

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPMENT 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 : **G021** ) **D R GURJAR**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Manish Meghwal, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 11-JUL-24
- (v) Prev.inspection date : 08-APR-24

**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 : Nirmalendu.Kumar@vedanta.co
- Phone : 0145-6626232
- (f) Police Station : Gegal
- (g) First opening date : 12-JAN-98
- (h) Weekly day of rest : SUN
2. Address for : M/S Hindustan Zinc Limited  
correspondance 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 : 28-FEB-48
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 : Sunil Duggal  
 Hindustan Zinc Limited  
 Yashad Bhawan, Swaroop  
 Sagar Udaipur BHILWARA  
 RAJASTHAN  
 Phone: 0294-2529182  
 FAX : 0294-2525765

Agent : Mr. Balwant Singh Rathore  
 Kayad Lead -Zinc Mine  
 Village: Kayad Dist &  
 Teshil : Ajmer AJMER  
 RAJASTHAN  
 Phone: 0145-6626231  
 FAX :

Mining Engineer  
 Name : Chinni Ravi Tej, Full Time  
 Qualification : B Tech Mining & 12.5 Years Exp  
 Appointment/ : 15-SEP-22  
 Termination date

Geologist  
 Name : Vijendra Kashyap, Full Time  
 Qualification : MSC Geology  
 Appointment/ : 12-JUN-18  
 Termination date

Manager  
 Name : Manish Meghwal  
 Qualification : BE Mining  
 Appointment/ : 01-JUL-24  
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	05-DEC-06
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	07-MAY-13
	:	MP modif under MCR 1960	20-MAY-16
	:	MP modif under 17(3) MCR 2016	18-OCT-16
	:	MP modif under 17(3) MCR 2016	03-NOV-17
	:	MP modif under 17(3) MCR 2016	06-SEP-19

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	No backlog of previous year
1b	Exploration over lease area for geological axis 1 or 2	Underground+Surface No. of BH: 138 No. 162No. Meterage:5500 0 meter	Underground+Surface No. of BH: 138 No. Meterage: 64131 m	Due to shortfall in exploration drilling during the year 2023-24, violation was issued by the previous inspecting officer vide letter dated 12.04.2024.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal of exploration agency & expenditures during the reporting year.	Exploration Agency: Mining Associate Private Limited (MAPL), Asansol, West Bardhaman, West Bengal, INDIA. Expenditure for Year 2023-24 is Rs. 82475945/-	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	At the start of the year 2023-24, total area under G3 was 142.61 hect.	At the end of year 2023-24, area under G3 reported 134.64 hect.	During the year 2023-24 total 9.97 hect. G3 area upgraded to G2/G1 level.
1e	Balance reserve as on 01/04/20	As per approved Modification of RMP dated 06.05.2024, Reserve-1561943 T Resources-6852212 T Total-8414155 T	As on 01.04.2024 Reserve-1533733T Resources-6852212T Total-8385945T	Nil
1f	General remarks of inspecting officers on geology, exploration etc			Due to shortfall in exploration drilling during the year 2023-24, violation was issued by the previous inspecting officer vide letter dated 12.04.2024.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	U/G Mine U/G mine development proposed in S1,NE,K21 lences & decline. Total U/G mine development proposed in year 2023-24-8147m	U/G mine development as per proposal. Total U/G mine development achieved in year 2023-24-5926m	Due to shortfall in U/G mine development with respect to proposal, violation of Rule11(1) of MCDR 2017 issued vide letter dated 16/08/2024.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as mining operation has been proposed through UG Mining Method.	Not applicable.	NIL.
2c	Stripping ratio or ore to OB ratio	Not applicable being a UG mining operation.	Not applicable.	NIL.
2d	Quantity of topsoil generation in m3	No top soil generation proposal in during the RY 2023-24.	No top soil generated during the RY 2023-24.	Nil
2e	Quantity of overburden generation in m3	A total of 146627 cum of waste has been proposed to generate through UG development.	A total of 101717 cum of waste has been proposed to generate through UG development.	Due to shortfall in mine development less U/G waste generated in the RY 2023-24.
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 carrying out mining operations in the lease area which is best suited to the type of deposit.	NIL.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as production of Ore is being proposed through UG Mining operation.	No pit has been developed. Production of ore is being carried out through UG mining operations.	NIL.

