

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

Mining Plan Modification REPORT

Nagpur regional office

Mine file No : MP/BGT/MN-252/NGP

Mine code : 40MPR01023

- (i) Name of the Inspecting : **KQ14**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : SH. VINAY SURANA AND SH. ANAND RAIKWAR GEOLOGIST
Official with
Designation
- (iv) Date of Inspection : 31-MAY-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ARJUNI**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : BALAGHAT
Village : ARJUNI
Taluka : KATANGI
Post office : ARJUNI
Pin Code :
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 01-MAY-85
- (h) Weekly day of rest : SUN
2. Address for : PO-TIRODI,
correspondance : DISTT.- BALAGHAT (MP)
3. (a) Lease Number : MPR0568
(b) Lease area : 3.24
(c) Period of lease : 20
(d) Date of Expiry : 26-NOV-23
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : Smt. Ratnakalabai Chauhan
PO- Tirodi Distt. Balaghat
(MP) BALAGHAT MADHYA
PRADESH
Phone:
FAX :

Owner : Smt.Ratnakalabai Chauhan
PO- Tirodi Distt. Balaghat
(MP) BALAGHAT MADHYA
PRADESH
Phone:
FAX :

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	03-FEB-05
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	24-JUL-08
		Mining Scheme rule 12 MCDR1988	11-FEB-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	07 Boreholes	07 nos of Core boreholes were proposed for exploratory drilling in approved plan period. But, no exploratory drilling had done as per proposal of approved document.	Violation pointed out for the same under rule 11(1) of MCDR-2017.
1b	Exploration over lease area for geological axis 1 or 2	Exploration under G-1 axis	Not done	Violation pointed out for the same under rule 11(1) of MCDR-2017.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified	Not exploration done in the RY	Violation pointed out for the same under rule 11(1) of MCDR-2017.
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	3.238 Hect	Exploration not done in the last approved plan period.
1e	Balance reserve as on 01/04/20		Balance reserved as on 01.04.2022 : 9465 Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			Geologically the area forms a moderate undulating terrain comprised of the rocks of 'Sausar series'. The general strike of Mica schist, Quartzite/Gondite rock is almost WNW - ESE, dipping 65° to 75° due North. Structurally rocks of Sausar Group are very complex & deformed intensely. Exploration not done in the last approved plan period. Violation pointed out for the same.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	One pit	One pit	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches of 1.5m height shall be maintained in the mine and bench widths at the mine shall be not less than the bench height.	The benches in the eastern part, western part and some other areas of the lease were found merged up and high wall has been created resulting height of the benches found more than the proposal. And, it was also observed that at some places width of the benches found less than approval.	Violation pointed out for the same under rule 11(1) of MCDR-2017
2c	Stripping ratio or ore to OB ratio	1:1.68	1:0.5	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	3887 Tonnes	450 Tonnes	The mine development was lagging from the proposal and not as per the approved proposals of approved document. Violation pointed out for the same under rule 11(1) of MCDR-2017.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	It was proposed to remove 3887 m3 quantity of overburden from pits for mine development in the year 2021-22. But, it was observed during inspection that development was not carried out at the proposed location. The mine development was lagging from the proposal and not as per the approved proposals of approved document. Violation pointed out for the same.
----	---	---

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit	
3b	Quantity of ROM mineral production proposed	2265 T	150 T	Violation pointed out for the same under rule 11(1) of MCDR for the same.
3c	Recovery of sailable/usable mineral from ROM production	90%	90%	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NIL	NA	

3f	Quantity of sub grade mineral generation.	NIL	NA	
3g	Grade of sub grade mineral generation	Not proposed.	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	MANUAL	MANUAL	
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 JACK HAMMER	DRILLING WAS DONE WITH 32MM JACK HAMMER AS PER RECORDS.	
3k	Provision of mining machineries in mineral benches	JACK HAMMER , TRACOTR TROLLEY	JACK HAMMER , TRACOTR TROLLEY	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Separate benches of 1.5m height shall be maintained in the mine and bench widths at the mine shall be not less than the bench height.	The benches in the eastern part, western part and some other areas of the lease were found merged up and high wall has been created resulting height of the benches found more than the proposal. And, it was also observed that at some places width of the benches found less than approval.	Voilation pointed out for the same under rule 11(1) of MCDR-2017.
3m	Total area covered under excavation/pits	0.8975 Hect.	0.8975 Hect.	
3n	Ore to OB ratio for the pit/mine during the year.	1:1.68	1:0.5	

3o	Total area put in use under different heads at the end of year	1.1655 Hect.	1.1655 Hect
3p	Production of ROM mineral during the last five year period as applicable	2017-18 0.00 (Lapse Year) 2018-19 1840 T 2019-20 2118 T 2020-21 2150 T 2021-22 2265 T	2017-18 0.00 2018-19 850 T 2019-20 650 T 2020-21 400 T 2021-22 150 T

