

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/JHN-1/CU- 1

Mine code : 14RAJ17002

- (i) Name of the Inspecting : **S012**) **Sharma H.C.**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sh Nagesh Kumar Rajpurohit, Senior Manager (Exoplorar
Official with
Designation
- (iv) Date of Inspection : 23-APR-19
- (v) Prev.inspection date : 11-JAN-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KHETRI**
- (b) **Registration NO.** : **IBM/6381/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address
- State : RAJASTHAN
- District : JHUNJHUNU
- Village : BANWAS
- Taluka : KHETRI
- Post office : KHETRINAGAR
- Pin Code : 333504
- FAX No. : 01593-20002/20038
- E-mail : ROOT.@HCLKCC.RAJ.NIC.IN
- Phone : 01593-20065/20006
- (f) Police Station : Khetrinagar
- (g) First opening date : 15-OCT-63
- (h) Weekly day of rest : SUN
2. Address for : M/S HINDUSTAN COPPER LTD
correspondance : POST KHETRINAGAR 333504
DIST. JHUNJHUNU
3. (a) Lease Number : RAJ0449
- (b) Lease area : 395.07
- (c) Period of lease : 20
- (d) Date of Expiry : 23-FEB-13
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 : Shri S.K. Bhattacharya
 1-Ashutosh Chowdhury Avenue
 Kolkata 700019 JHUNJHUNU
 RAJASTHAN
 Phone: 033 22817138
 FAX : 033 22832478

Agent : S. DEY
 M/S Hindustan Copper Ltd;
 Khetrinagar, Jhunjhunu,
 Rajasthan JHUNJHUNU
 RAJASTHAN
 Phone: 01593-220001
 FAX : 01593-220002

Mining Engineer

Name : Shri S K Purohit, Full Time
 Qualification : BE (Mining)
 Appointment/ : 07-NOV-12
 Termination date

Geologist

Name : Shri Nagesh Kumar Rajpurohit, Full Time
 Qualification : MSc(Geology)
 Appointment/ : 08-APR-14
 Termination date

Manager

Name : Ghanshyam Das Gupta
 Qualification : B. Tech (Mining)
 Appointment/ : 06-APR-18 02-JUL-20
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	19-JAN-95
		Existing rule 11 MCDR1988	30-JUL-04
		Mining Scheme rule 12 MCDR1988	22-OCT-08
		Modif. approved Mining Scheme	17-AUG-12
		Renewal under rule 24 MCR1960	20-NOV-12
		MP review under 17(1) MCR 2016	28-NOV-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	4800 mtrs	5279.85 mtrs	No backlog
1b	Exploration over lease area for geological axis 1 or 2	The entire Surface area in G-1 category explored. In U/G exploration proposed in U/G --0 mRL, 60 mRL, 120 mRL & 180 mRL Total- 4800 mtrs	The entire Surface area in G-1 category explored. In U/G exploration proposed in U/G -- 0 mRL, 60 mRL, 120 mRL & 180 mRL Total- 5279.85 mtrs	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	SMS & Asha Engineering Works Rs. 138 Lacs (Including Taxes)	SMS & Asha Engineering Works, Rs. 148 Lacs (Including Taxes)	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No area in surface is balance for exploration.	No area in surface is balance for exploration.	
1e	Balance reserve as on 01/04/20	48.24 MT x 1.43%	48.24 MT x 1.43%	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	There is no shortfall in exploration & as such there is no issue regarding exploration of mineral.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	120mRL- 600 m 60mRL-2825m 0mRL-920 m Total-4345 m	180mRL-214.90 m 120mRL- 2858.00 m 60mRL-1043.50m 0mRL-407.0m Total-4523.4m	It is Under Ground mine hence location had been given in mRL wise.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as mine is U/G	Not applicable as mine is U/G	

