

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

MCDR inspection REPORT

Nagpur regional office

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

Mine code : 14MPR01001

- (i) Name of the Inspecting : **SQ31**) **DEEPAK SHARMA**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : V N Mishra Manager Geology, Sunish Raj Geologist
Official with
Designation
- (iv) Date of Inspection : 27-SEP-21
- (v) Prev.inspection date : 28-JUN-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MALANJKHAND**
- (b) **Registration NO.** : **IBM/6381/2011**
- (c) Category : A 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 : 07637-- 257042,257150
- (f) Police Station : malanjkhanda
- (g) First opening date : 01-MAY-78
- (h) Weekly day of rest : SUN
2. Address for : MALANJ KHAND COPPER PROJECT
correspondance : HINDUSTAN COPPER LIMITED
DIST: BALAGHAT,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 LTD.
 TAMARA BHAVAN 1-- ASHUTOSH
 CHOWDHURY AVENUE, CALCUTTA
 KOLKATA WEST BENGAL
 Phone:
 FAX :033 -- 40--8478

Owner : SK BAHTTACHARYA
 TAMRA BHAVAN 1 ASHUTOSH
 CHAUDHARY AVENUE
 KOLKATA, WEST BENGAL
 BALAGHAT MADHYA PRADESH
 Phone: 03322832478
 FAX : 0322832432

Agent : VINAY KUMAR SINGH
 BALAGHAT MADHYA PRADESH
 Phone:
 FAX :

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	16-MAR-05
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	02-MAR-11
	:	Modif.approved Mining Scheme	21-MAY-12
	:	Renewal under rule 24 MCR1960	23-AUG-12

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	IN THE YEAR 2020-21, 36 NOS OF BOREHOLES WERE PROPSOED AS DEFINATION DRILLING FOR THE UNDERGROUND DEVELOPMENT	40 NOS OF BOREHOLES WERE DRILLED IN THE YEAR 2020-21 AS DEFINATION DRILLING FOR THE UNDERGROUND DEVELOPMENT	
1b	Exploration over lease area for geological axis 1 or 2	MINERALISED AREA 107.58 HECT HAS BEEN EXPLORED UPTO G1 LEVEL	TOTAL MINERALISED AREA OF 107.58 HECT IS ALREADY EXPLORED UPTO G1 LEVEL	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	DETAILS OF EXPLORATION AGENCY NOT MENTIONED NOR THE EXPENDITURE	EXPLORATION WAS CARRIED OUT ON CONTRACT BASIS DETAILS OF EXPLORATION AGENCY NOT MENTIONED	
1d	Balance area to be explored to bring Geological axis in 1 or 2	MINERALISED AREA IS EXPLORED UPTO G1 LEVEL	TOTAL ML AREA IS 479.90 HECT, OUT OF WHICH 107.58 HECT IS MINERALISED AND 372.32 HECT IS NON MINERALISED THE 107.58 HECT MINERALISED AREA IS ALREADY EXPLORED UPTO G1 LEVEL	
1e	Balance reserve as on 01/04/20	AS ON 01.04.2019 111-108.439 CU GRADE 1.33 111-0.981 CU GRADE 0.35 122-12.58 CU GRADE 1.18 211-55.685 CU GRADE 1.23 221-100.39 CU GRADE 0.32 222-8.824 CU GRDAE 0.31 331-21.552 CU GRADE 0.91	AS ON 01.04.2020 111-106.2084 CU GRADE 1.33 111-0.981 CU GRADE 0.35 122-12.58 CU GRADE 1.18 211-55.685 CU GRADE 1.23 221-100.39 CU GRADE 0.32 222-8.824 CU GRDAE 0.31 331-21.552 CU GRADE 0.91	IN THE YEAR 2020-21 TOTAL PRODUCTION OF 2239152

