

Reg. A/D

HZL/RDC/EC-CR/2025-26/H2

Date: 27.05.2026

To,

The Deputy Director (S) /Scientist -C  
Ministry of Environment, Forest & Climate Change,  
Integrated Regional Office, A-209 & 218, Aranya Bhawan,  
Jhalana Institutional Area Jaipur-302004

**File no: IV/ENV/R/IND-115/758/2009**

**Sub: Six Monthly Environmental compliance report for the Integrated Project at Dariba, HZL- Zinc Smelter (5,00,000 TPA), Lead Smelter (1,25,000 TPA), Captive Power Plant (255 MW) and expansion of Rajpura Dariba Mine (9,00,000 to 10,80,000 TPA) along with Beneficiation Plant (9,00,000 to 12,00,000 TPA) at Village Dariba, Tehsil -Railmagra, Dis. Rajsamand from October'25 to March'26.**

**Ref:**

1. EC Letter No. J-11011/380/2008-IA II (I) dated 04.11.2009
2. Amendment in EC No. J-11011/380/2008-IA II (I) dated 20.12.2011.
3. Expansion EC Letter No. J-11015/380/2008-IA.II (M) dated 26.07.2018 (RD Mine 0.9 MTPA to 1.08 MTPA)

Sir,

With reference to aforesaid subject and cited references, it is to inform that we are herewith submitting six monthly Compliance report for the conditions stipulated in the Environment Clearances of Integrated Project at Dariba, HZL- Zinc Smelter (5,00,000 TPA), Lead Smelter (1,25,000 TPA), Captive Power Plant (255 MW) and expansion of Rajpura Dariba Mine (9,00,000 to 10,80,000 TPA) along with Beneficiation Plant (9,00,000 to 12,00,000 TPA) for the period from **October'25 to March'26** along with monitoring data report for your kind consideration.

- The copy of above compliance report is also being sent in soft format through email to ([roc.z.lko-mef@gov.in](mailto:roc.z.lko-mef@gov.in); [m\\_env@rediffmail.com](mailto:m_env@rediffmail.com)) for your kind perusal. Also copy of Dariba Smelting complex EC Compliance has been uploaded on company website <https://www.hzlindia.com/sustainability/environment-compliance/>

We trust that the measures taken towards environmental safeguards comply with the stipulated environmental conditions. We look forward to your further guidance which shall certainly help us in our endeavor to further improve our Environmental Management Practices.

Hope the above is in line with statutory requirements.

Thanking you,

For Hindustan Zinc Limited

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Rohit', written over a diagonal line.

**(Rohit Vijay)**

SBU Director

Dariba Smelter Complex

**Enclosures: Six monthly EC compliance report with Annexure:**

Annexure I	:	Stack Monitoring Report
Annexure II	:	Average Ambient Air Quality Monitoring Results (RDM)
Annexure III	:	Ambient Air Quality Monitoring Results (DSC)
Annexure IV	:	Ambient Air Quality Monitoring Report (Outside Plant)
Annexure V	:	Continuous Ambient Air Quality Monitoring Results
Annexure VI	:	Work Zone Environment Monitoring Results
Annexure VII	:	Fugitive Emission Monitoring Results
Annexure VIII	:	Treated Effluent (ETP Outlet) Quality Report
Annexure IX	:	Average Ground Water Monitoring Results (Around Tailing Dam Area)
Annexure X	:	Average Surface & Ground Water Monitoring Results (Around RD Mine & Tailing Dam Area)
Annexure XI	:	Ambient Noise Monitoring Report
Annexure XII	:	Average Sulphur and ash content in coal
Annexure XIII	:	Expenditures made in Environmental control measure
Annexure XIV	:	Funds earmarked towards Environmental control measure
Annexure XV	:	Fly Ash Return FY2025-26
Annexure XVI	:	Detailed hydrological and hydro-geological study
Annexure XVII	:	The monitoring of land use using satellite imagery

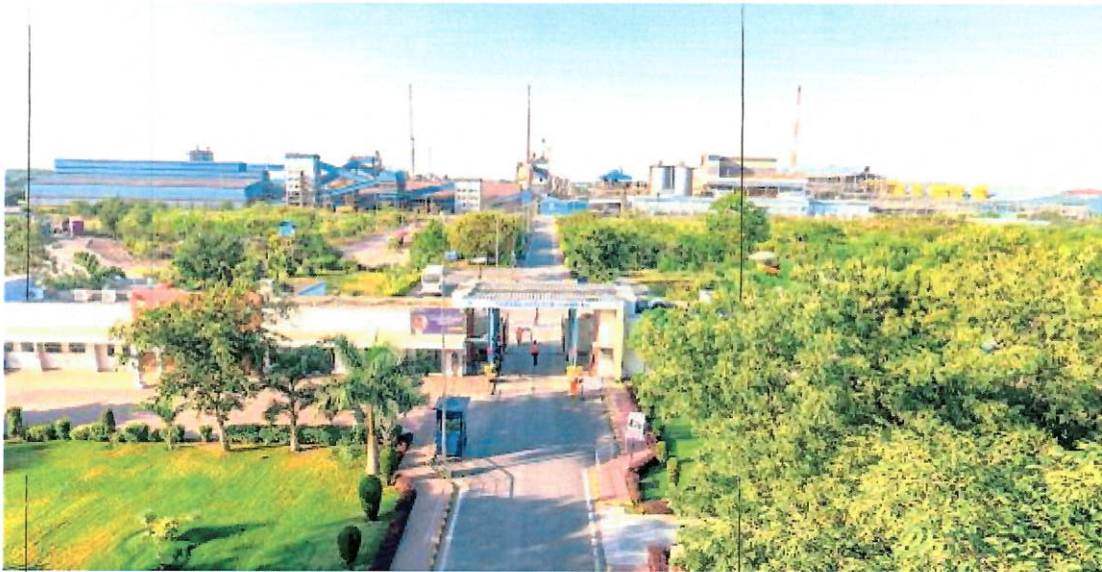
**Cc:**

- 1) The Member Secretary,  
Rajasthan State Pollution Control Board,  
4th Institutional Area, Jhalana Doongari,  
Jaipur-302004
- 2) In-charge (Zonal officer)  
Central Pollution Control Board  
Vithal Market, Paryavaran Parisar , E-5, Arera Colony,  
Bhopal, – 462 016 (MP)
- 3) Group Incharge (Mines)  
Rajasthan State Pollution Control Board,  
4th, Institutional Area, Jhalana Doongari, Jaipur-302004
- 4) The Regional office  
Rajasthan State Pollution Control Board,  
Old Excise building, Kalalwati, Rajnagar  
Rajsamand- 313324
- 5) Office Copy



**HINDUSTAN ZINC**  
Zinc & Silver of India

**Six Monthly Compliance Report  
to  
Environmental Clearance Conditions  
of**




**Dariba Integrated Project,  
M/s Hindustan Zinc Limited,  
Dariba – 313 211, Rajsamand,  
Rajasthan**

**For the period: October 2025 to March 2026**

- (1. EC Letter No. J-11011/380/2008-IA II (I) dated 04.11.2009;**
- 2. Amendment in EC No. J-11011/380/2008-IA II (I) dated 20.12.2011;**
- 3. Expansion EC Letter No. J-11015/380/2008-IA.II (M) dated 26.07.2018 (RD Mine 0.9 MTPA to 1.08 MTPA)**

**May, 2026**

 <b>HINDUSTAN ZINC</b> <small>MINERALS &amp; METALS</small>	<b>Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan</b>
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**Introduction:s**

S. No	Particulars	Details
1	Name of Project	<ul style="list-style-type: none"> <li>M/s Hindustan Zinc Limited, Dariba Integrated Project</li> </ul>
2	Address of Project	<ul style="list-style-type: none"> <li>M/s Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil- Railmagra, District- Rajsamand, Rajasthan, 313211</li> </ul>
3	Environment Clearance Letter no & Date	<ul style="list-style-type: none"> <li>EC Letter No. J-11011/380/2008-IA II (I) dated 4.11.2009;</li> <li>Amendment in EC No. J-11011/380/2008-IA II (I) dated 20.12.2011;</li> <li>Expansion EC Letter No. J-11015/380/2008-IA.II (M) dated 26.07.2018 (RD Mine 0.9 MTPA to 1.08 MTPA)</li> </ul>
4	Regional Office File No.	<ul style="list-style-type: none"> <li>IV/ENV/R/Ind-115/758/2009</li> <li>IV/ENV/R/Ind- 115/994/2019</li> </ul>
5	Status of Project	<ul style="list-style-type: none"> <li>Operational</li> </ul>

Rajpura Dariba Complex of Hindustan Zinc Limited, located in Railmagra Tehsil of District Rajsamand in Rajasthan, includes Rajpura Lead Zinc Dariba Mine and Dariba Lead Zinc Smelter Complex. Rajpura Dariba deposit extends over a lease area of 1142.21 ha with estimated in-situ ore Resources & Reserves stands at 60 million tons approx. Rajpura Dariba Mine consists of mining of Lead-Zinc ore and its beneficiation to produce Lead & Zinc Concentrate which are being sent to Smelters where metals are extracted. Dariba Smelter Complex is Zinc and Lead Smelting complex consisting of two different smelting streams viz., hydrometallurgical (Roast-Leach Electrowinning) Zinc Smelter and Lead Smelter based on Pyro-route for smelting & electro refining. The power requirements of the plants are met through 170 MW (2x85MW) coal based captive power plants.

S. No.	Unit	Capacity	Year of Commissioning	Production in FY 2025-26
1	Lead & Zinc Ore mining	2.0* Million MT	1983	10,25,529.61 MT
2	Lead & Zinc Ore Beneficiation	2.5* Million MT	1983	10,03,502.00 MT
3	Zinc Smelter	Zn: 2,50,000 MT	March 2010	2,19,447.25 MT
4	Lead Smelter	Pb: 1,25,000 MT	July 2011	1,06,367.82 MT
5	CPP	CPP: 170 MW	Unit 1- Feb'10 Unit 2- June'10	Unit 1- 646.806 MU Unit 2- 682.147 MU

\*Fresh EC Expansion for RD Mine was obtained in year 2020 vide Letter No- F. No. J-11015/84/2018-IA.II (M) dated 13.04.2020, and the compliance report pertaining to the same is being submitted separately.



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

Details of Consents to Operate & Hazardous Waste Authorization (HWA) granted to units are given below:

Unit Name	CTO/HWA Ref. No.	Status	Application No. & Date
<b>CTO Details</b>			
Lead & Zinc Ore mining	F(Mines)/Rajsamand(Railmagra)/1724(1)/2018-2019/7163-7167	Valid till 29/02/2028	-
Lead & Zinc Ore Beneficiation	F(HDF)/Rajsamand(Railmagra)/6465(1)/2022-2023/4094-4096	Valid till 29/02/2028	-
Zinc Smelter	F(HDF)/Rajsamand(Railmagra)/6461(1)/2020-2021/4691-4693 dated 26.03.2025	Valid till 31/10/2028	-
Lead Smelter	F(HDF)/Rajsamand(Railmagra)/6461(1)/2020-2021/4945-4947 dated 23.04.2025	Valid till 31/08/2029	-
CPP	F(HDF)/Rajsamand(Railmagra)/6468(1)/2023-2024/1226-1228 dated 24.07.2024	Valid till 31/10/2028	-
<b>HWA Details</b>			
Dariba Smelter Complex	F(HSW)/Rajsamand(Railmagra)/11(1)/2024-2025/118-120 dated 17.04.2025	Valid till 31/03/2030	-
RD Mine & Beneficiation Plant	F(HSW)/Rajsamand(Railmagra)/5(1)/2016-2017/4038-4040 dated 18.11.2021	Valid till 17/11/2026	-



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

**COMPLIANCE STATUS**

- Environment Clearance Letter No. J-11011/380/2008-IA II (I) dated 04.11.2009
- Amendment in EC No. J-11011/380/2008-IA II (I) dated 20.12.2011.
- Expansion EC Letter No. J-11015/380/2008-IA.II (M) dated 26.07.2018 (RD Mine 0.9 MTPA to 1.08 MTPA)
- Period of Compliance: **October 2025 to March 2026**

A.	EC Specific Conditions	Status of Compliance
i)	No construction work related to expansion at the proposed project site shall be started without obtaining prior clearances / approvals for the linked mining component from the Indian Bureau of Mines (IBM) and State Govt. of Rajasthan. A copy of the mining lease approval from the Indian Bureau of Mines (IBM) and State Govt. of Rajasthan shall be submitted to the Ministry and its Regional Office at Lucknow before initiating any construction work at site related to mining.	<ul style="list-style-type: none"> <li>• Noted for compliance</li> <li>• Project is under operational stage and as of now no construction work related to expansion is under progress.</li> </ul>
ii)	The project proponent shall obtain 'Consent to Establish' and 'Consent to Operate' from the Rajasthan State Pollution Control Board (RSPCB) and effectively implement all the conditions stipulated therein.	<ul style="list-style-type: none"> <li>• Complied, 'Consent to Establish' and 'Consent to operate' have been obtained from the Rajasthan State Pollution Control Board (RSPCB) vide letter no. F(Tech)/Rajsamand (Railmagra)/2/1/2009-2010/3666 dated 12/11/2009 and all the conditions stipulated therein are being implemented.</li> </ul>
iii)	The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	<ul style="list-style-type: none"> <li>• Complied, Approval of the State Land Use department, GoR was already obtained and submitted to RO, MOEF&amp;CC with Six monthly compliance report. Letter Attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.</li> </ul>
iv)	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	<ul style="list-style-type: none"> <li>• Complied, the monitoring of land use using satellite imagery was done for the Mine Lease Area in November 2025 by Hydro-</li> </ul>



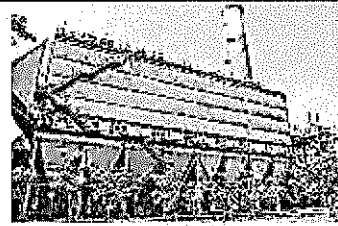
**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	Monitoring of land use pattern shall be carried out once in three years by digital processing of the area using multi-data computer compatible tape.	Geosurvey Consultants Pvt. Ltd. and is attached as <b>Annexure- XVII</b> . Satellite imagery LULC is to be carried out once in 5 years.
v)	The gaseous emissions from various process units shall conform to the standards prescribed by the concerned authorities from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time the emissions level shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	Complied. <ul style="list-style-type: none"> <li>• Various mechanisms were adopted for controlling all gaseous emissions coming from the plants.</li> <li>• Gaseous Emissions Monitoring is being done on a regular basis, and results are well within standards prescribed by the concerned authorities. The same is also evidenced from the various third-party (NABET Approved) analytical reports which are enclosed as <b>Annexure- I</b></li> </ul>
vi)	High efficiency electrostatic precipitators (ESPs) of not less than 99.87 % efficiency shall be provided to captive power plant to limit particulate matter within 50 mg/Nm <sup>3</sup> . The height of the stacks shall be as per the standards prescribed under the Environment (Protection) Act, 1986. Low NO <sub>x</sub> burners shall be provided to control NO <sub>x</sub> emissions. NO <sub>x</sub> emissions shall be restricted to 750 mg/Nm <sup>3</sup> by using low NO <sub>x</sub> burners. On-line stack emission monitoring equipments for continuous monitoring of SO <sub>2</sub> , NO <sub>x</sub> , SPM and O <sub>2</sub> shall be provided to the stacks of captive power plant and sulphuric acid plant and all the pollution control measures shall be inter-locked. The company shall install fume extractors and bag filters to control the emissions from all melting and casting units. Off gas from the Sulphuric acid plant, blast and fuming furnace plant, copper recovery plant shall be treated in the calcine based scrubbing plant where the SO <sub>2</sub> shall be removed before letting out to the	Complied. <ul style="list-style-type: none"> <li>• High Efficiency ESPs, (99.95%) provided to Captive Power Plant (CPP) are designed for particulate matter concentration less than 50 mg/Nm<sup>3</sup> at outlet.</li> <li>• The height of the stacks is as per the standards prescribed under the Environment (Protection) Act, 1986. The height of the Acid Plant, CPP and TGT plant stack is 100 m, 165 m, and 105 m respectively.</li> <li>• Continuous on-line stack emission monitoring equipment for SO<sub>2</sub>, NO<sub>x</sub> and SPM have been provided to the stack of captive power plant and for SO<sub>2</sub> to the Sulphuric acid plants respectively in Zinc and Lead Smelter</li> <li>• Off gas from the Sulphuric acid plant, blast and fuming furnace plant, copper recovery plant of lead plant are treated in the calcine based scrubbing plant where the SO<sub>2</sub> is recovered before letting out to the atmosphere.</li> <li>• Opacity meters have been installed for continuous monitoring of particulate matter (PM) at stack of CPP, Zinc dust and Zinc</li> </ul>

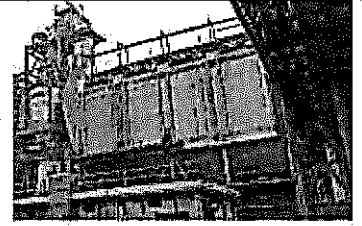
atmosphere. Adequate stack height shall be provided for proper dispersion of pollutants like SO<sub>2</sub>, NO<sub>x</sub> etc.

dross Stack.

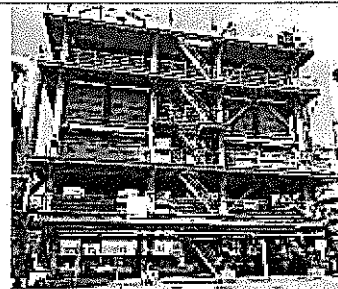
- Adequate numbers of air pollution control devices have been installed at all the material transfer points & silos.
- Calibration of all instruments are being done on regular basis.
- Photographs of ESP, Stacks, CEMS, CAQQMS, display at main gate, Sampling port are enclosed.



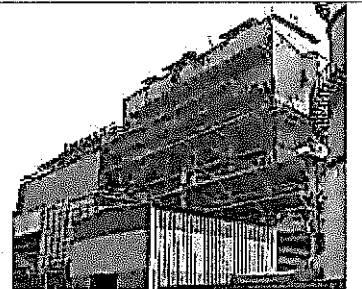
CPP ESP



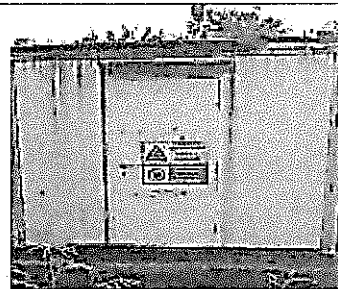
Roaster Hot ESP



Acid Plant Hot ESP



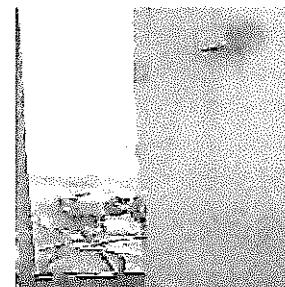
SKS Plant Hot ESP



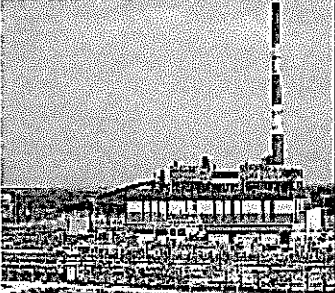
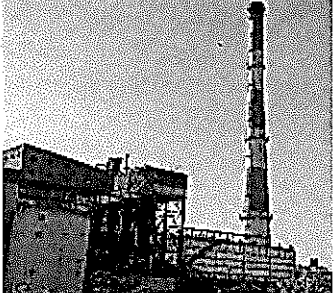
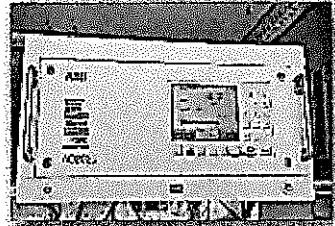

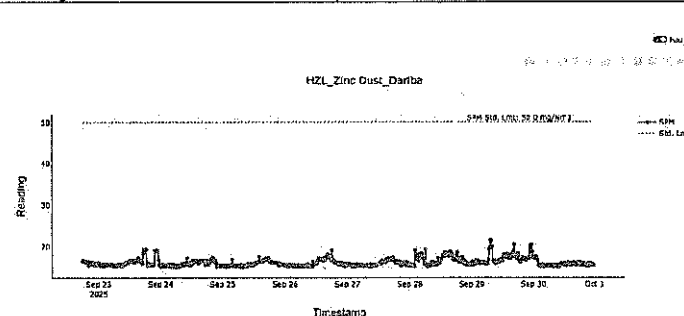
CAAQMS

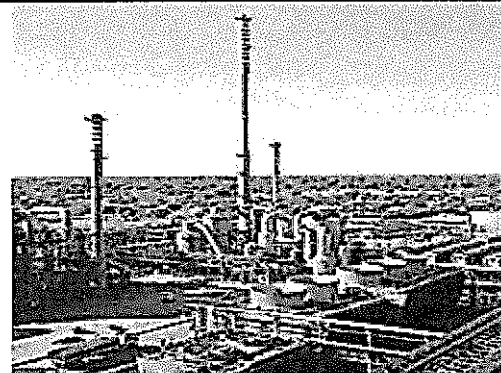


Display at Main Gate

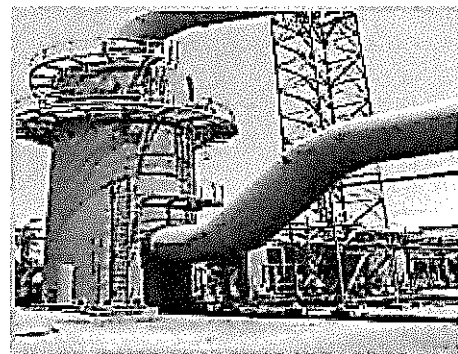


Port hole in stack

		<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%; text-align: center;">  <p>CPP Stack</p> </div> <div style="width: 50%; text-align: center;">  <p>8 Field ESP with 165 mt Stack height</p> </div> <div style="width: 50%; text-align: center;">  <p>Existing SO2 Analyzer</p> </div> <div style="width: 50%; text-align: center;">  <p>SO2 ppm Reading in HMI</p> </div> <div style="width: 100%; text-align: center;">  <p>Online Server Reading</p> </div> </div>
vii)	<p>As reflected in the EIA/EMP, Double Conversion Double Adsorption (DCDA) plant for Sulphuric acid recovery from SO<sub>2</sub> shall be provided. The company shall ensure that SO<sub>2</sub> emissions from the Zinc and lead smelter plant are taken to existing Sulphuric acid plant properly and converted to Sulphuric acid. The stack from the Sulphuric acid plant shall be provided with on-line stack emission monitoring equipment for continuous monitoring of SO<sub>2</sub>.</p>	<ul style="list-style-type: none"> <li>Complied.</li> <li>Double Conversion Double Adsorption (DCDA) plant for Sulphuric acid recovery from SO<sub>2</sub> has been provided.</li> <li>SO<sub>2</sub> emissions from the Zinc and Lead Plant Smelter are taken to respective Sulphuric acid plant properly and converted to Sulphuric acid.</li> <li>The stack from the Sulphuric acid plant provided with on-line stack emission monitoring equipment for continuous monitoring of SO<sub>2</sub>.</li> </ul>



DCDA Gas Conditioning Plant (GCP) with 100 mt Stack Height



TGT Plant Scrubber

viii) SO<sub>2</sub> emissions shall be controlled less than 1.5 kg/ton of Sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) produced. Acid mist emissions from the stack shall conform to the statutory limit of 50 mg/Nm<sup>3</sup> by providing candle filter system and reports submitted to the Ministry including its Regional Office at Lucknow, CPCB and RSPCB.

