

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

**Mining Plan Modification REPORT**

**Jabalpur regional office**

**Mine file No :** MP/BGT/CU-1/NGP

**Mine code :** 14MPR01001

- (i) Name of the Inspecting : **KQ06** ) **NARESH KUMAR KATARIYA**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : S/Sh N Shenoy (DGM, Mines) K Hansda (Mine Manager), P.D  
Official with  
Designation
- (iv) Date of Inspection : 09-DEC-19
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MALANJKHAND**
- (b) **Registration NO.** : **14MPR01001**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Underground
- (e) Postal address  
State : MADHYA PRADESH  
District : BALAGHAT  
Village : KARAMSARA  
Taluka : BAIHAR  
Post office : MALAJKHAND  
Pin Code : 481116  
FAX No. : 07637-257038  
E-mail : hcl\_mcp@hindustancopper.cor  
Phone : 257032
- (f) Police Station : malanjkhanda
- (g) First opening date : 01-JAN-78
- (h) Weekly day of rest : SUN
2. Address for : Malanj Khand copper project  
correspondance Teh: Birsa Dist: Balaghat  
State: MP
3. (a) Lease Number : MPR0781
- (b) Lease area : 480.1
- (c) Period of lease :
- (d) Date of Expiry : 31-MAR-20
4. Mineral worked : COPPER ORE Main

## 5. Name and Address of the

Lessee : M/S HINDUSTAN COPPER LIMITED  
MALANJKHAND COPPER PROJECT  
DISTT BALAGHAT MP BALAGHAT  
MADHYA PRADESH  
Phone:  
FAX :

Owner : SK Bhattacharya  
BALAGHAT MADHYA PRADESH  
Phone:  
FAX :

Agent : V.K singh  
BALAGHAT MADHYA PRADESH  
Phone:  
FAX :

## Mining Engineer

Name : P.D.BOHRRA, Full Time  
Qualification : BE MINING  
Appointment/ :  
Termination date

## Geologist

Name : Dr Bhakat, Full Time  
Qualification : MSc Geology  
Appointment/ : 01-JAN-19  
Termination date

6. Date of approval of Mining	:	Renewal under rule 24 MCR1960	23-AUG-12
Plan/Scheme of Mining		MP modif under 17(3) MCR 2016	20-FEB-16
		MP modif under 17(3) MCR 2016	20-FEB-18

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Not proposed	Not done	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed	Balance area to be explored for G1: 339.605 Ha	
1e	Balance reserve as on 01/04/20		126.180 X 1.33% Cu	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Yes	Location of development area is per proposal	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	separate benches of 12 m height shall be maintained in the mine and bench widths at the mine shall not be less than 6m height.	bench heights in the western side of the lease (between the local grid coordinates E6800 to E7000 & N 6200 to N 6600) have been merged up resulting height of the benches found more than 12 m and bench widths found less than 6m at many places between the local grid coordinates E6800 to E7000 & N 6200 to N6600	Violation pointed out for the same.
2c	Stripping ratio or ore to OB ratio	1: 3.35	1: 2.55	Stripping ratio deviated due to less development. Violation pointed out for the same.

2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	26.20 LM3	16.46 LM3	Violation pointed out for the same.
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 for the year 2018-19. Violation pointed out for the same.

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#### 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	7.80 LM3	9.44 LM3	
3c	Recovery of sailable/usable mineral from ROM production	18.0 LT X 1.04 %Cu and 3.00 LT X 0.33 %Cu	18.99 LT X 1.005 %Cu and 6.42 LT X 0.34 %Cu	
3d	Quantity of mineral reject generation	3.00 Lt	621634 T	
3e	Grade of mineral rejects generation and threshold value declared.	0.25% Cu	0.35% Cu	
3f	Quantity of sub grade mineral generation.	3.00 LT	621634 T	
3g	Grade of sub grade mineral generation	0.35% Cu	0.348% Cu	

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3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Yes	Yes
3j	Provision of drilling and blasting in mineral benches	Yes	Yes
3k	Provision of mining machineries in mineral benches	Yes	Yes
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes
3m	Total area covered under excavation/pits	2.758 LM2	2.075 LM2
3n	Ore to OB ratio for the pit/mine during the year.	1: 3.35	1:2.55
3o	Total area put in use under different heads at the end of year	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Irfra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Irfra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672

3p	Production of ROM mineral during the last five year period as applicable	2017-18 12.82 Million Tones	2017-18 11.86 Million Tones	2018-19 11.5 Million Tones	2018-19 12.21 Million Tones
3q	General remarks of inspecting officers on method of mining etc.				