1f	General remarks of inspecting officers on geology, exploration etc	MALAJKHAND COPPER DEPOSIT BELONGS TO PROTEROZOIC AGE OF ROCKS, BASIC ROCKS OF GRANODIORITE FAMILY, MINERALISATION OF COPPER IS FOUND IN VEIN, COPPER IS OF VARIETY OF MALACHITE, CHALCOCITE AND CHALCOPYRITE . OPENCAST WORKING HAS BEEN FINISHED UPTO THE UPD AND U/G WORKING IS STARTED DEVELOPMENT OF U/G IS ON PROGRESS
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	IN THE YEAR 2020-21 IT WAS PROPSOED TO WORK IN BETWEEN THE GRID A-6846N-6979E, B-6631N-7327E, C-6333N-7279E, D-6000N-6961E, FROM 544 MRL TO 460 MRL	WORKIGN WAS DONE IN BETWEEN THE GRID 6800E-6000N, 7400E-6900N, 6808E-6000N, TO 7327E-6846N FORM THE 544 MRL TO 460MRL.	MINE HAS REACHED TO ITS ULTIMATE PIT DEPTH AND U/G WORKING / DEVELOPMENT STARTED BEYOND THE LEVEL 460 MRL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	PROPOSED BENCHES IN ORE AS THE MINE IS REACHING ITS UPD	BENCHES IN ORE IS MAINTAINED, AS THE MINE HAS REACHED ITS UPD	
2c	Stripping ratio or ore to OB ratio	1:1.59	1:1.88	
2d	Quantity of topsoil generation in m3	NOT APPLICABLE	AS THE WORKIGN WAS TOWARDS TEH DEEPING AND REACHING TO ITS UPD NO TOPSOIL IS GENERATED	

2e	Quantity of overburden generation in m3	1256506 CU M	1189464 CU M	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			WORKING WAS DEEPNING THE PIT UPTO ITS UPD, OPENCAST WORKIGN HAS FINISHED U/G WORKIGN STARTED.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	SINGLE PIT	SINGLE PIT WORKIGN WAS PROPOSED AND MAINATIED FOR PRODUCTION	
3b	Quantity of ROM mineral production proposed	2880000	2239000	
3c	Recovery of sailable/usable mineral from ROM production	RECOVERY PERCENTAGE NOT DISCUSSED	RECOVERY PERCENTAGE NOT DISCUSSED AS THE ROM(ORE) IS BEING SENT TO PLANT FOR PROCEESING	
3d	Quantity of mineral reject generation	600000	592838	
3e	Grade of mineral rejects generation and threshold value declared.	0.45%	0.34%	
3f	Quantity of sub grade mineral generation.	600000	592838	
3g	Grade of sub grade mineral generation	0.45%	0.34%	
3h	Manual / Mechanised method adopted for segregating from ROM	MECHANISED METHOD PROPOSED	MECHANISED METHOD ADOPTED	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	BENEFICIATION PROCESS PROPOSED	BENEFICIATION PROCESS ADOPTED AND CARRIE DOUT FO RSUB GRADE MINERALS AND MINERAL REJECTS
3j	Provision of drilling and blasting in mineral benches	PROPOSED	DRILLING AND BLASTING PROCESS ADOPTED IN THE MINERAL BENHCES UNDER THE SUPERVISION OF TECHNICAL PERSONS
3k	Provision of mining machineries in mineral benches	PROPOSED	HEMM IS BEING USED IN THE MINERAL BENCHES FOR EXCAVATION AND TRANSPORTATION OF ROM TO PLANT INCLUDING CONVEYOR BELTS
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	SUITABLE	HEIGHT AND WIDTH IN OB AND MINERAL ARE SUITABLE AS PER APPROVED MINING PLAN CURRENT YEARS MINING WAS IN THE ORE ONLY AS THE MINE HAS REACHED ITS UPD
3m	Total area covered under excavation/pits	132.357 HECT	132.357 HECT
3n	Ore to OB ratio for the pit/mine during the year.	1:1.59	1:1.88
3o	Total area put in use under different heads at the end of year	319.228 HECT	319.228 HECT
3p	Production of ROM mineral during the last five year period as applicable	2016-17=2300000 2017-18=2300000 2018-19=2300000 2019-20=2700000 2020-21=2880000	2016-17=2415000 2017-18=2339000 2018-19=2542000 2019-20=2544000 2020-21=2239000

