

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/RJS/LZ-1

Mine code : 34RAJ27002

- (i) Name of the Inspecting : **G021**) **DATA RAM GURJAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh. Ranjan Gupta, Geologist
Official with
Designation
- (iv) Date of Inspection : 20-DEC-24
- (v) Prev.inspection date : 17-SEP-24

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SINDESAR KHURD**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address
- State : RAJASTHAN
- District : RAJSAMAND
- Village : SINDSAR KHURD
- Taluka : RAIL MAGRA
- Post office : DARIBA
- Pin Code : 313211
- FAX No. : 02952-265143
- E-mail : Arun.Misra@vedanta.co.in
- Phone : 02952-265275
- (f) Police Station : Dariba
- (g) First opening date : 09-AUG-00
- (h) Weekly day of rest : SUN
2. Address for : Sindesar Khurd Mine
correspondance Tehsil - Railmagra
Distric- Rajasamand (Rajasthan) 313211
3. (a) Lease Number : RAJ1749
- (b) Lease area : 199.84
- (c) Period of lease : 30
- (d) Date of Expiry : 19-MAR-29
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 : Shri Arun Misra
 YASHAD BHAWAN HINDUSTAN
 ZINC LIMITED Udaipur
 UDAIPUR RAJASTHAN
 Phone: 0294-2421420
 FAX : 0294-2412545

Agent : Shri Vekesh Chittora
 Sindesar Khurd Mine PO-
 Dariba Tehasil-Railmagra
 RAJSAMAND RAJASTHAN
 Phone: 9829068746
 FAX : 9829068746

Mining Engineer

Name : Dushyant Tailor, Full Time
 Qualification : BE(Mining) & FCC(U/R)
 Appointment/ : 12-JUL-18
 Termination date

Geologist

Name : Shri Pankaj Kumar, Full Time
 Qualification : M.Sc. (Applied Geology)
 Appointment/ : 10-OCT-19 02-AUG-24
 Termination date

Geologist

Name : Ranjan Gupta, Full Time
 Qualification : MSC Geology
 Appointment/ : 02-AUG-24
 Termination date

Manager

Name : Ashok Kumar G
 Qualification : BE Mining FCC UR
 Appointment/ : 12-SEP-24
 Termination date

Manager

Name : Shri Vignesh Kumar K
 Qualification : BE(mining)
 Appointment/ : 10-JUN-23 12-SEP-24
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	10-JUL-02
		Mining Scheme rule 12 MCDR1988	27-JUL-06
		Modif.of approved Mining Plan	29-JAN-09
		Mining Scheme rule 12 MCDR1988	23-JUL-13
		MP modif under 17(3) MCR 2016	01-DEC-17
		MP modif under 17(3) MCR 2016	01-AUG-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the previous year 2022-23 UG Exploration Proposed 85000 m with No of BH-800 Surface Exploration 10000 m with No of BH-10	During the previous year 2022-23 UG Exploration done 75509 m with No of BH 402 2022-23 SF Exploration done 25097 m with No of BH 37	Violation pointed out after inspection in the year 2023-24.
1b	Exploration over lease area for geological axis 1 or 2	2023-24 UG Exploration: 85000m & No of BH-500 Surface Exploration: 5000m & No of BH-6	2023-24 UG Exploration : 69662m & No of BH-462 Surface Exploration: 10933m & No of BH- 10	UG exploration is less than proposal for which violation of rule 11(1) of MCDR,2017 has been pointed out by the previous inspecting officer vide letter dated 29.07.2024.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No specific proposal about drilling agency and expenditure	Hindustan Zinc Limited through contractors. Expenditure for Underground exploration was Rs 221878567 /- Expenditure for Surface Exploration was Rs. 76100000 /-	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	UG exploration-7.3 Ha SF exploration-7.0 Ha	UG exploration-6.49 Ha SF exploration-7.0 Ha	UG exploration area is less due to less UG exploration. Violation of rule 11(1) of MCDR 2017 has been pointed out for less exploration during the previous inspection vide letter dated 29.07.2024.
1e	Balance reserve as on 01/04/20	No year wise specific proposal.	As on 01.04.24 total reserve (In Million tons) Reserve-40.04 Resource-68.92 Total R&R- 108.96	Nil

