

DZS/ENV/A-20/ENV.AUDIT/2022-23/ 213

26/09/2023

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

**Sub. : Submission of Environment Audit Statement for Zinc Smelter, Debari
FTY 2022-23.**

Ref : 1. DZS file no. : Consents: M-23/CPM and Your letter:
F(Plan)/Udaipur(Girwa)/5(1)/2017-2018/4223-4226 dated 17/09/2018
F(HDF)/Udaipur(Girwa)/1328(1)/2022-2023/7460-7462 dated 17/03/2023
2. DZS File No.: Moore Cake-M-24/CPM and Your letter:
F(CPM)/Udaipur(Girwa)/16()/2017-2018/3562-3564 dated 27/08/2018
3. DZS File No.: CPP-DG Set: P-81/CPM and Your letter:
F(CPM)/Udaipur(Girwa)/16()/2017-2018/2043-2045 dated 30/08/2019
4. DZS File No.: Central Hospital, ZSD and your letter
F(BMW)/Udaipur(Girwa)/7008(1)/2021-2022/1340-1341 dated 21/01/2022
5. DZS File No.: Debari Colony STP plant, ZSD and your letter
F(CPM)/Udaipur(Girwa)/17(1)/2018-2019/2817-2819 dated 11/11/2019

Dear Sir,

Please find herewith the enclosed Environment Audit Statement for Zinc Smelter, Debari, Stockpiled Moore Cake Treatment Plant, Central Hospital - HZL plant, DG Set (2x7.4MW) for the year 2022-23 in compliance to the notification issued by Ministry of Environment and Forest, New Delhi.

The statement is in accordance to the standard format Part A to Part I.

Kindly acknowledge receipt of the statement.

Thanking you,

Yours faithfully


(Manas Tyagi)
SBU Director ZSD

CC to: - 1. Regional Officer

Rajasthan State Pollution Control Board,
F-470, Mewar Industrial Area
Udaipur-313001 (Rajasthan).

2. The Deputy Director (S)/Scientist-C

Ministry of Environment Forest and Climate Change,
Integrated Regional Office, A-209 & 218, Aranya Bhawan,
Jhalana Institutional Area, Jaipur-302004

3. O/C

Environment Statement For The Year 2022-23

FORM-V
(See Rule- 14)

PART- "A"

1.	a) Name and address of the owner/occupier of the industry, Operation or Process.	Shri Arun Misra Chief Executive Officer, Hindustan Zinc Limited., Yashad Bhawan, UDAIPUR 313001
	b) In charge operation	Shri Manas Tyagi (SBU Director) Zinc Smelter, Debari 313024, UDAIPUR (Raj.)
	c) Operation	Zinc Smelting, Power Generation & Stockpiled Moore Cake Treatment Plant
2.	Industry Category Primary (STC CODE) Secondary (STC CODE)	RED LARGE
3.	Production Capacity	1. For the Zinc Smelter, Debari 100,000 TPA 445,000 MTPA 12.50 MW 15 MTPA 2,000 MTPA 16,500 MTPA 320 MTPA 419,000 TPA 8 MW 2. For the Captive Power Plant Power generation 14.80 MW (2 x 7.4 MW) (Captive Power Plant) 3. For the Stockpiled Moore Cake Treatment Plant Raw Zinc Oxide Powder 50.00 MT/DAY

4.	Year of Establishment	1968 for ZSD 2003 for CPP 2004 for MCTP 2017 for Solar plant
5.	Date of last Environmental Statement submitted.	22/09/2022

PART "B"

Water and Raw Material Consumption

(I) Water consumption on m³/d

Process	(m ³ /d)
Cooling	571 m ³ /d
Domestic	2287 m ³ /d
	718 m ³ /d

Name of Product	Water Consumption per unit of products	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
1. Zinc Ingot* (Including Sulphuric Acid, power generation through WHRB, DG power, RZO)	12.38 m ³ /MT	8.11 m ³ /MT

*Operation of SAP- I has been suspended since November 2013 and same has been dismantled.

(II) Raw Material Consumption

Name of raw material	Name of Product	Consumption of raw material / unit of output	
		During the previous financial year (2021-22)	During the current financial year (2022-23)
1. Zinc Concentrate	Zinc-Ingot	3.17 MT	2.98 MT
2. Zinc Concentrate	Calcine	1.13 MT	1.13 MT
3. Moore Cake	Raw Zinc oxide	0	3.73 MT

PART "C"

Pollution Generated
(Parameters as specified in the consent issued)

Pollutants	Quantity of pollution generated	Concentration of pollutant in discharge (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	Zero Liquid discharge is maintained. Report of ETP & STP is attached as Annexure I, II A & II B (No Variation-Under Norms)		
(b) Air	Report of AAQM, Sulphuric Acid Plant II & III reports enclosed, for Captive power plant enclosed and for Stockpiled Moore Cake Treatment Plant are attached as Annexure III & Annexure IV		

PART "D"

Hazardous Wastes

(As specified under The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

Hazardous Waste	Total Quantity (MT)	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
a) From Process b) From pollution control facilities	Pl. see Annexure-V A	Pl. see Annexure-V B

PART "E": Solid Wastes

Solid Wastes	Total Quantity (MT)	
	During Previous Financial year (2021-22)	During the current financial year(2022-23)
a) From process:		
b) From pollution control facilities		
Slag:		
I) Slag from Moore Cake Treatment Plant	0.0	11052
c) Quantity recycled or reutilized	0.0	0

PART "F"

(Please specify the characteristics (in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of waste.)

• Hazardous Waste:-

S. No.	Name of Waste	Chemical Characteristics	Category		Disposal Practice
1.	Spent Catalyst	V2O5- 3-4%	I	17.2	CTDF Udaipur
2.	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes	-	I	33.1	CTDF Udaipur
3.	Sludge from treatment of waste water arising out of cleaning/ disposal of barrels / containers	-	I	34.2	CTDF Udaipur
4.	Water Purification resin or spent ion exchange resin containing toxic metals	-	I	35.2	CTDF Udaipur
5.	Chemical sludge from waste water treatment	Zn 3.0 – 4.0 %	I	35.3	CTDF Udaipur
6.	Concentration or evaporation Residues	-	I	37.3	CTDF Udaipur
7.	Used / Spent Oil	-	I	5.1	Sale to Registered

8.	Filter contaminated with oil	-	I	5.2	Recycler CTDF Udaipur/ co-processing in cement Plant
9.	Anod Mud	Cd 0.003 – 0.004 % Cu 0.008 – 0.009 % Pb 8.0 – 12.0% Zn 0.5 – 1.0 %	I	7.2	Co processing in cement plant /Registered recycler/Reprocess
10.	Cooler Cake	Cd 0.003-0.004 % Cu 0.003-0.004 % Zn 3.0 – 4.0 %	I	7.2	CTDF Udaipur
11.	Purification Cake	Z 25-30% Cd 2.92-7.00% Cu 1.27-2.48%	I	7.2	Reuse in process/sales to registered recyclers
12.	Process residues	-	I	7.2	CTDF Udaipur
13.	Process residues	-	I	7.2	Sales to Registered Recycler/CTDF Udaipur
14.	Zinc ash/skimming/other zinc bearing wastes arising from smelting and refining, zinc dross bottom	-	IV	14	Sales to Registered Recycler/Reprocess

• **Solid Waste:-**

Jarosite characteristic: Cd 0.030-0.040%
Pb 4.000- 4.500%
Zn 2.000- 2.500%

PART "G"

Impact of the Pollution control measures on conservation of natural resources and consequently on the cost of production.

1. Water Conservation:

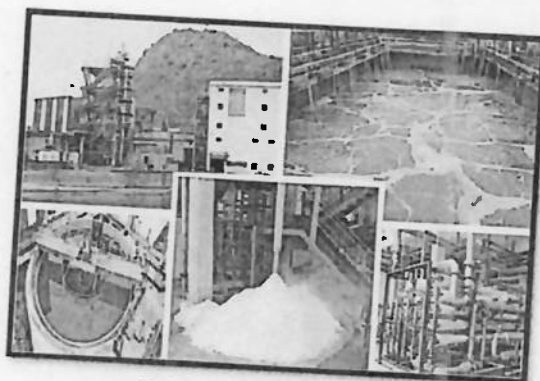
- ETP of 5760 KLD capacity is installed to treat the effluent generated from process. Additional 3000 KLD RO-ZLD plant with MVR system is also installed to achieve maximum water recovery, quality & to ensure zero liquid discharge from ZSD. Treated water is being recycled in process.