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

HEMM IS BEING USED
IN MINERAL BENHCES
FOR EXCVATAION AND
TRANSPORTATION OF
ROM PLANT

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	PROPOSED	SEPARATE DUMPING OF THE OB AND WASTE WITHIN THE LEASE AREA	
4b	Location of topsoil, OB and mineral reject dumps	1-MINERAL REJECT AND 2-OB DUMP	1-MINERAL REJECT DUMP AND 2- OB DUMP WITHIN THE LEASE AREA	
4c	Number of dumps within lease area and outside of lease area	3 DUMPS WITHIN THE LEASE AREA	3 DUMPS ARE WITHIN THE LEASE AREA 1-OB DUMP AND 2-MINERAL REJECT	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OUTSIDE THE UPL	DUMPS ARE LOCATED OUTSIDE THE UPL	
4e	Number of active and alive dumps.	1-ACTIVE DUMP AND 2 INACTIVE DUMPS	1-ACTIVE DUMP AND 2 INACTIVE DUMPS	
4f	Number of dead dumps.	2 DEAD DUMPS LOCATED IN THE ML AREA	2 DEAD DUMPS WITHIN THE ML AREA	
4g	Number of dumps established.	2-DUMPS	2-DUMPS ESTABLISHED BY MEANS OF PLANTTAION OVER THE DUMP	
4h	Whether Retaining wall or garland drain all along dumps are there.	NOT PROPOSED IN THE RY	GARLAND DRAIN PREPARED ALONG THE DUMP OF 6900 METERS	
4i	Length of Retaining wall or garland drain all along dumps	NOT PROPOSED	6900 METERS INCLUDING ALL THE DUMPS ACTIVE AND INACTIVE	
4j	Number of settling ponds	3 NOS	3 NOS OF SETTLING POND LOCATED	

4k	Specific comments of inspecting officer on waste dump management	GARLAND DRAIN WAS PREPARED ALL ALONG THE DUMPS INCLUDING ACTIVE AND INACTIVE DUMPS AROUND 6900 METERS
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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.	FULL EXTRACTION OF MINERAL PROPOSED	BY MEANS OF OPENCAST METHOD FULL EXTRACTION HAS BEEN DONE AND U/G OPERATIONS UNDER PROGRESS	
5b	Area under backfilling of mined out area	NOT PROPOSED	AS THE ML HOLDER PLANNED FOR U/G OPERATIONS	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NOT APPLICABLE	NO SOIL WAS GENERATED AS THE PIT REACHED ITS UPD WORKIGN WAS ONLY DONE IN THE ORE / MINERAL BENCHES NO SOIL GENERATED DURING THE YEAR	
5d	Total area fully reclaimed and rehabilitated	NOT APPLICABLE	AS THE U/G OPERATION UNDER PROGRESS BENEATH THE OC LIMIT WORKING	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			BACKFILLING OF OLD PITS WERE NOT PROPOSED NEITHER DONE AS THE U/G OPERATION UNDER PROGRESS BENEATH THE MAX UPD OF OC WORKING

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).	PROPOSED	SUBMITTED
6b	Area available for rehabilitation (ha) .	NOT APPLICABLE	NIL
6c	afforestation done (ha).	26.07 HECT	26.07 HECT
6d	No. of saplings planted during the year	1500 NOS	2500 NOS
6e	Cumulative no .of plants	15000 NOS	17500 NOS
6f	Any other method of rehabilitation	NOT PROPOSED	NIL
6g	Cost incurred on watch and care during the year	NOT APPLICABLE	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NOT APPLICABLE	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NOT APPLICABLE	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NOT APPLICABLE	NIL

