

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/JHN-4/CU- 2

Mine code : 14RAJ17003

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri A.K. Sharma, Mining Engineer and Dr. Gopal Rathi
Official with
Designation
- (iv) Date of Inspection : 25-JUN-22
- (v) Prev.inspection date : 08-OCT-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KOLIHAN**
- (b) **Registration NO.** : **IBM/6381/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address :
State : RAJASTHAN
District : JHUNJHUNU
Village : KOLIHAN NAGAR/KHETRI
Taluka : KHETRI
Post office : KHETRI
Pin Code :
FAX No. : 01593 220002
E-mail : sree_k@hindustancopper.com
Phone : 01593-220001
- (f) Police Station : Khetri
- (g) First opening date : 24-NOV-66
- (h) Weekly day of rest : SUN
2. Address for : HINDUSTAN COPPER LIMITED,
correspondance : KOLIHAN NAGAR, PO KHETRI
DISTRICT-JHUNJHUNU (RAJASTHAN)
3. (a) Lease Number : RAJ0451
- (b) Lease area : 163.23
- (c) Period of lease : 20
- (d) Date of Expiry : 23-NOV-16
4. Mineral worked : COPPER ORE Main

5. Name and Address of the

Lessee : HINDUSTAN COPPER LIMITED
 KHETRI COPPER COMPLEX
 KHETRI NAGAR JHUNJHUNU
 RAJASTHAN
 Phone:01593-20065-20006
 FAX :01593-20002

Owner : Sanjiv Kumar Singh
 Hindustan Copper Limited 1-
 Ashutosh Chowdhury Avenue
 Kolkata 700019 KOLKATA WEST
 BENGAL
 Phone: 033 22817138
 FAX : 033 22832478

Agent : Shri Sree Kumar
 Khetri Copper Complex, M/s
 Hindustan Copper Limited
 Khetri Nagar, Jhunjhunu
 JHUNJHUNU RAJASTHAN
 Phone: 08279211779
 FAX : 01593 220002

Mining Engineer

Name : Shri A K Sharma, Full Time
 Qualification : BE Mining
 Appointment/ : 08-FEB-19
 Termination date

Mining Engineer

Name : Mr. U.B. Bhatt, Full Time
 Qualification : BE Mining
 Appointment/ : 13-MAY-13
 Termination date

Geologist

Name : Dr. Gopal Rathi, Full Time
 Qualification : M.Sc. & Ph.D. (Geology)
 Appointment/ : 19-JUN-15
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	06-JUN-95
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	29-NOV-02
		Mining Scheme rule 12 MCDR1988	15-JUN-07
		Modif. approved Mining Scheme	04-JAN-12
		Mining Scheme rule 12 MCDR1988	25-JUL-13
		Renewal under rule 24 MCR1960	01-APR-14
		MP modif under 17(3) MCR 2016	22-MAY-18
		MP review under 17(1) MCR 2016	23-JAN-20

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	28 BHs with 6445 mts of drilling (2020-21).	24 BHs with 7769 mts of drilling (2020-21).	Violation of MCDR, 2017 was issued vide letter dated 05/07/2021 for less number of BHs during previous inspection dated 13/04/2021.
1b	Exploration over lease area for geological axis 1 or 2	23 BHs with 1490 mts of drilling (2021-22).	25 BHs with 2210.30 mts of drilling (2021-22).	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Agency: M/s Asha Engineering Works. No proposal on expenditure.	Agency: M/s Asha Engineering Works. Expenditure. 60.53 Lakhs including Taxes	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No specific proposal on G3 level of exploration during RY (reporting year).	Not applicable as no proposal.	No surface area under G3 category.
1e	Balance reserve as on 01/04/20	As per approved RMP dated 23/01/2020: Reserve- 9.50 million Tons and Resource- 4.53 million Tons (as on 01/04/2019).	Reserve- 10.02 million Tons and Resource- 5.59million (as on 01/04/2022)	The reserve & resources have been updated considering mine depletion and addition of reserve & resources due exploratory drilling in the year 2021-22.
1f	General remarks of inspecting officers on geology, exploration etc	23 BHs with 1490 mts of drilling.	25 BHs with 2210.30 mts of drilling.	Geologically the area is complex with number of ore loads and grade variation.