Effluent treatment plant (ETP)



Sewage treatment plant (STP)



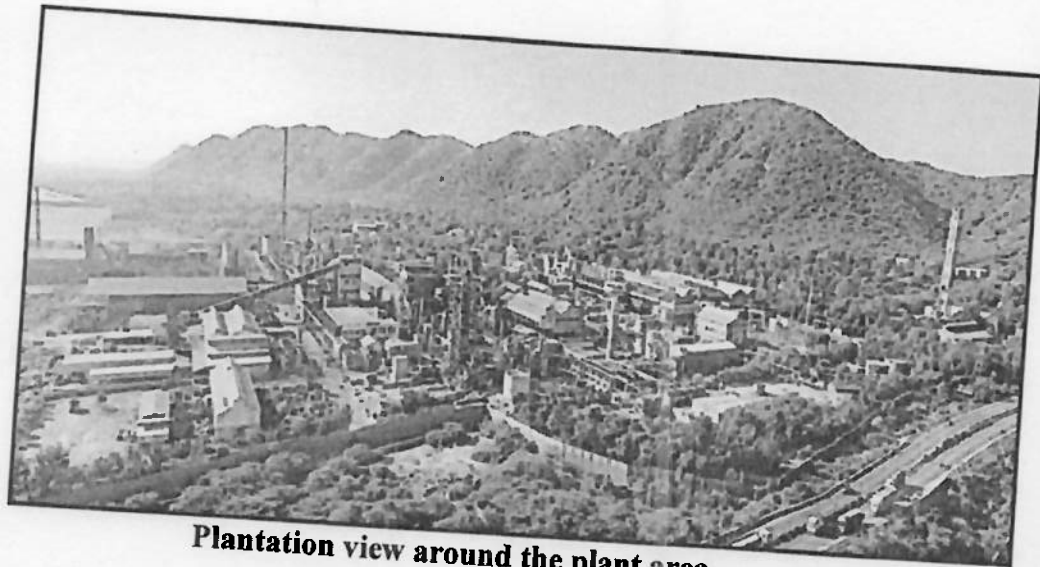
RO-ZLD plant

- 200 KLD capacity Sewage treatment is installed to treat the domestic sewage and treated water is being used in horticulture and plantation area.
- Flow meters Installed for measuring recycled / reuse of treated water.
- Installation of rain water harvesting system at Laboratory, Guest house building, Admin and Colony.

- Preventive maintenance of all recycle/ fresh water pipelines is being ensured to prevent losses due to spillage and leakages
- Drip irrigation is provided for plantation area.
- Treated water from CSTP- Udaipur City is main source of water for process.
- Fresh water is being used for Domestic purpose only.
- No Ground water is used in operation.
- Installation of filter press for Jarosite slurry filtration and stopped slurry disposal in the Jarosite pond reduced losses of recycle water due to evaporation in the pond.

2. To Maintain Ecological Balance:

- About 76 hectare area in and around the plant area is covered under green belt out of 190.05 hectare including lawns, plantation of local species has been ensured.
- 10000 plantation has been done in ZSD Colony which added to 3.5-hectare area in our green belt.
- Butterfly Garden was Successfully developed in the year of 202-23 at ZSD Colony. A total of 500 plants were planted in the 1000 Sq. Mtr. Area which provides pleasant atmosphere to colony residence with beautiful flowers & flying butterflies. This initiative highlights our commitment to environment conservation & biodiversity conservation, while also aligning with our ESG goal "Transforming the Planet". We have carefully selected approx. 14 flora that provide sustenance & shelter, ensuring that the butterflies thrive in natural habitat.
- Regular maintenance with dedicated team and other resources is being done for existing plant, parks and green belt cover in factory area is carried out.
- Additional plants have planted at inside & Outside the Factory premises.
- Biodiversity study of Flora, Fauna & butterfly for Zinc Smelter, Debari within 10 Km radius have been completed by the expert.
- Preservation of trees and shrubs for providing better niche for the animals.
- Installation of artificial nesting of Birds to promote Biodiversity conservation.
- Engaging the IUCN to Enhancement and protection of biodiversity by impactful assessment of ZSD.
- Display board for awareness indicating conservation of wild fauna & flora.



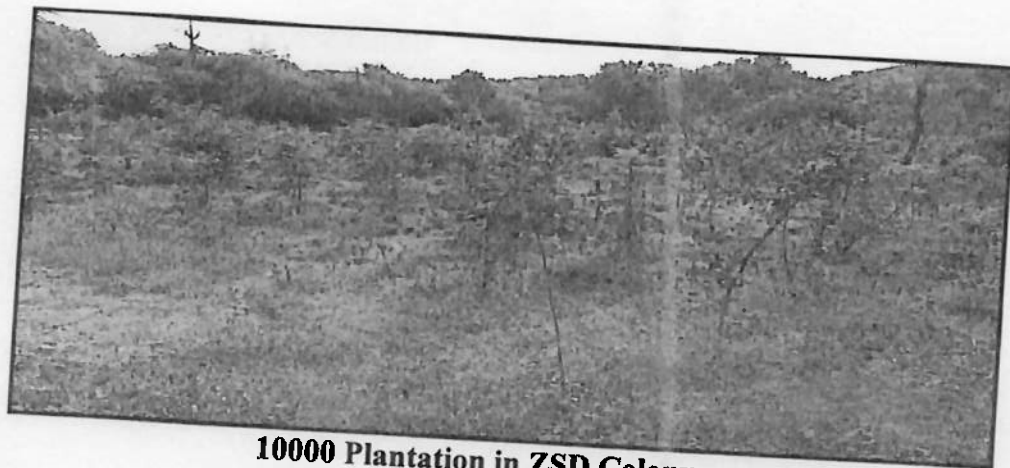
Plantation view around the plant area



Avenue Plantation



Butterfly Gurden



10000 Plantation in ZSD Colony

3. Air Quality Management:

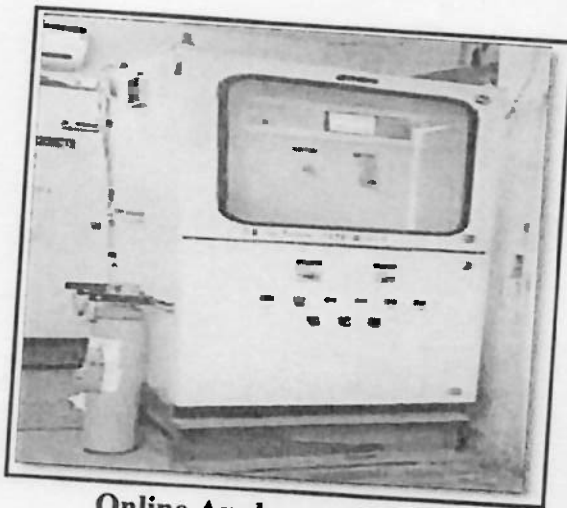
- Reduction of the generation of fugitive dust by regular sprinkling of water and by using of heavy duty vacuum cleaner.
- Avenue plantation has been ensured to reduce dust emission due to vehicular movement
- Online analysers for SO₂, NO_x, SPM and O₂ emission are installed and connected to PCB server. All PCEs are interlocked.
- All PCM's like Cyclone, scrubber, wet ESP, absorption tower, demister etc. have been installed in all acid plant.
- Bag filters and fume extractors are provided and are being operated efficiently in Zinc Melting, casting unit, Calcine handling system and Moore cake treatment plant.
- All Raw Material, Chemical and Consumables ,By products, Products and waste is being stored in Closed Shed to avoid contamination with air , water and soil.
- In process material being transferred in closed conveyors.
- 4 no's of CAAQMS are installed to monitored Ambient Quality Monitoring.



