

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

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/AJM-315/Pb.Zn-1

**Mine code :** 34RAJ01001

- (i) Name of the Inspecting : **P022** ) **PANKAJ KULSHRESTHA**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sh. Siyaram Meena, Manager and Sh. Vijendra Kashyap, G  
Official with  
Designation
- (iv) Date of Inspection : 05/09/2023
- (v) Prev. inspection date : 17/03/2023

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KAYAR**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Underground
- (e) **Postal address**
- State : RAJASTHAN
- District : AJMER
- Village : KAYAR
- Taluka : AJMER
- Post office : KAYAR
- Pin Code : 305023
- FAX No. : 0145-6626266
- E-mail : kastoor.meena@vedanta.co.in
- Phone : 0145-6626232
- (f) **Police Station** : Gegal
- (g) **First opening date** : 12/01/1998
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : M/S Hindustan Zinc Limited  
Kayad Lead -Zinc Mine  
Village: Kayad, Dist & Teshil : Ajmer
3. (a) **Lease Number** : RAJ1765
- (b) **Lease area** : 480.45
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 27/02/2048
4. **Mineral worked** : LEAD & ZINC ORE Main

## 5. Name and Address of the

Lessee : HINDUSTAN ZINC LTD.  
HINDUSTAN ZINC LTD. YASHAD  
BHAWAN YASHADGARH, UDAIPUR  
UDAIPUR RAJASTHAN  
Phone:01483-23331, 23332  
FAX :01483-23073

Owner : Mr. Arun Mishra  
M/s Hindustan Zinc Ltd.  
Yeshad Bhawan,yashadgarh,  
P.O.Udaipur, UDAIPUR  
RAJASTHAN  
Phone: 0294-2427734  
FAX : 0294-2427734

Agent : Mr. Kastoor Meena  
Kayad Lead -Zinc Mine M/S  
Hindustan Zinc Limited ,  
Village: Kayad, Dist &  
Teshil : AJM AJMER  
RAJASTHAN  
Phone: 0145-6626230,  
FAX : 0145-6626230,

## Mining Engineer

Name : Mr. Chinni Ravi,Full Time  
Qualification : B.Tech- Mining  
Appointment/ : 20/09/2022  
Termination date

## Geologist

Name : Sri Vijendra Kashyap,Full Time  
Qualification : M.Sc. Geology  
Appointment/ : 12/06/2018  
Termination date

## Manager

Name : Mr. Siyaram Meena  
Qualification :  
Appointment/ : 26/09/2022  
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	05/12/2006
		Modif.of approved Mining Plan	07/05/2013
		MP modif under MCR 1960	20/05/2016
		MP modif under 17(3) MCR 2016	18/10/2016
		MP modif under 17(3) MCR 2016	03/11/2017
		MP modif under 17(3) MCR 2016	06/09/2019
		MP review under 17(1) MCR 2016	25/01/2021
		MP modif under 17(3) MCR 2016	27/01/2023

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	Underground+Surface No. of BH: 190 Meterage:55000 meter Grid:25mX12.5 m Depth(mRL):50	Underground+Surface No. of BH: 181 Meterage:74956 m	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	The exploration is being done by HZL. Drilling agency is MAPL Plot No 110, Main Dhemo, Beside Railway Siding, P.O. Sitarampur-713359, Asansol, West Bardhaman, West Bengal, INDIA. Rs. 51228200	
1d	Balance area to be explored to bring Geological axis in 1 or 2	156 Ha	156 Ha	
1e	Balance reserve as on 01/04/20	Reserve-1396258MT Resources-5048993MT Total-6445251 As per approved MP dated 27/01/2023	Reserve-1396258MT Resources-5048993MT Total-6445251 As per approved MP dated 27/01/2023	
1f	General remarks of inspecting officers on geology, exploration etc	NA	The geology and exploration may be considered as satisfactory.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Block-3 Main Lens ,Sland K18	Block-3 Main Lens and K18	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NA	NA
2c	Stripping ratio or ore to OB ratio	NA	NA
2d	Quantity of topsoil generation in m3	NA	NA
2e	Quantity of overburden generation in m3	NA	NA
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	The present status of development w.r.t type of deposit may be considered as satisfactory.

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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	NIL	NA, U/g mine.	
3b	Quantity of ROM mineral production proposed	748456 MT during the year 2022-23	657185 MT during the year 2022-23	
3c	Recovery of sailable/usable mineral from ROM production	NIL	NIL	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NIL	NIL	
3f	Quantity of sub grade mineral generation.	NIL	NIL	
3g	Grade of sub grade mineral generation	NIL	NIL	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	No such study carried out during the year 2022-23
3j	Provision of drilling and blasting in mineral benches	NA	Drilling and blasting is being carried out in u/g faces
3k	Provision of mining machineries in mineral benches	Yes	In U/g operation various mining machineries have been deployed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	NA	NA
3m	Total area covered under excavation/pits	NA	U/g mine
3n	Ore to OB ratio for the pit/mine during the year.	NA	NA (U/g mine)
3o	Total area put in use under different heads at the end of year	NA	NA
3p	Production of ROM mineral during the last five year period as applicable	2017-18 - 1200000 2018-19 - 1200000 2019-20- 1200000 2020-21- 1200000 2021-22- 1200000 2022-23 748456	2017-18 - 1200000 2018-19 - 1199592 2019-20- 1139071 2020-21- 1174824 2021-22- 931951 2022-23 657185
3q	General remarks of inspecting officers on method of mining etc.	NA	The present status of method of mining may be considered as satisfactory.