Development :

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

2a	Location of development w.r.t.lease area	306 mRL-180 m 246 mRL- 220 m 169 mRL-0 m 124 mRL- 219 m 109mRL-1008 m 64mRL- 1073 m 0mRL- 300 m Total- 3000 m	306 mRL-0 m 246 mRL- 69.6 m 169 mRL- 356.0 m 124 mRL- 491.5 m 109mRL- 530.8 m 64mRL- 729.8 m 0mRL- 144.5 m Total- 2322.2 m	Less development due to equipment breakdowns and COVID-19 restrictions.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal being an underground mine.	Not applicable.	NIL.
2c	Stripping ratio or ore to OB ratio	No proposal being an underground mine.	Not applicable.	NIL.
2d	Quantity of topsoil generation in m3	No proposal of top soil generation.	No top soil has been generated.	NIL.
2e	Quantity of overburden generation in m3	A total of 62336.00 tonnes of waste has been proposed to generate from UG.	A total of 47290.00 tonnes of waste has been generated from UG.	Less generation due to less development.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed through UG mining method.	The UG mechanised method has been adopted for development.	The method of development proposed is suitable for the type of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No proposal as it is U/G mine.	Not applicable.	NIL.
3b	Quantity of ROM mineral production proposed	100% ROM	91.50% ROM	Remaining 8.50% of sub-grade mineral generation and blended with ROM production.
3c	Recovery of sailable/usable mineral from ROM production	720000 Tonnes	413466 Tonnes	Less production due to Frequent breakdowns in hoisting and crushing system.
3d	Quantity of mineral reject generation	No proposal of Mineral Reject generation.	No Mineral Reject Generation.	NIL.

3e	Grade of mineral rejects generation and threshold value declared.	Not applicable as no proposal	Not applicable.	NIL.
3f	Quantity of sub grade mineral generation.	No proposal of Sub-grade mineral generation.	No Sub-grade generation.	NIL.
3g	Grade of sub grade mineral generation	No proposal.	Not applicable.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Only crushing and screening at mine level.	ROM is being dispatch to the Khetri beneficiation plant for further processing.	Crushing and screening through Mechanical means.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal for any fresh beneficiation studies.	No beneficiation studies has been carried out during the RY.	ROM is being dispatch to Khetri Beneficiation plant of the company.
3j	Provision of drilling and blasting in mineral benches	Large Dia Drilling- 115 mm & 165 mm in Stope & Rib Pillar Drilling. Long Hole 57 mm- Crown Pillar, Sill Pillar & Trough Drilling etc.	Large Dia Drilling- 115 mm & 165 mm in Stope & Rib Pillar Drilling. Long Hole 57 mm- Crown Pillar, Sill Pillar & Trough Drilling etc.	NIL.
3k	Provision of mining machineries in mineral benches	Not applicable being an underground mine.	Not applicable.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable being an underground mine	Not applicable.	NIL.
3m	Total area covered under excavation/pits	0.958 Hect	0.958 Hect	Opening of Service Shaft, Decline, Ventilation raises etc.
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable being an underground mine.	Not applicable.	NIL.

3o	Total area put in use under different heads at the end of year	15.478 Ha	15.478 Ha	NIL.
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 600000 2018-19 : 650000 2019-20: 650000 2020-21: 720000 2021-22: 720000	2017-18: 580160 2018-19 : 571245 2019-20: 439518 2020-21: 453528 2021-22: 413466	All figures in tons. Reason for less production in account of breakdowns in hoisting & crushing system along with COVID-19 Restrictions etc.
3q	General remarks of inspecting officers on method of mining etc.	Underground method of mining has been proposed.	The Method of mining is suitable to the type of deposit.	No issue related to Mining method.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil and Mineral reject generation. OB/waste proposed to dump separately.	No top soil and MR generation. Separate dumping of the UG waste.	NIL.
4b	Location of topsoil, OB and mineral reject dumps	Dumping of the UG OB/Waste proposed near Magazine. No proposal of top soil and MR generation.	Dumping of the UG waste has been carried out near magazine. No top soil and MR generation.	NIL.
4c	Number of dumps within lease area and outside of lease area	Within Lease area: 03 and outside lease area: NIL	Within Lease area: 03 and outside lease area: NIL	Besides mentioned waste dump one old waste is also exist in the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable being underground mine.	Not applicable.	NIL.
4e	Number of active and alive dumps.	03 Nos.	03 Nos.	NIL.
4f	Number of dead dumps.	No proposal.	Not applicable.	NIL.

4g	Number of dumps established.	No proposal.	Not applicable.	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal of retaining wall and garland drain.	Retaining wall and garland drain observed at necessary places.	Cumulatively 350 mts of retaining wall and 400 mts garland drain constructed.
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Not applicable.	NIL.
4j	Number of settling ponds	No proposal.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	No proposal of top soil and Mineral reject generation. OB/waste proposed to dump separately.	No top soil and MR generation. Separate dumping of the waste.	No issue related to waste dumping.