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Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	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	Yes	As per proposal.	
4c	Number of dumps within lease area and outside of lease area	three	three	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	out side UPL	out side UPL	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	Two	Two	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dumps	680 m	680 m	

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4j	Number of settling ponds	Three	Three	
4k	Specific comments of inspecting officer on waste dump management			dump stabilization, maintenance of green belt etc. are not carried out in accordance to approved PMCP either partially or fully. Violation pointed out for the same.

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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.	Backfilling not proposed due to UG working below opencast working.	Backfilling not proposed due to UG working below opencast working.	
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed and rehabilitated	NA	NA	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling and reclamation not proposed in 2018-19 due to UG working below opencast working.

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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 for the same.
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	1.2 ha	1.2 ha	Out side the working pit
6d	No. of saplings planted during the year	3000	3250	
6f	Any other method of rehabilitation	Not proposed	NA	
6g	Cost incurred on watch and care during the year	Not proposed	191.33 Lac	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Backfilling not proposed due to UG working below open cast pit.	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	

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	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	1.2 Ha	1.2 Ha	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Nil	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	NA	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			yearly report in respect of rule 26(2) of MCDR 2017 has not been submitted for the year 2018-19. Violation pointed out for the same.

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**Mineral Conservation:**

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Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	21.00 LT of ROM had to be handle & 3.0 LT of Lean Ore had to be sorting	25.42 LT ROM handled & 6.21 Lt of Lean ore sorted
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	0.2 to 0.45% Cu and above 0.45% Cu	0.2 to 0.45% Cu and above 0.45% Cu
7d	Any beneficiation process at mines .	Yes	Yes
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NA. No top soil in the working area.	NA	
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	

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8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA. UG working on progress below the open pit.	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	After the end of Underground Mines life, Mines will be restore & reclaimed	After the end of Underground Mines life, Mines will be restore & reclaimed	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Native tree species as suggested by Forest Department are Neem, Babul, Sal, Teak, Mango, Jamun, Amrud, Karaj etc.	Plantation done	
8g	Survival rate	80%	Approx. 80 %	
8h	Water sprinkling on roads to control airborne dust	Yes	water sprinklers in the crushing area were not working properly and the measures taken for dust suppression found unsatisfactory.	Violation pointed out for the same.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty of the mine is good in and around the mine area. water sprinklers in the crushing area were not working properly and the measures taken for dust suppression found unsatisfactory. Violation pointed out for the same.
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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 of Apr-18 to Mar-19 has been submitted and AR of 2018-19 has been submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Name of Mining Engineer - Mr. P D Bohra, AGM (Mines) Name of Geologist - Mr. R D Bhagat, CM (Expl) Name of Manager - K Hansdah, DGM (Mines)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Mining area- 132.357 Waste Dump site - 137.381 Mineral storage - 6.063 Irfra, admin buld -8.623 Road - 8.485 Mineral separation - 0.73 Other - 17.859 Undisturbed area - 168.672	

9d	Scrutiny of Annual return on afforestation	Yes	Afforestation within ML during 2018-19 - In 1.2 ha total 3520 trees planted.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	621634 T of 0.348% Cu Mineral rejects generated during 2018-19.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	25.42 LT X 0.84% Cu ROM handled in which 24.89 LT X 0.84% Cu from Opencast and 0.528 LT X 0.64% Cu from Underground produced.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	As per AR
9h	Scrutiny of Annual return on fixed assets	Yes	Rs/- 9310164652 is value of Fixed assets.
9k	Scrutiny of Annual return on mining machineries	Yes	Machineries run into Opencast and Underground mines of electrical and non-electrical of different capacity. Details provided at AR.

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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)	10-JAN-20	24-MAR-20				
	Rule 26(1)	10-JAN-20	24-MAR-20				
	Rule 26(2)	10-JAN-20	24-MAR-20				
MCDR17	Rule 40	10-JAN-20	24-MAR-20				

**Date :**

**(NARESH KUMAR KATARIYA)**

Indian Bureau of Mines