3b	Quantity of ROM mineral production proposed	Year 2023-24: 600499T	Year 2023-24: 564113T	Nil
3c	Recovery of sailable/usable mineral from ROM production	Year 2023-24: 600499T	Year 2023-24: 564113T	Nil
3d	Quantity of mineral reject generation	No proposal of Mineral Reject generation.	No mineral Reject has been generated.	NIL.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable as no proposal.	Not applicable as no generation.	NIL.
3f	Quantity of sub grade mineral generation.	No proposal of Sub-grade generation.	Not applicable.	NIL.
3g	Grade of sub grade mineral generation	No proposal of Sub-grade generation.	Not applicable as no sub-grade generation.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal of segregation as entire ROM is subject to beneficiation.	ROM is being beneficiated at Rampura-Agucha Mine of M/s HZL.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of beneficiation study in RY 2023-24.	None	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling pattern for development in ore and rock-Burn Cut method. Drilling pattern in Stopes- Ring drilling with parallel hole drilling. No proposal in bench as UG mine.	Drilling and blasting has been carried out as per proposal in UG development and stopes.	NIL.

3k	Provision of mining machineries in mineral benches	Twin Boom Jumbo, Loaders, LPDT, LHD, Grader etc. has been proposed for mine development and stoping operation.	Deployment of Mining machinery has been found to be as per proposal in UG operations.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable being a UG mining operation.	Not applicable.	NIL.
3m	Total area covered under excavation/pits	Not applicable being a UG mining operation. No area covered under pits.	Not applicable.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable being a UG mining operation.	Not applicable.	NIL.
3o	Total area put in use under different heads at the end of year	At the end of year 2023-24 proposal-48.5 hect.	Area put to use at the end of year 2023-24 is 48.5 hect.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2019-20-1200000T 2020-21-1200000T 2021-22-1200000T 2022-23-748456T 2023-24-600499T 2024-25-850420T	2019-20-1139071T 2020-21-1174824T 2021-22-931951T 2022-23-657185T 2023-24-564113T 2024-25-120189T( up to June 2024)	Nil

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soi stack-01, OB-NIL, Mineral Reject-NIL and Waste dump-01.	Top soil stack-01, OB-NIL, Mineral Reject-NIL and Waste dump-01.	Nil

4b	Location of topsoil, OB and mineral reject dumps	Top soil: 1350-1440 E and 9840-1000N, Waste dumping : 1403-1557E and 10222-10389N.	As per proposal.	Nil
4c	Number of dumps within lease area and outside of lease area	Inside lease: 01 and Outside Lease area: NIL.	Inside lease: 01 and Outside Lease area: NIL.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as it is a underground mine.	Not applicable.	NIL.
4e	Number of active and alive dumps.	01 waste dump	01 waste dump	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 for the year 2023-24.	Retaining wall and garland drain observed.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal for the year 2023-24.	Not applicable.	NIL.
4j	Number of settling ponds	No proposal for the year 2023-24.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management			No issue observed 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 in stope dumping of the waste has been proposed.	Backfilling of mined out stopes is being carried out after full extraction of the mineral.	Nil
5b	Area under backfilling of mined out area	2023-24: 153974 m3	2023-24: 125308 m3	Less backfilling due to less void generation during the RY 2023-24.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No top soil generation proposal in the RY 2023-24.	No top soil generated during the RY 2023-24.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and or rehabilitation during the RY.	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling or dumping in UG voids has been proposed after full extraction of mineral.	Backfilling of stopes is being carried out after full extraction of the mineral.	Being a UG mine, UG stoped out area is utilized for waste dumping/backfilling.

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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	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.	Annual PMCP report for reporting year i.e. 2023-24 has been submitted along with AR 2023-24.	Nil
6b	Area available for rehabilitation (ha) .	An area of 1.0 Ha has been proposed for rehabilitation during the RY 2023-24.	An area of 1.0 Ha has been rehabilitated during the year 2023-24.	Nil
6c	afforestation done (ha).	Year 2023-24: 1.0 hect.(Gap filling)	Year 2023-24: 1.0 hect.(Gap filling)	Nil
6d	No. of saplings planted during the year	2023-24: 1500 nos.	2023-24: 1500 nos.	Nil
6e	Cumulative no .of plants	46100 nos.	50600 nos.	up to year 2023-24.
6f	Any other method of rehabilitation	Other than plantation, no specific proposal of any other method of rehabilitation .	Plantation has been carried out as per proposal.	NIL.