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 or dumping proposed after full extraction of mineral from Stopes.	Waste dumping/backfilling observed in stope out area.	Waste dumping carried out in Stope 510 N & Stope 606 S.
5b	Area under backfilling of mined out area	Stope 510 N with 30545 tons.	Stope 510 N and 606 S with 47290 tons.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	No top soil generation.	No fresh area has been excavated.
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation	Not applicable as no proposal.	NIL.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling or in stope waste dumping proposed after full extraction of mineral from Stopes.	Waste dumping/backfilling observed in stope out area.	UG stoped out area was utilized for waste dumping/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).	As per rule 26(2) of MCDR, 2017, PMCP report to be submitted for previous year by 1st July.	Report submitted for the year 2021-22.	NIL.
6b	Area available for rehabilitation (ha) .	No proposal of rehabilitation .	Not applicable.	NIL.
6c	afforestation done (ha).	0.20 hectare within lease area.	0.20 hectare within lease area.	NIL.
6d	No. of saplings planted during the year	200 numbers within lease area.	200 numbers within lease area.	NIL.
6e	Cumulative no .of plants	Cumulative 1000 number of saplings for the plan period i.e. 2020-21 to 2024-25.	Cumulatively from 2020-21 to 2021-22 a total of 290 numbers of saplings have been planted within lease area	Cumulative 112855 numbers of saplings were planted as on 31.03.2022.
6f	Any other method of rehabilitation	No proposal other than plantation.	Not applicable as no proposal.	NIL.
6g	Cost incurred on watch and care during the year	Rs. 2.0 lacs.	Rs. 2.50 lacs as reported during mine visit.	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Stope 510 N with 30545 tons.	Stope 510 N and 606 S with 47290 tons.	NIL.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	30545 tons.	47290 tons.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No Proposal.	Not applicable.	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal.	Not applicable.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No Proposal.	Not applicable.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Total 200 numbers of saplings within lease area.	Total 200 numbers of saplings within lease area.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.2 Hect. within lease area.	0.2 Hect. within lease area.	NIL.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation.	Plantation.	NIL.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed to monitor.	Being monitored as per proposal.	NIL.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	A total of 200 number saplings have been proposed to plant within lease area.	A total of 200 numbers of saplings has been planted within lease area.	PMCP compliance appears to satisfactory.
----	---------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------	------------------------------------------------------------------------	------------------------------------------

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal.	Not applicable.	Only Crushing and screening.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical (Crushing and screening).	Mechanical (Crushing and screening).	NIL.
7c	Different grade of mineral sorted out at mines.	Not applicable as no proposal.	Not applicable.	NIL.
7d	Any beneficiation process at mines .	No beneficiation at mine.	ROM/Ore is being dispatched to Khetri beneficiation plant for further processing	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	ROM proposed to dispatch at Khetri beneficiation plant.	ROM is being dispatch to the Khetri beneficiation plant.	No issue observed related mineral conservation and beneficiation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	No top soil has been generated.	NIL.
8b	Concurrent use or storage of topsoil	Not applicable as no proposal of top soil generation.	Not applicable as no top soil generation.	NIL.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste/OB has been proposed. No proposal for reject and fines generation.	Waste/OB has been dumped separately. No reject and fines generation.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal of use of waste/OB for restoring the land to its original use.	Not applicable.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Not applicable.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Total 200 numbers of saplings within lease area.	Total of 200 numbers of saplings within lease area.	Cumulative 112855 numbers of saplings were planted as on 31.03.2022.
8g	Survival rate	No specific proposal on survival %.	45% within lease area.	As per AR 2021-22.
8h	Water sprinkling on roads to control airborne dust	To control the air born dust particle, water sprinkling has been proposed on the roads.	Water sprinkling has been observed on haul roads to control airborne dust due to mining activity.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Total of 0.20 hectare area with 200 numbers of plants proposed to plant within lease area.	Total 200 nos of sapling planted in 0.20 hect.	The aesthetic beauty is satisfactory in and around mine area.

Compliance of Rule 45:

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

9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual returns to be submitted.	Monthly and annual returns for RY have been submitted.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer and Geologist has been furnished.	Mining Engineer and Geologist has been appointed.	Scrutiny of AR 2021-22.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits- 0.958 Hect., Waste Disposal: 1.64 Hect., Infrastructure : 6.07 Hect., and other purpose: 6.81 Hect.	The information furnished on land use appears in order.	NIL.
9d	Scrutiny of Annual return on afforestation	200 no in Lease area & 200 no outside lease area.	Found in Order.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject Generation: NIL	No mineral reject generation during RY.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock- 1819 tons.	The information furnished appears in order.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price and Cost of production: Rs 3714.73 per ton.	Information on cost of production and Ex-mine price has been furnished.	NIL.
9h	Scrutiny of Annual return on fixed assets	Value of fixed assets- 6020555.	Information on fixed asset has been furnished and appears to be in order.	NIL.

9k	Scrutiny of Annual return on mining machineries	No of Machineries:- Crusher-01, LHD-7 no , Dumper- 5, Winding Engine- 3, Ventilation fan- 15, Conveyor- 4, Pumps- 9, Dozer- 1, Explosive Van- 02, Jeep- 01, Truck-01 & other electrical- 40	Information of major mining machinery has been furnished in the annual return and found in order.	NIL.
----	-------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	------

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)	13-JUL-22	02-AUG-22			

Date :

(DILIP JAIN)

Indian Bureau of Mines