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NOT APPLICABLE NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NOT APPLICABLE NIL
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NOT APPLICABLE NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NOT APPLICABLE NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	NOT APPLICABLE NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	NOT APPLICABLE NIL

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM DISPATCH PROPOSED TO PLANT	ROM IS BEING DISPATCHED TO THE PLANT FOR THE RECOVERY OF ORE	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NOT PROPOSED	ROM IS BEING SENT TO PLANT FOR THE PROCESSING AND RECOVERY OF ORE
7c	Different grade of mineral sorted out at mines.	NOT PROPOSED	NIL
7d	Any beneficiation process at mines	YES	IN THE PLANT CHEMICAL PROCESS
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		ROM IS BEING DISPATCHED TO THE PLANT FOR CHEMICAL PROCESS AND TREATMENT FOR RECOVERY OF ORE

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NOT APPLICABLE	NIL	
8b	Concurrent use or storage of topsoil	NOT APPLICABLE	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	PROPOSED	AS PER PROPOSAL SEPARATE DUMPS LOCATED WITHIN THE ML AREA FOR WASTE / OB AND MINERAL REJECTS	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NOT PROPOSED	NIL	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NOT PROPOSED	NIL	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	PROPOSED	AS PER APPROVED MINING PLAN	
8g	Survival rate	85 %	85-90%	
8h	Water sprinkling on roads to control airborne dust	PROPOSED	AS PER PROPOSAL	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			ML AREA IS COVERED WITH FOREST AREA AND POSSIBLE AREAS HAS BEEN DEVELOPED

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	SUBMITTED	AR SUBMITTED UPTO 2020-21 MR SUBMITTED UPTO NOV-21	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	FURNISHED	"NAME OF MINING ENGINEER- MR. P. D. BOHRA, AGM (MINES) NAME OF GEOLOGIST- MR. V. N. MISHRA, CM (EXPL). NAME OF MANAGER- K. HANSDAH, DGM (MINES) MINES MANAGER"	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	FURNISHED	Lease area (surface area) utilisation as at the end of year (hectares)
			<p style="margin-left: 40px;">Under</p> <p>forest Outside forest Total</p> <p>(i) Already exploited & abandoned by opencast (O/C) mining 0.000 0.000 0.000</p> <p>(ii) Covered under current (O/C) Workings 0.000 132.357 132.357</p> <p>(iii) Reclaimed/Rehabilitated 0.000 0.000 0.000</p> <p>(iv) Used for waste disposal 0.000 139.481 139.481</p> <p>(v) Occupied by plant, buildings, residential, welfare buildings & roads 0.000 17.838 17.838</p> <p>(vi) Other Purpose (Mineral storage and</p>
9d	Scrutiny of Annual return on afforestation	FURNISHED	FURNISHED
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	FURNISHED	592838 T OF 0.346% CU MINERAL REJECTS GENERATED DURING 2020-2021.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	FURNISHED	Production and Stocks of ROM ore (COPPER ORE) Opening Stock Production (in tonne) Closing Stock (in tonne) Quantity Metal content/grade Quantity Metal content/grade Quantity Metal content/grade A(i).From Development (Underground Working) 0 NIL 0.00 241012 Copper 0.80 0 NIL 0.00 (ii).From Stopping (Underground Working) 0 NIL 0.00 0 NIL 0.00 0 NIL 0.00 A.From Underground Working (Total) 0 241012 Copper 0.8 0 B.From Opencast workings 185622 Copper 0.52 1998140 Copper 0.76 63732 Copper
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	FURNISHED	Ex-mine price and cost of production of the ore produced (inR) 1758.35
9h	Scrutiny of Annual return on fixed assets	FURNISHED	Value of Fixed Assets (inr) 9760035636 (in respect of the mine, beneficiation plant, mine work-shop, power and water installation)
9k	Scrutiny of Annual return on mining machineries	FURNISHED	FURNISHED

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

Date :

(DEEPAK SHARMA)

Indian Bureau of Mines