Water spray tanker on Road



Vacuum Road Sweeper



Online Analyzer - CEMS



CAAQMS

PART "H"

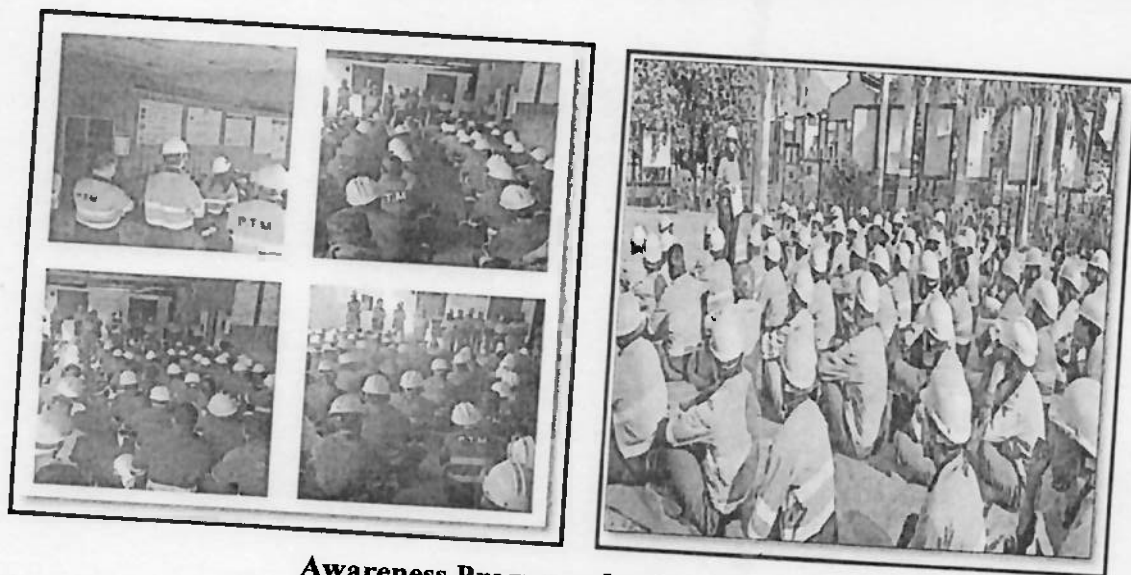
Additional investment proposal for environmental protection including abatement of pollution

- The environmental expenditure for the year was 1704.53 Lacs including new plantation and maintenance of existing plantation inside the factory.
- Real time online analyzer for Air & Water quality monitoring installed at Stack, ETP & STP.
- Dispatch of Jarosite to cement industries.

PART "T"

Any other particulars in respect of environment protection and abatement of pollution

- 100 % of Jarosite generated from process in being sent for co-processing in cement industries Gainful utilization of 74104.6MT.
- Capping of Jarosite Pond, I and II has been done as per the prevailing standards. The current 3rd Jarosite Pond Jarosite Pond Secure Landfill is planned to be capped.
- Regular training for safe handling is being given for persons involved for handling & storage of hazardous waste.
- Disposal of Cooler cake, liners, container, spent catalyst, ETP cake to Common HWTSDf at Gudli.
- Waste oil/used oil sold to registered recyclers.
- Lead Acid Batteries sold to registered recyclers.
- Recycling of anode mud in Leaching resulting into resource conservation.
- 2096.7MT Sodium Sulphate generated from RO-ZLD unit out of which 1306.6MT is being used in our process.
- ESG committee has been established at site to have an integrated approach towards sustainability & help to achieve HZL sustainability goals 2025.
- Awareness program conducted for employees and their families on the occasion of Water Day, Biodiversity day, Energy day, Earth day & World Environment Day.
- Rajasthan State Pollution Control Board (RSPCB) along with Confederation of Indian Industry (CII) has awarded ZSD with **GreenCo Silver rating.**
- Confederation of Indian Industry (CII) has awarded **CII ITC Sustainability Award 2022 in Environment Management** to ZSD.



Awareness Programs for Employees



Awareness Program for Communities



Green Co Silver Rating 2022-25



CII ITC Sustainability Award 2022 in Environment Management

List of Annexure: -

- Annexure I- ETP Outlet Report FTY 2022-23
- Annexure II A- Plant STP Outlet Report FTY 2022-23
- Annexure II B- Colony STP Outlet Report FTY 2022-23
- Annexure III- Ambient Air Quality Monitoring Report FTY 2022-23
- Annexure IV- Stack Emission Report FTY 2022-23
- Annexure V A- Form No. 4 FTY 21-22
- Annexure V B-Form No. 4 FTY 22-23
- Annexure VI- Piezometer Report FTY 2022-23
- Annexure VII- Ambient Noise Monitoring Report FTY 2022-23.

ETP Outlet quality from April 2022 to December 2022

Parameter	Total Suspended Solids (mg/l)	BOD (mg/l)	Chloride as Cl (mg/l)	COD (mg/l)	Cyanide (mg/l)	Fluoride (mg/l)	pH	Sulphide as S (mg/l)	Cadmium (mg/l)	Copper (mg/l)	Iron (mg/l)	Lead (mg/l)	Nickel (mg/l)	Zinc (mg/l)	Oil & Grease (mg/l)	Sample date	Report Reference number
Limit	100	30	1000	250	0.2	2	5.5-9.0	2	2	3	1	0.1	3	5	10		
April 2022	20	8.17	440.29	82.56	Less than 0.05	1.19	7.51	BDL (<0.1)	BDL (<0.001)	0.06	0.07	BDL (<0.01)	0.1	0.12	4	21/04/2022	TCS02522200000863
May 2022	12	9.6	465.53	96.77	Less than 0.05	1.46	7.19	BDL (<0.1)	BDL (<0.001)	0.05	0.14	BDL (<0.01)	0.08	0.18	4	25/05/2022	TCS02522200001144
June 2022	17	7.14	443.48	68.54	Less than 0.05	1.29	7.81	BDL (<0.1)	BDL (<0.001)	0.03	0.05	BDL (<0.01)	0.03	0.03	3	22/06/2022	TCS02522200001403
July 2022	21	8.57	470.28	78.34	Less than 0.05	1.14	7.65	BDL (<0.1)	BDL (<0.001)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	3	27/07/2022	TCS02522200001689
August 2022	26	6.86	491.76	38.02	Less than 0.05	1.01	7.01	BDL (<0.1)	BDL (<0.001)	0.05	0.06	BDL (<0.01)	BDL (<0.01)	0.14	3	25/08/2022	TCS02522200001944
September 2022	31	5.6	489.98	36	Less than 0.05	1.12	7.18	BDL (<0.1)	BDL (<0.001)	0.08	0.05	BDL (<0.01)	BDL (<0.01)	0.12	3	24/09/2022	TH/Debari/SA/2022-23/12
October 2022	27	9	456.03	67.87	Less than 0.05	1.26	7.15	BDL (<0.1)	BDL (<0.001)	0.04	0.04	BDL (<0.01)	0.02	0.21	3	21/10/2022	TCS025222000002514
November 2022	6	9.33	202.49	67.57	Less than 0.05	0.57	7.09	BDL (<0.1)	BDL (<0.001)	0.02	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	0.08	3	25/11/2022	TCS025222000002753
December 2022	11	9.75	206.96	79.87	Less than 0.05	0.72	7.21	BDL (<0.1)	BDL (<0.001)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	BDL (<0.01)	3	13/12/2022	TCS025222000002896



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523200000229	Date :	07-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	ETP Outlet	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 07-02-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	4	APHA.2017:2540-D	100
2	Biochemical Oxygen Demand (BOD) [mg/l]	5	APHA 2017:5210-B	30
3	Chloride as Cl [mg/l]	674.97	APHA 2017 : 4500- Cl- B	-
4	Chemical Oxygen Demand (COD) [mg/l]	19.97	APHA:2017 : 5220-C	250
5	Cyanide [mg/l]	Less than 0.05	APHA 2017 : 4500- CN D	0.2
6	Fluoride [mg/l]	1.02	APHA:2017 : 4500-F-C	2.0
7	pH	7.89	APHA:2017 : 4500 H+B	5.5 - 9.0
8	Sulphide as S [mg/l]	BDL(<0.1)	APHA. 2017 : 4500-S2-F	2
9	Cadmium [mg/l]	BDL(<0.001)	APHA :2017 :3111- B	2.0
10	Copper [mg/l]	0.05	APHA :2017 :3111- B	3.0
11	Iron [mg/l]	0.13	APHA :2017 :3111- B	3.0
12	Lead [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1
13	Nickel [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	3.0
14	Zinc [mg/l]	0.04	APHA :2017 :3111- B	5.0
15	Oil & Grease [mg/l]	2	APHA 2017 : 5520 B	10

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Sunil kumar
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523200000229)



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

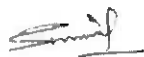
Report No./ULR No. :	TC502523200000412	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	ETP Outlet	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	29	APHA.2017:2540-D	100
2	Biochemical Oxygen Demand (BOD) [mg/l]	6.33	APHA 2017:5210-B	30
3	Chloride as Cl [mg/l]	688.79	APHA 2017 : 4500- Cl- B	-
4	Chemical Oxygen Demand (COD) [mg/l]	19.04	APHA:2017 : 5220-C	250
5	Cyanide [mg/l]	Less than 0.05	APHA 2017 : 4500- CN D	0.2
6	Fluoride [mg/l]	1.24	APHA:2017 : 4500-F-C	2.0
7	pH	7.94	APHA:2017 : 4500 H+B	5.5 - 9.0
8	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
9	Cadmium [mg/l]	BDL(<0.001)	APHA :2017 :3111- B	2.0
10	Copper [mg/l]	0.40	APHA :2017 :3111- B	3.0
11	Iron [mg/l]	0.09	APHA :2017 :3111- B	3.0
12	Lead [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1
13	Nickel [mg/l]	0.07	APHA :2017 :3111- B	3.0
14	Zinc [mg/l]	0.29	APHA :2017 :3111- B	5.0
15	Oil & Grease [mg/l]	2	APHA 2017 : 5520 B	10