6g	Cost incurred on watch and care during the year	No specific proposal on cost of watch and care during the year.	Rs. 390000	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	Year 2023-24: 219963 m3	Year 2023-24: 206635 m3	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	2023-24: 153974 m3	2023-24: 125308 m3	Less backfilling due to less void generation during the RY 2023-24.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Not applicable being U/G mine.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No applicable.	Not applicable as the voids were of UG stopes.	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	1500 saplings has been proposed to plant over an area of 1.0 hect (Gap filling) during the RY.	1500 saplings planted over an area of 1.0 hect (Gap filling) during the RY.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	An area of 1.0 Ha has been proposed for rehabilitation by Gap filling plantation.	An area of 1.0 Ha has been rehabilitated by Gap filling plantation.	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)	Air, Noise, vibration and water quality testing to be done quarterly in proposed location.	Testing is being done as per proposal and parameters are found within permissible limit.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The lessee is working as per the proposal. PMCP compliances is 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	Entire ROM proposed to dispatch for further processing to Rampura-agucha Mine.	Entire ROM dispatched for further processing to Rampura Agucha Mine	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not applicable as no grade wise sorting has been proposed.	Not applicable.	NIL.
7c	Different grade of mineral sorted out at mines.	No proposal.	Not applicable.	NIL.
7d	Any beneficiation process at mines .	No beneficiation process at mine.	Not applicable.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issues observed related to mineral conservation and beneficiation.

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## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil generation proposal during the reporting year 2023-24.	No top soil has been generated aduring the RY 2023-24.	Nil
8b	Concurrent use or storage of topsoil	No generation proposal.	Not applicable	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste Dump-1 Reject Dump- Nil	One temporary waste dump in lease area. Reject-NIL	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling or in stope dumping of the waste has been proposed.	Dumping of waste has been carried out in UG moned out stopes.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal of reclamation and rehabilitation during the RY 2023-24.	Not applicable as no proposal.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	During the reporting year a total of 1500 numbers of saplings has been proposed to plant.	A total of 1500 numbers of saplings have been planted Inside lease area.	Cumulative: -50600 nos. at the end of 2023-24.
8g	Survival rate	No specific proposal of for survival rate.	90% inside lease area.	As per AR 2023-24.
8h	Water sprinkling on roads to control airborne dust	To control the air born dust particle, water sprinkling has been proposed over the roads.	Water sprinkling on roads, Tarpaulin cover on mine truck (dispatched) has been observed.	NIL.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in and around the mine 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	As per rule 45 of MCDR, monthly and annual returns to be submitted.	Monthly and annual returns have been submitted timely for reporting year.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer and Manager has been furnished.	Mine Manger, Mining engineer and Geologist are appointed.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total area put ot use reported 48.5 hect.	Information furnished in respect of the land use pattern appears to be corrected.	Nil
9d	Scrutiny of Annual return on afforestation	1500 nos. reported in AR 2023-24	Information furnished in respect of the afforestation is correct.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject quantity furnished is NIL.	No mineral reject generated during the RY 2023-24.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM detail submitted as below 1.Opening Stock - 7380MT 2.ROM Production - 564113 MT 3.Closing Stock - 12496 MT	The information furnished is found to be in order.	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine per unit ore produced is Rs. 7933 /-	Information furnished appears to be corrected.	Nil
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset is Rs. 2456821833 /-	The value of fixed asset furnished appears to be in order.	NIL.
9k	Scrutiny of Annual return on mining machineries	Rock Drill, Blast Hole Drill, LPDT, LHD, Air Compressor, Pumps, Ventilation fan etc.	The information furnished on mining machineries appears to be in order.	NIL.

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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)	16-AUG-24			

**Date :**

**(D R GURJAR)**

Indian Bureau of Mines