- Complied, SO<sub>2</sub> Emission levels are well within the prescribed limit.
- SO<sub>2</sub> Emission level from stack are maintained below 1.5 kg/Ton of 100 percent concentrated acid produced from acid plant. Table is incorporated in the point below.

Months	Acid Plant (Zn Smelter) Roaster-1	Acid Plant (Zn Smelter) Roaster-2	TGT Stack (Pb Stack)
	SO <sub>2</sub> (Kg/T of H <sub>2</sub> SO <sub>4</sub> Production)		
Oct'25	0.84	0.87	0.20
Nov'25	0.92	0.84	0.16
Dec'25	0.84	0.96	0.11
Jan'26	0.77	0.96	0.25
Feb'26	0.95	1.08	0.40
Mar'26	0.94	1.07	0.26

- All Monitoring Reports are enclosed as **Annexure I**



ix)

The critical parameters such as SPM, RSPM, NOx, SO2 and acid mist in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. Analysis reports for the ambient, stack and fugitive emission shall be submitted to the Ministry's Regional Office at Lucknow, CPCB and RSPCB.


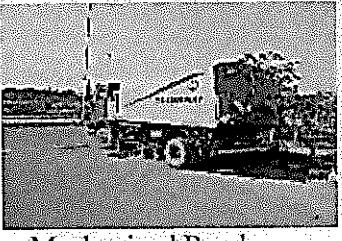
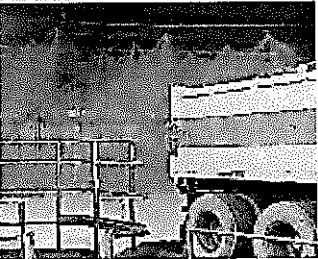

Complied

- Third Party Periodical monitoring of various parameters i.e. PM10, PM2.5, NOx and SO2 is being done in the ambient air within the impact zone.
- Four nos. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) have been established
- Third party monitoring of Ambient air quality carried out by M/s Vibrant Techno Lab Pvt Ltd, which is NABL and MoEF&CC accredited laboratory.

Parameters (µg/ m3)	Observed Value			
	Near Main Gate	Near Storm Water Pond	Near CPP Area	Near SLF Area
PM10	85.37	82.38	82.94	89.48
PM2.5	39.46	41.75	35.78	44.61
SO2	26.75	16.42	18.92	16.79
NO2	31.57	28.95	27.91	27.84
CO	0.88	0.73	0.76	0.78
Pb	0.27	0.48	0.42	0.54
Ni	<5	<5	<5	<5
As	<0.5	<0.5	<0.5	<0.5

- Average Ambient Air Quality Monitoring results for mine are enclosed herewith as **Annexure- II** and for DSC as **Annexure- III**.
- Eight nos. of AAQMS have been established at buffer zone for ambient air quality monitoring are enclosed as **Annexure- IV**.
- Zero liquid discharge is being maintained by ETP of capacity of 12200 (9000+3200) KLD, RO of 8850 KLD and MEE of 600 KLD capacity.
- The monitored data has been displayed on display board at the project site and on the Company website along with Six Monthly Environment Compliance report. Link of the report is <https://www.hzlindia.com/sustainability/environment-compliance/>
- Six Monthly Environment Compliance report

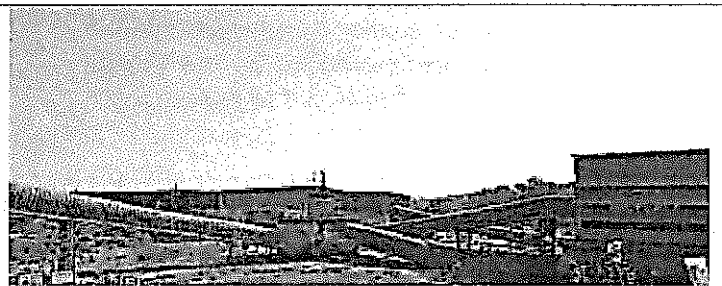


<p>xii)</p>	<p>Fugitive dust emissions in the Zinc, Lead and Copper concentrate handling area and at various transfer points shall be minimized by provision of dust suppression system. The trucks carrying concentrate shall be fully covered. The Company shall improve overall housekeeping by asphaltting the internal roads and to reduce the generation of fugitive dust from vehicle movements.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• Fugitive dust emissions in the Zinc and Lead concentrate handling area and at various transfer points is mitigated by provision of dust suppression system and bag filters.</li> <li>• Water Sprinkling System already installed in the Raw Material Handling of the Zinc Plant, Captive Power Plant and Lead Plant.</li> <li>• Mechanized road sweepers are deployed for regular cleaning on the roads to reduce fugitive dust from vehicle movement.</li> <li>• The trucks carrying concentrate are covered with tarpaulin before dispatched to Smelter from Mines.</li> <li>• All roads in the plant and up to the connection to public road are concreted or black topped.</li> </ul>	
		 <p>Water Sprinkling on road</p>	 <p>Mechanized Road sweeper</p>
		 <p>Water Sprinkling System</p>	 <p>Dust Suppression System</p>
<p>xiii)</p>	<p>Fugitive emissions, acid mist vapours, fumes and SO<sub>2</sub> shall be controlled and work environment monitored for prevailing contaminants regularly. Bag filters shall be provided to calcine handling plant, zinc dust plant, melting</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• To minimize fugitive emissions, 8-10% moisture is provided in the Zn &amp; Pb Concentrate coming from the mines.</li> <li>• Bag Filters have been provided with a calcine</li> </ul>	

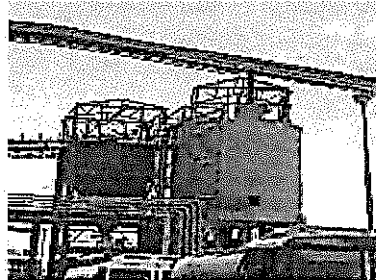
plant, dross milling plant, each coal transfer point, crushers and fly ash silos to control dust emissions. Bag filters shall be provided in fume extraction and melting and casting operations of smelter. SPM emissions from crusher house in beneficiation plant shall be controlled. Covered coal conveyors with water sprinkling system using wastewater to avoid dust emissions. Coal storage area shall be provided with water sprinkling system to arrest dust. Dust extraction system shall be provided to mineral handling area, loading and unloading areas including all the transfer points. Black top paved roads shall be made within the mine boundary. The trucks carrying concentrate shall be fully covered. Asphaltting/concreting of roads and water spray all around the critical areas prone to air pollution and having high levels of SPM and RPM shall be ensured.

handling system, zinc dust plant, coal transfer points, crusher and fly ash silos to control dust emissions.

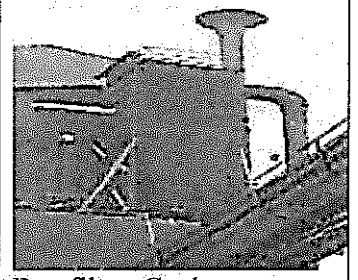
- Details of the bag filters have been provided along with six monthly compliance report vide letter no. HZL/DSC/Env/2011/2/2 dated 23.11.2011 and again attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.
- Covered Coal Conveyors with water sprinkling system have been installed at CPP to avoid dust emissions. Coal storage area is provided with water sprinkling system to arrest dust.
- All Internal roads and up to the public road are concreted/asphalted to reduce the dust emission. The trucks carrying concentrate are covered with tarpaulin and water is sprayed regularly on roads.
- Average Work Zone Environment Monitoring Results are furnished herewith as **Annexure- VI**.
- SPM emissions from crusher house in beneficiation plant are controlled by the wet scrubbing system.
- Dust extraction system provided to mineral handling area, loading and unloading areas including all the mineral transfer points.



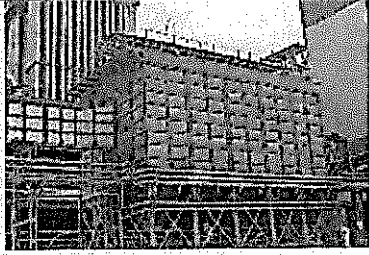

Covered Conveyor



Bag Filter Silo



Bag filter, Cyclone at Coal Crusher


																				
		Dust Extraction system	Tarpaulin Covered truck																	
xiv)	The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas. Water sprinkling shall be done to minimize the dust during transportation.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Ore conditioning is carried out to maintain 8-10% moisture as a mitigative measure against fugitive dust.</li> <li>Regular water sprinkling on fine ore stock points and at discharge points of conveyors carrying the crushed ore is done.</li> </ul>																		
xv)	Secondary fugitive emissions (particularly below 5 micron) from all the sources including Roaster plant shall be controlled, regularly monitored along with ambient dust in dry day and still air condition on 24 hour basis and data submitted to the Regional Office of the Ministry at Lucknow, RSPCB and CPCB. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	<ul style="list-style-type: none"> <li>Complied, Fugitive emission monitoring results are furnished herewith as <b>Annexure-VII</b>.</li> </ul> <table border="1" data-bbox="769 1088 1490 1491"> <thead> <tr> <th rowspan="2">Locations</th> <th>Parameters (<math>\mu\text{g}/\text{m}^3</math>)</th> </tr> <tr> <th>TSPM</th> </tr> </thead> <tbody> <tr> <td>Raw Material Handling (RMH)- Zinc Plant</td> <td>439.275</td> </tr> <tr> <td>Roaster Plant</td> <td>321.965</td> </tr> <tr> <td>Calcine Handling</td> <td>394.28</td> </tr> <tr> <td>Coal Handling Plant (CPP)</td> <td>358.935</td> </tr> <tr> <td>Fly Ash Handling</td> <td>420.255</td> </tr> <tr> <td>Raw Material Handling- Lead Plant</td> <td>429.245</td> </tr> <tr> <td>Near SKS Primary</td> <td>322.655</td> </tr> </tbody> </table>		Locations	Parameters ( $\mu\text{g}/\text{m}^3$ )	TSPM	Raw Material Handling (RMH)- Zinc Plant	439.275	Roaster Plant	321.965	Calcine Handling	394.28	Coal Handling Plant (CPP)	358.935	Fly Ash Handling	420.255	Raw Material Handling- Lead Plant	429.245	Near SKS Primary	322.655
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svi)	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation and in transportation of mineral. The vehicles carrying the mineral shall be covered with a tarpaulin and shall not be overloaded.	<p>Complied</p> <ul style="list-style-type: none"> <li>Mining equipment's and vehicle emissions are kept under control by regular preventive maintenance and condition monitoring at the in-house workshop.</li> <li>During transportation of minerals, vehicles are covered with tarpaulin.</li> </ul>																		
xvii)	Total water requirement for the proposed smelter complex including the mining and beneficiation plants from Matrikundia dam, Gosunda dam and Mansiwakal dam shall not exceed	<ul style="list-style-type: none"> <li>Closed circuit cooling system with cooling towers has been provided to captive power plant. Cooling tower blow down and boiler blow down from CPP is being recycled in ETP and recycled water again used in</li> </ul>																		

	<p>42,050 m<sup>3</sup>/day as per the agreements signed with Govt. of Rajasthan. As proposed, water requirement shall not exceed 184 liter/ton of Sulphuric acid produced. No ground water shall be used. Closed circuit cooling system with cooling towers shall be provided to captive power plant. All the effluent generated from gas cleaning plant, sulphuric acid plant, anode and cathode washing, lead smelter, DM plant, cooling towers and power plant shall be neutralized and metallic elements present shall be precipitated and removed. Effluents from the proposed smelters, acid plant and other associated services shall be treated in effluent treatment plant (ETP). Zinc sulphate solution from the scrubbing process shall be treated in the leaching section of the Zinc smelter. Cooling tower blow down and boiler blow down from CPP shall be neutralized and reused in dust suppression, green belt development etc. The treated effluent shall conform to the prescribed standards and recycled in the process i.e. in gas cleaning plant, preparation of lime milk, dust suppression and green belt development. The effluents from sulphuric acid plant, scrubber, and general floor washings of electro-refinery plant shall also be sent to ETP for further treatment followed by two-stage Reverse Osmosis (RO) Plant. Sewage shall be treated in septic tank followed by soak pit. The rejects from the RO plant shall be evaporated in a solar evaporation pond to be constructed within smelter premises. 'Zero' discharge shall be maintained and no effluent shall be discharged outside the premises. Sewage generated shall be treated in septic tank followed by soak pit.</p>	<p>process.</p> <ul style="list-style-type: none"> <li>• Effluents generated from the smelter, acid plant and other associated services are treated in Effluent Treatment Plant (ETP) followed by two-stage Reverse Osmosis (RO) Plant and Multiple Effect Evaporator (MEE). The treated effluents conform to the prescribed standards and recycle in the process. Domestic Sewage is treated in STP and recycled water used in green belt development and process.</li> <li>• Third party analysis of the treated effluent is being conducted by third party which is NABL and MOEF&amp;CC accredited laboratory.</li> <li>• The values of all parameters are well within limit of prescribed standard. Analysis reports are enclosed herewith as <b>Annexure VIII</b>.</li> </ul> <table border="1" data-bbox="815 1016 1458 1659"> <thead> <tr> <th>Parameters (in mg/L)</th> <th>ETP Outlet</th> </tr> </thead> <tbody> <tr><td>pH</td><td>7.43</td></tr> <tr><td>TSS</td><td>15.9</td></tr> <tr><td>Oil &amp; Grease</td><td>&lt;4.00</td></tr> <tr><td>COD</td><td>55.0</td></tr> <tr><td>BOD (3 days at 270C)</td><td>16.4</td></tr> <tr><td>Sulphide (as S)</td><td>0.51</td></tr> <tr><td>Chloride (as cl)</td><td>540</td></tr> <tr><td>Fluoride (as F)</td><td>0.95</td></tr> <tr><td>Copper (as Cu)</td><td>BLQ</td></tr> <tr><td>Zinc (as Zn)</td><td>0.32</td></tr> <tr><td>Cadmium (as Cd)</td><td>BLQ</td></tr> <tr><td>Chromium (as Cr+6)</td><td>BLQ</td></tr> <tr><td>Chromium (total)</td><td>BLQ</td></tr> <tr><td>Lead (as Pb)</td><td>BLQ</td></tr> <tr><td>Cyanide (as CN)</td><td>BLQ</td></tr> <tr><td>Nickel (as Ni)</td><td>BLQ</td></tr> <tr><td>Iron (as Fe)</td><td>BLQ</td></tr> </tbody> </table>	Parameters (in mg/L)	ETP Outlet	pH	7.43	TSS	15.9	Oil & Grease	<4.00	COD	55.0	BOD (3 days at 270C)	16.4	Sulphide (as S)	0.51	Chloride (as cl)	540	Fluoride (as F)	0.95	Copper (as Cu)	BLQ	Zinc (as Zn)	0.32	Cadmium (as Cd)	BLQ	Chromium (as Cr+6)	BLQ	Chromium (total)	BLQ	Lead (as Pb)	BLQ	Cyanide (as CN)	BLQ	Nickel (as Ni)	BLQ	Iron (as Fe)	BLQ
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xviii)	<p>The mine seepage water shall be collected in underground sumps and reused/recycled in mining and</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>• Underground water from the mine is pumped to</li> </ul>																																				



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

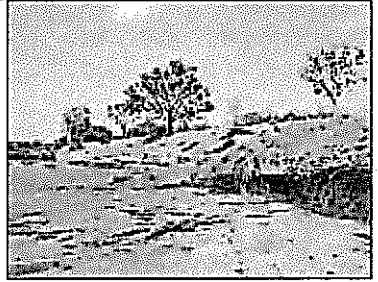
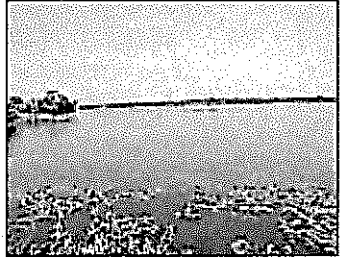
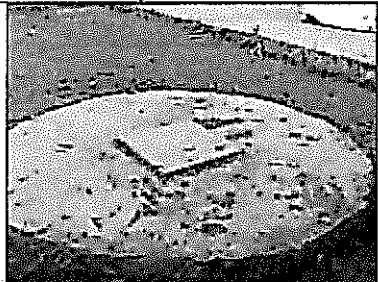
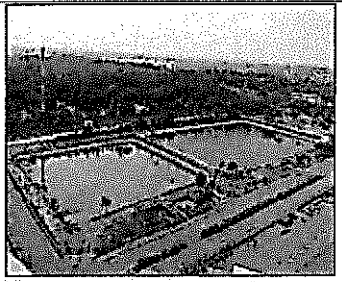
	<p>beneficiation process to minimize the fresh water consumption. Decanted water from the tailings dam shall be recycled in the beneficiation plant to ensure 'zero' discharge. Tailings from beneficiation plant after recovery of Lead and Zinc concentrates shall be sent to tailing thickener for dewatering. Water recovered from tailing thickener shall be recycled to beneficiation plant for use in the process. Tailing thickener underflow shall be partly used as backfill for mines and remaining part shall be disposed to tailing dam. Water in the tailing dam shall be allowed to settle out and pumped to the water reservoir for reuse in the process.</p>	<p>beneficiation plant for reuse and tailing dam water is also recycled to beneficiation plant for reuse.</p> <ul style="list-style-type: none"> <li>• Zero discharge is being maintained.</li> </ul>
<p>xix)</p>	<p>Acid mine water, if any, has to be treated and use in plantation and existing mining activity after conforming to the standard prescribed by the competent authority.</p>	<ul style="list-style-type: none"> <li>• Not applicable as, no acid mine water is generated from mining activity.</li> </ul>
<p>xx)</p>	<p>Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the mine workshop for the wastewater generated.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• Sewage treatment plant of 500 KLD and 500 KLD capacity are installed for the colony and the treated water is being used for horticulture purpose.</li> <li>• Wastewater from the workshop is collected in the settling pit after passing through oil and grease trap system and water is regularly recycled.</li> </ul>
<p>xxi)</p>	<p>The effluent from the ore beneficiation plant shall be treated to conform to the prescribed standards and the tailings slurry shall be transported through a closed pipeline to the tailing dam. The decanted water from the tailing dam shall be re-circulated and there shall be 'zero' discharge from the tailing dam. Acid mine water, if any, shall be neutralized and reused within the plant.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>• The tailing slurry is pumped through pipeline to tailing dam and decanted water is pumped back to beneficiation plant for reuse in the process.</li> <li>• Zero discharge is maintained.</li> <li>• No acid mine water is generated through mines.</li> </ul>

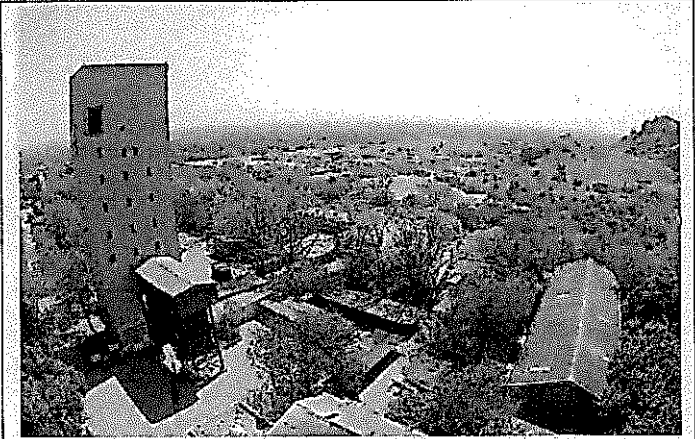
		 <p style="text-align: center;">Tailing dam pipeline</p>
xxii)	Detailed hydrological study shall be carried out and implementation of recommendations of the detailed hydrological study shall be ensured.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Detailed hydrological and hydro-geological study has been carried out by M/s Hydro-Geosurvey Consultants Private Limited, Jodhpur and the recommendations have been implemented.</li> <li>Report is attached in Six monthly compliance report (HZL/RDC/EC-CR/2025-26/H2) dated 27.05.2026 and is also attached as <b>Annexure- XVI</b></li> </ul>
xxiii)	The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations.	<ul style="list-style-type: none"> <li>Complied, Due to underground mining activity no water course has been obstructed.</li> </ul>
xxiv)	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Suitable rainwater harvesting structures have been constructed to harvest rainwater and recharge the ground water in CPP, residential colonies, schools &amp; in mines premises.</li> <li>Copy of the compliance report submitted to CGWA has been submitted along with six monthly compliance reports vide letter no. HZL/DSC/Env/2011/2/2 dated 23.11.2011. Report is again in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.</li> </ul>

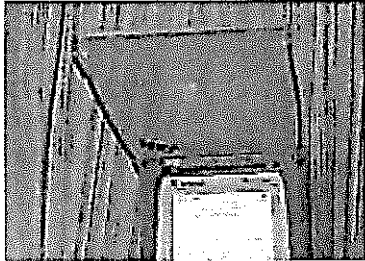
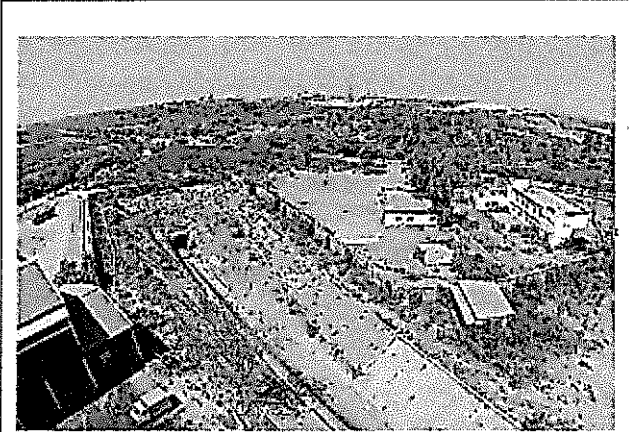


**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

xxv)	<p>Regular monitoring of ground water level and quality shall be carried out in and around the project area (mine lease, beneficiation plant and tailing dam) by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January)); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.</p>	<ul style="list-style-type: none"> <li>Complied, Six no's of Piezometer have been installed for monitoring of ground water level and quality around the tailing dam and monthly monitoring is being carried out.</li> <li>Average Ground Water Monitoring Results for <b>October'25 to March'26</b> are furnished herewith as <b>Annexure- IX</b>.</li> </ul>																																																																																											
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xxvii)	<p>Groundwater and surface water in and around the mine shall be regularly monitored at strategic locations for heavy metals such as Ni, Co, Cu, Pb, Zn, and Cd. Data should be reviewed and analyzed from time to time to detect changes in the quality of groundwater and surface water, if any. The monitoring stations shall be established in consultation with the Regional Director, Central Ground Water Board, and the Rajasthan Pollution Control Board.</p>	<ul style="list-style-type: none"> <li>Complied, Ground Water &amp; Surface Water monitoring is being carried out on monthly basis for analysis of heavy metals.</li> <li>Average Surface &amp; Ground Water Monitoring Results (around RD Mine &amp; Tailing Dam Area) from <b>October'25 to March'26</b> is furnished herewith as <b>Annexure- X</b>.</li> </ul>																																																																																											
		<table border="1"> <thead> <tr> <th>Parameters</th> <th>Mine Water</th> <th>Tailing Dam</th> <th>Garland Drain</th> <th>Sumer Singh Well</th> <th>Nahar Singh Well</th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;">All figures in ppm except pH</td> </tr> <tr> <td>pH</td> <td>7.33</td> <td>7.29</td> <td>7.56</td> <td>7.41</td> <td>7.29</td> </tr> <tr> <td>Suspended Solids</td> <td>11.33</td> <td>11.33</td> <td>16.00</td> <td>9.17</td> <td>9.83</td> </tr> <tr> <td>Lead</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>Zinc</td> <td>0.13</td> <td>0.34</td> <td>0.28</td> <td>0.04</td> <td>0.17</td> </tr> <tr> <td>Copper</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>Iron</td> <td>0.053</td> <td>0.078</td> <td>0.045</td> <td>0.047</td> <td>0.048</td> </tr> <tr> <td>Cadmium</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>Nickle</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>Cobalt</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> </tbody> </table>	Parameters	Mine Water	Tailing Dam	Garland Drain	Sumer Singh Well	Nahar Singh Well	All figures in ppm except pH						pH	7.33	7.29	7.56	7.41	7.29	Suspended Solids	11.33	11.33	16.00	9.17	9.83	Lead	BDL	BDL	BDL	BDL	BDL	Zinc	0.13	0.34	0.28	0.04	0.17	Copper	BDL	BDL	BDL	BDL	BDL	Iron	0.053	0.078	0.045	0.047	0.048	Cadmium	BDL	BDL	BDL	BDL	BDL	Nickle	BDL	BDL	BDL	BDL	BDL	Cobalt	BDL	BDL	BDL	BDL	BDL																									
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xxvii)	<p>The project proponent shall obtain necessary prior permission of the</p>	<ul style="list-style-type: none"> <li>Complied, Groundwater intersection Permission</li> </ul>																																																																																											

	competent authorities for draw of requisite quantity of water required for the project.	have been obtained from CGWA vide letter No. CGWA/NOC/MIN/REN/1/2025/11665 dated 30/05/2025 was valid till 06/01/2026; application has since been filed for renewal and is under progress.
xxviii)	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.	<ul style="list-style-type: none"> <li>Complied, Suitable rainwater harvesting structures have been constructed in consultation with CGWB to harvest rain water and recharge the underground water on long term basis.</li> <li>Photos of GWH Structure</li> </ul> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pond Deepening – Mahenduriya Pond</p> </div> <div style="text-align: center;">  <p>Mahenduriya Pond after Pond Deepening</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Recharge Well</p> </div> <div style="text-align: center;">  <p>Storm Water Ponds # 3 &amp; # 4</p> </div> </div>
xxix)	Catch drains and siltation ponds of appropriate size shall be constructed around the mineral and over burden dumps to prevent run off of water and flow of sediments directly into the Banas River and other water bodies. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly.	<p>Complied</p> <ul style="list-style-type: none"> <li>Garland drains have been constructed around the waste dump area along with a collection sump to prevent run off of water and flow of sediments directly into the Banas. River and other water bodies.</li> <li>Collected water is being utilized for watering the mine area, roads, green belt development etc.</li> <li>The drains are regularly desilted particularly after the monsoon and maintained properly.</li> </ul>
xxx)	Garland drains, settling tanks and check dams of appropriate size, gradient and	<p>Complied.</p> <ul style="list-style-type: none"> <li>Garland drains have been constructed around the</li> </ul>

	<p>length shall be constructed around the mineral and over burden dumps to prevent run off of water and flow of sediments directly into the Banas River and other water bodies and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>waste dump area along with a collection sump to prevent run off of water and flow of sediments directly into the Banas River and other water bodies.</p> <ul style="list-style-type: none"> <li>• Collection sump capacity was designed keeping all safety measures and adequate retention period to allow proper settling of silt material.</li> <li>• The drains are regularly desilted particularly after the monsoon and maintained properly.</li> </ul>
xxxii)	<p>Underground mining shall be carried out using Vertical Retreat Mining (VRM) and Blast Hot Stopping (BHS) with back filling. Concentration and separation of Lead and Zinc minerals shall be carried out in the beneficiation plant.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>• Underground mining is being carried out by using Vertical Retreat Mining (VRM) and Blast Hot Stopping (BHS) with backfilling.</li> <li>• Lead Zinc mineral is being concentrated and separated in the Beneficiation Plant.</li> </ul>  <p style="text-align: center;">Underground RD mines</p>
xxxiii)	<p>Controlled blasting practice shall be adopted. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>• Controlled blasting is adopted. Same practice will be continued.</li> <li>• Various mitigative measures for control of ground vibrations have being adopted.</li> <li>• Being Underground mine there is no fly rocks and boulders generation.</li> <li>• Photos of Ground Vibrations control and</li> </ul>

		<p>monitoring</p>  <p>Instrument used for ground vibration monitoring</p>
xxxiii)	<p>Wet drilling blasting method and provision for the control air emissions during blasting using dust collectors etc. shall be used.</p>	<ul style="list-style-type: none"> <li>Complied, Wet drilling Controlled blasting is being adopted to control air emissions and same practice will be regularly followed.</li> </ul>  <p>Wet Drilling</p>
xxxiv)	<p>Blast vibration shall be assessed from proposed operation. Ground subsidence and mine stability shall also be monitored on regular basis.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Wet drilling Controlled blasting is being adopted in mining and the same practice will be regularly followed.</li> <li>Blast vibrations, Ground subsidence and mine stability are being continuously observed.</li> </ul>
xxxv)	<p>Regular monitoring of subsidence movement on the surface over working area and impact on water bodies/vegetation/ structures/ surrounding shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate measures shall be taken to avoid loss of</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Regular subsidence-monitoring is carried out on surface on top of mining area, till date no subsidence is recorded.</li> <li>Measurements show negligible disturbance of less than 1 mm.</li> <li>All underground voids are promptly filled with</li> </ul>



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	life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	cemented fill material.
xxxvi)	All the mine entries shall be above the highest flood level to avoid any anticipated flooding of mine from the surface water during the rainy season.	<p>Complied</p> <ul style="list-style-type: none"> <li>Presently all the mine entries are above the highest flood level. HFL is 488.4 mRL. Main shaft collar &amp; Auxiliary shaft collar are at 501 mRL and 496 mRL respectively.</li> </ul>
xxxvii)	In areas where subsidence is anticipated in shallow mineral occurrence, such areas be identified and provided with garland drains to ensure draining of water and avoid ingress of the same in to the underground mine.	<ul style="list-style-type: none"> <li>Complied, In area where any subsidence is anticipated, the areas are fenced along with garland drains to ensure draining of water and avoid ingress of the water in underground mine.</li> </ul>
xxxviii)	The project authorities shall check the possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the water bodies, if any, in consultation with the Director General Mines & Safety (DGMS). De-pillaring shall also be carried out after taking prior approval of the DGMS.	<p>Complied</p> <ul style="list-style-type: none"> <li>The stipulation is being complied with as per the DGMS guidelines.</li> <li>De pillaring, if required, is done with due approval from DGMS.</li> </ul>
xxxix)	All the fly ash shall be utilized as per Fly Ash Notification, 1999 subsequently amended in 2003. Fly ash shall be provided to cement / brick manufacturing units for further use in making Pozollona Portland Cement (PPC).	<p>Complied</p> <ul style="list-style-type: none"> <li>All the Fly Ash is utilized as per the Fly ash Notification and is being provided to cement manufacture for formation of PPC cement.</li> <li>Fly Ash return for financial year 2025-26 has been submitted in vide letter No. HZL/DSC/ENV/FLY ASH Return/2025-26 dated 18.04.2026 and is attached as <b>Annexure- XV</b></li> </ul>
xl)	Mine waste shall be dumped in mine voids. Overburden due to mine expansion shall be dumped at a designated place. Waste rocks generated due to mining activity shall be utilized in construction and enhancement of tailing dam. In beneficiation plant, existing tailing dam shall be used for disposal of tailings.	<p>Complied</p> <ul style="list-style-type: none"> <li>Mine waste is used for height rising of the tailing dam and construction of roads.</li> <li>Tailings generated from Beneficiation plant being disposed of in tailing dam.</li> </ul>

xli)

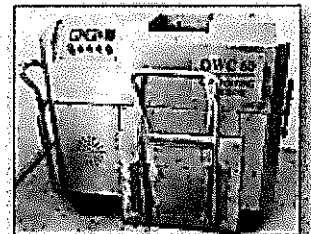
The solid waste generated in the form Jarosite shall be stabilized as Jarofix and disposed off in Jarofix disposal yard inside the plant premises. Cobalt cake, cooler cake, anode mud, enrichment cake, ETP sludge and spent catalyst etc. shall be disposed off in secured landfill (SLF). Waste/used oil shall be sold to registered recyclers.

Complied


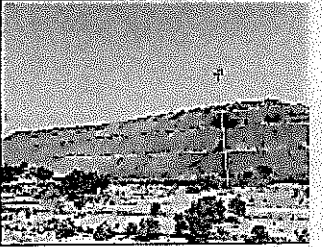
- Major waste Jarosite is being generated during extraction of zinc ore concentrate by hydrometallurgy operations (hydro plant).
- Jarosite is mixed with 2% lime and 12-14% cement which results stable material called Jarofix which is being disposed in HDPE lined Jarofix Disposal Yard in systematic way.
- The above technology supplied by M/s CEZ, Canada.
- The advantage of Jarofix is having much improved density and physic-mechanical properties and reduce reachability of the heavy metals.
- The design of HDPE lined Jarofix Disposal yard is approved by RSPCB.
- Anode mud is being recycled back into the process and surplus, if any is sold to registered recycler.
- Fly Ash generated from Power plant is being provided to cement manufacture. Bottom ash is being provided to bricks manufacturer.
- Cooler Cake and ETP sludge after stabilization is being disposed into SLF.
- Piezometers are provided at down/up stream of Secured land fill and Jarofix.
- Regular third-party monitoring of the ground water collected from piezometers by M/s Vibrant Techno Lab Pvt Ltd, which is MOEF&CC accredited laboratory.
- Waste/used oil is being sold to registered recyclers.



Used Oil Storage



Organic Waste Converter

		 <p>Secured Landfill</p>	 <p>Jarofix Yard</p>
<p>xlii)</p>	<p>ETP Sludge in the form of cake shall be disposed to the captive SLF. Jarosite shall be treated by mixing lime and cement to produce Jarofix, a stable product. After stabilization, Jarofix shall be disposed in dedicated disposal yard. Cooler cake and part of lead silver residue shall be neutralized and stabilized before disposal in SLF. Anode mud, cobalt cake and purification cake shall be recycled back in the process and, if surplus, shall be sold to authorized recyclers or disposed in SLF after neutralization. Spent catalyst shall be disposed in SLF after neutralization. Lead smelter slag after fuming shall be stored in designated area and alternatives shall be explored for usage in road construction and cement manufacturing.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>ETP Sludge in the form of cake and Cooler Cake are disposed to the captive SLF after stabilization.</li> <li>Jarosite after stabilization with lime and cement is being disposed in HDPE Lined Jarofix Disposal Yard.</li> <li>Other hazardous wastes like Anode Mud, Purification Cake are being sold to authorized recyclers.</li> </ul>	
<p>xliii)</p>	<p>Column Leachate Studies of the stock piles of Run-of-the-mine (ROM) ore, crushed ore, tailings, Jarofix shall be carried out to ascertain the pollution potential as per details given below:</p> <ul style="list-style-type: none"> <li>Temperature fluctuation and sunlight exposure under confined and unconfined conditions.</li> <li>Buried conditions</li> <li>Air circulation</li> <li>Dry – wet conditions in both confined and unconfined situations</li> <li>Temperature episodes and</li> </ul>	<p>Complied.</p> <ul style="list-style-type: none"> <li>Report on Column Leachate Studies of the stockpiles of Run-of-the-mine (ROM) ore, crushed ore, tailings, Jarofix, carried out by IIT Kharagpur is submitted along with EC compliance report for Apr'12 to Sep'12 period vide letter HZL /DSC/ENV/2012/8/24.11.2012. (Report is again attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.)</li> <li>Monitoring of Primary and Secondary organics (Poly Aromatic Hydrocarbons) and various anions and cations in Jarofix/Jarosite and Fresh tailings. Report is again attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.</li> </ul>	



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	<p>leachate release conditions</p> <ul style="list-style-type: none"> <li>Leachate environmental residence study</li> </ul> <p>The leachate shall be measured for heavy metals for cations viz. As, St, Ni, Cu, Sb, Cr, Hg, Fe, Al, Pb, Zn, Au and Ag and anions viz. Sulfate, Chloride, Fluorine, Carbonate, Bicarbonate, Phosphate. The primary and secondary organics (Poly Aromatic Hydrocarbons) shall also be monitored in Jarofix and fresh tailings. Reports prepared shall be submitted to the Ministry within 6 months of operation of the plant.</p>	
xliv)	<p>The tailing dam shall be provided with HDPE lining. Tailing dam stability, risk assessment and disaster risk mitigation &amp; planning studies shall be conducted in the likely affected zone.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>HDPE lining is being provided in tailing dam.</li> <li>Tailing Dam and SLF stability, risk assessment and disaster risk mitigation &amp; planning studies are conducted, and report is again attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022.</li> </ul>
xlv)	<p>A complete hazards and risk assessment, and mitigation studies of the areas where hazardous substances are stored shall be carried out by approved agencies having qualified personnel. All plants identifiable hazardous areas like Sulfuric acid plants shall be color coded in "Red" and shall be made safe from any eventual spill or leakage. Regular inspection of the site shall be carried out.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>HAZOP study has been carried out by M/s Safety Consultancy Services, Mumbai.</li> <li>Recommendations of the report are implemented.</li> <li>Sulphuric Acid Plant has been color coded in "Red" and made safe from any eventual spill or leakage.</li> <li>Regular site inspection is being carried out for all sites.</li> </ul> <p>Hazard and risk assessment are being carried out regularly and report is attached in Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022</p>
xlvi)	<p>In the mine sites, proper delineation of the confined and unconfined aquifers, permanent surface water bodies (having more than 1 ft standing water for at least 240 days in a year) within the lease hold area and within 3 kms radius of any potential mine site have to be shown in a map. Action plan shall be prepared for the protection of aquifers in the mine</p>	<ul style="list-style-type: none"> <li>Complied, No such surface water body exist having more than 1 ft standing water for at least 240 days in a year within the lease hold area and within 3 kms radius of any potential mine site.</li> </ul>

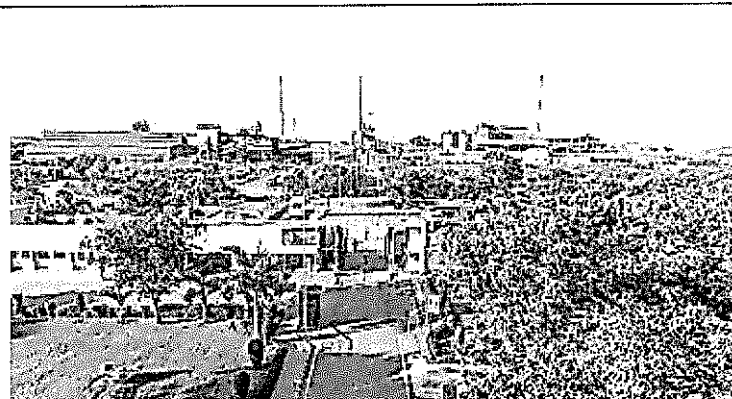


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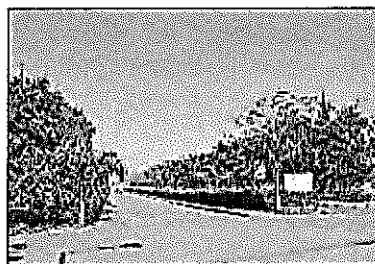
	area during process of mining and submitted to the Ministry and its Regional Office at Lucknow.	
xlvi)	The top soil, if any, shall temporarily be stored at earmarked site(s) only and it shall not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	<ul style="list-style-type: none"> <li>Not applicable as mine is underground, therefore, no topsoil is not generated.</li> </ul>
xlvi)	The over burden generated during the mining operation shall be stacked at earmarked dump site(s) only and it shall not be kept active for a long period of time and its phase-wise stabilization shall be carried out. There shall be one external over burden dump. Proper terracing of the OB dump shall be carried out so that the overall slope of the dump shall be maintained to 28°. The over burden dump shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis.	<p>Complied:</p> <ul style="list-style-type: none"> <li>One external overburden dump at mine site with 10-meter height and overall slope of 28° is maintained. Two nos. of inactive dumps are rehabilitated with plantation.</li> <li>Strengthening of Green cover on the inactive dump is being ensure.</li> </ul>
xlvi)	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers shall be drawn and followed accordingly.	<p>Complied</p> <ul style="list-style-type: none"> <li>Medical examination of all the workers engaged is carried out and records are maintained as per the rules.</li> <li>The main tests include in PME are Audiometry, Lung function &amp; X-Ray.</li> </ul>
i)	As proposed, plantation shall be raised in an area of 33 % ha. Including a 7.5 m wide green belt in the safety zone around the mining lease, over burden dump, around beneficiation plant, around tailing dam, roads etc. as per Central Pollution Control Board guidelines by planting the native species	<p>Complied</p> <ul style="list-style-type: none"> <li>33% of acquired area has been covered under plantation and the same is being maintained.</li> <li>Native plant species with long life are being planted as per CPCB guidelines and consultation with DFO.</li> <li>SO<sub>2</sub> resistant plant species are being selected for plantation.</li> </ul>

around the periphery of plant and township, canopy based green belt shall be developed in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 1,500 plants per ha.

- The density of the trees is around 1500 plants per ha.
- Gap filling plantation is being carried out yearly to maintain the >95% survival rate of the plantation.



Panoramic View of Industrial Area with Green Belt



Plantation Near Main Gate



Plantation CPP Boundary Wall



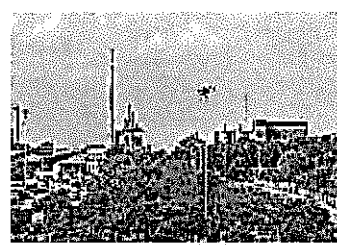
Plantation near Community Centre



Plantation opposite Residential Colony



Plantation – In front of CDSS



Plantation – Parking Area



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<p>ii)</p>	<p>Action plan for the mining, management of over burden (removal, storage, disposal etc.), reclamation of the mined-out area etc. shall be submitted to the Ministry and its Regional Office at Lucknow. A final mine closure plan along with details of Corpus Fund shall be submitted to the Ministry of Environment &amp; Forests 5 years in advance of final mine closure for approval.</p>	<p>Noted for Compliance.</p> <ul style="list-style-type: none"> <li>• Presently, Mining is in the operational stage and have sufficient Reserves and Resources for the long term mine life.</li> <li>• The Progressive Mine Closure Plan is part of Approved Mine Plan and all the measures are under implementation as per approved plan.</li> <li>• Approved Final Mine closure along with sufficient corpus fund will be submitted to Regional Office, MOEF&amp;CC, Lucknow, 5 years in advance of mine closure.</li> </ul>
<p>lii)</p>	<p>Conservation Plan for Schedule-I animals as per Wildlife Protection Act, 1972, if found in the study area shall be prepared and implemented on priority before commission the project for the conservation of wild fauna in consultation with the State Forest &amp; Wildlife Department.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• No schedule-I animals are found in the core and buffer zone.</li> <li>• Being responsible company, various conservation measures for flora and fauna are being implemented in and around the project area.</li> </ul>
<p>liii)</p>	<p>Regular medical examination and health monitoring of all the employees for Lead (Pb) and Cadmium (Cd) shall be carried out and if cases of presence of Lead (Pb) and Cadmium (Cd) are detected, necessary compensation shall be arranged under the existing laws. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for relevant parameters and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later.</p>	<p>Complied.</p> <ul style="list-style-type: none"> <li>• A full-fledged occupation health center with qualified doctor is established in the project site.</li> <li>• All personnel working in the Lead plant undergo test for Lead and Cadmium in Blood, to ensure early detection and rehabilitation if required.</li> <li>• The records are being maintained as stipulated.</li> </ul>
<p>liv)</p>	<p>All the recommendations made in Charter for Corporate Responsibility for Environment Protection (CREP) for Zinc smelters shall be implemented.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>• SO<sub>2</sub> levels are ensured below the limit of 1.5 kg/ton Sulphuric acid produced and acid mist lower than 50 mg/Nm<sup>3</sup>.</li> <li>• Compliance of recommendations made in Charter for Corporate Responsibility for Environment</li> </ul>



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		Protection (CREP) for Zinc smelter submitted with Six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022																																	
iv)	Overall proper housekeeping shall be ensured in all the plant areas viz. Zinc and Lead smelter, Beneficiation plant, Captive power plant and other processing plant areas. The Company shall improve overall housekeeping by asphaltting the internal roads and to reduce the generation of fugitive dust from vehicle movements.	<p>Complied</p> <ul style="list-style-type: none"> <li>Internal roads have been concreted/ asphalted to reduce the dust emission.</li> <li>The roads are being swept through road sweepers and cleaned with water.</li> </ul>																																	
lvi)	Adequate funds shall be earmarked towards capital cost and recurring expenditure per annum and a break up shall be submitted to the Ministry covering all aspects of the environment pollution control measures including extensive tree plantation on the mine and plant sites with an objective to achieve 33 % green cover within 3 years of project completion and recurring expenditure/annum for adequate pollution control measures with on-line motoring systems, ETPs, SWTPs, sound and vibration control, social forestry, rain water harvesting, occupational health, employment of environmental cadre personnel for continuous improvement etc.	<p>Complied</p> <ul style="list-style-type: none"> <li>Adequate funds are allocated for capital and revenue expenditures and no fund is diverted to other jobs/places.</li> <li>Environmental control measure expenditure breakup for FY2025-26 and Funds earmarked towards environmental control measures for FY2026-27 has been attached as <b>Annexure- XIII &amp; XIV</b>.</li> </ul> <table border="1"> <thead> <tr> <th>S.No</th> <th>Description (Funds earmarked towards environmental control measures for FY 2026-27)</th> <th>Total Amount (Rs. In Lakhs)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Green Belt Development, Maintenance of old plantation &amp; landscaping</td> <td>222</td> </tr> <tr> <td>2</td> <td>Environment Monitoring</td> <td>303</td> </tr> <tr> <td>3</td> <td>Storm water ponds operation and maintenance &amp; Monsoon management</td> <td>110</td> </tr> <tr> <td>4</td> <td>Environmental training, awareness and publicity</td> <td>85.8</td> </tr> <tr> <td>5</td> <td>Hazardous Waste Management</td> <td>2307</td> </tr> <tr> <td>6</td> <td>O &amp; M of Organic waste Convertor</td> <td>8</td> </tr> <tr> <td>7</td> <td>Environmental Audit &amp; IMS</td> <td>9</td> </tr> <tr> <td>8</td> <td>Returns, fees for Award &amp; CTO</td> <td>307.5</td> </tr> <tr> <td>9</td> <td>Pollution control measure</td> <td>56</td> </tr> <tr> <td></td> <td><b>Grand Total</b></td> <td><b>3408.3</b></td> </tr> </tbody> </table>	S.No	Description (Funds earmarked towards environmental control measures for FY 2026-27)	Total Amount (Rs. In Lakhs)	1	Green Belt Development, Maintenance of old plantation & landscaping	222	2	Environment Monitoring	303	3	Storm water ponds operation and maintenance & Monsoon management	110	4	Environmental training, awareness and publicity	85.8	5	Hazardous Waste Management	2307	6	O & M of Organic waste Convertor	8	7	Environmental Audit & IMS	9	8	Returns, fees for Award & CTO	307.5	9	Pollution control measure	56		<b>Grand Total</b>	<b>3408.3</b>
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lvii)	Rehabilitation and Resettlement Plan for the project affected population including tribals, if applicable, as per the policy of the State Govt. in consultation with the	<ul style="list-style-type: none"> <li>Noted for compliance, as of now no Rehabilitation and Resettlement Plan applicable for this project.</li> </ul>																																	



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	State Govt. of Rajasthan shall be implemented. Compensation paid in any case shall not be less than the norms prescribed under the National Resettlement and Rehabilitation Policy, 2007.	
lviii)	All the safety norms stipulated by the Director General, Mine & Safety (DGMS) shall be implemented.	<ul style="list-style-type: none"> <li>• Compliance of all safety norms stipulated by DGMS is being implemented.</li> </ul>
lix)	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Smelters, thermal power plants and mining shall be implemented.	<p>Complied</p> <ul style="list-style-type: none"> <li>• SO2 levels are ensured below the limit of 1.5 kg/ton Sulphuric acid produced and acid mist lower than 50 mg/Nm3.</li> <li>• Compliance of recommendations made in Charter for Corporate Responsibility for Environment Protection (CREP) for Zinc smelters, Thermal Power Plants and mining was submitted with six monthly compliance report (HZL/RDC/EC-CR/2021-22/H2) dated 26.05.2022</li> </ul>
lx)	The company shall comply with the commitments made during public hearing / consultation meeting held.	<ul style="list-style-type: none"> <li>• Complied, all commitments made during Public Hearing/consultations are being complied.</li> </ul>
lxi)	No change in mining technology and scope of working shall be carried out without prior approval of the Ministry.	<ul style="list-style-type: none"> <li>• Noted for compliance, No further expansion or modification of the plant and change in mining technology will be carried out without prior approval of the Ministry.</li> </ul>
lxii)	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	<ul style="list-style-type: none"> <li>• Noted for compliance, No any major construction is going on the site. However, various labors are residing on the colony area. Basic facilities are provided.</li> </ul>
<b>B.</b>	<b>EC General Conditions</b>	<b>Status of Compliance</b>
i)	The project authorities must strictly adhere to the stipulations made by the Rajasthan State Pollution Control Board	<ul style="list-style-type: none"> <li>• Complied, Consent to operates have been obtained from the Rajasthan State Pollution Control Board (RSPCB) and all the conditions stipulated therein</li> </ul>



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	(RSPCB) and the State Government.	are being implemented.																																															
ii)	No expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	<ul style="list-style-type: none"> <li>Noted for Compliance, No further expansion or modification of the plant and change in mining technology will be carried out without prior approval of the Ministry.</li> </ul>																																															
iii)	Adequate number of ambient air quality-monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the Rajasthan State Pollution Control Board. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Lucknow and the State Pollution Control Board/Central Pollution Control Board once in six months.	<p>Complied.</p> <ul style="list-style-type: none"> <li>Third Party Periodical monitoring of various parameters i.e. PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub> and SO<sub>2</sub> are being done in the ambient air within the impact zone.</li> <li>Ambient Air Quality Monitoring Stations (AAQMS) have been established.</li> <li>Third party monitoring of Ambient air quality carried out by Third party, which is NABL and MoEF&amp;CC accredited laboratory.</li> </ul>																																															
		<table border="1"> <thead> <tr> <th rowspan="2">Parameters (µg/ m<sup>3</sup>)</th> <th colspan="4">Observed Value</th> </tr> <tr> <th>Near Main Gate</th> <th>Near Storm Water pond</th> <th>Near CPP Area</th> <th>Near SLF Area</th> </tr> </thead> <tbody> <tr> <td>PM<sub>10</sub></td> <td>85.37</td> <td>82.38</td> <td>82.94</td> <td>89.48</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>39.46</td> <td>41.75</td> <td>35.78</td> <td>44.61</td> </tr> <tr> <td>SO<sub>2</sub></td> <td>26.75</td> <td>16.42</td> <td>18.92</td> <td>16.79</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>31.57</td> <td>28.95</td> <td>27.91</td> <td>27.84</td> </tr> <tr> <td>CO</td> <td>0.88</td> <td>0.73</td> <td>0.76</td> <td>0.78</td> </tr> <tr> <td>Pb</td> <td>0.27</td> <td>0.48</td> <td>0.42</td> <td>0.54</td> </tr> <tr> <td>Ni</td> <td>&lt;5</td> <td>&lt;5</td> <td>&lt;5</td> <td>&lt;5</td> </tr> <tr> <td>As</td> <td>&lt;0.5</td> <td>&lt;0.5</td> <td>&lt;0.5</td> <td>&lt;0.5</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Average Ambient Air Quality Monitoring results are enclosed herewith as <b>Annexure- II</b></li> <li>Eight nos. of AAQMS have been established at buffer zone for ambient air quality monitoring are enclosed as <b>Annexure- III</b>.</li> <li>Zero discharge is being maintained.</li> <li>The monitored data have been displayed on display board at the project site and also on Company website along with Six Monthly Environment Compliance report. Link of the report is <a href="https://www.hzindia.com/sustainability/environme">https://www.hzindia.com/sustainability/environme</a></li> </ul>	Parameters (µg/ m <sup>3</sup> )	Observed Value				Near Main Gate	Near Storm Water pond	Near CPP Area	Near SLF Area	PM <sub>10</sub>	85.37	82.38	82.94	89.48	PM <sub>2.5</sub>	39.46	41.75	35.78	44.61	SO <sub>2</sub>	26.75	16.42	18.92	16.79	NO <sub>2</sub>	31.57	28.95	27.91	27.84	CO	0.88	0.73	0.76	0.78	Pb	0.27	0.48	0.42	0.54	Ni	<5	<5	<5	<5	As	<0.5	<0.5
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**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

		<p>nt-compliance/</p> <ul style="list-style-type: none"> <li>Six Monthly Environment Compliance report along with all Analysis reports for the ambient, stack and fugitive emission are enclosed and being submitted to the Regional Office, MOEF&amp;CC Lucknow, CPCB and RSPCB.</li> </ul>
iv)	<p>Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater should be recycled in the plant as well as utilization for plantation purposes.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Industrial waste water is properly collected, treated in the ETP capacity of 12200 (9000+3200) KLD followed by double stage RO (capacity 8850 KLD) and MEE 600 KLD capacity so as to confirm treated water quality as per the prescribed standards and recycled back in the plant as well as utilized for plantation purposes.</li> <li>Details of ETP plant has been submitted along with six monthly compliance report vide letter no. HZL/DSC/Env/2011/2/2 dated 23.11.2011.</li> <li>Zero Discharge is being maintained.</li> </ul>
v)	<p>The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collection, storage, treatment and disposal of hazardous wastes.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Hazardous waste Authorization under Hazardous Waste and other Waste (Management and Handling &amp; Transboundary) Rules, 2016 has been obtained from RSPCB.</li> <li>Hazardous Wastes are properly collected and stored in dedicated area before handed over to authorized vendor.</li> <li>Jarosite is mixed with 4% lime and 12-14% cement which results stable material called Jarofix which is being disposed in HDPE lined Jarofix Disposal Yard in systematic way.</li> <li>Anod mud is being reuse/ sold to registered recycler.</li> <li>Fly Ash generated from Power plant is being provided to cement manufacture. Bottom ash is being provided to bricks manufacture</li> <li>Cooler Cake and ETP sludge after stabilization is being disposed into SLF.</li> <li>Waste/used oil is being sold to registered recycler.</li> </ul>
vi)	<p>The overall noise levels in and around</p>	<p>Complied</p>



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	<ul style="list-style-type: none"> <li>Noise control measures including acoustic hoods, silencers, enclosures etc. have been provided on all sources of noise generation.</li> <li>Noise levels in and around the plant area are being monitored regularly and utmost care is taken to ensure that noise level remains below the norms. Average noise monitoring report is furnished herewith as <b>Annexure- XI</b>.</li> </ul>
vii)	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	<p>Complied</p> <ul style="list-style-type: none"> <li>A full-fledged occupation health center with qualified doctor is established in the project site.</li> <li>All personnel working in the Lead plant undergo test for Lead and Cadmium in Blood, to ensure early detection and rehabilitation if required.</li> <li>The records are being maintained as stipulated.</li> </ul>
viii)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP/risk analysis and DMP report.	<p>Complied</p> <ul style="list-style-type: none"> <li>Environmental protection measures and safeguards recommended in the EIA/EMP/risk analysis and DMP report are being implemented.</li> <li>For emission control, ESP, Bag houses, Venturi, cyclone and gas wash tower have been installed with adequate stacks height for proper dispersion of emission.</li> <li>For Effluent. Control, zero discharge is being maintained through ETP, Double stage RO and MEE plants.</li> <li>For Hazardous waste management, best available technology being used for waste minimization and disposal of Hazardous waste is being done as per Authorization conditions.</li> </ul>
ix)	As proposed, Rs. 230.00 Crores and Rs. 1.20 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for	<p>Complied</p> <ul style="list-style-type: none"> <li>Adequate funds are allocated for capital and revenue expenditures and no fund is diverted to other jobs/places.</li> <li>Environmental control measure expenditure breakup for FY2025-26 and Funds earmarked towards environmental control measures for FY2026-27 has already been submitted as <b>Annexure- XIII &amp; XIV</b>.</li> </ul>



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan.**

any other purposes.		S. No.	Description (Expenditure towards environmental control measures for FY 2025-26)	Total Amount (Rs. In Lakhs)
		1	Green Belt Development, Maintenance of old plantation & landscaping	238.74
		2	Environment Monitoring	154.38
		3	Storm water ponds operations and maintenance & Monsoon management	4.73
		4	Environmental training, awareness, and publicity	1.94
		5	Hazardous Waste Management	2625.67
		6	O&M of Organic waste Converter	0.00
		7	Environmental Audit & IMS	9.15
		8	Returns, Fees for Award & CTO	33.61
		9	Pollution control measures	129.21
			<b>Grand Total</b>	<b>3197.45</b>
x)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.		<ul style="list-style-type: none"> <li>Complied and communicated to Regional Office, MoEF vide letter no: HZL/RDM/Env/2009/898 dated 20.11.2009.</li> </ul>	
xi)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Lucknow, the respective Zonal Office of CPCB and the RSPCB. The criteria pollutant levels namely; SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.		<p>Complied</p> <ul style="list-style-type: none"> <li>Status of compliance of the stipulated environment clearance conditions, including results of monitored data are being furnished regularly to the Regional Office, MOEF&amp;CC, CPCB and RSPCB.</li> <li>Critical environmental parameters are being displayed near the main gate and company website along with six monthly compliance reports. Link of the report is <a href="https://www.hzlindia.com/sustainability/environment-compliance/">https://www.hzlindia.com/sustainability/environment-compliance/</a></li> </ul>	
xii)	The project proponent shall also submit		Complied	



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	<p>six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the RSPCB. The Regional Office of this Ministry at Lucknow / CPCB / RSPCB shall monitor the stipulated conditions.</p>	<ul style="list-style-type: none"> <li>The monitored data has been displayed on the display board at the project site and on the Company website along with Six Monthly Environment Compliance report. Link of the report is <a href="https://www.hzlindia.com/sustainability/environment-compliance/">https://www.hzlindia.com/sustainability/environment-compliance/</a></li> <li>Six Monthly Environment Compliance report along with all Analysis reports for the ambient, stack and fugitive emission are enclosed and being submitted to the Regional Office, MOEF&amp;CC Lucknow, CPCB and RSPCB.</li> </ul>
xiii)	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.</p>	<p>Complied</p> <ul style="list-style-type: none"> <li>Environmental Statement (Form-V) of Financial Year 2024-25 is submitted on date 23.09.2025 via letter number: HZL/DSC/ENV/ES/2025/1 for Zinc, HZL/DSC/ENV/ES/2025/2 for Lead, &amp; HZL/DSC/ENV/ES/2025/3 for CPP.</li> <li>Environmental Statement (Form-V) of Financial Year 2024-25 is displayed on the Company website along with Six Monthly Environment Compliance report. Link of the Form V is <a href="https://www.hzlindia.com/sustainability/environment-compliance/">https://www.hzlindia.com/sustainability/environment-compliance/</a></li> </ul>
xiv)	<p>The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the RSPCB and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.</p>	<ul style="list-style-type: none"> <li>Complied, Press advertisement published in local newspapers (hindi) i.e. Rajasthan Patrika &amp; Dainik Bhasker (Rajsamand edition) on 08.11.09 and has been communicated to Regional Office, MoEF vide letter no: HZL/RDM/Env/2009/898 dated 20.11.2009.</li> </ul>
xv)	<p>Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned</p>	<ul style="list-style-type: none"> <li>Complied.</li> </ul>



**Six Monthly EC Compliance Report (October 2025 to March 2026), Hindustan Zinc Limited, Dariba Integrated Project, Village Dariba, Tehsil - Railmagra, Dist. - Rajsamand, Rajasthan**

	authorities and the date of commencing the land development work.	
Environment Clearance Letter no.: J-11015/380/2008-IA.II (M) dated 26.07.2018 for Expansion of Lead Zinc Ore production from 0.9 MTPA to 1.08 MTPA		
1.	The environmental clearance will not be operational till such time the project proponent complies with all the statutory requirements and Judgement of Hon'ble Supreme Court dated 2nd August 2017 in Writ Petition (Civil) No: 114 of 2014 in the matter of Common Cause versus Union of India and Ors, if any, applicable to this project.	<ul style="list-style-type: none"><li>• Noted and Complied.</li></ul>
2.	The Department of Mines and Geology, Government of Rajasthan shall ensure that mining operations shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective department of Mines and Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August 2017 in Writ Petition (Civil) No: 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	<ul style="list-style-type: none"><li>• Noted and Complied.</li></ul>
3.	All other specific and general conditions mentioned in the Ministry's EC Letter No: J-11015/380/2008-IA.II(M) dated 04.11.2009 shall remain the same.	<ul style="list-style-type: none"><li>• Noted and Complied.</li></ul>

**Annexure I**

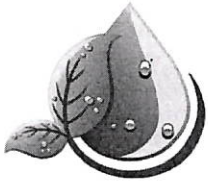
**Hindustan Zinc Limited  
Dariba Smelter Complex  
Dariba, Dist. Rajsamand, Rajasthan.**

**SO<sub>2</sub> Continuous Monitoring Report (October'25- March'26)**

<b>Month Location</b>	<b>Parameters</b>	<b>Prescribed Limits</b>	<b>Oct'25</b>	<b>Nov'25</b>	<b>Dec'25</b>	<b>Jan'26</b>	<b>Feb'26</b>	<b>Mar'26</b>
<b>Acid Plant*(Zinc Smelter) Roaster-1</b>	SO <sub>2</sub> (Kg/T of H <sub>2</sub> SO <sub>4</sub> Production)	1.5	0.84	0.92	0.84	0.77	0.95	0.94
<b>Acid Plant*(Zinc Smelter) Roaster-2</b>	SO <sub>2</sub> (Kg/T of H <sub>2</sub> SO <sub>4</sub> Production)	1.5	0.87	0.84	0.96	0.96	1.08	1.07
<b>TGT Stack (Lead Plant)</b>	SO <sub>2</sub> (Kg/T of H <sub>2</sub> SO <sub>4</sub> Production)	1.5	0.20	0.16	0.11	0.25	0.40	0.26



**Team Member - Environment  
Dariba Smelter Complex**


**VIBRANT**

Sample Number : VTL/S/02

Name &amp; Address of the Party : M/s Hindustan Zinc Ltd.

TC-16019


**VIBRANT TECHNO LAB PVT. LTD.**

ISO 9001, 14001 &amp; 45001 Certified Company

EPA Recognized Laboratory | NABET Accredited EIA Consultant Organisation

**TEST REPORT**

Report No. : VTL/S/2602120002/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/02/2026

Period of Analysis : 12/02/2026-20/02/2026

Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : Zinc Smelter (R-4)  
 Sample Collected By : VTL Team  
 Date of Sampling : 06/02/2026  
 Sampling duration (Minutes) : 36 Min. (11:20 to 11:56 Hrs.)  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 2.5 M.  
 Height of stack(m) : 100 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 24  
 Temperature of Stack Gases - Ts (°C) : 65  
 Velocity of Stack Gases (m/sec.) : 7.55  
 Flow rate of PM (LPM) : 28  
 Flow rate of Gas (LPM) : 2.0  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	389	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	35.65	mg/Nm <sup>3</sup>	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by


 RK Yadav  
 Lab Incharge  
 Authorized Signatory 


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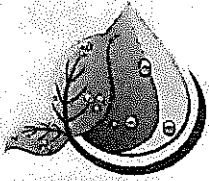
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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/03

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120003/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : LEP Pyro South  
Sample Collected By : VTL Team  
Date of Sampling : 09/02/2026  
Sampling duration (Minutes) : 38 Min. (15:40 to 16:18 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 28  
Temperature of Stack Gases - Ts (°C) : 124  
Velocity of Stack Gases (m/sec.) : 8.01  
Flow rate of PM (LPM) : 26  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	39.87	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	4.76	mg/Nm <sup>3</sup>	10.0

\*BLO= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge   
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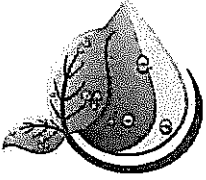
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## TEST REPORT

**VIBRANT**  
Sample Number : VTL/S/04

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120004/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

General information:-  
Sampling Location : LEP Pyro North  
Sample Collected By : VTL Team  
Date of Sampling : 09/02/2026  
Sampling duration (Minutes) : 40 Min. (15:30 to 16:10 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 28  
Temperature of Stack Gases - Ts (°C) : 115  
Velocity of Stack Gases (m/sec.) : 7.64  
Flow rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

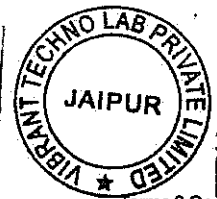
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	34.89	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	3.80	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



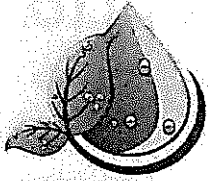
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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/05

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120005/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : Zinc Dust Plant With Bag House  
Sample Collected By : VTL Team  
Date of Sampling : 06/02/2026  
Sampling duration (Minutes) : 25 Min. (16:10 to 16:35) Hrs.  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 0.5 M.  
Height of stack(m) : 30 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 25  
Temperature of Stack Gases - Ts (°C) : 60  
Velocity of Stack Gases (m/sec.) : 24.67  
Flow rate of PM (LPM) : 41  
Flow rate of Gas (LPM) : --  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

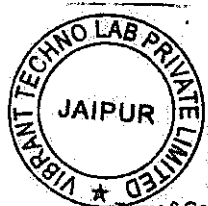
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	32.69	mg/Nm <sup>3</sup>	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/06

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120006/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/02/2026

Period of Analysis : 12/02/2026-20/02/2026

Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : Blast Furnace  
 Sample Collected By : VTL Team  
 Date of Sampling : 07/02/2026  
 Sampling duration (Minutes) : 25 Min. (10:10 to 10:35 Hrs.)  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 2.2 M.  
 Height of stack(m) : 75 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 19  
 Temperature of Stack Gases - Ts (°C) : 55  
 Velocity of Stack Gases (m/sec.) : 10.53  
 Flow rate of PM (LPM) : 40  
 Flow rate of Gas (LPM) : -  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : -

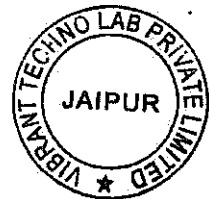
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	37.58	mg/Nm3	50.0
2	Lead (Pb)	USEPA 29 : 2017	3.69	mg/Nm3	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

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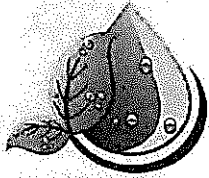
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## TEST REPORT

### VIBRANT

TC-16019

Sample Number : VTL/S/07

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120007/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : LEP M&C South  
Sample Collected By : VTL Team  
Date of Sampling : 10/02/2026  
Sampling duration (Minutes) : 40 Min. (11:20 to 12:00 Hrs)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 20  
Temperature of Stack Gases - Ts (°C) : 103  
Velocity of Stack Gases (m/sec.) : 7.52  
Flow rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	33.42	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	2.89	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
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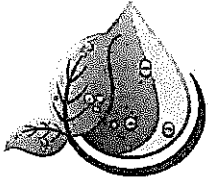
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/08

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120008/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

### Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : Coal Crusher  
Sample Collected By : VTL Team  
Date of Sampling : 06/02/2026  
Sampling duration (Minutes) : 37 Min (08:33 to 09:10 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 1.3 M.  
Height of stack(m) : 30 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22  
Temperature of Stack Gases - Ts (°C) : 30  
Velocity of Stack Gases (m/sec.) : 6.50  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

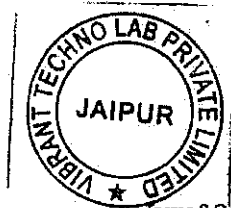
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	36.9	mg/Nm3	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



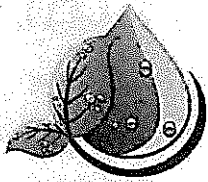
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/09

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120009/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : LEP M&C North  
Sample Collected By : VTL Team  
Date of Sampling : 10/02/2026  
Sampling duration (Minutes) : 40 Min. (10:35 to 11:15 hrs)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22  
Temperature of Stack Gases - Ts (°C) : 88  
Velocity of Stack Gases (m/sec.) : 7.26  
Flow-rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

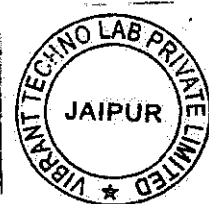
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	22.87	mg/Nm3	50.0
2	Lead (Pb)	USEPA 29 : 2017	2.05	mg/Nm3	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



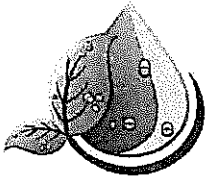
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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/10

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

TC-16019

Report No. : VTL/S/2602120010/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/02/2026

Period of Analysis : 12/02/2026-20/02/2026

Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : Zinc Smelter Roaster (R-5)  
 Sample Collected By : VTL Team  
 Date of Sampling : 06/02/2026  
 Sampling duration (Minutes) : 36 Min. (11:00 to 11:36 Hrs.)  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 2.5 M.  
 Height of stack(m) : 100 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 24  
 Temperature of Stack Gases - Ts (°C) : 62  
 Velocity of Stack Gases (m/sec.) : 7.57  
 Flow rate of PM (LPM) : 29  
 Flow rate of Gas (LPM) : 2.0  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : -

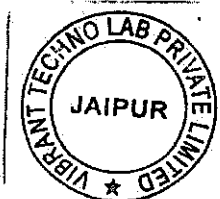
S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	316	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	34.7	mg/Nm <sup>3</sup>	50.0

\*BLO= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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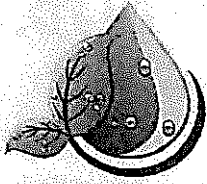
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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/11

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajapura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120011/A  
Format No. : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : TGT Lead Plant  
Sample Collected By : VTL Team  
Date of Sampling : 07/02/2026  
Sampling duration (Minutes) : 36 Min. (11:30 to 12:06 Hrs.)  
Stack attached to : Blast Furnace, Acid Plant & CDT Input  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 100 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 23  
Temperature of Stack Gases - Ts (°C) : 62  
Velocity of Stack Gases (m/sec.) : 7.57  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

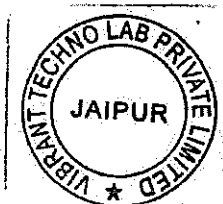
S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	121	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	32.54	mg/Nm <sup>3</sup>	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



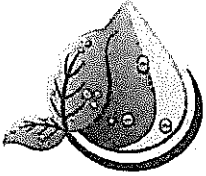
Page No. 1/1

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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/12

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120012/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : Zinc Dross  
Sample Collected By : VTL Team  
Date of Sampling : 06/02/2026  
Sampling duration (Minutes) : 25 Min. (15:15 to 15:40 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 1.3 M.  
Height of stack(m) : 30 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 20  
Temperature of Stack Gases - Ts (°C) : 36  
Velocity of Stack Gases (m/sec.) : 6.80  
Flow rate of PM (LPM) : 40  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

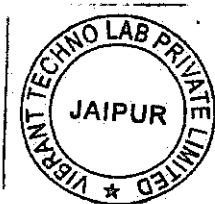
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	25.39	mg/Nm3	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Corporate & Registered Office:

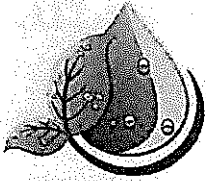
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## TEST REPORT

**VIBRANT**

Sample Number : VTL/S/13

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120013/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : SKS Furnace  
Sample Collected By : VTL Team  
Date of Sampling : 10/02/2026  
Sampling duration (Minutes) : 34 Min. (09:45 to 10:19 Hrs.)  
Stack attached to : Bag House  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 75 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 18  
Temperature of Stack Gases - Ts (°C) : 54  
Velocity of Stack Gases (m/sec.) : 7.03  
Flow rate of PM (LPM) : 29  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

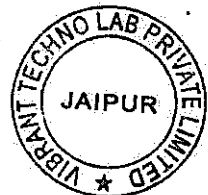
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	37.54	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	4.04	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/14

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120014/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

### Sample Description : Stack Emission Monitoring

General Information:-  
Sampling Location : DG Set Lead Plant (1652 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 07/02/2026  
Sampling duration (Minutes) : 33 min. (11:00 to 11:33 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 21°C  
Temperature of Stack Gases - Ts (°C) : 96°C  
Velocity of Stack Gases (m/sec.) : 8.86  
Flow rate of PM (LPM) : 30  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) : 1985, RA 2019	36.54	mg/Nm3	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7);2005, RA- 2022	128	mg/Nm3	710
3	Carbon Monoxide (CO)	USEPA 10: 1996.	13.78	mg/Nm3	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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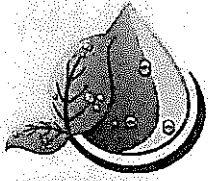
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/14

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120014/B  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Lead Plant (1652 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 07/02/2026  
Sampling duration (Minutes) : 33 min. (11:00 to 11:33 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 21°C  
Temperature of Stack Gases - Ts (°C) : 96°C  
Velocity of Stack Gases (m/sec.) : 8.86  
Flow rate of PM (LPM) : 30  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	8.05	mg/Nm3	100

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/15

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120015/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/02/2026

Period of Analysis : 12/02/2026-20/02/2026

Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : DG Set CPP-1010 KVA  
 Sample Collected By : VTL Team  
 Date of Sampling : 11/02/2026  
 Sampling duration (Minutes) : 28 min. (10:30 to 10:58 hrs.)  
 Stack attached to : DG Set  
 Make of stack : MS  
 Diameter of stack(m) : 0.762 M.  
 Height of stack(m) : 15 M  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 22°C  
 Temperature of Stack Gases - Ts (°C) : 83°C  
 Velocity of Stack Gases (m/sec.) : 9.04  
 Flow rate of PM (LPM) : 35  
 Flow rate of Gas (LPM) : 2.0  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : --

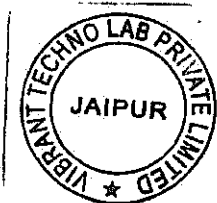
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) ; 1985, RA 2019	38.49	mg/Nm3	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7);2005, RA- 2022	198.54	mg/Nm3	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	16.38	mg/Nm3	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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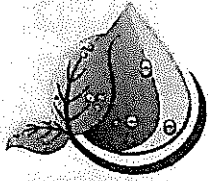
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## TEST REPORT

### VIBRANT

Sample Number: VTL/S/15

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120015/B  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set CPP-1010 KVA  
Sample Collected By : VTL Team  
Date of Sampling : 11/02/2026  
Sampling duration (Minutes) : 28 min. (10:30 to 10:58 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22°C  
Temperature of Stack Gases - Ts (°C) : 83°C  
Velocity of Stack Gases (m/sec.) : 9.04  
Flow rate of PM (LPM) : 35  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

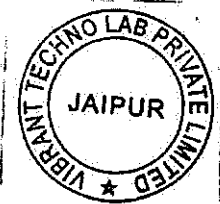
S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	11.77	mg/Nm3	100

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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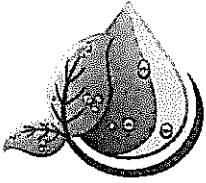
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/16

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

TC-16019

Report No. : VTL/S/2602120016/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/02/2026

Period of Analysis : 12/02/2026-20/02/2026

Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Roaster -4 (1250 KVA)  
 Sample Collected By : VTL Team  
 Date of Sampling : 07/02/2026  
 Sampling duration (Minutes) : 24 min. (09:15 to 09:39 hrs.)  
 Stack attached to : DG Set  
 Make of stack : MS  
 Diameter of stack(m) : 0.762 M.  
 Height of stack(m) : 15 M  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 19°C  
 Temperature of Stack Gases - Ts (°C) : 86°C  
 Velocity of Stack Gases (m/sec.) : 10.87  
 Flow rate of PM (LPM) : 42  
 Flow rate of Gas (LPM) : 2.0  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) : 1985, RA 2019	35.87	mg/Nm3	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7); 2005, RA- 2022	132.38	mg/Nm3	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	16.04	mg/Nm3	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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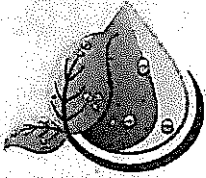
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/16

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120016/B  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Roaster -4 (1250 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 07/02/2026  
Sampling duration (Minutes) : 24 min. (09:15 to 09:39 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 19°C  
Temperature of Stack Gases - Ts (°C) : 86°C  
Velocity of Stack Gases (m/sec.) : 10.87  
Flow rate of PM (LPM) : 42  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

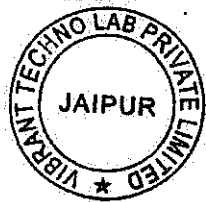
S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	10.59	mg/Nm3	100

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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RK Yadav  
Lab Incharge  
Authorized Signatory

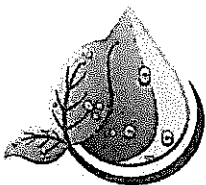
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## TEST REPORT

TC-16019

**VIBRANT**  
Sample Number: VTL/S/17

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan.

Report No. : VTL/S/2602120017/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

### Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : DG Set Roaster -5 (1500 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 06/02/2026  
Sampling duration (Minutes) : 26 min. (11:32 to 11:58 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22°C  
Temperature of Stack Gases - Ts (°C) : 80°C  
Velocity of Stack Gases (m/sec.) : 10.0  
Flow rate of PM (LPM) : 38  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

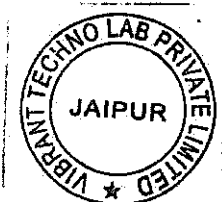
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) : 1985, RA 2019	41.58	mg/Nm3	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7);2005, RA- 2022	176	mg/Nm3	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	15.05	mg/Nm3	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory

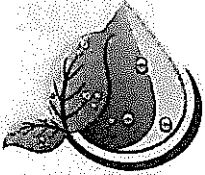


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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/17

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2602120017/B  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Roaster -5 (1500 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 06/02/2026  
Sampling duration (Minutes) : 26 min. (11:32 to 11:58 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22°C  
Temperature of Stack Gases - Ts (°C) : 80°C  
Velocity of Stack Gases (m/sec.) : 10.0  
Flow rate of PM (LPM) : 38  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	9.68	mg/Nm <sup>3</sup>	100

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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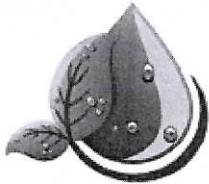
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TC-16019

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## TEST REPORT

Sample Number : VTL/S/12  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130023/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : CPP 2X85 MW  
Sample Collected By : VTL Team  
Date of Sampling : 08/11/2025  
Sampling duration (Minutes) : 25 Min. (09:00 to 09:25 Hrs.)  
Stack attached to : ESP  
Make of stack : MS  
Diameter of stack(m) : 4.0 M.  
Height of stack(m) : 165 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 25  
Temperature of Stack Gases - Ts (°C) : 97  
Velocity of Stack Gases (m/sec.) : 25.80  
Flow rate of PM (LPM) : 39  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	928	mg/Nm <sup>3</sup>	600
2	Particulate Matter (PM)	IS: 11255 (P-1) : 1985, RA 2019	41.26	mg/Nm <sup>3</sup>	50.0
3	Oxide of Nitrogen (NO <sub>2</sub> )	IS- 11255 (P-7);2005, RA- 2022	282.5	mg/Nm <sup>3</sup>	450
4	Mercury (Hg)	USEPA 29 : 2017	0.022	mg/Nm <sup>3</sup>	0.03

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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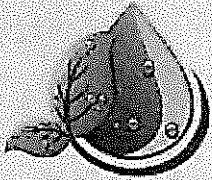
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## TEST REPORT

Sample Number : VTL/S/14  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur, Rajasthan

Report No. : VTL/S/2511130024/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : Zinc Smelter (R-4)  
Sample Collected By : VTL Team  
Date of Sampling : 07/11/2025  
Sampling duration (Minutes) : 37 Min. (11:15 to 11:52 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.5 M.  
Height of stack(m) : 100 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 23  
Temperature of Stack Gases - Ts (°C) : 64  
Velocity of Stack Gases (m/sec.) : 7.28  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

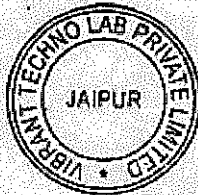
S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	418	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	34.25	mg/Nm <sup>3</sup>	50.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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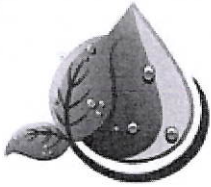
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## TEST REPORT

Sample Number : VTL/S/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130025/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : LEP Pyro South  
Sample Collected By : VTL Team  
Date of Sampling : 08/11/2025  
Sampling duration (Minutes) : 40 Min. (10:00 to 10:40 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 24  
Temperature of Stack Gases - Ts (°C) : 88  
Velocity of Stack Gases (m/sec.) : 7.20  
Flow rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	40.26	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	5.94	mg/Nm <sup>3</sup>	10.0

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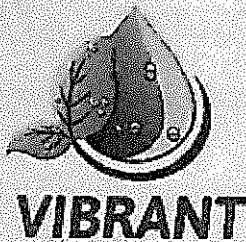
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## TEST REPORT

Sample Number : VTL/S/02  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Danba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130026/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : LEP Pyro North  
Sample Collected By : VTL Team  
Date of Sampling : 08/11/2025  
Sampling duration (Minutes) : 40 Min. (09:00 to 09:40 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 25  
Temperature of Stack Gases - Ts (°C) : 97  
Velocity of Stack Gases (m/sec.) : 7.40  
Flow rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS-11255 & USEPA  
Coordinates : -

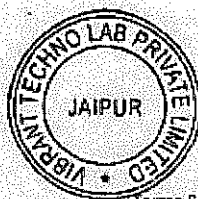
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	35.64	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	4.3	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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## TEST REPORT

Sample Number : VTL/S/03  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130027/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : Blast Furnace  
Sample Collected By : VTL Team  
Date of Sampling : 12/11/2025  
Sampling duration (Minutes) : 36 Min. (10:00 to 11:36 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.2 M.  
Height of stack(m) : 75 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 25  
Temperature of Stack Gases - Ts (°C) : 56  
Velocity of Stack Gases (m/sec.) : 7.34  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	42.20	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	4.26	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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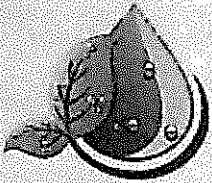
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## TEST REPORT

Sample Number : VTL/S/07

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130028/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : Zinc Dust Plant With Bag House  
 Sample Collected By : VTL Team  
 Date of Sampling : 06/11/2025  
 Sampling duration (Minutes) : 25 Min. (11:50 to 12:15) Hrs.  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 0.5 M.  
 Height of stack(m) : 30 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 25  
 Temperature of Stack Gases - Ts (°C) : 50  
 Velocity of Stack Gases (m/sec.) : 23.07  
 Flow rate of PM (LPM) : 40  
 Flow rate of Gas (LPM) : -  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : -

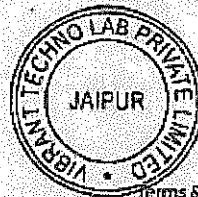
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1): 1985, RA 2019	28.5	mg/Nm <sup>3</sup>	50.0

\*BLO= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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5. Retention period of sample will be 30 days only, any query beyond 30 days will not be entertained.



# VIBRANT



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## TEST REPORT

Sample Number : VTL/S/09

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130029/A

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : LEP M&C South  
 Sample Collected By : VTL Team  
 Date of Sampling : 10/11/2025  
 Sampling duration (Minutes) : 29 Min. (11:15 to 11:44 Hrs)  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 2.0 M.  
 Height of stack(m) : 40 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 24  
 Temperature of Stack Gases - Ts (°C) : 104  
 Velocity of Stack Gases (m/sec.) : 7.81  
 Flow rate of PM (LPM) : 33  
 Flow rate of Gas (LPM) : --  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	35.27	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	3.05	mg/Nm <sup>3</sup>	10.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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## TEST REPORT

Sample Number : VTL/S/13  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130030/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : Coal Crusher  
Sample Collected By : VTL Team  
Date of Sampling : 08/11/2025  
Sampling duration (Minutes) : 36 Min (08:40 to 09:16 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 1.3 M.  
Height of stack(m) : 30 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22  
Temperature of Stack Gases - Ts (°C) : 38  
Velocity of Stack Gases (m/sec.) : 6.80  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

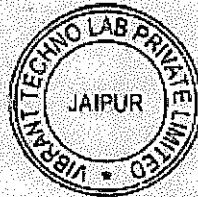
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	35.5	mg/Nm <sup>3</sup>	50.0

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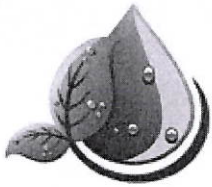
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## TEST REPORT

Sample Number : VTL/S/09  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130031/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

General Information:-

Sampling Location : LEP M&C North  
Sample Collected By : VTL Team  
Date of Sampling : 10/11/2025  
Sampling duration (Minutes) : 40Min. (10:35to 11:15rs)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 40 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 22  
Temperature of Stack Gases - Ts (°C) : 89  
Velocity of Stack Gases (m/sec.) : 7.19  
Flow rate of PM (LPM) : 25  
Flow rate of Gas (LPM) : -  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985,RA 2019	25.9	mg/Nm3	50.0
2	Lead (Pb)	USEPA 29 : 2017	2.98	mg/Nm3	10.0

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## TEST REPORT

Sample Number : VTL/S/08  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130032/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : Zinc Smelter Roaster (R-5)  
Sample Collected By : VTL Team  
Date of Sampling : 07/11/2025  
Sampling duration (Minutes) : 38 Min. (15:30 to 16:06 Hrs.)  
Stack attached to : Bag Filter  
Make of stack : MS  
Diameter of stack(m) : 2.5 M.  
Height of stack(m) : 100 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 25  
Temperature of Stack Gases - Ts (°C) : 60  
Velocity of Stack Gases (m/sec.) : 7.31  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

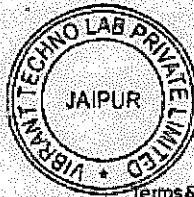
S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	335	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	31.9	mg/Nm <sup>3</sup>	50.0

\*BLO= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

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## TEST REPORT

Sample Number : VTL/S/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130033/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

### Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : TGT Lead Plant  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 38 Min. (11:00 to 11:38 Hrs.)  
Stack attached to : Blast Furnace, Acid Plant & CDT Input  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 100 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 23  
Temperature of Stack Gases - Ts (°C) : 62  
Velocity of Stack Gases (m/sec.) : 6.95  
Flow rate of PM (LPM) : 26  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Sulphur Dioxide (SO <sub>2</sub> )	IS: 11255 (P- 2): 1985, RA 2019	140	mg/Nm <sup>3</sup>	950.0
2	Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	USEPA 8, 1983	30.42	mg/Nm <sup>3</sup>	50.0

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Sample Number : VTLS/01  
 Name & Address of the Party : M/s Hindustan Zinc Ltd.  
 Dariba Smelter Complex, Post- Dariba, District -  
 Rajpura Dariba Udaipur Rajasthan

Report No. : VTLS/2511130034/A  
 Format No : 7.8 F-03  
 Party Reference No : NIL  
 Report Date : 20/11/2025  
 Period of Analysis : 13/11/2025-20/11/2025  
 Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : Zinc Dross  
 Sample Collected By : VTL Team  
 Date of Sampling : 07/11/2025  
 Sampling duration (Minutes) : 33 Min. (09:15 to 09:48 Hrs.)  
 Stack attached to : Bag Filter  
 Make of stack : MS  
 Diameter of stack(m) : 1.3 M.  
 Height of stack(m) : 30 M.  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 20  
 Temperature of Stack Gases - Ts (°C) : 31  
 Velocity of Stack Gases (m/sec.) : 7.46  
 Flow rate of PM (LPM) : 30  
 Flow rate of Gas (LPM) : -  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : -

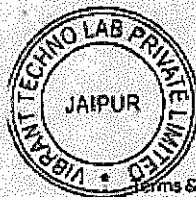
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1995, RA 2019	28.48	mg/Nm <sup>3</sup>	50.0

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### TEST REPORT

Sample Number : VTL/S/02  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130035/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : SKS Furnace  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 37 Min. (09:30 to 10:07 Hrs.)  
Stack attached to : Bag House  
Make of stack : MS  
Diameter of stack(m) : 2.0 M.  
Height of stack(m) : 75 M.  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 21  
Temperature of Stack Gases - Ts (°C) : 52  
Velocity of Stack Gases (m/sec.) : 6.94  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : --  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (as PM)	IS: 11255 (P-1) : 1985, RA 2019	40.53	mg/Nm <sup>3</sup>	50.0
2	Lead (Pb)	USEPA 29 : 2017	4.36	mg/Nm <sup>3</sup>	10.0

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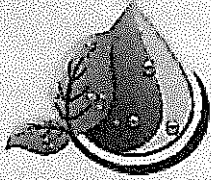
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Sample Number : VTL/S/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130036/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : DG Set Lead Plant (1652 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 37 min. (15:00 to 15:37 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 28°C  
Temperature of Stack Gases - Ts (°C) : 82°C  
Velocity of Stack Gases (m/sec.) : 7.52  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

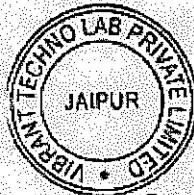
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) : 1985, RA 2019	34.18	mg/Nm3	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7);2005, RA- 2022	192.52	mg/Nm3	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	12.87	mg/Nm3	150

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Sample Number : VTL/S/01

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Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130036/B  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Lead Plant (1652 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 37 min. (15:00 to 15:37 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 26°C  
Temperature of Stack Gases - Ts (°C) : 82°C  
Velocity of Stack Gases (m/sec.) : 7.52  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	7.58	mg/Nm <sup>3</sup>	150.0

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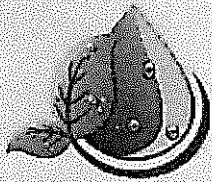
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Dariba Smelter Complex, Post- Dariba, District -  
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Report No. : VTL/S/2511130037/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

### General Information:-

Sampling Location : DG Set CPP-1010 KVA  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 38 min. (10:00 to 10:38 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 24°C  
Temperature of Stack Gases - Ts (°C) : 78°C  
Velocity of Stack Gases (m/sec.) : 7.41  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : -

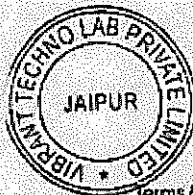
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1): 1985, RA 2019	40.58	mg/Nm <sup>3</sup>	75
2	Oxide of Nitrogen (NOX)	IS- 11255 (P-7);2005, RA- 2022	204.72	mg/Nm <sup>3</sup>	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	14.81	mg/Nm <sup>3</sup>	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge   
Authorized Signatory



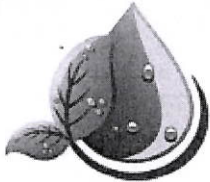
Page No. 1/1

### Corporate & Registered Office:

Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)  
☎ 0141-2954638 ✉ bd@vibranttechnolab.com  
🌐 www.vibranttechnolab.com

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EPA Recognized Laboratory | NABET Accredited EIA Consultant Organisation

### TEST REPORT

Sample Number : VTL/S/01

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130037/B

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set CPP-1010 KVA  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 38 min. (10:00 to 10:38 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 24°C  
Temperature of Stack Gases - Ts (°C) : 78°C  
Velocity of Stack Gases (m/sec.) : 7.41  
Flow rate of PM (LPM) : 27  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5192 (P-21), Based On GC, RA:2012	7.58	mg/Nm3	150.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory

Page No. 1/1

Corporate & Registered Office:

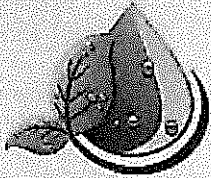
Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
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TC-16019

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## TEST REPORT

Sample Number : VTL/S/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130038/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

### Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : DG Set Roaster -4 (1250 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 30 min. (15:00 to 15:30 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 24°C  
Temperature of Stack Gases - Ts (°C) : 92°C  
Velocity of Stack Gases (m/sec.) : 7.99  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

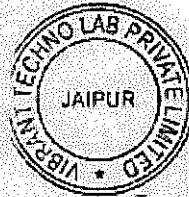
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1) - 1985, RA 2019	38.78	mg/Nm <sup>3</sup>	75
2	Oxide of Nitrogen (NOX)	IS: 11255 (P-7)-2005, RA- 2022	189.18	mg/Nm <sup>3</sup>	710
3	Carbon Monoxide (CO)	USEPA 10- 1996	14.73	mg/Nm <sup>3</sup>	150

\*BLO= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 1/1

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### TEST REPORT

Sample Number : VTL/S/01

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130038/B

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

#### General Information:-

Sampling Location : DG Set Roaster -4 (1250 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 36 min. (15:00 to 15:36 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 24°C  
Temperature of Stack Gases - Ts (°C) : 92°C  
Velocity of Stack Gases (m/sec.) : 7.99  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	7.58	mg/Nm3	150.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

Corporate & Registered Office:

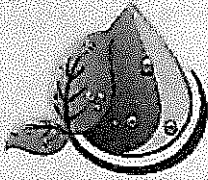
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IC-16019

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## TEST REPORT

Sample Number : VTL/S/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130039/A  
Format No : 7.8 F-03  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

### Sample Description : Stack Emission Monitoring

**General Information:-**  
Sampling Location : DG Set Roaster -5 (1500 KVA)  
Sample Collected By : VTL Team  
Date of Sampling : 11/11/2025  
Sampling duration (Minutes) : 36 min. (13:00 to 13:36 hrs.)  
Stack attached to : DG Set  
Make of stack : MS  
Diameter of stack(m) : 0.762 M.  
Height of stack(m) : 15 M  
Instrument calibration status : Calibrated  
Meteorological Condition : Clear Sky  
Ambient Temperature - Ta (°C) : 26°C  
Temperature of Stack Gases - Ts (°C) : 98°C  
Velocity of Stack Gases (m/sec.) : 6.05  
Flow rate of PM (LPM) : 28  
Flow rate of Gas (LPM) : 2.0  
Sampling condition : OK  
Protocol used : IS 11255 & USEPA  
Coordinates : --

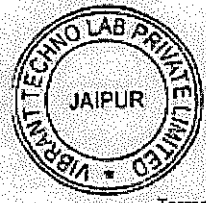
S.No.	Parameters	Test Method	Results	Units	Limits
1	Particulate Matter (PM)	IS: 11255 (P-1): 1985, RA 2019	38.92	mg/Nm <sup>3</sup>	75
2	Oxide of Nitrogen (NOX)	IS: 11255 (P-7): 2005, RA- 2022	199	mg/Nm <sup>3</sup>	710
3	Carbon Monoxide (CO)	USEPA 10: 1996	12.89	mg/Nm <sup>3</sup>	150

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Corporate & Registered Office:  
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## TEST REPORT

### VIBRANT

Sample Number : VTL/S/01

Name & Address of the Party : M/s Hindustan Zinc Ltd.

Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/S/2511130039/B

Format No : 7.8 F-03

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : Stack Emission Monitoring

**General Information:-**

Sampling Location : DG Set Roaster -5 (1500 KVA)  
 Sample Collected By : VTL Team  
 Date of Sampling : 11/11/2025  
 Sampling duration (Minutes) : 36 min. (13:00 to 13:36 hrs.)  
 Stack attached to : DG Set  
 Make of stack : MS  
 Diameter of stack(m) : 0.762 M.  
 Height of stack(m) : 15 M  
 Instrument calibration status : Calibrated  
 Meteorological Condition : Clear Sky  
 Ambient Temperature - Ta (°C) : 26°C  
 Temperature of Stack Gases - Ts (°C) : 98°C  
 Velocity of Stack Gases (m/sec.) : 8.05  
 Flow rate of PM (LPM) : 28  
 Flow rate of Gas (LPM) : 2.0  
 Sampling condition : OK  
 Protocol used : IS 11255 & USEPA  
 Coordinates : --

S.No.	Parameters	Test Method	Results	Units	Limits
1	Non Methane Hydrocarbon (NMHC)	IS:5182 (P-21), Based On GC, RA:2012	8.76	mg/Nm3	150.0

\*BLQ= Below Limit Of Quantification, \*\*LOQ= Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
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Authorized Signatory

Page No. 1/1

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## HINDUSTAN ZINC LIMITED

## RAJPURA DARIBA MINE

Ambient Air Quality Monitoring ResultsOct – 25

Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	63.10	37.60	08.50	13.00	916
Near DG Set	57.00	34.50	06.80	10.50	802
Near AB type Quarter	60.50	36.30	08.50	13.90	916
Near Concentrate Yard	68.40	41.50	08.20	12.00	1145

Nov – 25

Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	63.20	37.50	07.60	12.00	916
Near DG Set	54.60	33.20	06.50	10.50	687
Near AB type Quarter	56.50	33.30	07.90	11.40	687
Near Concentrate Yard	68.50	41.00	08.20	12.60	1031

Dec – 25

Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	65.70	39.60	08.80	14.50	916
Near DG Set	62.30	37.50	07.20	10.80	802
Near AB type Quarter	69.50	39.80	08.90	13.70	1145
Near Concentrate Yard	72.20	44.00	08.00	12.50	1031

Jan – 26

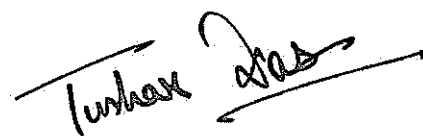
Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	66.10	39.80	09.50	14.40	1031.00
Near DG Set	59.00	35.10	06.90	11.00	802.00
Near AB type Quarter	61.70	36.80	08.50	15.20	916.00
Near Concentrate Yard	71.80	41.90	08.70	13.00	1145.00

Feb - 26

Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	60.50	36.00	07.80	13.00	916.00
Near DG Set	54.80	33.00	06.40	10.30	802.00
Near AB type Quarter	56.50	33.30	07.90	11.40	802.00
Near Concentrate Yard	69.70	41.60	08.30	12.40	1031.00

Mar - 26

Name of Monitoring Stations	PM 10 ( $\mu\text{g}/\text{m}^3$ )	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\mu\text{g}/\text{m}^3$ )
Near Laboratory	64.90	38.50	08.30	15.30	916.00
Near DG Set	69.40	36.50	07.60	10.40	802.00
Near AB type Quarter	69.20	35.80	09.50	12.90	1145.00
Near Concentrate Yard	71.70	42.00	08.60	12.20	1031.00



**Tushar Das**

Lead - Environment  
Rajpura Dariba Mine  
Hindustan Zinc Limited

Environment Department  
Rajpura Dariba Mine,  
Hindustan Zinc Limited  
PO : Dariba, Rajsamand,  
Rajasthan, PIN : 313211


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TC-16019

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**TEST REPORT**

Sample Number : VTL/AA/02

 Name & Address of the Party : M/s Hindustan Zinc Ltd.  
 Dariba Smelter Complex, Post- Dariba, District -  
 Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/A/2511130011/A

Format No : 7.8 F-02

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**

 Sampling Location : Near Storm Water Pond (North - West)  
 Sample Collected By : VTL Team  
 Instrument Code : VTL/RDS/FPS/07  
 Coordinates : 24°57'48" & 74°6'51"  
 Meteorological condition during monitoring : Clear Sky  
 Date of Monitoring : 08/11/2025 To 09/11/2025  
 Time of Monitoring : 11:00 to 11:00 Hrs.  
 Ambient Temperature (°C) : Min.15° Max 32°  
 Surrounding Activity : Human, Vehicular & Plant Activity  
 Method of Sampling : IS :5182  
 Sampling Duration : 24 Hrs.  
 Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	78.54	µg/m³	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	37.65	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2022	26.82	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2) : Sec 1 : 2023	23.79	µg/m³	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.68	mg/m³	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m³	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	16.46	µg/m³	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	12.87	µg/m³	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA.2019	0.32	µg/m³	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m³	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ) : 2020	*BLQ (**LOQ 5.0)	ng/m³	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA.2019	*BLQ (**LOQ 0.2)	ng/m³	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by


 RK Yadav  
 Lab Incharge  
 Authorized Signatory 


Page No. 1/1

Corporate &amp; Registered Office:

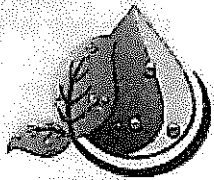
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**VIBRANT**

Sample Number : VTL/AA/03

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Darba, District -  
Rajpura Darba Udaipur Rajasthan



TC-16019

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## TEST REPORT

Report No. : VTL/2511130012/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**  
Sampling Location : Near Cpp Area (North- East)  
Sample Collected By : VTL Team  
Instrument Code : VTL/RDS/FPS/08  
Coordinates : 24°55'36" & 74°4'52"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 08/11/2025 To 09/11/2025  
Time of Monitoring : 14:00 to 14:00 Hrs.  
Ambient Temperature (°C) : Min. 15° Max 31°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS :5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	75.78	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	33.47	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 8)-2006, RA,2022	24.52	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2) : Sec 1 : 2023	15.71	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.71	mg/m <sup>3</sup>	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA,2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	14.26	µg/m <sup>3</sup>	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	10.28	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA,2019	0.33	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ): 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA,2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



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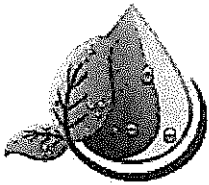
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## TEST REPORT

### VIBRANT

Sample Number : VTL/AA/04

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/AA/2511130013/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-  
Sampling Location : Near SLF Area  
Sample Collected By : VTL Team  
Instrument Code : VTL/RDS/FPS/08  
Coordinates : 24°57'34" & 74°7'53"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 07/11/2025 To 08/11/2025  
Time of Monitoring : 10:00 to 10:00 Hrs.  
Ambient Temperature (°C) : Min.15° Max 31°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS :5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

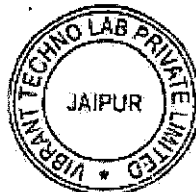
S.No.	Parameters	Test Method	Results	Units	NAAQs 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	85.82	µg/m³	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	38.98	µg/m³	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2022	25.57	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2) : Sec 1 : 2023	14.28	µg/m³	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.68	mg/m³	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m³	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	16.37	µg/m³	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	14.25	µg/m³	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA.2019	0.45	µg/m³	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m³	6
11	Nickel (as Ni)	IS 5182 ( Part 26) : 2020	*BLQ (**LOQ 5.0)	ng/m³	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA.2019	*BLQ (**LOQ 0.2)	ng/m³	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



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RK Yadav  
Lab Incharge  
Authorized Signatory



Corporate & Registered Office:

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Bhankrota, Jaipur 302026 (Raj.)

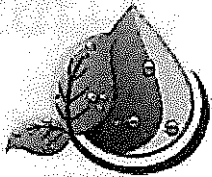
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# VIBRANT



TC-16019

## VIBRANT TECHNO LAB PVT. LTD.

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### TEST REPORT

Sample Number : VTL/AA/01  
Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/A/2511130014/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025

Sample Description : AMBIENT AIR QUALITY MONITORING

#### General Information:-

Sampling Location : Near Main Gate (South)  
Sample Collected By : VTL Team  
Instrument Code : VTL/RDS/FPS/07  
Coordinates : 24°57'35" & 74°07'06"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 07/11/2025 To 08/11/2025  
Time of Monitoring : 09:30 to 09:30 Hrs.  
Ambient Temperature (°C) : Min. 15° Max 31°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS :5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

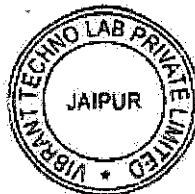
S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	81.58	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	34.86	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2022	22.97	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2) : Sec 1 : 2023	19.38	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA, 2019 (NDIR)	0.64	mg/m <sup>3</sup>	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	14.25	µg/m <sup>3</sup>	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	17.58	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA.2019	0.24	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ) : 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA.2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



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## TEST REPORT

### VIBRANT

Sample Number : VTL/AA/01

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udalpur Rajasthan

Report No. : VTL/AA/2602120001/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

### Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**  
Sampling Location : Near Storm Water Pond (North - West)  
Sample Collected By : VTL Team  
Instrument Code : VTLRDS/FPS/07  
Coordinates : 24°57'48" & 74°6'51"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 07/02/2026 To 06/02/2026  
Time of Monitoring : 11:00 to 11:00 Hrs.  
Ambient Temperature (°C) : Min.17° Max 31°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS 5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

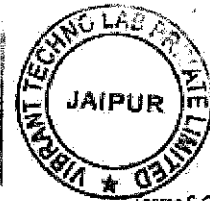
S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	82.38	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	41.75	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA.2022	26.95	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2) : Sec 1 : 2023	16.42	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.73	mg/m <sup>3</sup>	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	17.59	µg/m <sup>3</sup>	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	15.84	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA.2019	0.48	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ) : 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA.2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



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RK Yadav  
Lab Incharge  
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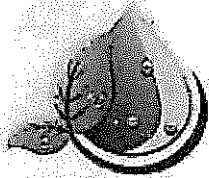
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## TEST REPORT

**VIBRANT**  
Sample Number : VTL/AA/02

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/A/2602120002/A  
Format No : 7.B F-02  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : AMBIENT AIR QUALITY MONITORING

### General Information:-

Sampling Location : Near Opp Area (North- East)  
Sample Collected By : VTL Team  
Instrument Code : VTL/RDS/FPS/08  
Coordinates : 24°55'36" & 74°4'52"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 07/02/2026 To 08/02/2026  
Time of Monitoring : 14:00 to 14:00 Hrs.  
Ambient Temperature (°C) : Min.18° Max 34°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS :5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

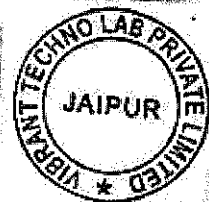
S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	82.94	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	35.78	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA,2022	27.91	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2 ) : Sec 1 : 2023	18.92	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA, 2019 (NDIR)	0.76	mg/m <sup>3</sup>	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA,2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2018	15.85	µg/m <sup>3</sup>	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	11.42	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA,2019	0.42	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 25 ) : 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA,2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



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Lab Incharge  
Authorized Signatory



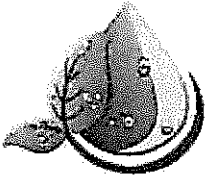
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## TEST REPORT

### VIBRANT

TC-16019

Sample Number : VTL/AA/03

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTLA/2602120003/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : AMBIENT AIR QUALITY MONITORING

**General Information:-**  
Sampling Location : Near SLF Area  
Sample Collected By : VTL Team  
Instrument Code : VTLRDS/FPS/08  
Coordinates : 24°57'34" & 74°7'53"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 06/02/2026 To 07/02/2026  
Time of Monitoring : 10:00 to 10:00 Hrs.  
Ambient Temperature (°C) : Min.17° Max 31°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS 5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	89.46	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24): 2019	44.61	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO <sub>2</sub> )	IS:5182 (P- 6)-2006, RA. 2022	27.84	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO <sub>2</sub> )	IS 5182 (Part 2.) : Sec 1 : 2023	16.79	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.79	mg/m <sup>3</sup>	4
6	Benzene (as C <sub>6</sub> H <sub>6</sub> )	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH <sub>3</sub> )	IS 5182 (Part-25)-2018	18.84	µg/m <sup>3</sup>	400
8	Ozone (as O <sub>3</sub> )	IS 5182 (Part-9):1974 RA 2019	16.82	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) ; 2004, RA. 2019	0.54	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ) : 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA. 2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signator



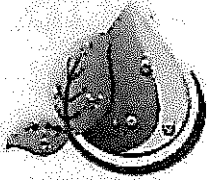
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## TEST REPORT

**VIBRANT**  
Sample Number : VTL/AA/01

TC-16019

Name & Address of the Party : M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Report No. : VTL/AZ602120004/A  
Format No : 7.8 F-02  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026

Sample Description : AMBIENT AIR QUALITY MONITORING

General Information:-  
Sampling Location : Near Main Gate (South)  
Sample Collected By : VTL Team  
Instrument Code : VTL/RDS/FPS/07  
Coordinates : 24°57'35" & 74°07'06"  
Meteorological condition during monitoring : Clear Sky  
Date of Monitoring : 06/02/2025 To 07/02/2026  
Time of Monitoring : 09:30 to 09:30 Hrs.  
Ambient Temperature (°C) : Min:17° Max 33°  
Surrounding Activity : Human, Vehicular & Plant Activity  
Method of Sampling : IS:5182  
Sampling Duration : 24 Hrs.  
Parameter Required : As per work order

S.No.	Parameters	Test Method	Results	Units	NAAQS 2009 (Limits)
1	Particulate Matter (as PM10)	IS:5182 (Part- 23)-2006 RA 2022	85.37	µg/m <sup>3</sup>	100
2	Particulate Matter (as PM2.5)	IS 5182(Part- 24); 2019	39.46	µg/m <sup>3</sup>	60
3	Nitrogen Dioxide (as NO2)	IS:5182 (P- 6)-2006, RA 2022	31.57	µg/m <sup>3</sup>	80
4	Sulphur Dioxide (as SO2)	IS 5182 (Part 2 ); Sec 1 : 2023	26.75	µg/m <sup>3</sup>	80
5	Carbon Monoxide (as CO)	IS:5182 (P- 10)-1999, RA. 2019 (NDIR)	0.88	mg/m <sup>3</sup>	4
6	Benzene (as C6H6)	IS 5182 (P-11)-2006, RA.2017	*BLQ (**LOQ 1.0)	µg/m <sup>3</sup>	5
7	Ammonia (as NH3)	IS 5182 (Part-25)-2016	17.64	µg/m <sup>3</sup>	400
8	Ozone (as O3)	IS 5182 (Part-9):1974 RA 2019	22.98	µg/m <sup>3</sup>	180
9	Lead (as Pb)	IS 5182 (P-22) : 2004, RA 2019	0.27	µg/m <sup>3</sup>	1
10	Arsenic (as As)	VTL/STP/02/STP/09	*BLQ (**LOQ 0.5)	ng/m <sup>3</sup>	6
11	Nickel (as Ni)	IS 5182 ( Part 26 ); 2020	*BLQ (**LOQ 5.0)	ng/m <sup>3</sup>	20
12	Benzo (alpha) Pyrene-Particulate Phase Only	IS:5182 (P-12):2004, RA.2019	*BLQ (**LOQ 0.2)	ng/m <sup>3</sup>	1

\*BLQ-Below Limit Of Quantification, \*\*LOQ-Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Corporate & Registered Office:

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Bhankrota, Jaipur 302026 (Raj.)

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www.vibranttechnolab.com

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- Authenticity of Test Report and Accreditation status may be seen online through QR Code.
- Retention period of sample will be 30 days only, any query beyond 30 days will not be entertained.

Page No. 1/1

**HINDUSTAN ZINC LIMITED**  
**DARIBA SMELTER COMPLEX**

**Ambient Air Quality Monitoring Report (Outside Plant)**  
**(October'25- March'26)**

Month Village	Parameters	Oct'25	Nov'25	Dec'25	Jan'26	Feb'26	Mar'26
<b>Aanjana</b>	<b>PM10</b>	64.690	67.770	71.240	75.150	79.320	82.080
	<b>PM2.5</b>	25.190	27.230	29.430	31.160	28.400	30.490
	<b>SO2</b>	7.690	9.027	13.690	15.640	12.360	9.710
	<b>NOx</b>	9.640	11.760	15.220	17.840	14.860	11.560
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Makhanpuriya</b>	<b>PM10</b>	62.110	66.520	70.670	74.880	78.540	81.450
	<b>PM2.5</b>	24.270	26.550	28.550	30.280	27.530	31.650
	<b>SO2</b>	6.730	7.210	13.120	15.250	11.370	7.590
	<b>NOx</b>	7.490	8.120	15.140	17.160	13.910	9.250
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Mahenduriya</b>	<b>PM10</b>	67.540	70.030	75.260	80.120	83.450	86.130
	<b>PM2.5</b>	26.230	28.430	30.310	32.730	31.260	33.680
	<b>SO2</b>	8.470	10.490	14.240	16.850	14.480	11.880
	<b>NOx</b>	10.220	12.540	16.350	18.420	16.590	13.790
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Ladapacha</b>	<b>PM10</b>	61.270	65.040	69.860	73.420	76.690	80.620
	<b>PM2.5</b>	24.110	26.370	28.680	30.270	29.210	32.420
	<b>SO2</b>	4.050	6.270	9.710	10.770	8.450	6.490
	<b>NOx</b>	5.580	7.740	11.140	12.510	10.430	7.350
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL

**Annexure IV (Cont.)**

<b>Lunera</b>	<b>PM10</b>	66.570	70.910	73.360	80.120	83.580	86.250
	<b>PM2.5</b>	26.780	28.390	30.460	32.030	31.420	33.530
	<b>SO2</b>	6.660	8.450	11.380	13.290	11.610	8.630
	<b>NOx</b>	8.710	10.780	13.840	15.530	13.830	10.450
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Charana</b>	<b>PM10</b>	59.350	63.330	68.240	72.860	75.360	79.450
	<b>PM2.5</b>	23.550	25.050	27.170	29.280	26.480	30.160
	<b>SO2</b>	4.410	5.750	8.860	9.430	7.350	5.780
	<b>NOx</b>	6.180	6.220	10.630	11.450	9.820	6.490
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Kotadi</b>	<b>PM10</b>	69.230	73.540	76.520	81.850	84.610	88.160
	<b>PM2.5</b>	27.370	30.490	32.190	34.420	33.170	35.470
	<b>SO2</b>	7.480	9.180	12.490	14.470	12.730	10.450
	<b>NOx</b>	9.520	11.340	14.250	16.750	14.760	12.660
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL
<b>Chothpura</b>	<b>PM10</b>	58.630	64.690	67.120	72.410	76.110	80.510
	<b>PM2.5</b>	22.350	24.820	26.010	28.630	25.260	27.220
	<b>SO2</b>	5.290	6.380	12.320	14.180	10.470	6.670
	<b>NOx</b>	6.530	7.710	14.060	16.110	12.560	8.120
	<b>Pb</b>	BDL	BDL	BDL	BDL	BDL	BDL

\*All readings in ug/m<sup>3</sup>



Team Member - Environment

Dariba Smelter Complex

**HINDUSTAN ZINC LIMITED**  
**DARIBA SMELTER COMPLEX**

**Continuous Ambient Air Quality Monitoring Results**  
**(October'25-March'26)**

Location		Prescribed Limits*	Month					
			Oct'25	Nov'25	Dec'25	Jan'26	Feb'26	Mar'26
Near to Main Gate (South-West)	RSPM	100	54.71	59.64	55.67	63.54	62.23	60.93
	SO <sub>2</sub>	80	21.88	23.85	22.26	27.61	27.05	26.45
	NO <sub>x</sub>	80	26.26	28.62	26.72	33.14	32.46	31.78
	CO	2	0.68	0.74	0.69	0.84	0.82	0.80
Near to SWP (North-West)	RSPM	100	56.09	59.91	62.74	66.12	70.31	68.67
	SO <sub>2</sub>	80	29.52	31.18	33.02	36.51	39.03	38.07
	NO <sub>x</sub>	80	36.02	38.06	40.29	43.58	46.52	45.81
	CO	2	0.80	0.84	0.89	0.94	1.00	0.97
Near to CPP (North-East)	RSPM	100	59.31	64.92	56.87	64.64	67.03	58.78
	SO <sub>2</sub>	80	26.96	29.51	25.84	29.37	30.43	26.67
	NO <sub>x</sub>	80	34.50	37.75	33.08	36.13	37.40	32.86
	CO	2	0.91	0.99	0.87	0.99	1.02	0.89
SLF (South-East)	RSPM	100	58.65	69.97	62.28	63.89	68.08	70.95
	SO <sub>2</sub>	80	19.55	23.32	20.75	21.95	23.28	24.37
	NO <sub>x</sub>	80	24.77	29.58	26.36	29.63	31.58	32.91
	CO	2	0.93	1.10	0.98	1.01	1.07	1.12

\* National Ambient Air Standards, 2009

\* All readings in ug/m<sup>3</sup>, except CO in mg/m<sup>3</sup>



Team Member - Environment  
Dariba Smelter Complex

## Annexure VI

**HINDUSTAN ZINC LIMITED**  
**DARIBA SMELTER COMPLEX**  
Work Zone Environment Monitoring Results  
(October'25-March'26)

Month Location	Parameters	Prescribed Standards*	Oct'25	Nov'25	Dec'25	Jan'26	Feb'26	Mar'26
<b>Zinc Plant</b>								
Raw Material Handling (RMH)	SPM	10	7.080	7.965	7.985	8.650	7.130	8.165
	SO <sub>2</sub>	5	0.111	0.165	0.133	0.158	0.146	0.117
	Zn	5	2.125	3.130	3.025	3.580	2.730	3.539
Zinc Dust Plant	SPM	10	7.030	7.245	7.870	8.755	7.070	8.075
	SO <sub>2</sub>	5	0.079	0.060	0.060	0.074	0.079	0.059
	Zn	5	2.155	2.645	3.040	3.850	2.675	3.275
Purification Section	SPM	10	2.810	3.950	3.735	3.255	3.045	4.050
	SO <sub>2</sub>	5	0.087	0.069	0.091	0.094	0.108	0.080
	Zn	5	0.215	0.298	0.308	0.296	0.316	0.407
Cell House	SPM	10	2.110	2.935	2.545	3.005	2.725	3.120
	SO <sub>2</sub>	5	0.197	0.320	0.265	0.241	0.297	0.218
	Zn	5	0.269	0.396	0.315	0.346	0.271	0.345
<b>Lead Plant</b>								
Raw Material Handling (RMH)	SPM	10	6.945	7.975	8.245	8.690	7.120	8.160
	SO <sub>2</sub>	5	0.087	0.109	0.098	0.120	0.102	0.084
	Pb	0.15	0.120	0.131	0.128	0.137	0.110	0.117
SKS	SPM	10	5.690	6.275	6.600	7.040	6.015	6.945
	SO <sub>2</sub>	5	0.111	0.113	0.139	0.147	0.120	0.107
	Pb	0.15	0.066	0.074	0.089	0.111	0.083	0.100
Blast Furnace	SPM	10	6.120	7.120	6.530	7.320	6.400	7.910
	SO <sub>2</sub>	5	0.087	0.097	0.091	0.106	0.080	0.107
	Pb	0.15	0.090	0.109	0.095	0.112	0.099	0.117
LEP Melting & Casting	SPM	10	5.515	5.985	6.005	6.120	6.100	5.350
	SO <sub>2</sub>	5	0.067	0.081	0.091	0.104	0.102	0.093
	Pb	0.15	0.070	0.087	0.093	0.102	0.113	0.081

\* Time Weighted Average (TWA) .All readings in ppm

\* Factory Act, 1948 (Schedule II)

Team Member - Environment


Dariba Smelter Complex

**HINDUSTAN ZINC LIMITED  
DARIBA SMELTER COMPLEX**

**Fugitive Emission Monitoring Results**  
**(October'25-March'26)**

<b>Location</b>	<b>Parameters</b> (All figures in $\mu\text{g}/\text{m}^3$ )
	<b>TSPM</b>
<b>Prescribed Limit*</b>	-
Raw Material Handling (RMH) - Zinc	439.275
Roaster Plant	321.965
Calcine Handling	394.28
Coal Handling Plant (CPP)	358.935
Fly Ash Handling	420.255
Raw Material Handling (RMH) – Lead Plant	429.245
Near SKS Primary	322.655

Secondary fugitive emissions are monitored on 24 hrs. basis at a distance of 10 m from the source.



Team Member - Environment  
Dariba Smelter Complex

**VIBRANT**

TC-16019

**VIBRANT TECHNO LAB PVT. LTD.**ISO 9001, 14001 & 45001 Certified Company  
EPA Recognized Laboratory | NABET Accredited EIA Consultant Organisation**TEST REPORT**

Sample Number : VTLWW/02

M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajapura Dariba Udaipur Rajasthan

Name &amp; Address of the Party :

Sample Description : Waste Water  
Sampling Location : ETP Outlet  
Sample Collected By : VTL Team  
Preservation : Suitable Preservation  
Method of sampling : IS: 3025ULR No. : TC1601925000003544F  
Report No. : VTLWW/2511130018/A  
Format No : 7.8 F-01  
Party Reference No : NIL  
Report Date : 20/11/2025  
Period of Analysis : 13/11/2025-20/11/2025  
Receipt Date : 13/11/2025  
Sampling Date : 11/11/2025  
Sampling Type : Grab  
Sample Quantity : 2 Ltr.  
Coordinates : --

S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	pH	IS: 3025 (P-11): 2022	7.36	-	5.5 to 9.0
2	Total Suspended Solids (TSS)	IS: 3025 (P-17): 2022	12.8	mg/L	100
3	Oil & Grease	IS:3025 (P-39): 2021	*BLQ(**LOQ-4.0)	mg/L	10
4	Biochemical Oxygen Demand (BOD) (3 days @ 27°C )	IS: 3025 (P-44): 2023	12.8	mg/L	30
5	Chemical oxygen Demand (COD)	IS : 3025 (P-56) : 2023	60	mg/L	250
6	Lead (as Pb)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.05 )	mg/L	0.1
7	Total Chromium (as Cr)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ- 0.10)	mg/L	0.2
8	Copper (as Cu)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.10 )	mg/L	1.0
9	Zinc (as Zn)	APHA 24th Edition ,3111 B, 2023	0.38	mg/L	1.0
10	Nickel (as Ni)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.1 )	mg/L	3.0
11	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA. 2019	640	mg/L	1000
12	Fluoride (as F)	APHA 24th Edition, 4500F-D:2023	0.87	mg/L	2.0
13	Sulphide (as S)	IS 3025 (P-29) : 2022 (Clause 6.0)	0.62	mg/L	2.0
14	Cadmium (as Cd)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.10 )	mg/L	2.0
15	Cyanide (as CN)	IS 3025 (P-27/Sec 1) :2021	*BLQ(**LOQ-0.2)	mg/L	0.2
16	Hexavalant Chromium (Cr+6)	APHA 24th Edition, 3500 Cr-B :	*BLQ(**LOQ-0.05)	mg/L	0.1



Checked by

RK Yadav  
Lab Incharge  
Authorized Signatory

Corporate &amp; Registered Office:

- Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)
- 0141-2954638 bd@vibranttechnolab.com
- www.vibranttechnolab.com

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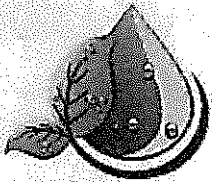
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## TEST REPORT



**VIBRANT**



TC-16019

Sample Number : VTLWW02

ULR No. : TC1801925000003544F

Report No. : VTLWW/2511130018/A

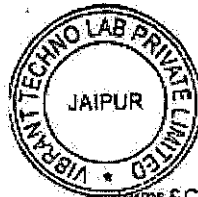
S.No.	Test Parameters	Test Method	Result	Unit	Limits
16		2023			
17	Temperature	IS: 3025 (P-9): 2023	24.7	°C	Shall not exceed 5°C above the receiving water temperature
18	Free Available Chlorine	IS: 3025 (P-26):2021 : (Clause 5.0)	*BLQ(**LOQ-0.2 )	mg/L	0.5
19	Iron (as Fe)	APHA 24th Edition , 3111 B, 2023	*BLQ(**LOQ-0.2)	mg/L	1.0

\*BLQ-Below Limit OF Quantification, \*\*LOQ- Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Page No. 2/2

Corporate & Registered Office:

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## TEST REPORT

### VIBRANT

Sample Number : VTLAWW/02

M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rejpur, Dariba Udaipur Rajasthan

Name & Address of the Party :

Sample Description : Waste Water

Sampling Location : ETP Outlet

Sample Collected By : VTL Team

Preservation : Suitable Preservation

Method of sampling : IS: 3025

Report No. : VTLAWW/2511130018/B

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 20/11/2025

Period of Analysis : 13/11/2025-20/11/2025

Receipt Date : 13/11/2025

Sampling Date : 11/11/2025

Sampling Type : Grab

Sample Quantity : 2 Ltr.

Coordinates : --

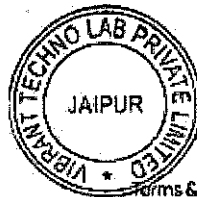
S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	Phosphate (as PO <sub>4</sub> )	IS:3025 (P- 31) Sec 1 : 2022 ( Clause 5.0)	*BLQ(**LOQ-0.2)	mg/L	5.0
2	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P-24 ) Sec-1 : 2022	239	mg/L	1000

\*BLQ-Below Limit OF Quantification, \*\*LOQ- Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory

Corporate & Registered Office:

Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)

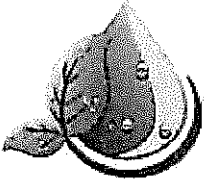
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## TEST REPORT

### VIBRANT

Sample Number : VTL/WW/03

TC-16019

M/s Hindustan Zinc Ltd.  
Danba Smelter Complex, Post- Danba, District -  
Rajpura Dariba Udaipur Rajasthan

ULR No. : TC1601926000001085F  
Report No. : VTL/WW/2602120003/A  
Format No : 7.8 F-01  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026  
Sampling Date : 10/02/2026  
Sampling Type : Grab  
Sample Quantity : 2 Ltr.  
Coordinates : -

Name & Address of the Party :

Sample Description : Waste Water  
Sampling Location : ETP Outlet  
Sample Collected By : VTL Team  
Preservation : Suitable Preservation  
Method of sampling : IS: 3025

S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	pH	IS: 3025 (P-11): 2022	7.43	-	5.5 to 9.0
2	Total Suspended Solids (TSS)	IS: 3025 (P-17): 2022	15.9	mg/L	100
3	Oil & Grease	IS:3025 (P-39): 2021	*BLQ(**LOQ-4.0)	mg/L	10
4	Biochemical Oxygen Demand (BOD) (3 days @ 27°C )	IS: 3025 (P-44): 2023	16.4	mg/L	30
5	Chemical oxygen Demand (COD)	IS : 3025 (P-55) : 2023	55	mg/L	250
6	Lead (as Pb)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.05 )	mg/L	0.1
7	Total Chromium (as Cr)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ- 0.10)	mg/L	0.2
8	Copper (as Cu)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.10 )	mg/L	1.0
9	Zinc (as Zn)	APHA 24th Edition ,3111 B, 2023	0.32	mg/L	1.0
10	Nickel (as Ni)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.1 )	mg/L	3.0
11	Chloride (as Cl)	IS: 3025 (P-32): 1988, RA. 2019	540	mg/L	1000
12	Fluoride (as F)	APHA 24th Edition, 4500F-D-2023	0.55	mg/L	2.0
13	Sulphide (as S)	IS 3025 (P-29) : 2022 (Clause 6.0)	0.51	mg/L	2.0
14	Cadmium (as Cd)	APHA 24th Edition ,3111 B, 2023	*BLQ(**LOQ-0.10 )	mg/L	2.0
15	Cyanide (as CN)	IS 3025 (P-27/Sec 1) :2021	*BLQ(**LOQ-0.2)	mg/L	0.2
16	Hexavalent Chromium (Cr+6)	APHA 24th Edition, 3500 Cr-B :	*BLQ(**LOQ-0.05)	mg/L	0.1



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



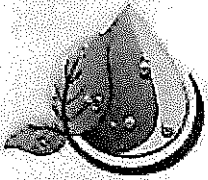
Corporate & Registered Office:

- Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)
- 0141-2954638 bd@vibranttechnolab.com
- www.vibranttechnolab.com

#### Terms & Conditions:

- The Result Listed refer only to the tested sample and applicable parameters.
- Total Liability of our concern is limited to the invoiced amount.
- The report is not to be reproduced wholly or part and cannot be used as an evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- Authenticity of Test Report and Accreditation status may be seen online through QR Code.
- Retention period of sample will be 30 days only, any query beyond 30 days will not be entertained.

Page No. 1/2



# VIBRANT TECHNO LAB PVT. LTD.

ISO 9001, 14001 & 45001 Certified Company  
EPA Recognized Laboratory | NABET Accredited EIA Consultant Organisation

## TEST REPORT

### VIBRANT

Sample Number : VTLWW/03

TC-16019

ULR No. : TC1601926000001089F

Report No. : VTLWW/2602120003/A

S.No.	Test Parameters	Test Method	Result	Unit	Limits
16		2023			
17	Temperature	IS: 3025 (P-9): 2023	25.3	°C	Shall not exceed 5°C above the receiving water temperature
18	Free Available Chlorine	IS: 3025 (P-26):2021 (Clause 5.0)	*BLQ(**LOQ-0.2)	mg/L	0.5
19	Iron (as Fe)	APHA 24th Edition, 3111 B, 2023	*BLQ(**LOQ-0.2)	mg/L	1.0

\*BLQ-Below Limit OF Quantification, \*\*LOQ- Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav  
Lab Incharge  
Authorized Signatory



Corporate & Registered Office:

Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)

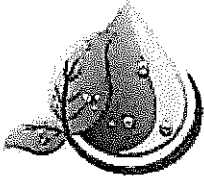
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# VIBRANT TECHNO LAB PVT. LTD.

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EPA Recognized Laboratory | NABET Accredited EIA Consultant Organisation

## TEST REPORT

### VIBRANT

Sample Number : VTL/WW/03

M/s Hindustan Zinc Ltd.  
Dariba Smelter Complex, Post- Dariba, District -  
Rajpura Dariba Udaipur Rajasthan

Name & Address of the Party :

Sample Description : Waste Water  
Sampling Location : ETP Outlet  
Sample Collected By : VTL Team  
Preservation : Suitable Preservation  
Method of sampling : IS: 3025

Report No. : VTL/WW/2602120003/B  
Format No : 7.8 F-01  
Party Reference No : NIL  
Report Date : 20/02/2026  
Period of Analysis : 12/02/2026-20/02/2026  
Receipt Date : 12/02/2026  
Sampling Date : 10/02/2026  
Sampling Type : Grab  
Sample Quantity : 2 Ltr.  
Coordinates : --

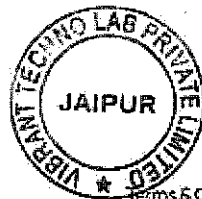
S.No.	Test Parameters	Test Method	Result	Unit	Limits
1	Phosphate (as PO <sub>4</sub> )	IS:3025 (P- 31) Sec 1 : 2022 ( Clause 5.0)	*BLO(**LOQ-0.2)	mg/L	5.0
2	Sulphate (as SO <sub>4</sub> )	IS: 3025 (P-24 ) Sec-1 : 2022	248	mg/L	1000

\*BLO-Below Limit OF Quantification, \*\*LOQ- Limit Of Quantification

\*\*\*End of Report\*\*\*



Checked by



RK Yadav   
Lab Incharge  
Authorized Signatory

Corporate & Registered Office:

Plot No. Q-39, Shringarpura, Narayan Vihar Q,  
Bhankrota, Jaipur 302026 (Raj.)

0141-2954638 bd@vibranttechnolab.com

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5. Retention period of sample will be 30 days only, any query beyond 30 days will not be entertained.

Page No. 1/1

## Annexure – IX

## Piezometer Water Quality

Nov – 25

(Tailing dam)

(All figures in ppm except pH)

Parameter	PW 1	PW 2	PW 3	PW 4	PW 5	PW 6
pH	07.50	07.12	07.36	07.54	07.19	07.26
Suspended Solids	13.00	10.00	12.00	10.00	08.00	14.00
Lead	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Zinc	00.24	00.16	00.15	00.25	00.20	00.16
Copper	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Iron	00.12	00.07	00.08	00.05	00.10	00.05
Cadmium	(<0.003)	(<0.003)	(<0.003)	(<0.003)	(<0.003)	(<0.003)
Nickel	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Cobalt	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)

Feb – 26

(Tailing dam)

(All figures in ppm except pH)

Parameter	PW 1	PW 2	PW 3	PW 4	PW 5	PW 6
pH	07.09	07.16	07.52	07.66	07.08	07.12
Suspended Solids	10.00	15.00	11.00	13.00	10.00	12.00
Lead	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Zinc	00.20	00.25	00.08	00.09	00.32	00.24
Copper	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Iron	00.06	00.06	00.02	00.02	00.08	00.07
Cadmium	(<0.003)	(<0.003)	(<0.003)	(<0.003)	(<0.003)	(<0.003)
Nickel	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)
Cobalt	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)	(<0.01)

## Annexure X

## Process Water Quality results

Oct – 25

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	06.79	06.75	07.20
Suspended Solids	12.00	10.00	15.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.18	00.24	00.18
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.06	00.10	00.04
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

Nov – 25

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	07.09	07.65	07.45
Suspended Solids	13.00	10.00	15.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.12	00.24	00.25
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.05	00.10	00.06
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

Dec – 25

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	07.48	07.40	07.60
Suspended Solids	11.00	15.00	12.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.13	00.66	00.50
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.07	00.07	0.06
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

(All figures in ppm except pH)

Jan-26

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	07.12	07.23	08.00
Suspended Solids	10.00	08.00	23.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.20	00.20	00.40
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.08	00.09	00.02
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

(All figures in ppm except pH)

Feb - 26

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	07.76	06.75	07.56
Suspended Solids	12.00	17.00	16.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.11	00.30	00.27
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.04	00.06	00.07
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

(All figures in ppm except pH)

Mar - 26

Parameter	Mine Water	Tailing Dam Water	Garland Drain Water
pH	07.76	07.96	07.56
Suspended Solids	10.00	08.00	15.00
Lead	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Zinc	00.02	00.40	00.08
Copper	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Iron	00.02	00.05	00.02
Cadmium	BDL (<0.003)	BDL (<0.003)	BDL (<0.003)
Nickel	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)
Cobalt	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)

(All figures in ppm except pH)

**HINDUSTAN ZINC LIMITED  
DARIBA SMELTER COMPLEX**

**Ambient Noise Monitoring Report**  
**(October'25-March'26)**

<b>Plant</b>	<b>DARIBA SMELTER COMPLEX</b>			
<b>Location</b>	<b>Near Main Gate (S)</b>	<b>Near SLF Area (SE)</b>	<b>Boundary wall of CPP (NE)</b>	<b>Near Storm water pond (NW)</b>
<b>Prescribed Standards* (70-75)</b>				
<b>Oct'25-Mar'26</b>	68.1-56.7	64.2-55.8	63.1-53.6	62.8-52.7

Team Member - Environment  
Dariba Smelter Complex

**Annexure XII**

**Hindustan Zinc Limited  
Dariba Smelter Complex  
Dariba, Dist. Rajsamand, Rajasthan.**

**Average Sulphur and ash content in coal Monitoring Report  
(October'25- March'26)**

<b>Month</b>	<b>Average Sulphur content %</b>	<b>Average Ash %</b>
<b>Oct-25</b>	0.63	30.12
<b>Nov-25</b>	0.58	30.37
<b>Dec-25</b>	0.55	27.33
<b>Jan-26</b>	0.48	27.71
<b>Feb-26</b>	0.46	32.14
<b>Mar-26</b>	0.46	32.60

**(Sudhir Parwal)**

**Head CPP**

**Dariba Smelter Complex**

**HINDUSTAN ZINC LIMITED**  
**DARIBA SMELTER COMPLEX**

**Expenditure made in environmental control measures**  
**(2025-26)**

Sr. No.	Description	Total amount
		(Rs. in lakhs)
1	Green Belt Development, Maintenance of old plantation & landscaping	238.74
2	Environment Monitoring	154.38
3	Storm water ponds operation and maintenance & Monsoon management	4.73
4	Environmental training, awareness and publicity	1.94
5	Hazardous Waste Management	2625.67
6	O & M of Organic waste Convertor	0.00
7	Environmental Audit	9.15
8	Returns, fees for Award & CTO	33.61
9	Pollution control measure	129.21
	<b>Grand Total</b>	<b>3197.45</b>

**HINDUSTAN ZINC LIMITED**  
**DARIBA SMELTER COMPLEX**

**Funds earmarked towards environmental control measures**  
**(2026 -27)**

Sr. No.	Description	Total amount
		(Rs. in lakhs)
1	Green Belt Development, Maintenance of old plantation & landscaping	222
2	Environment Monitoring	303
3	Storm water ponds operation and maintenance & Monsoon management	110
4	Environmental training, awareness and publicity	85.8
5	Hazardous Waste Management	2307
6	O & M of Organic waste Convertor	8
7	Environmental Audit & IMS	9
8	Returns, fees for Award & CTO	307.5
9	Pollution control measure	56
	<b>Grand Total</b>	<b>3408.3</b>



**HINDUSTAN ZINC**  
Zinc & Silver of India

Reg. A/D

HZL/DSC/ENV/FLY ASH RETURN /2025-26

Date: 18.04.2026

To,

The Member Secretary,  
Rajasthan State Pollution Control Board,  
4, Institutional Area,  
Jhalana Doongri,  
Jaipur-302004

**Sub: Annual implementation report about the compliance of provision in fly ash notification.**

**Ref:** 1. Consent to Operate No: F(HDF)/Rajsamand(Railmagra)/6461(1)/2020-2021/5140-5142.  
Order No. 2020-2021/HDF/3272 Dated 11.02.2021 for Captive power Plant (2 X 85 MW) Unit I & II.

2. Environmental Clearance Ref. No. -J-11011/380/2008/IA II (I) dated 04.11.2009.

Sir,

With reference to the above subject matter, please find enclosed herewith the compliance report on fly ash notification for the financial year 2025-26.

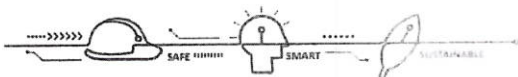
Thanking You,  
Yours faithfully,  
For Hindustan Zinc Ltd

(Rohit Vijay)  
SBU Director  
Dariba Smelter Complex  
Hindustan Zinc Ltd

**Cc:** 1. Additional Director, Ministry of Environment & Forests  
Kendriya Bhavan, 5<sup>th</sup> Floor, Section -H, Aliganj, Lucknow-226024.

2 Member Secretary  
CPCB Parvesh Bhawan, CBD – Cum-office Complex,  
East Arjun Nagar, Delhi-110032.

3. The Regional Officer, Rajasthan State Pollution Control Board,  
Old Exsice office building, Kalalwati  
Rajnagar, Rajsamand  
Pin 313324



**Fly ash notification S.O. 763(E), dated the 14<sup>th</sup> September, 1999 (as amended)**  
**Annual Implementation Report for the period 1<sup>st</sup> April 2025 to 31<sup>st</sup> March 2026**

S. No.	Particular	Details			
1	Name of the Thermal Power Station	Captive Thermal Power Plant, Dariba Smelter Complex.			
2	Full address including Pin code	Dariba Smelter Complex HINDUSTAN ZINC LIMITED P.O. - Dariba, District: Rajsamand (Raj.)- 313211			
3	E mail address	sudhir.parwal@vedanta.co.in			
4	Name of the nodal officer(not below the rank of DGM/Dy.CE/or equivalent) dealing with the ash management and contents of this report and his designation	Sudhir Parwal Unit Head - CPP			
5	Telephone No.	+91-02952- 265450/51			
6	Fax. No.	+91-02952-265452			
7	Capacity of the Thermal Power station (MW)	170 MW			
8	Details of number of units	2 X 85 MW			
9	Coal/Lignite consumption in 2025-2026 (million)	0.75			
<b>A. Ash generation in 2025-2026(in tonnes)</b>					
10	Bottom Ash	28819.14			
11	Fly Ash	175589.82			
	Total A (10 and 11)	204408.96			
<b>B. Fly Ash unutilized (In tonnes)</b>					
12	Ash Pond disposal	0			
13	Ash yard	0			
14	Ash dump	0			
	Total B (12 to 14)	0			
<b>C. Fly Ash utilization in 2025-2026</b>					
	Purpose for which Fly ash is utilised	Target (as per action plan)	Actual (in Tonnes)		
			From ESP, Dry ash	From bottom Ash	Total
15	Ash pond dyke rising		--	--	--
16	Cement industry		164254.44	0	164254.44
17	Landfill		--	--	--
18	Own brick unit		--	--	--
19	Outside brick units other than brick kilns		--	--	--
20	Brick kilns		--	28819.14	28819.14
21	Own ash based products(other than bricks)		--	--	--
22	Ash based products		--	--	--
23	Road and flyover embankments		--	--	--
24	Back filling in mines		11335.38	--	11335.38
25	Agriculture		--	--	--
26	Ready mix concrete		--	--	--
27	Asbestos		--	--	--
28	Exports		--	--	--
29	Others(please specify)		--	--	--
	Total C(15 to 29)		175589.82	28819.14	204408.96

**D. Reasons for variation from target**

1	Not Applicable
2	Not Applicable
3	Not Applicable

**E. Remedial measures taken**

1	Not Applicable
2	Not Applicable
3	Not Applicable

**F. Quantity in ash pond**

30	Estimated quantity of Pond ash in active ash pond(pond in use) as on 31.03.2026(million tonnes)	Not Applicable, as no fly ash pond is in place.
----	---	---

**G. Ash Pond Details**

31	Total area earmarked for ash ponds(ha)	Not Applicable, as no fly ash pond is in place Fly Ash is being provided to Cement Industry and Bottom Ash is being provided to Brick manufactures.
32	Ash ponds already filled up and reclaimed (ha)	
33	Ash ponds already filled up but yet to be reclaimed (ha)	
34	Ash ponds in use(ha) (Active ash ponds)	
35	Area earmarked for ash ponds but ash ponds yet to be constructed (ha)	

**H. Dry ash collection facilities**

36	Whether mechanical handling facility for dry fly ash collection is available	Yes
37	If yes for how many units	with each unit (2No's)

**I. Dry fly ash storage**

38	Daily ash generation(TPD)	Capacity of storage as on 31.03.2026(tonnes)	Capacity proposed if any in 2025-2026(tonnes)
	481	280	0

**J. Capital expenditure (Rs. lakhs)**

	Item	Expenditure in 2025-2026(Rs. lakhs)	Budgetary provision In 2026-27
39	Mechanical dry fly ash collection facility	0	0
40	Dry Fly Ash storage	0	0

**K. Dispute Settlement Committee**

41	No. of meetings held in 2025-2026	No Dispute received. No meeting held
----	-----------------------------------	--------------------------------------

**L. Provision regarding supply to brick kilns**

42	Whether the thermal power station is maintaining records of ash made available to each brick kiln	Yes
43	If yes how many Brick kilns have been supplied with fly ash	We are supplying bottom ash to Krishna Sales,Ujjwal Enterprises and Maheshwari trader

**M. Mode of transport for Fly Ash (strikeout whichever is not applicable) -Yes**

44	Dry Ash	Open truck	--
		Truck covered with tarpaulin	--
		Trailer	--
		Trailer covered with tarpaulin	--
		Closed container	--
		Special container truck	Bulker
45	Wet Ash	Open truck	--
		Truck covered with tarpaulin	--
		Trailer	--
		Trailer covered with tarpaulin	--
		Closed container	--
		Special container truck	--

**N. Promotional Measures**

		No. of meetings/workshops exhibition held during 2025-2026	Amount spent in 2025-2026 (Rs. Lakhs)	Outlay for 2026-2027 (Rs. Lakhs)
46	Exhibitions	0	--	--
47	Seminars	0	--	--
48	Workshops	0	--	--
49	Advertisement in newspaper	0	--	--
50	Advertisement in TV	0	--	--
51	Advertisement in radio	0	--	--
52	Others (Please specify)	0	--	--
	Total N (46 to 52)	0	NIL	NIL

**O. Administrative measures taken**

	Administrative measures taken	Outcome
53	Meeting with brick manufacturers	Not required during the year
54	meeting with state government/agencies	Not required during the year
55	Any other measures (pl. specify)	Not required during the year



Signature of CEO/Associate General Manager/  
CE of the thermal power station  
**Name:** Sudhir Parwal  
**Designation:** Unit Head - CPP  
**Date:** 18.04.2026

**HINDUSTAN ZINC LIMITED,  
UDAIPUR, RAJASTHAN**

**Hydrology & hydrogeology of core and buffer zones of  
Rajpura- Dariba mine and impact of mining on water regime**

**Prepared by:**



**Hydro-Geosurvey Consultants Private Limited  
C-103, Shastri Nagar, Jodhpur  
November, 2006**

117-1000-1111

## Hydrology and hydrogeology of core and buffer zones of Rajpura-Dariba mine and impact of mining on water regime

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**Figures**

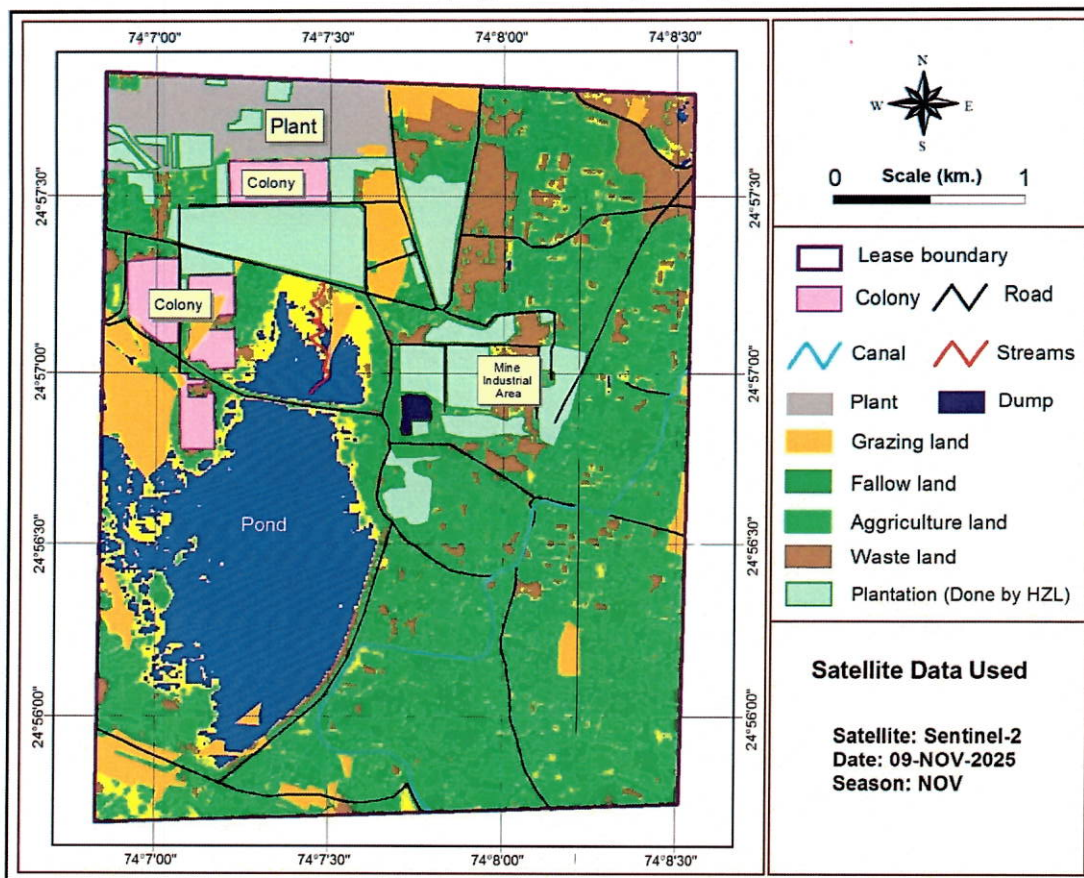
Figure – 1 Hydrogeological map of buffer zone of Rajpura – Dariba mine.....	10
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**Appendix**

Appendix – I Hydrological data of key wells of buffer zone of Rajpura-Dariba mine monitored during pre and post monsoon period 2006.

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LULC Mao of RD (Rajpura Dariba) mining lease area



Area under different land use classes in Rajpura -Dariba mining lease area: Year-2025)

S. No.	Category Level I	Level II	Area in ha.	% of the total area
1.	Built up land	Plant, Colony, Road and Village	132.64	11.61
2.	Agriculture land	Cultivable & Fallow	301.89	26.44
3.	Grazing land	Charagah	84.1	7.36
4.	Waste land	Dump	1.71	0.15
		Barren hills	94.30	8.26
5.	Water bodies	Pond, streams and canal	138.22	12.10
6.	Natural Vegetation	Babul, Khajoor etc.	172.54	15.11
7.	Plantation (Done by HZL)		216.88	18.99
			<b>1142.20</b>	<b>100 %</b>

For Hydro-Geosurvey Consultants P. Ltd.

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