

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/UDP/PB-ZN-2

Mine code : 34RAJ26004

- (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 : 27-JUL-19
- (v) Prev.inspection date : 14-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ZAWARMALA**
- (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 : GIRWA
- Post office : ZAWAR MINES
- Pin Code :
- FAX No. : 0294-2412545
- E-mail : arun.mishra@vedanta.co.in
- Phone : 0294-6604120
- (f) Police Station : Zawar Mines
- (g) First opening date : 01-APR-50
- (h) Weekly day of rest : MON
2. Address for : VILL-ZAWAR
correspondance : POST-ZAWARMALA,P.O=Goverdhanvilash
DISTT-UDAIPUR
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 : Shri Sazal, Full Time
Qualification : BE Mining
Appointment/ : 23-JAN-19
Termination date

Geologist

Name : Sri Prasanta Biswas, Full Time
Qualification : M.Sc. Geology
Appointment/ : 17-MAR-20
Termination date

Manager

Name : Shri Rahul Bose
Qualification : BE Mining
Appointment/ : 02-JUL-19
Termination date

6. Date of approval of Mining Plan/Scheme of Mining : PMCP under 23B(1) for Renewal 21-AUG-09
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	4000m, No of hole 45	8375m, No of hole 91	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	HZL Rs. 4000000/-	HZL Rs. 8375000/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	1.916 ha	0.224 ha	
1e	Balance reserve as on 01/04/20	111- 0.305 MT 121- 3.328 MT 122- 0.371 MT 221- 0.879 MT 222- 0.810 MT 333- 0.865 MT	111- 0.305 MT 121- 3.328 MT 122- 0.371 MT 221- 0.879 MT 222- 0.810 MT 333- 0.865 MT	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	The exploration has been carried out as per proposals.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	2500 m proposed development during 2018-19.	2057 m carried out during 2018-19.	
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	

2e	Quantity of overburden generation in m3	No proposal	Not applicable
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The development was less than proposed, which has been covered under VL issued after earlier inspection of mine dated 14/2/2019.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as it is U/G mine.	Not applicable	
3b	Quantity of ROM mineral production proposed	300000 T	299995T	
3c	Recovery of sailable/usable mineral from ROM production	100%	100 %.	
3d	Quantity of mineral reject generation	No proposal	Not applicable	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Not applicable	
3f	Quantity of sub grade mineral generation.	No proposal	Not applicable	
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 proposal	Not applicable	

3j	Provision of drilling and blasting in mineral benches	Being U/G mine drilling & blasting proposed for development & stoping.	Being done
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 being U/G mine.
3m	Total area covered under excavation/pits	Not applicable	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	Area under mining- 32.09 Storage for top soil- 0.00 Waste dump site- 10.57 Mineral Storage- 2.00 Infrastructure - 53.66 Roads- 9.68 Railways- 0.00 Tailing Pond- 119.52 Effluent treatment plant- 0.00 Mineral separation plant- 4.66 Township area- 34.40 Community development- 8.71 Other- 18.30 Total- 293.59	Area under mining- 32.09 Storage for top soil- 0.00 Waste dump site- 10.57 Mineral Storage- 2.00 Infrastructure- 53.66 Roads- 9.68 Railways- 0.00 Tailing Pond- 119.52 Effluent treatment plant- 0.00 Mineral separation plant- 4.66 Township area- 34.40 Community development- 8.71 Other- 18.30 Total- 293.59

3p	Production of ROM mineral during the last five year period as applicable	2013-14 300000 T, 2014-15 300000 T, 2015-16 250000 T, 2016-17 320000T, 2017-18 325000T, 2018-19 300000T.	2013-14 203075 T, 2014-15 236900 T, 2015-16 326200 T, 2016-17 338400T, 2017-18 365453T, 2018-19 299995T.
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	The method of mining is suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top Soil generation is not applicable being U/G mine, Dumping of waste proposed.	Dumping of waste proposed.	
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)	No proposal	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	Not applicable	Not applicable Not applicable
4k	Specific comments of inspecting officer on waste dump management	Not applicable	Waste disposal has been carried out as per proposal.

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 proposal	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) .	Not applicable	Not applicable	

6c	afforestation done (ha).	4 ha	75 ha in overall zawar in gap filling.
6d	No. of saplings planted during the year	4000 nos.	25000 nos in overall zawar.
6e	Cumulative no .of plants	Not specified	425625 nos
6f	Any other method of rehabilitation	No proposal	Not applicable
6g	Cost incurred on watch and care during the year	Not specified	Rs. 705422/-.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Underground exhaust stopes 82000 CuM	Underground exhaust stopes 84938 CuM
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	46000 MT	26284 MT
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.	Not applicable	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	4000 nos	25000 nos in overall zawar.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable	Not applicable
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring as per MOEF gudelines.	Being done
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Dispatch - NIL, 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.	Not applicable	Not applicable	
7c	Different grade of mineral sorted out at mines.	Not applicable	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	All ROM ore is being transported to Ore beneficiation plant located within lease area
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable being 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	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)	Not applicable	Not applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Base line 372425nos Plants addition 8000nos	Current Cumulative 425625nos, Actual Addition 53200 nos.	
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 aesthetic beauty is satisfactory.
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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 July 2019 A.R. Submitted for 2018-19	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mr. Rahul Bose, Mine Manager, Mr. Sazal, Mining Engineer, Mr. Ashutosh Pathak, Geologist	Mr. Rahul Bose, Mine Manager, Mr. Sazal, Mining Engineer, Mr. Ashutosh Pathak, Geologist	
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-53.66ha, 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-53.66ha, Waste dump-10.57 ha	
9d	Scrutiny of Annual return on afforestation	25000 nos planted	25000 nos planted in overall zavar.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Quantity- 298702 MT, Grade-Pb-0.30%, Zn-0.67%	Quantity- 298702 MT, Grade-Pb-0.30%, Zn-0.67%	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The opening stock- Nil, Production- 299995 T, Closing Stock - Nil.	The opening stock- Nil, Production- 299995 T, Closing Stock - Nil.	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price- 3685.00/-	Ex mine price- 3685.00/-
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