Notes :-

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Sunil kumar
Senior Analyst



Rajesh Maheshwari
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(Report No: TC502523200000412)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523200000620	Date :	30-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	ETP Outlet	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 30-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	13	APHA.2017:2540-D	100
2	Biochemical Oxygen Demand (BOD) [mg/l]	6	APHA 2017:5210-B	30
3	Chloride as Cl [mg/l]	601.16	APHA 2017 : 4500- Cl- B	-
4	Chemical Oxygen Demand (COD) [mg/l]	31.14	APHA:2017 : 5220-C	250
5	Cyanide [mg/l]	Less than 0.05	APHA 2017 : 4500- CN D	0.2
6	Fluoride [mg/l]	1.19	APHA:2017 : 4500-F-C	2.0
7	pH	7.65	APHA:2017 : 4500 H+B	5.5 - 9.0
8	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
9	Cadmium [mg/l]	BDL(<0.001)	APHA :2017 :3111- B	2.0
10	Copper [mg/l]	0.05	APHA :2017 :3111- B	3.0
11	Iron [mg/l]	0.04	APHA :2017 :3111- B	3.0
12	Lead [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1
13	Nickel [mg/l]	0.08	APHA :2017 :3111- B	3.0
14	Zinc [mg/l]	0.03	APHA :2017 :3111- B	5.0
15	Oil & Grease [mg/l]	2	APHA 2017 : 5520 B	10

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Sunil Kumar
Senior Analyst

Rajesh Maheshwari
Authorized Signatory

(Report No: TC502523200000620)

Annex. - II A

STP plant outlet quality from April'2022 to December'2022

Parameter	Total Suspended Solids(mg/l)	Ammonical Nitrogen (mg/l)	Biochemical Oxygen Demand (3 days at 27°C) (mg/l)	Chemical Oxygen Demand (mg/l)	pH	Oil & Grease (mg/l)	Nitrate as NO3 (mg/l)	Sample Date	Report Number
Limit as per CTO	100	50	30	250	5.5-9.0	10	50		
April'2022	25	4.12	7.33	56.16	7.58	3	23.75	21/04/2022	TC502522200000862
May'2022	19	6.41	7.71	63.84	7.24	3	18.67	24/05/2022	TC5025222000001143
June'2022	22	5.72	8.14	77.38	7.38	4	21.33	22/06/2022	TC5025222000001402
July'2022	25	6.69	8.39	84.86	7.24	4	26.87	27/07/2022	TC5025222000001688
August'2022	35	7.82	7.14	41.6	7.01	3	25.85	25/08/2022	TC5025222000001943
September'2022	30	8.14	8.05	48	7.05	4	28	24/09/2022	TH/DEBARI/SA/22-23/11
October'2022	20	7.77	8.14	58.18	7.11	3	18.1	21/10/2022	TC5025222000002513
November'2022	35	10.32	9.5	52.08	7.18	4	25	22/11/2022	TC5025222000002752
December'2022	28	7.35	8.57	65.92	7.22	3	27.45	13/12/2022	TC5025222000002895



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523200000228	Date :	07-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	STP Outlet (Plant)	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 07-02-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	38	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	16.56	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	21.82	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	152.06	APHA:2017 : 5220-C	250
5	pH	7.39	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	6	APHA 2017 : 5520 B	10
7	Nitrate as NO3 [mg/l]	24.85	APHA 2017 : 4500-NO3- B	50

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Sunil kumar
Senior Analyst


Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523200000228)



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TEST REPORT

Report No./ULR No. :	TC502523200000411	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	STP Outlet (Plant)	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	34	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	9.91	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	8.14	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	35.36	APHA:2017 : 5220-C	250
5	pH	7.43	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	2	APHA 2017 : 5520 B	10
7	Nitrate as NO3 [mg/l]	14.93	APHA 2017 : 4500-NO3- B	50

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Sunil kumar
Senior Analyst


Rajesh Maheshwari
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TEST REPORT

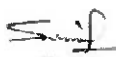
Report No./ULR No. :	TC502523200000619	Date :	30-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	STP Outlet (Plant)	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 30-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	39	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	7.46	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	7.71	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	45.7	APHA:2017 : 5220-C	250
5	pH	7.09	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	2	APHA 2017 : 5520 B	10
7	Nitrate as NO3 [mg/l]	12.47	APHA 2017 : 4500-NO3- B	50

Notes :-

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Senior Analyst


Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523200000619)

Annex - II B

STP colony outlet quality from April'2022 to December'2022

Parameter	Total Suspended Solids(mg/l)	Ammonical Nitrogen (mg/l)	BOD(mg/l)	COD (mg/l)	pH	Oil & Grease (mg/l)	Total residual chlorine (mg/l)	Nitrate as NO ₃ (mg/l)	Fecal Coliform (FC) (MPN per 100ml)	Sample date	Report number
Limit as per CTO	100	50	30	250	6.5 to 9.0	10	1	50	Not to exceed 1000		
April'2022	20	3.16	9.8	97.28	7.11	4	BDL(<0.1)	18.88	Not Detected	21/04/2022	TC502522200000865
May'2022	22	1.49	9.4	86.4	7.12	5	BDL(<0.1)	19.45	Not Detected	24/05/2022	TC5025222000001146
June'2022	14	6.72	6.67	50.59	7.09	3	BDL(<0.1)	17.79	Not Detected	26/06/2022	TC5025222000001405
July'2022	19	7.86	8.52	68.54	7.19	3	BDL(<0.1)	28.01	Not Detected	27/07/2022	TC5025222000001691
August'2022	11	6.62	6.28	44.35	7.04	3	BDL(<0.1)	22.5	Not Detected	25/08/2022	TC5025222000001396
September'2022	16	5.48	7	54.6	7.13	3	BDL(<0.1)	18.8	Not Detected	24/09/2022	TH/DEBARI/SA/22-23/14
October'2022	6	2.88	7.57	48.48	7.28	3	BDL(<0.1)	18.26	Not Detected	21/10/2022	TC5025222000002516
November'2022	22	2.7	13.33	92.29	7.22	3	BDL(<0.1)	11.54	Not Detected	22/11/2022	TC5025222000002755
December'2022	23	4.02	9.6	73.22	7.15	3	BDL(<0.1)	14.85	Not Detected	13/12/2022	TC5025222000002898



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TEST REPORT

Report No./ULR No. :	TC502523200000231	Date :	07-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 07-02-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	27	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	10.45	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	11.2	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	84.48	APHA:2017 : 5220-C	250
5	pH	7.35	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	3	APHA 2017 : 5520 B	10
7	Total Residual Chlorine [mg/l]	BDL(<0.1)	APHA 2017 : 4500- Cl- B	1.0
8	Nitrate as NO3 [mg/l]	11.83	APHA 2017 : 4500-NO3- B	50
9	Bioassay test	90 % Survival of Fish after 96 hrs in 100 % Dilution	IS 6582 :1971	90 % Survival of Fish after 96 hours in 100 % Effluent

Notes :-

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Sunil kumar
Senior Analyst


Rajesh Maheshwari
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(Report No: TC502523200000231)



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TEST REPORT

Report No./ULR No. :	200000231	Date :	07-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 07-02-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
10	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	1000

Notes :-

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Rajesh Maheshwari
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(Report No: 200000231)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523200000414	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical & Biological	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	20	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	16.56	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	9.67	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	68.54	APHA:2017 : 5220-C	250
5	pH	7.17	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	3	APHA 2017 : 5520 B	10
7	Total Residual Chlorine [mg/l]	BDL(<0.1)	APHA 2017 : 4500- Cl- B	1.0
8	Nitrate as NO3 [mg/l]	4.89	APHA 2017 : 4500-NO3- B	50
9	Bioassay test	90 % Survival of Fish after 96 hrs in 100 % Dilution	IS 6582 :1971	90 % Survival of Fish after 96 hours in 100 % Effluent

Notes :-

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Sunil Kumar
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Rajesh Maheshwari
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(Report No: TC502523200000414)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	200000414	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical & Biological	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
10	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	1000

Notes :-

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Sunil kumar
Senior Analyst

Rajesh Maheshwari
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(Report No: 200000414)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523200000622	Date :	30-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical & Biological	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 30-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	9	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	9.57	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	8.8	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	58.75	APHA:2017 : 5220-C	250
5	pH	7.29	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Oil & Grease [mg/l]	3	APHA 2017 : 5520 B	10
7	Total Residual Chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	1.0
8	Nitrate as NO3 [mg/l]	5.72	APHA 2017 : 4500-NO3- B	50
9	Bioassay test	90% survival of fish after 96 hrs in 100% dilution	IS 6582 :1971	90 % Survival of Fish after 96 hours in 100 % Effluent

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502523200000622)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	200000622	Date :	30-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Liquid Effluents / Chemical & Biological	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	STP Outlet Colony	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 30-03-2023	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
10	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	1000

Notes :-

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Senior Analyst
Sanku Kumar


Authorized Signatory
(Report No: 200000622)

Annex - III

Continues Ambient Air Quality Monitoring Report from April'2022 to December'2022

Month	Location	Parameter Limit as per NAAQS, 2009	Ammonia 400	Carbon Monoxide 4000	Lead 1.0	Nitrogen dioxide as NO ₂ 80	Ozone 100	PM _{2.5} 60	Sulphur dioxide 80	PM ₁₀ 100	Benzene 5.0	Benzo-a-Pyrene 1.0	Arsenic 6.0	Nickel 20.0	Sample Date	Report number
		UoM	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³		
April'22	Laboratory Top	BDL (<10.0)	BDL (<10.0)	320	0.17	14.54	BDL (<20)	39.09	6.5	77.7	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	6.7	20/04/2022	TC5025224000001076
	Near ETP	BDL (<10.0)	BDL (<10.0)	370	0.19	15.27	BDL (<20)	46.83	6.26	78.5	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	5.9	19/04/2022	TC5025224000001078
	Near DG Set	BDL (<10.0)	BDL (<10.0)	390	0.18	13.6	BDL (<20)	34.12	6.46	74.26	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	6.5	19/04/2022	TC5025224000001079
Aug-22	Near Railway gate	BDL (<10.0)	BDL (<10.0)	430	0.17	14.52	BDL (<20)	40.2	6.01	76.05	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	7	19/04/2022	TC5025224000001077
	Laboratory Top	BDL (<10.0)	BDL (<10.0)	410	0.12	15.2	BDL (<20)	32.45	8.27	60.6	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	14	24/08/2022	TC5025224000002502
	Near ETP	BDL (<10.0)	BDL (<10.0)	440	0.12	14.54	BDL (<20)	30.95	7.75	62.43	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	12.9	24/08/2022	TC5025224000002504
Nov'22	Near DG Set	BDL (<10.0)	BDL (<10.0)	380	0.15	12.8	BDL (<20)	26.29	8.12	64.39	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	14.7	24/08/2022	TC5025224000002505
	Near Railway gate	BDL (<10.0)	BDL (<10.0)	380	0.12	15.38	BDL (<20)	31.26	8.46	62.59	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	14.6	24/08/2022	TC5025224000002503
	Laboratory Top	BDL (<10.0)	BDL (<10.0)	350	0.25	12.58	BDL (<20)	35.33	5.2	76.1	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	7.5	21/11/2022	TC5025224000003475
Nov'22	Near ETP	BDL (<10.0)	BDL (<10.0)	330	0.11	10.85	BDL (<20)	28.97	6.17	58.84	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	7.5	21/11/2022	TC5025224000003477
	Near DG Set	BDL (<10.0)	BDL (<10.0)	320	0.1	14.37	BDL (<20)	36.95	5	70.84	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	3.8	21/11/2022	TC5025224000003478
	Near Railway gate	BDL (<10.0)	BDL (<10.0)	280	0.1	9.33	BDL (<20)	35.33	4.92	68.72	BDL (<1.0)	BDL (<0.5)	BDL (<2.0)	4.6	21/11/2022	TC5025224000003476



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000659	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 14:42 to 18-03-2023 14:42
Point of Collection :	Laboratory Top	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL(<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	360	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.1	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	14.79	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL(< 20)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	32.6	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.52	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	70.19	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	7.1	IS 5182 : Part 26 : 2020	20.00

Notes -

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Puran Mai Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory

(Report No: TC502523400000659)



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TEST REPORT

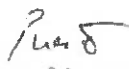
Report No./ULR No. :	400000659	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 14:42 to 18-03-2023 14:42
Point of Collection :	Laboratory Top	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
11	Benzene [microgram/m ³]	BDL(<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
12	Benzo-alfa- Pyrene [ng/m ³]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: 400000659)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000660	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 14:43 to 18-03-2023 14:43
Point of Collection :	Near Railway Gate	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL(<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	410	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.15	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	15.22	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL(< 20)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	37.32	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.99	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	77.89	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	6.9	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Purushottam Yogi
Senior Analyst

Raj
Authorized Signatory
(Report No: TC502523400000660)



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TEST REPORT

Report No./ULR No. :	400000660	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 14:43 to 18-03-2023 14:43
Point of Collection :	Near Railway Gate	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
11	Benzene [microgram/m3]	BDL(<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
12	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Punit
Punit Mal Yogi
Senior Analyst

Rajin
Authorized Signatory
(Report No: 400000660)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000661	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-03-2023 14:44 to 17-03-2023 14:44
Point of Collection :	Near ETP	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL(<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	390	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.12	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	14.66	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL(< 20)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	31.03	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.89	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	83.5	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	6.9	IS 5182 : Part 26 : 2020	20.00

Notes -

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Puran Mai Yogi
Senior Analyst

Rajni Maheshwari
Authorized Signatory

(Report No: TC502523400000661)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000661	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-03-2023 14:44 to 17-03-2023 14:44
Point of Collection :	Near ETP	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
11	Benzene [microgram/m3]	BDL(<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
12	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Senior Analyst, Yogi

Authorized Signatory
(Report No: 400000661)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523400000662	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-03-2023 14:49 to 17-03-2023 14:49
Point of Collection :	Near Solar	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL(<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	430	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.14	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	14.82	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL(< 20)	APHA 1977,Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	35.26	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	6.2	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	82.62	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	7	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502523400000662)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000662	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited (Debari Zinc Smelter) PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Air Quality Monitoring / Chemical	Date of Sample Collection/Monitoring :	16-03-2023 14:49 to 17-03-2023 14:49
Point of Collection :	Near Solar	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
11	Benzene [microgram/m ³]	BDL(<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
12	Benzo-alfa- Pyrene [ng/m ³]	BDL(<0.5)	CPCB Guidelines	1.00

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Senior Analyst

Authorized Signatory
(Report No: 400000662)

Annex - IV

Stack emission from April 2021 to December 2021

Month	Date	Zinc Melting Furnace		Report no.	Date	Induction furnace stack		Report no.	Date	Slag Grinding		Report no.	Date	Alex Furnace		Report no.
		PM	50 mg/Nm ³			PM	50 mg/Nm ³			PM	50 mg/Nm ³			PM	50 mg/Nm ³	
April 2022	20/04/2022	30.75		TC502522500000583	20/04/2022	26.41		TC502522500000584	20/04/2022	36.29		TC502522500000586	20/04/2022	27.57		TC502522500000585
May 2022	23/05/2022	22.17		TC502522500000680	23/05/2022	19.59		TC502522500000681	23/05/2022	16.21		TC502522500000683	23/05/2022	27.01		TC502522500000682
June 2022	22/06/2022	28.25		TC502522500000829	21/06/2022	24.58		TC502522500000830	22/06/2022	29.08		TC502522500000832	21/06/2022	20.73		TC502522500000831
July 2022	26/07/2022	29.25		TC5025225000001073	26/07/2022	23.8		TC5025225000001074	26/07/2022	28.03		TC5025225000001076	26/07/2022	29.08		TC5025225000001075
August 2022	24/08/2022	24.96		TC5025225000001194	24/08/2022	27.47		TC5025225000001195	22/08/2022	21.91		TC5025225000001197	24/08/2022	23.76		TC5025225000001196
September 2022	22/09/2022	21.64		TH/DEBARI/SA/22-23/15	22/09/2022	28.15		TH/DEBARI/SA/22-23/21	22/09/2022	22.54		TH/DEBARI/SA/22-23/17	22/09/2022	19.84		TH/DEBARI/SA/22-23/16
October 2022	21/10/2022	31.69		TC5025225000001595	21/10/2022	28.32		TC5025225000001595	21/10/2022	22.19		TC5025225000001598	21/10/2022	21.8		TC5025225000001597
November 2022	22/11/2022	28.49		TC5025225000001589	22/11/2022	27.61		TC5025225000001690	22/11/2022	24.95		TC5025225000001692	22/11/2022	25.99		TC5025225000001691
December 2022	13/12/2022	25.85		TC5025225000001764	13/12/2022	24.44		TC5025225000001765	12/12/2022	36.32		TC5025225000001767	13/12/2022	26.15		TC5025225000001766

Stack emission from April 2022 to December 2022

Month	R-II				R-III			
	Date of sample	Sulphur Dioxide 950 mg/Nm ³	Acid Mist 50 mg/Nm ³	Report no.	Date of sample	Sulphur Dioxide 950 mg/Nm ³	Acid Mist 50 mg/Nm ³	Report no.
Norm								
April'2022	19/04/2022	117.0	25.1	TC502522500000606	19/04/2022	129.9	33.5	TC5025225000000607
May'2022	24/05/2022	122	26.7	TC502522500000684	24/05/2022	115	28.5	TC5025225000000685
June'2022	22/06/2022	123.6	25.3	TC5025225000000833	22/06/2022	119.6	23.8	TC5025215000000834
July'2022	27/07/2022	125.0	28.2	TC5025225000001078	27/07/2022	122.0	27.2	TC5025225000001079
August'2022	25/08/2022	123.0	25.7	TC5025225000001199	25/08/2022	121.0	26.3	TC5025225000001200
September'2022	23/09/2022	85.6	32.9	TA/Debari/SA/22-23/18	23/09/2022	124.0	29.6	TA/Debari/SA/22-23/19
October'2022	21/10/2022	123.6	25.6	TC5025225000001600	21/10/2022	124.3	26.4	TC5025225000001601
November'2022	22/11/2022	121.2	21.8	TC5025225000001693	22/11/2022	118.96	20.6	TC5025225000001694
December'2022	12/12/2022	123.0	24.6	TC5025225000001769	12/12/2022	119.0	25.7	TC5025225000001770

Stack emission from April 2022 to December 2022

Month	MCTP			
	Date of sample	PM	Lead	Report no.
Norm		50 mg/Nm ³	10 mg/Nm ³	
April'22	Plant Shutdown			
May'22				
June'22				
July'22				
August'22				
September'22				
October'22	20/10/2022	20.80	0.04	500001602A
November'22	22/11/2022	22.23	0.75	TC502522500001688
December'22	13/12/2022	28.13	0.31	TC502522500001763

Stack emission from April'2022 to December'2022

Month	DG Set/CPP-1					DG Set/CPP-2					Report no.
	Date of sample	Particulate Matter 75 mg/m ³	Oxides of Nitrogen 710 mg/m ³	Carbon monoxide 150 mg/m ³	Non Methane Hydrocarbon as HC 100 mg/m ³	Date of sample	Particulate Matter 75 mg/m ³	Oxides of Nitrogen 710 mg/m ³	Carbon monoxide 150 mg/m ³	Non Methane Hydrocarbon as HC 100 mg/m ³	
April'2022											
May'2022											
June'2022											
July'2022											
August'2022	23/08/2022	46.03	228	92	35	23/08/2022	47.27	210	80	22	TC502522500001192
September'2022											
October'2022											
November'2022											
December'2022	05/12/2022	45.18	310.00	119.00	42	05/12/2022	54.06	320	90	42.00	TC507522500001762

Plant Shutdown

Plant Shutdown

Plant Shutdown



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TEST REPORT

Report No./ULR No. :	TC502523500000097	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Induction Furnace Stack	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	23.1	IS 11255 (Part 1):1985 Reaffirmed 2014

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Purnan Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523500000097)



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TEST REPORT

Report No./ULR No. :	TC502523500000098	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Zinc Melting Furnace	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	26.8	IS 11255 (Part 1):1985 Reaffirmed 2014

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Purushottam Yogi

Senior Analyst

Rajesh Maheshwari

Authorized Signatory

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TEST REPORT

Report No./ULR No. :	TC502523500000099	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Azex Furnace	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	26.95	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Purni Mal Yogi
Senior Analyst

Rajesh Maheshwari
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TEST REPORT

Report No./ULR No. :	TC502523500000100	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Slag Grinding	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	20.06	IS 11255 (Part 1):1985 Reaffirmed 2014

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Pu. an
Pu. an Mal Yogi
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Pu. an
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TEST REPORT

Report No./ULR No. :	TC502523500000102	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	120	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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Puran Mal Yogi
Senior Analyst

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TEST REPORT

Report No./ULR No. :	500000102	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist [mg/m ³]	23.7	USEPA Method 8A

Notes :-

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Puran Mohi Yogi
Senior Analyst

Neha Maheshwari
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TEST REPORT

Report No./ULR No. :	TC502523500000103	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	119	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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Senior Analyst

Neha Maheshwari
Authorized Signatory
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TEST REPORT

Report No./ULR No. :	500000103	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited (Debari Zinc Smelter) PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	2 ltr.	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist (mg/m3)	23.5	USEPA Method 8A

Notes -

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Senior Analyst

Authorized Signatory
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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000096	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	MCTP Stack	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	29.7	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Purni Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523500000096)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	500000096	Date :	06-02-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	31-01-2023
Point of Collection :	MCTP Stack	Date of Receipt :	02-02-2023
Date of Test/Analysis :	02-02-2023 to 06-02-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Lead [mg/Nm ³]	0.18	USEPA method 29

Notes -

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Puran
Puran Mal Yogi
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: 500000096)



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TEST REPORT

Report No.	TTH/Debari/01	Date :	05-02-2023
Issued To :	M/S Hindustan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter ,District- Udaipur (Rajasthan)	Type of Unit :	Smelter Plant
Type of Sample :	D G Stack (Above 800 KW)	Date of Sample Collection/Monitoring :	28-01-2023
Point of Collection :	DG Set /CPP-1	Date of Receipt :	30-01-2023
Date of Test/Analysis :	30-01-2023 to 05-02-2023	Condition of Sample :	Fit for testing
Sampling Plan :	IS 11255:2008(Part 3)RA 2018	Quantity of Sample :	-
Sample Collected By :	Vimal Kumar Yadav	Unit's representative :	Ms. Neha Maheshwari

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate Matter [mg/Nm ³]	54.61	IS 11255 (Part 1):1985 Reaffirmed 2014	75
2	Oxides of Nitrogen [ppmv]	261	IS 11255 (Part 7) :1985 Redfirmed 2012	710
3	Sulphur dioxide [mg/Nm ³]	BDL(<2.0)	IS 11255(Part 2) :1985 Reaffirmed 2014	-
4	Carbon monoxide [mg/Nm ³]	120	Instruction Manual Kane 900 Plus	150
5	Nonmethane Hydrocarbon [mg/Nm ³]	38	IS 5182 Part 21 :2001 RA 2017	100

Notes :-

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Purnima Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory



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TEST REPORT

Report No.	TTH/Debari/02	Date :	05-02-2023
Issued To :	M/S Hindustan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter ,District- Udaipur (Rajasthan)	Type of Unit :	Smelter Plant
Type of Sample :	D G Stack (Above 800 KW)	Date of Sample Collection/Monitoring :	28-01-2023
Point of Collection :	DG Set /CPP-2	Date of Receipt :	30-01-2023
Date of Test/Analysis :	30-01-2023 to 05-02-2023	Condition of Sample :	Fit for testing
Sampling Plan :	IS 11255:2008(Part 3)RA 2018	Quantity of Sample :	-
Sample Collected By :	Vimal Kumar Yadav	Unit's representative :	Ms. Neha Maheshwari

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate Matter [mg/Nm ³]	58.46	IS 11255 (Part 1):1985 Reaffirmed 2014	75
2	Oxides of Nitrogen [ppmv]	276	IS 11255 (Part 7) :1985 Redffirmed 2012	710
3	Sulphur dioxide [mg/Nm ³]	BDL(<2.0)	IS 11255(Part 2) :1985 Reaffirmed 2014	-
4	Carbon monoxide [mg/Nm ³]	123	Instruction Manual Kane 900 Plus	150
5	Nonmethane Hydrocarbon [mg/Nm ³]	45	IS 5182 Part 21 :2001 RA 2017	100

Notes :-

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P. Neeraj
Senior Analyst

Rajesh Maheshwari
Authorized Signatory



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TEST REPORT

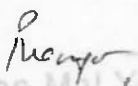
Report No./ULR No. :	TC502523500000201	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Zinc Melting Furnace	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	29.37	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Senior Analyst


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TEST REPORT

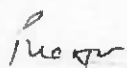
Report No./ULR No. :	TC502523500000202	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Induction Furnace Stack	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	26.77	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Senior Analyst Mal Yogi


Authorized Signatory Rajesh Maheshwari
(Report No: TC502523500000202)



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TEST REPORT

Report No./ULR No. :	TC502523500000203	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Azex Furnace	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	30.47	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Puran Malogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
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TEST REPORT

Report No./ULR No. :	TC502523500000204	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Slag Grinding	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	33.56	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Purandhar
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523500000204)



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TEST REPORT

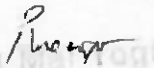
Report No./ULR No. :	TC502523500000205	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	120.4	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: TC502523500000205)



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TEST REPORT

Report No./ULR No. :	500000205	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist [mg/m3]	27.5	USEPA Method 8A

Notes :-

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Senior Analyst
Purnima Yogi

Authorized Signatory
(Report No: 500000205)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000206	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	117.2	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502523500000206)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	500000206	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist [mg/m3]	25.6	USEPA Method 8A

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: 500000206)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000200	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	MCTP Stack	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	27.8	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Senior Analyst

Purani Maheshwari

Authorized Signatory

(Report No: TC502523500000200)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

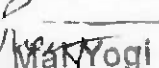
Report No./ULR No. :	500000200	Date :	08-03-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	25-02-2023
Point of Collection :	MCTP Stack	Date of Receipt :	27-02-2023
Date of Test/Analysis :	27-02-2023 to 08-03-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

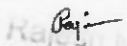
RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Lead [mg/Nm ³]	0.18	USEPA method 29

Notes :-

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Puran 
Senior Analyst


Authorized Signatory
(Report No: 500000200)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000308	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	17-03-2023
Point of Collection :	Induction Furnace Stack	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	36.6	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Purnan Mai Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523500000308)



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TEST REPORT

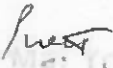
Report No./ULR No. :	TC502523500000309	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	17-03-2023
Point of Collection :	Azex Furnace	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	39.19	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: TC502523500000309)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000310	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	17-03-2023
Point of Collection :	Slag Grinding	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	29.14	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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P. Kant
Senior Analyst

Banwari Lal Kumawat
Authorized Signatory
(Report No: TC502523500000310)



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TEST REPORT

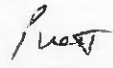
Report No./ULR No. :	TC502523500000312	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	118.5	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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Senior Analyst **Mai Yogi**


Authorized Signatory
(Report No: TC502523500000312)



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TEST REPORT

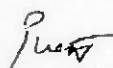
Report No./ULR No. :	500000312	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Stack Roaster-II	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist (mg/m3)	23.6	USEPA Method 8A

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: 500000312)



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TEST REPORT

Report No./ULR No. :	TC502523500000313	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Sulphur Dioxide [mg/Nm ³]	120.4	IS 11255(Part 2) :1985 Reaffirmed 2014

Notes :-

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P. Yogi
Senior Analyst

Raj Maheshwar
Authorized Signatory
(Report No: TC502523500000313)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

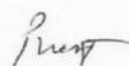
Report No./ULR No. :	500000313	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Stack Roaster III	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Acid Mist [mg/m ³]	29.5	USEPA Method 8A

Notes :-

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Rusan Mehta
Senior Analyst Yogi


Authorized Signatory
(Report No: 500000313)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000313A	Date :	04-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	17-03-2023
Point of Collection :	MCTP Stack	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 04-04-2023	Sampling Plan :	IS 11255:2008(Part-3)RA-2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
2	Lead [mg/Nm3]	0.23	USEPA method 29

Notes :-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: 500000313A)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523500000313A	Date :	04-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Stack Emission Level / Chemical	Date of Sample Collection/Monitoring :	17-03-2023
Point of Collection :	MCTP Stack	Date of Receipt :	20-03-2023
Date of Test/Analysis :	20-03-2023 to 04-04-2023	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Vimal Kumar Yadav
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	Particulate matter [mg/Nm ³]	25.84	IS 11255 (Part 1):1985 Reaffirmed 2014

Notes :-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523500000313A)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

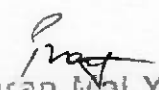
Report No. : TTH/Debari/02
Date : 31-03-2023
Issued To : M/S Hindusthan Zinc Limited [Debari Zinc Smelter]
PO : Zinc Smelter
District Udaipur (Rajasthan)
Type of Unit : Smelter
Type of Sample : Stack Emission Level
Date of Sample Monitoring : 17-03-2023
Date of Sample Receipt : NA
Date of Test : NA
Sample Collected By : Banwari Lal
Point of Collection : DG Set /CPP-1

RESULTS

S.No	Parameters	Observed Value
1	Particulate matter [mg/Nm ³]	Plant Shut Down
2	Oxides of Nitrogen [mg/Nm ³]	
3	Carbon monoxide [mg/Nm ³]	
4	Non Methane Hydrocarbon as HC [mg/Nm ³]	

Notes -

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Pusan Mal Yogi
Senior Analyst


Rajesh Maheshwar
Authorized Signatory
(Report No: TTH/Debari/02)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

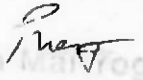
Report No. : TTH/Debari/01
Date : 31-03-2023
Issued To : M/S Hindusthan Zinc Limited [Debari Zinc Smelter]
PO : Zinc Smelter
District Udaipur (Rajasthan)
Smelter
Stack Emission Level
Date of Sample Monitoring : 17-03-2023
Date of Sample Receipt : NA
Date of Test : NA
Sample Collected By : Banwari Lal
Point of Collection : DG Set /CPP-2

RESULTS

S No	Parameters	Observed Value
1	Particulate matter [mg/Nm ³]	Plant Shut Down
2	Oxides of Nitrogen [mg/Nm ³]	
3	Carbon monoxide [mg/Nm ³]	
4	Non Methane Hydrocarbon as HC [mg/Nm ³]	

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.


Senior Analyst


Authorized Signatory
(Report No: TTH/Debari/01)

O/C

Annex-V A



HINDUSTAN ZINC

DZS/ENV/RPCB/A08/HW/2022/

Date: 10.06.2022

The Member Secretary,
Rajasthan State Pollution Control Board,
4-Institutional Area, Jhalana Dungri,
Jaipur (Raj.) - 302004.

**Sub: Annual Return (Form-4) under The Hazardous and other Wastes
(Management and Transboundary Movement) Rules, 2016.**

**Ref.: Authorization vide No. RPCB/HWM/2020-2021/HDF/HSW/74 dtd. 19/03/2021
RPCB/HWM/2018-2019/HSW/HSW/42 dtd.18/05/2018**

Dear Sir,

Please find enclosed herewith annual return regarding disposal of Hazardous waste under
The Hazardous and Other Wastes (Management and Transboundary Movement) Rules,
2016 for the period of FY 2021-22.

Thanking you.

Yours Sincerely,

(Manas Tyagi)
SBU Director, Zinc Smelter Debari

CC: Regional Officer,
Rajasthan State Pollution Control Board,
F-470, Near UCCI Building,
Mewar Industrial Area, Udaipur (Raj.) - 313001.

Hindustan Zinc Limited

Zinc Smelter, Debari, Udaipur 313 024

+91-2942658028 F+91-2942658147 www.hzlindia.com

Registered Office : Yashad Bhawan, Udaipur (Rajasthan)-313 004

IN : L27204RJ1966PLC001208

FORM-4

[See rules 6(5), 13(8), 16(6) and 20(2)]

FORM FOR FILLING ANNUAL RETURNS[To be submitted to the State Pollution Control Board by 30th Day of June of every year for the preceding period April to March]

1.	Name and Address of Facility	Hindustan Zinc Limited, Zinc Smelter Debari, Udaipur, Rajasthan – 313024
2.	Authorization No. and Date of issue	Authorization vide No. RPCB/HWM/2020-2021/HDF/HSW/74 dtd. 19/03/2021
3.	Name of the authorized person and full address with telephone, fax number and e-mail	Manas Tyagi SBU Director Zinc Smelter Debari, Udaipur – 313024 Tel. - 0294-2658028, Fax - 0294-2658147 E-mail: Manas.Tyagi@vedanta.co.in
4.	Production during the year (Product wise), wherever applicable	Zn Ingot: 68355 MT Sulphuric Acid: 296118 MT

Part A. To be filled by Hazardous Waste Generators

1.	Total quantity of waste generated category wise	Please ref. Annexure -1
2.	Quantity dispatched	Please ref. Annexure -1
	(i) To disposal facility	Please ref. Annexure -1
	(ii) To recycler or co-processors or pre-processors	Please ref. Annexure -1
	(iii) Others	Please ref. Annexure -1
3.	Quantity utilized in-house, if any	Please ref. Annexure -1
4.	Quantity in storage at the end of the year	Please ref. Annexure -1