## 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 - NIL OB- NIL Waste Dump-1	Top soil - NIL OB- NIL Waste Dump-1	
4b	Location of topsoil, OB and mineral reject dumps	Top soil - NA OB - Nil Mineral Reject dump - Nil	Top soil - NA OB - Nil Mineral Reject dump - Nil	
4c	Number of dumps within lease area and outside of lease area	Inside lease Area Waste Dump-1 Ore Dump-1	Inside lease Area Waste Dump-1 Ore Dump-1	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Point Easting Northing 1 1403.8 10363.7 2 1416 10222 3 1557 10247.7 4 1535 10389	Point Easting Northing 1 1403.8 10363.7 2 1416 10222 3 1557 10247.7 4 1535 10389	
4e	Number of active and alive dumps.	Waste Dump-1 Ore Dump-1	Waste Dump-1 Ore Dump-1	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes, total 630 meter retaining wall constructed and maintained.	
4i	Length of Retaining wall or garland drain all along dumps	NA	Total 630 meter retaining wall constructed and maintained.	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management	NA	The present status of dump management may be considered as satisfactory.	

## 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.	NA	Not applicable as it is U/g mine	
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed and rehabilitated	NA	NA	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	Being U/g mine, the present status may be considered as satisfactory.	

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	Yes, annual report on PMCP submitted	
6b	Area available for rehabilitation (ha) .	NA	No additional area available for plantation and only Gap Filling plantation	
6c	afforestation done (ha).	1 hectare	1 hectare	
6d	No. of saplings planted during the year	1500 Nos.	2000 saplings planted as reported during the inspection.	
6e	Cumulative no .of plants	44600 Nos.	49100 Nos.	
6f	Any other method of rehabilitation	NA	Nil	
6g	Cost incurred on watch and care during the year	Rs. 195000 during the year 2022-23.	Rs. 390000 incured during teh year 2022-23.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NA	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1500 Nos.	Planted 1000 saplings during the year 2022-23 on waste land.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA

6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, Air, Noise, vibration and water quality testing to be done quarterly in proposed location.	Monitoring is being done as per proposal.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	The overall status of PMCP compliance and progressive closure operations may be considered as satisfactory.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All ROM dispatched above Cutoff for further processing to RA Mine.	All ROM dispatched above Cutoff for further processing to Rampura Agucha Mine	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Nil - All ore dispatch for processing	Nil - All ore dispatch for processing	
7c	Different grade of mineral sorted out at mines.	NA	Not applicable	
7d	Any beneficiation process at mines	NA	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	The ovevrall status of mineral conservation may be considered as satisfactory.	

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	NA	Not applicable, It is a U/g mine.
8b	Concurrent use or storage of topsoil	NA	Not applicable, it is a U/g mine.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB-NIL Waste Dump-1 Reject-NIL	OB-NIL Waste Dump-1 Reject-NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Waste Produced is backfilled in Underground	Waste Produced is backfilled in Underground.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1500 Nos.	2000 saplings planted during the year 2022-23.
8g	Survival rate	90% survival rate	90% survival rate achieved during the year 2022-23.
8h	Water sprinkling on roads to control airborne dust	Yes	Water sprinkling on roads is being done to control airborne dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	The overall status of aesthetic beauty in and around mines area may be considered as satisfactory.

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Yes	Yes, the monthly returns and annual return have already been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer -Shri Chinni Ravi Tej, Geologist- Shri Vijendra Kashyap Mines Manager -Shri Siyaram Meena	Yes, Mining Engineer - Shri Chinni Ravi Tej, Geologist- Shri Vijendra Kashyap Mines Manager- Shri Siyaram Meena
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Occupied by plant, buildings, residential, welfare buildings and roads : 6.520 hecets., Used for any other purpose (specify) topsoil, mineral storage and other open area : 41.980 hecets.	Occupied by plant, buildings, residential, welfare buildings and roads : 6.520 hecets., Used for any other purpose (specify) topsoil, mineral storage and other open area : 41.980 hecets.
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year : 2000, Total no. of trees at the end of the year : 49100 (wml) 5700 (OML)	Total no. of trees at the end of the year : 49100 (wml) 5700 (OML)
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	From Development: 199326 T, From Stopping : 457859 t Total : 657185 t with closing stock of 7380 t	From Development: 199326 T, From Stopping : 457859 t Total : 657185 t with closing stock of 7380 t

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price of the ore produced : Rs. 6883.00 Sales- Dispatches of ore and concentrates effected for Domestic Purposes and for Exports: : Nil	The information about Ex-mine price of the ore produced as Rs. 6883.00 seems to be correct.
9h	Scrutiny of Annual return on fixed assets	Land : Rs. 86867596, Industrial building : Rs. 149393381, Plant and Machinery including transport equipment : Rs. 1286223744, Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc. (As prescribed under Income Tax Act) : Rs. 714027681	The total fixed assets at the beginning of the year was reported as Rs. 1908708468 with additions during the Year Rs. 1617952344 and Sold or discarded during the year Rs. 265061260 and Depreciation during the year Rs. 1025087150. The net closing balance/estimated market value at the end of year 2022-23 was reported as Rs. 2236512402.
9k	Scrutiny of Annual return on mining machineries	DUMPER : 8, LOAD HAUL DUMPER: 7, BLAST HOLE DRILL (ELEC.):2, BLAST HOLE DRILL (ELEC.): 9, EXPLOSIVE VAN : 2, GENERATOR (DIESEL) : 1, PUMPS (ELEC.) : 4, , WINDING ENGINE (ELEC.) : 1, OTHER HEM MACHINERY : 19	The above information regarding the mining machinery deployed in the mine seems to be correct.

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**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)	21/09/2023			

**Date :**

**(PANKAJ KULSHRESTHA)**

Indian Bureau of Mines