3q General remarks of inspecting officers on method of mining etc.

separate benches of 1.5m height shall be maintained in the mine and bench widths at the mine shall be not less than the bench height. But, during inspection it was observed that the benches in the eastern part, western part and some other areas of the lease were found merged up and high wall has been created resulting height of the benches found more than the proposal. And, it was also observed that at some places width of the benches found less than approval. Violation pointed out for the same

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB proposed.	OB dump observed during inspection.	
4b	Location of topsoil, OB and mineral reject dumps	OLD DUMP IN THE NORTHERN PART	OLD DUMP IN THE NORTHERN PART OF THE ML	
4c	Number of dumps within lease area and outside of lease area	One dump with in lease area	One dump with in lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL	The dump is outside the UPL as the mineral exposed in the pit. Exploration has not been undertaken for entire lease area.
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	NIL	NIL	
4g	Number of dumps established.	NIL	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposed	Not constructed	
4i	Length of Retaining wall or garland drain all along dumps	NIL	NIL	
4j	Number of settling ponds	Not proposed	NIL	
4k	Specific comments of inspecting officer on waste dump management			Dump in the northern part been kept as it and generated OB has been used for dumping over the dump and partly used for road maintenance as per records.

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 of mineral from the mined out area.	No full extraction of mineral at any part of ML	Area not matured for backfilling.
5b	Area under backfilling of mined out area	No proposal	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed	Not done	
5d	Total area fully reclaimed and rehabilitated	Not proposed	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			In the review year no backfilling was propsoed and neither it has been done. Area not matured for backfilling.

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	The yearly report of PMCP has not been submitted for the year 2021-22.	Violation pointed out for the same under rule 26(2) of MCDR 2017
6b	Area available for rehabilitation (ha) .	Not proposed	NIL	Area not matured for rehabilitation.
6c	afforestation done (ha) .	0.015 Hect	Not done.	Plantation was not done as per approved proposal. violation pointed out for the same under rule 11(1) of MCDR-2017.

6d	No. of saplings planted during the year	10 plants per year in the five year block.	Not done	Plantation was not done as per approved proposal. violation pointed out for the same under rule 11(1) of MCDR-2017.
6e	Cumulative no .of plants	Not specified	approx. 40 plants observed in the ML area.	
6f	Any other method of rehabilitation	Not proposed	Not done	
6g	Cost incurred on watch and care during the year	Not specified	No records	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed	NIL	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not proposed	Not applicable	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not done	

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not done	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Not done	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Not done	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	Not done	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Environment monitoring compliances in order as per records.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance and progressive closure operations has not been done in the RY. Violaiton pointed out for for non submission of PMCP report.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within the leasea area	Grade wise sorting within the leasea area	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	32-38%	32-38%	
7d	Any beneficiation process at mines .	Not proposed	Not done.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Grade wise sorting was done within the lease area manually. No beneficiation done.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	Not done	No top soil available in the proposed area.
8b	Concurrent use or storage of topsoil	Not proposed	No top soil at the proposed area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump of OB proposed	Separate dump of OB observed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	Not done	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Not done	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not specified	Approx. 40 plants in the ML area.	
8g	Survival rate	Not specified	No record	Plantation was not done as per approved proposal. Violation pointed out for the same.
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation was not done as per approved proposal. Violation pointed out for the same.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Annual Return submitted on 16-06-2022. Monthly Returns submitted for the year 2021-22. Monthly Returns of Nov-21, Jan-22, Feb-22, Mar-22 & Apr-22 are found submitted after the due date.	Violation has been issued on 02/06/2022 for delayed submission of Monthly Returns under rule 45(7) of MCDR-2017.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information given in the AR - Mining Engineer - SH. Sushil Kumar, Geologist - 01 (Part time)	As per Form H record, Mining Engineer - Sh. Praveen Kumar Khare, Mine Geologist - Sh. Rajeev Kumar Goyal.	The mine was not in operation during the inspection due to unavailability of approved document.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Land use pattern of area is given as - Covered under current (O/C) Workings - 1.3 Hect Used for waste disposal - 0.6 Hect Other purpose - 0.3 Hect.	
9d	Scrutiny of Annual return on afforestation	Yes	NIL	Violation pointed out for the same under rule 11(1) of MCDR-2017.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	NIL	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM closing stock - 1560 T Below 25% Mn - 193.445 T 25% to below 35% Mn - 72.6 T 35% to below 46% Mn - 23.74 T	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Ex mine price - Below 25% Mn - 2023.32 per T 25% to below 35% Mn - 4396 per T 35% to below 46% Mn - 6200 per T Cost of Production - 2667.12 per T	
9h	Scrutiny of Annual return on fixed assets	Yes	1500000	

9k	Scrutiny of Annual return on mining machineries	Yes	Jack Hammer & Tactor Trolly
----	--	-----	--------------------------------

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

Date :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines