

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/UDP/LEAD-ZINC-4

Mine code : 34RAJ26005

- (i) Name of the Inspecting : **S012**) **H C SHARMA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sh. Sandeep Rajput
Official with
Designation
- (iv) Date of Inspection : 26-JUL-19
- (v) Prev.inspection date : 15-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BAROI**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address
- State : RAJASTHAN
- District : UDAIPUR
- Village : ZAWAR
- Taluka : SARADA
- Post office : ZAWAR MINES
- Pin Code : 313901
- FAX No. : 0294-2412545
- E-mail : arun.mishra@vedanta.co.in
- Phone : 0294-6604120
- (f) Police Station : ZAWAR
- (g) First opening date : 01-DEC-73
- (h) Weekly day of rest : MON
2. Address for : PO- ZAWAR
correspondance : DISTT- UDAIPUR
RAJASTHAN
3. (a) Lease Number : RAJ1725
- (b) Lease area : 816
- (c) Period of lease : 80
- (d) Date of Expiry : 31-MAR-30
4. Mineral worked : LEAD & ZINC ORE Main

5. Name and Address of the

Lessee : Hindustan Zinc Ltd
 Yashad Bhavan Udaipur
 UDAIPUR RAJASTHAN
 Phone:
 FAX :

Owner : Sri Arun Mishra
 Yashad Bhavan, Udaipur
 Rajasthan UDAIPUR
 RAJASTHAN
 Phone:
 FAX : 0294-2412545

Agent : SRI SANDEEP NARADE
 Zawar Mines, Udaipur
 rajasthan UDAIPUR
 RAJASTHAN
 Phone: 97993 97755
 FAX : 0294-423430

Mining Engineer

Name : Vinod Saini, Full Time
 Qualification : B.E. Mining
 Appointment/ : 04-OCT-18
 Termination date

Geologist

Name : Sri Somdeb Dutta Mal, Full Time
 Qualification : M.Sc. (Geology)
 Appointment/ : 31-JAN-19
 Termination date

Manager

Name : Sri Debanshu Chatterjee
 Qualification : B.E. Mining
 Appointment/ : 21-AUG-19
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	15-SEP-03
Plan/Scheme of Mining		Modif.approved Mining Scheme	16-AUG-05
		MP modif under 17(3) MCR 2016	17-MAY-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil at Surface	
1b	Exploration over lease area for geological axis 1 or 2	27000 M	43579 M	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	AEC and HRREC AND TDMA Rs. 60262000/-	AEC and HRREC AND TDMA Rs. 97265091/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20	2.667 MT	2.667 MT	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	Exploration carried out as per proposals.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	BK (276-190 mRL), North Baroi 370-300 mRL	BK (276-190 mRL), North Baroi 370-300 mRL	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as it is U/G mine	Not applicable as it is U/G mine	
2c	Stripping ratio or ore to OB ratio	Not applicable as it is U/G mine	Not applicable as it is U/G mine	
2d	Quantity of topsoil generation in m3	Not applicable as it is U/G mine	Not applicable as it is U/G mine	
2e	Quantity of overburden generation in m3	211000 Cu M	456452 Cu M	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The development has been made as per proposals.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable	Not applicable	
3b	Quantity of ROM mineral production proposed	1000000 T	999990T	
3c	Recovery of sailable/usable mineral from ROM production	95%	95%	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Not applicable	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Froth floatation	Froth floatation	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposals	Not applicable	
3j	Provision of drilling and blasting in mineral benches	Being U/G mine drilling & Blasting in development & stoping proposed.	Being done	

3k	Provision of mining machineries in mineral benches	Not applicable	Not applicable as it is U/G mine
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	Not applicable as it is U/G mine	Not applicable
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable	Not applicable
3o	Total area put in use under different heads at the end of year	Mining-34.09 Mineral storage-2 Ben. Plant-8.66 Township-34.3 Tailing pond-119.52 Roads-9.68 Infrastructure-53.66 Waste dump-10.57	Mining-34.09 Mineral storage-2 Ben. Plant-8.66 Township-34.3 Tailing pond-119.52 Roads-9.68 Infrastructure-53.66 Waste dump-10.57 for entire zavar group of mines
3p	Production of ROM mineral during the last five year period as applicable	2018-19_1000000 T, 2017-18_850000 T, 2016-17_600000 T, 2015-16_365000T, 2014-15_425000	2018-19_999990 T, 2017-18_714198 T, 2016-17_602000 T, 2015-16_402000 T, 2014-15_322900 T
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	Method of mining 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)	Being U/G mine no top soil generation, proposal of dumping of waste is given.	Being U/G mine no top soil generation, proposal of dumping of waste is given.
4b	Location of topsoil, OB and mineral reject dumps	Not applicable	Not applicable
4c	Number of dumps within lease area and outside of lease area	Not applicable	Not applicable
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable	Not applicable
4e	Number of active and alive dumps.	Not applicable	Not applicable
4f	Number of dead dumps.	Not applicable	Not applicable
4g	Number of dumps established.	Not applicable	Not applicable
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Not applicable
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Not applicable
4j	Number of settling ponds	No proposal	Not applicable
4k	Specific comments of inspecting officer on waste dump management	Not applicable	Waste dumping had been carried out as per proposals.

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.	No specific proposals made	Not applicable	

5b	Area under backfilling of mined out area	Not applicable	Not applicable
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	Being U/G mine backfilling is not applicable.

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) .	None	Not applicable	
6c	afforestation done (ha).	4 ha for entire zawar group of mines.	75 ha gap filling in Overall Zawar.	
6d	No. of saplings planted during the year	4000 in over all zawar	25000 in overall zawar	
6e	Cumulative no .of plants	N A	425625 nos	
6f	Any other method of rehabilitation	No proposal	Not applicable	
6g	Cost incurred on watch and care during the year	No proposal	Not applicable	

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	No proposal	Not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	4 ha with 4000 saplings	75 ha gap filling with 25000 saplings.
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	No proposal	Not applicable

6p	Compliance of environmental monitoring (core zone and buffer zone)	As per MOEF guidelines.	Regular monitoring carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	PMCP implementation was satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All ROM ore is being transported to Ore beneficiation plant located within lease area	All ROM ore is being transported to Ore beneficiation plant located within lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Not applicable	
7c	Different grade of mineral sorted out at mines.	No proposal	Not applicable	
7d	Any beneficiation process at mines .	Yes. Ore beneficiation process in lease area for all 4 mines.	Yes. Ore beneficiation process in lease area for all 4 mines.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	Whole ROM Ore is beneficiated in lease area for all 4 mines.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as it is U/G mine.	Not applicable
8b	Concurrent use or storage of topsoil	Not applicable	Not applicable
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not applicable as it is U/G mine	Not applicable
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable	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)	Base line 372425 nos Plants addition 8000 nos.	Current Cumulative 425625 nos Actual Addition 53200 nos in overall zawar.
8g	Survival rate	80%	80%
8h	Water sprinkling on roads to control airborne dust	Water sprinkling by tanker	Water sprinkling by tanker
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthetic beauty in & around the mine is satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Not applicable	M.R. submitted up to July 2019 A.R. Submitted for 2018-19
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Eng.- Vinod Saini, Geologist- Somdeb Dutta Mal, Manager- Sh. Deepak Prabhakar	Mining Eng.-Vinod Saini, Geologist- Somdeb Dutta Mal, Manager-Sh. Deepak Prabhakar
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining-34.09 ha, Mineral storage-2 ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure -53.66 ha, Waste dump-10.57 ha.	Mining-34.09 ha, Mineral storage-2 ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure-53.66 ha, Waste dump-10.57 ha.
9d	Scrutiny of Annual return on afforestation	Planted 25000 no of Plants during 2018-19.	Planted 25000 no of Plants during 2018-19 in over all zavar.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Quantity- 999990 MT, Grade- Pb-3.06%, Zn-0.98%	Quantity- 999990 MT, Grade- Pb-3.06%, Zn-0.98%
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening balance- Nil , Production - 999990 T, Closing stock- Nil	Opening balance- Nil , Production - 999990 T, Closing stock- Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price- 2637.46/-	Ex mine price- 2637.46/-
9h	Scrutiny of Annual return on fixed assets	The value of Fixed assets stated as Nil.	The value of Fixed assets can not be Nil.
9k	Scrutiny of Annual return on mining machineries	Details Furnished.	Found O. K.

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 :

(H C SHARMA)

Indian Bureau of Mines