.	ok

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock and graded ore were found place in AR,2020-21	There is no issue regarding ROM stock and graded ore. However there is an issue regarding grad wise dispatch from the mine and grade wise dispatch to the consignees. Consumption and for exports(BAUXITE) As per production and dispatch table 10024.3 tonne Bauxite (6063.5tonne for cement and 7305.0tonne chemical grade) dispatched from the mine whereas as per Sales/Dispatches effected for Domestic Consumption total quantity of bauxite sold indicated as 13368.9tonne(7305.4 tonne Cement grade and 6	Defficiency pointed out.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale vallue - Chemical Grade Rs. -875/- , Cement grade - Rs.544/86, Ex Mine Price -Chemical Grade Rs. - 875/- , Cement grade - Rs.558/- and Production cost Rs. ,456/-	Part VII, Cost of Production For the calculation of cost of production Rs.40/- per tone amount has been taken against overhead expenses whereas on relevant part of return it is indicated as nil.	Defficiency pointed out.
9h	Scrutiny of Annual return on fixed assets	Given	Depriciation cost ofplants and machineries taken as 15%-of actual cost which is acceptable.	ok
9k	Scrutiny of Annual return on mining machineries	Dumper and water tanker deployed in the mine is stated as Electric motive power	Dumper and water tnker deployed in the mine are having diesel motive power.	Defficiency exist in the AR,2020-21

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)	25-OCT-21			
	Rule 26(2)	01-OCT-21			
MCDR17	Rule 31(4)	01-OCT-21			
MCDR17	Rule 33	01-OCT-21			
	Rule 45(7) (i)	01-OCT-21			

Date :

(RAGHUBIR SHARAN GARG)

Indian Bureau of Mines