1f	General remarks of inspecting officers on geology, exploration etc	UG exploration area is less due to less UG exploration. Violation of rule 11(1) of MCDR 2017 has been pointed out for less exploration during the previous inspection vide letter dated 29.07.2024.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Total U/G Mine Development(Meter) Proposed Main D-13201 Main-E-5671 SKA1- 2063 SKA11- 2117 SKA2- 592 SKA4- 1138 SKA6- 11011 Total- 35793	Total U/G development (Meter) completed Main D -11817 Main-E-6126 SKA1- 3789 SKA11- 0 SKA2- 1399 SKA4- 0 SKA6- 3091 Total- 26222	Development is less than the proposal for which violation of rule 11(1) has been pointed out by the previous inspecting officer vide letter dated 29.07.2024.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal	Not applicable as mining operation has been carried out through UG Mining Method	Nil
2c	Stripping ratio or ore to OB ratio	No proposal	Not applicable as mining operation has been carried out through UG Mining Method.	Nil
2d	Quantity of topsoil generation in m3	No proposal	Not applicable as mining operation has been carried out through UG Mining Method	Nil
2e	Quantity of overburden generation in m3	No proposal for OB. A total of 625607 cum or 1751702 MT of UG waste has been proposed to be generate through UG development.	Being UG mine there is no OB. A total of 520236 cum or 1456661 MT of waste generated through UG development out of which 272067 cum or 761787 MT was dumped at surface, rest waste muck was internally dumped into the mined out viod stopes.	Less waste generation due to less development. Violation of rule 11(1) of MCDR.2017 has been pointed out for less development by the previous inspecting officer vide letter dated 29.07.2024.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No Pit wise proposal	Not applicable as the production is proposed & carried out from the underground mining	Nil
3b	Quantity of ROM mineral production proposed	2023-24: 6000000 T	2023-24: 5650483 T	Nil
3c	Recovery of sailable/usable mineral from ROM production	2023-24: 6000000 T	2023-24: 5650483 T	Nil
3d	Quantity of mineral reject generation	No proposal for mineral reject generation. However, 5485265 T reject in the form of mill tailing was proposed	No Mineral Reject generation. Whole ROM benificiated. After beneficiation 5561570 T reject in the form of mill tailing generated during the year.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposal for mineral reject generation.	No mineral reject generation. However, the grade of mill tailing was Zn-0.15% , Pb-0.17%	Nil
3f	Quantity of sub grade mineral generation.	No proposal for sub-grade generation	No sub-grade generated during the year	Nil
3g	Grade of sub grade mineral generation	No Proposal	No sub-grade generated during the year	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Froth Flotation method proposed	Froth Flotation method adopted for segregation during mineral beneficiation	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any fresh beneficiation study	Beneficiation facility of 6.5MTPA is already in place	Nil
3j	Provision of drilling and blasting in mineral benches	Being UG no proposal for mineral bench. However proposal given for drilling & blasting in UG with Blast hole stoping method	Blast hole stoping method with post filling adopted in mine.	Drilling and blasting have been carried out as per proposal for UG mine development and stope production.

3k	Provision of mining machineries in mineral benches	Being UG mine there is no proposal for mineral bench. In UG Dumper, Laud haul dumper, Rock Drills, Air Compressors, Blast Hole Drill Machine, Others (Non Elec), Other HEM Machinery being used in UG mining	Dumper, Laud haul dumper, Rock Drills, Air Compressors, Blast Hole Drill Machine, Others (Non - Elec), Other HEM Machinery being used in UG mining	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Being UG mine there is no such proposal	Not applicable being a UG mine	Nil
3m	Total area covered under excavation/pits	Being UG mine no such proposal.	Not applicable being a UG mine.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	No proposal	Not applicable being a UG mine	Nil
3o	Total area put in use under different heads at the end of year	Total area of 121.89 hectare has been proposed to put in use under different heads at the end of the year 2023-24	An area of 120.98 ha. has been utilized under different heads at the end of the year 2023-24.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2019-20: 6000000 T 2020-21: 6000000 T 2021-22: 6000000 T 2022-23: 6000000 T 2023-24: 6000000 T	2019-20: 5077640 T 2020-21: 4842247 T 2021-22: 5230488 T 2022-23: 5598709 T 2023-24: 5650483 T	Nil
3q	General remarks of inspecting officers on method of mining etc.			The method of mining proposed is suitable for the type of the deposit and to recover maximum ore from the UG.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of topsoil. Proposed UG waste generation is 625607 cum or 1751702 MT, out of which 27846 cum Waste is proposed to dispose in UG stopes voids and 597761 cum on surface dumping. 2587389cum or 5485265 MT reject (Mill tailing) generation has been proposed. Out of which 883904 cum utilization for paste filling & 1703485 cum disposal in Tailing Pond.	Being UG mine no Topsoil generation. 520236 cum or 1456661 MT waste generated. Out of which 272067 cum or 761787 MT dumped on surface Dump and rest of the waste dumped in UG voids. 2623282cum/ 5561570 MT reject in the form of tailing reject generated . Out of this 1573969 cum/3336815MT utilized and rest quantity dumped in Tailing Dam.	Nil
4b	Location of topsoil, OB and mineral reject dumps	No Top soil dump. Location of Waste dump is 2765716N to 2766204N, 413915E to 413846E	No Top Soil generation. UG waste dumped on location 2765716N to 2766204N, 413915E to 413846E	Nil
4c	Number of dumps within lease area and outside of lease area	01 Waste Dump proposed within lease area	01 Waste Dump exist within lease area	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Being UG mine No such proposal	Being UG mine not applicable.	Nil
4e	Number of active and alive dumps.	Proposed for One active dump within lease area	One active dump exist within lease area	Nil
4f	Number of dead dumps.	No proposal	None	Nil
4g	Number of dumps established.	No proposal	None	Nil

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for the year 2023-24	As there was no proposal no work done for retaining wall & Garland drain	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	Waste is proposed to dispose in UG stopes voids as well as surface dumping on existing waste	Waste has been disposed off in UG stopes voids and surface dumping on existing waste dump.	Nil

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 by UG waste & paste filling in UG void stopes have been proposed after full extraction of mineral.	Backfilling by UG waste & paste filling in UG void stopes have been carried out after full extraction of mineral	Nil
5b	Area under backfilling of mined out area	1203081 cum area of UG mined out voids proposed for backfilling	1525303cum area of UG mined out voids backfilled	More area available is because of backlog of previous years was also available for backfill.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of topsoil generation during reporting year.	Being UG mine no topsoil has been generated during the year.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation	Not applicable as there was no proposal	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	After full extraction of mineral, backfilling by waste dumping & Paste filling in UG voids have been proposed.	After full extraction of mineral, backfilling by waste dumping & Paste filling in UG voids have been carried out during the year.	During inspection no issue related to backfilling observed.
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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).	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 is submitted timely.	Nil
6b	Area available for rehabilitation (ha) .	No proposal	Not applicable as there was no proposal	Nil
6c	afforestation done (ha).	2023-24: 0.50 hect.	2023-24: 0.50 hect.	Nil
6d	No. of saplings planted during the year	Plantation of 1250 sapling proposed	During the year 3000 sapling planted	Fresh plantation & Gap Filling plantation.
6e	Cumulative no .of plants	No specific proposal was given	Cumulative no. of plants is 112350	Nil
6f	Any other method of rehabilitation	Other than plantation, no specific proposal of any other method of rehabilitation	Not applicable as there was no proposal	Nil
6g	Cost incurred on watch and care during the year	Expenditure of Rs. 210000 proposed.	During the year 2023-24 expenditure on watch & care of plants is Rs.683579.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1850000 cum voids proposed to be available during the reporting year.	Actual 1765775 cum voids available during the year.	Void less available due less production

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	1203081 cum	1525303 cum	Backlog of previous year was available for backfill
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Being UG mine not applicable	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Being UG mine not applicable	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	No applicable	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	During the year 2023-24 total sapling was proposed over an area 0.5 hect.	During the year 2023-24 total sapling carried out over an area 0.5 hect.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	Not applicable	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Not applicable	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal of environment monitoring in core & buffer zone has been given	Environment monitoring in core & buffer zone is being carried out and parameters are found to be within permissible limit.	Nil

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	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	No proposal for grade-wise sorting within lease area	Entire ROM ore is being transported to Ore beneficiation plant.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal for grade-wise sorting within lease area	Entire ROM ore is being transported to Ore beneficiation plant.	Nil
7c	Different grade of mineral sorted out at mines.	No proposal for grade-wise sorting within lease area	Entire ROM ore is being transported to Ore beneficiation plant.	Nil
7d	Any beneficiation process at mines .	Three beneficiation plants are in operation with capacity of 3.0mtpa, 2.0mtpa & 1.50mtpa.	Three beneficiation plants are in operation with capacity of 3.0mtpa, 2.0mtpa & 1.50mtpa	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Benefication of ore was proposed.	Entire ROM is benificiated to get the concentrate.	No issue related to mineral conservation & beneficiation observed

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of removal & utilization of Top Soil	Being UG mine no topsoil generated & utilized during the year	Nil
8b	Concurrent use or storage of topsoil	No proposal	Being UG mine no topsoil generated & utilized during the year	Nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for OB & Fine. Proposed to Dump UG waste at Waste Dump as well as in UG voids & Mill Tailing Reject in Tailing Dam as well as utilized for paste filling.	UG waste & Mill Tailing has been disposed as per proposal	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No specific proposal. Proposal given for filling the UG voids with waste rock	Waste rock used for filing in underground voids, stacking at waste dump yards and Tailing utilized for Paste filling & dump in Tailing Dam	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Being UG mine there is no pit as well as there is no dead dump for reclamation & rehabilitation.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	An area of 0.50 hectare with 1250 number of saplings.	During the year 2023-24 a total 3000 nos. of saplings were planted. The cumulative plantation upto 2023-24 is 112350.	Nil
8g	Survival rate	90%	90%	Nil
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 has been observed during inspection	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around mine is satisfactory as the working is being carried out through UG mining method.

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017, holder of mining lease should submit Monthly and Annual return in prescribed format.	Monthly and Annual return of the year 2023-24 has been submitted by the lessee timely.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri Dushyant Kumar Geologist- Shr. Pankaj Kumar Mine Manager- Sh. Vignesh Kumar K	As per rule the Mining Engineer, Geologist and Mine Manager have been appointed at the mine & details furnished in AR is correct.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Waste dump- 7.09 hect., Plant, Building, Roads etc- 67.56 hect., Used for any other purpose- 46.33 hect.	Seems to be Ok	Nil
9d	Scrutiny of Annual return on afforestation	Information of plantation of 3000 number of saplings has been furnished.	Details seems corrected.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral Reject generation during the year	Whole ROM beneficiated and 5561570 MT of tailing with grade Pb-0.15%, Zn-0.17% generated during the year	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock of ROM- 21338 MT with grade Pb-2.06%, Zn-3.07%	Seems to be OK	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	5802.13 Rs/per Tonne Ex mine price & Production cost given	Exmine price & production cost given. Being captive use sale value is not given.	Nil
9h	Scrutiny of Annual return on fixed assets	The value of Fixed Asset given as Rs. 5349.90 crores	Seems to be correct.	Nil

9k	Scrutiny of Annual return on mining machineries	Details of mining machineries given	LHD, LPDT, Dumper, Explosive Van, Rock Drill, Blast Hole Drill, Water Tanker, Pumps, Air Compressor, Ventilation Fan etc. given in AR	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

Date :

(DATA RAM GURJAR)

Indian Bureau of Mines