2c	Stripping ratio or ore to OB ratio	Not applicable as mine is U/G	Not applicable as mine is U/G
2d	Quantity of topsoil generation in m3	Not applicable as mine is U/G	Not applicable as mine is U/G
2e	Quantity of overburden generation in m3	Not applicable as mine is U/G	Not applicable as mine is U/G
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The shortfall in development has been pointed out as V/L.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	24 Nos. of stopes.	16 Nos.	Shortfall in development of proposals for stoping.
3b	Quantity of ROM mineral production proposed	9,08,000 Tonnes	7,78,321 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	90%	90%	
3d	Quantity of mineral reject generation	83910 Tonnes	70037 Tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	Below 0.50%, Threshold Value-0.50% Cu	Below 0.50%, Threshold Value-0.50% Cu	
3f	Quantity of sub grade mineral generation.	No subgrade mineral generation in mine proposed.	Not applicable	
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized method	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Through IBM, Nagpur & out side India	Through IBM, Nagpur & out side India
3j	Provision of drilling and blasting in mineral benches	Sub-Level stoping Blast hole Stoping	Sub-Level stoping Blast hole Stoping
3k	Provision of mining machineries in mineral benches	Not applicable	Not applicable
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable	Not applicable
3m	Total area covered under excavation/pits	56.23 ha	56.23 ha
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.
3o	Total area put in use under different heads at the end of year	198 ha including dumps, roads, plant & building.	198 ha including dumps, roads, plant & building.
3p	Production of ROM mineral during the last five year period as applicable	2014-15 : 718000 2015-16 : 941000 2016-17 : 1000000 2017-18 : 1000000 2018-19 : 908000	2014-15 : 409946 2015-16 : 562042 2016-17 : 540582 2017-18 : 580107 2018-19 : 778321
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	The mine had been developed by U/G method, which is suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil generation is Nil as it is U/G Mine. Reject in underground- 14984 m3 At surface- 14984 m3	Top soil generation is Nil as it is U/G Mine. Reject in underground- 23468 m3 At surface- 1545 m3
4b	Location of topsoil, OB and mineral reject dumps	Top Soil Not applicable. Reject in underground & At surface	Top Soil Not applicable. Reject in underground & At surface
4c	Number of dumps within lease area and outside of lease area	8 Nos.	8 Nos.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.
4e	Number of active and alive dumps.	2 Nos.	2 Nos.
4f	Number of dead dumps.	6 Nos.	6 Nos.
4g	Number of dumps established.	6 Nos.	6 Nos.
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	1766 M	1364 M
4j	Number of settling ponds	01 Nos.	01 Nos.
4k	Specific comments of inspecting officer on waste dump management	Not applicable	Dumping had been done as per proposals and there is no issue regarding Waste Dump Management.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	The method of stoping is open stoping, however the waste obtained during mining operations is backfilled in the Voids created by Open Stopes.	The method of stoping is open stoping, however the waste obtained during mining operations is backfilled in the Voids created by Open Stopes. The entire voids are not backfilled.
5b	Area under backfilling of mined out area	The backfilling is not applicable at surface as it is U/G Mine & the method of stoping is open stoping, however the waste obtained during mining operations is backfilled in the Voids created by Open Stopes.	The method of stoping is open stoping, however the waste obtained during mining operations is backfilled in the Voids created by Open Stopes. The entire voids are not backfilled.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Not applicable
5d	Total area fully reclaimed and rehabilitated	Not applicable	Not applicable
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	Backfilling is not done as the method is open stoping in Under ground working.

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 as per rule	Submitted	

6b	Area available for rehabilitation (ha) .	No proposal	Not applicable
6c	afforestation done (ha).	1.0 ha	1.0 ha
6d	No. of saplings planted during the year	2000 nos	2000 nos
6e	Cumulative no .of plants	Not specified in the approved mining plan.	86390 nos. planted by the lessee at various location within & outside lease area.
6f	Any other method of rehabilitation	No Proposal	Not applicable
6g	Cost incurred on watch and care during the year	2.1 Lakh Rs.	2.1 Lakh Rs.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Development waste filled in old stopes	Development waste filled in old stopes
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable as it is U/G Mine.	Not applicable as it is U/G Mine.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable.	Not applicable.

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	2000 nos of plants proposed to be planted over 1.0 ha area.	2000 nos of plants proposed to be planted over 1.0 ha area.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation over waste land.	Plantation over waste land.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	The regular monitoring of various Parameters is being carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	The lessee's conduct towards implementation of proposals of progressive mine closure plan is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All ROM mineral is processed in their concentrator plant.	All ROM mineral is processed in their concentrator plant.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	None	Not applicable	
7d	Any beneficiation process at mines .	Ore beneficiation plant & Pilot Plant	Ore beneficiation plant & Pilot Plant	Pilot Plant for tailing beneficiation

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	Whole of ROM is processed at their concentratore plant. As such there is no issue regarding mineral conservation.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal as it is U/G mine.	Not applicable as it is U/G mine.	
8b	Concurrent use or storage of topsoil	No proposal as it is U/G mine.	Not applicable as it is U/G mine.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste rock obtained during development proposed to be dumped in old stopes, Reject brought to surface & Dumped at surface.	Waste rock obtained during development dumped in old stopes, Reject brought to surface.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2000 nos plantation this year	2000 nos planted this year	

8g	Survival rate	45%	45%
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	Not applicable	The general aesthetic beauty in & around mine is satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Not applicable	M/R Submitted up to March 2019. A/R not become due for submission. The A/R submitted for 2017-18 had already been scrutinised.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	A/R not become due for submission. The A/R submitted for 2017-18 had already been scrutinised.	A/R not become due for submission. The A/R submitted for 2017-18 had already been scrutinised.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	A/R not become due for submission. The A/R submitted for 2017-18 had already been scrutinised.	A/R not become due for submission. The A/R submitted for 2017-18 had already been scrutinised.	
9d	Scrutiny of Annual return on afforestation	A/R not become due for submission.	A/R not become due for submission.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	A/R not become due for submission.	A/R not become due for submission.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	A/R not become due for submission.	A/R not become due for submission.	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	A/R not become due for submission.	A/R not become due for submission.
9h	Scrutiny of Annual return on fixed assets	A/R not become due for submission.	A/R not become due for submission.
9k	Scrutiny of Annual return on mining machineries	A/R not become due for submission.	A/R not become due for submission.

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)	09-MAY-19			

Date :

(Sharma H.C.)

Indian Bureau of Mines