Part B. To be filled by Treatment, storage and disposal facility operators

1.	Total quantity received	NA
2.	Quantity in stock at the beginning of the year	NA
3.	Quantity treated	NA
4.	Quantity disposed in landfill as such and after treatment	Nil
5.	Quantity incinerated (if applicable)	(Being dispatch to Cement industries)
6.	Quantity processed other than specified above	NA
7.	Quantity in storage at the end of the year	NA

Part C. To be filled by recyclers or co-processors or other users

1.	Total quantity received during the year	NA
	(i) Domestic sources	NA
	(ii) Imported (if applicable)	NA
2.	Quantity in stock at the beginning of the year	NA
3.	Quantity recycled or co-processed or used	NA
4.	Quantity of products dispatched (wherever applicable)	NA
5.	Quantity of waste generated	NA
6.	Quantity of waste disposed	NA
7.	Quantity re-exported (wherever applicable)	NA
8.	Quantity in storage at the end of the year	NA

Signature of the Occupier**Date: 10.06.2022****Place: Zinc Smelter Debari, Udaipur****Name: Manas Tyagi**
Designation: SBU Director

HINDUSTAN ZINC LIMITED
ZINC SMELTER, DEBARI

Used oil/ Waste oil sold/ recycled/ reused during the period April-2021 to March-2022

Month	Quantity of hazardous Waste Generation (Residues containing oil) (MT)	Residues containing oil (MT) Sold to the recycler/ refiner registered with CPCB/MoEF	Quantity of hazardous Waste Generation (Used Oil) (MT)	Used oil (MT) Sold to the recycler/ refiner registered with CPCB/ MoEF
April-21	Nil	Nil	Nil	Nil
May-21	Nil	Nil	Nil	Nil
June-21	Nil	Nil	Nil	Nil
July-21	Nil	Nil	Nil	Nil
August-21	Nil	Nil	Nil	Nil
September-21	Nil	Nil	1.02	Nil
October-21	Nil	Nil	1.15	2.01 MT (Anil Petrolube Pvt. Ltd.)
November-21	Nil	Nil	-0.16*	Nil
December-21	Nil	Nil	Nil	Nil
January-22	Nil	Nil	Nil	Nil
February-22	Nil	Nil	2.07	Nil
March-22	Nil	Nil	9.28	9.28 MT (Bharat industrial oil co.)
			0.60	2.67 MT (Anil Petrolube Pvt. Ltd.)

Reversal in record as water present in used oil was removed and sent to ETP for treatment.

Details of Hazardous Wastes for the period of April 2021 to March 2022

S. No	Category & Name of Waste and authorized quantity (MT)	Sch/code as per HWR 2016	Qty. of Waste generated/ recycled/Disposed	Mode of Transportation	Physical Form	Chemical form	Method of storage / Disposal
1.	7.2 Cooler Cake 1017 MTA	I / 7.2	700.5	Dumper	Cake	Cd 0.003 - 0.004 % Cu 0.003 - 0.004 % Zn 3.000 - 4.000 %	Disposed at Common Hazardous Waste Treatment Facility at Gudli
2.	7.2 Anode Mud 1500 MTA	I / 7.2	1204.8	Dumper	Cake	Cd 0.003 - 0.004 % Cu 0.008 - 0.009 % Pb 8.000 - 12.000 % Zn 0.500 - 1.000 %	Co processing in cement plant /Registered recycler/Reprocess
3.	17.2 Spent Catalyst 27 MTPA	I / 17.2	21.2	Drum (Through Dumper)	Solids	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
4.	34.2 Sludge from treatment of waste water arising out of cleaning/ disposal of barrels / containers	I / 34.2	0	Dumper	Solid	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
5.	33.3 Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes (10 MTA)	I / 33.1	9.2	Dumper	Solid	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
6.	35.3 Chemical sludge from waste water treatment (ETP Sludge) 14500 MTA	I / 35.3	13710.9	Dumper	Cake	Zn 3.000 - 4.000 %	Recycled in Moore cake treatment Plant/ CTDF
7.	7.2 Purification Cake 2000TPA	I / 7.2	1988.0	Dumper	Cake	Zn 32.20-44.00% Cd 2.92-7.00% Cu 1.27-2.48%	Reuse in process/sales to registered recyclers
8.	5.2 Filter contaminated with oil 2 MTA	I / 5.2	0	Dumper	Solid	Stored in 200 ltr. Drums/Tanks and disposed by sale to actual users / recyclers registered with MOEF.	CTDF Udaipur/ co-incineration in cement kiln
9.	5.1 Used / Spent Oil 55 MTPA	I / 5.1	13.96	Drum (Through Truck)/Tanker	Liquid	-	Stored in 200 ltr. Drums/Tanks and disposed by sale to actual users/recyclers registered with MOEF.
10.	35.2 Water Purification resin or spent ion exchange resin containing toxic metals (2 MTPA)	I / 35.2	0	Dumper	Solid	-	CTDF Udaipur
11.	37.3 Concentration or evaporation Residues (18250 MTPA)	I / 37.3	513.3	Dumper	Cake	-	CTDF Udaipur
12.	7.2 Process residues (50 MTPA)	I / 7.2	49.1	Dumper	Solid	-	CTDF Udaipur
13.	7.2 Process residues (1200 MTPA)	I / 7.2	764.7	Dumper	Solid	-	Sales to Registered Recycler/CTDF Udaipur
14.	14 Zinc ash/skinning/other zinc bearing wastes arising from smelting and refining, zinc dross bottom (5250 MTPA)	IV / 14	0	Dumper	Solid	-	Sales to Registered Recycler
15.	OW Jarosite (85000 MTPA)	III / OW	Generated (MT) 57060.8 Sold to Cement (MT) 83578.7	Dumper	Cake	Cd 0.030-0.040% Pb 4.000- 4.500% Zn 2.000- 2.500%	Co processing in cement plant

Solid waste:

Jarosite characteristic: Cd 0.030-0.040%
Pb 4.000- 4.500%
Zn 2.000- 2.500%



DZS/ENV/RPCB/A08/HW/2022/

187

Date: 14.06.2023

To,
The Member Secretary,
Rajasthan State Pollution Control Board,
4-Institutional Area, Jhalana Dungri,
Jaipur (Raj.) - 302004.

**Sub: Annual Return (Form-4) under The Hazardous and other Wastes
(Management and Transboundary Movement) Rules, 2016.**

**Ref.: Authorization vide No. RPCB/HWM/2022-2023/HDF/HSW/88 dtd 17/03/2023
RPCB/HWM/2020-2021/HDF/HSW/74 dtd. 19/03/2021**

Dear Sir,

Please find enclosed herewith annual return regarding disposal of Hazardous waste under
The Hazardous and Other Wastes (Management and Transboundary Movement) Rules,
2016 for the period of FY 2022-23.

Thanking you.

Yours Sincerely,

OFC



(Manas Tyagi)
SBU Director, Zinc Smelter Debari

CC: Regional Officer,
Rajasthan State Pollution Control Board,
F-470, Near UCCI Building,
Mewar Industrial Area, Udaipur (Raj.) - 313001.



FORM-4

[See rules 6(5), 13(8), 16(6) and 20(2)]

FORM FOR FILLING ANNUAL RETURNS[To be submitted to the State Pollution Control Board by 30th Day of June of every year for the preceding period April to March]

1.	Name and Address of Facility	Hindustan Zinc Limited, Zinc Smelter Debari, Udaipur, Rajasthan – 313024
2.	Authorization No. and Date of issue	Authorization vide No. RPCB/HWM/2020-2021/HDF/HSW/74 dtd. 19/03/2021 & RPCB/HWM/2022-2023/HDF/HSW/88 dtd 17/03/2023
3.	Name of the authorized person and full address with telephone, fax number and e-mail	Manas Tyagi Site Director Zinc Smelter Debari, Udaipur – 313024 Tel. - 0294-2658028, Fax - 0294-2658147 E-mail: Manas.Tyagi@vedanta.co.in
4.	Production during the year (Product wise), wherever applicable	Zn Ingot: 85915.589 MT Sulphuric Acid: 283772 MT Cadmium : 0.0 MT

Part A. To be filled by Hazardous Waste Generators

1.	Total quantity of waste generated category wise	Please ref. Annexure -1
2.	Quantity dispatched	Please ref. Annexure -1
	(i) To disposal facility	Please ref. Annexure -1
	(ii) To recycler or co-processors or pre-processors	Please ref. Annexure -1
	(iii) Others	Please ref. Annexure -1
3.	Quantity utilized in-house, if any	Please ref. Annexure -1
4.	Quantity in storage at the end of the year	Please ref. Annexure -1

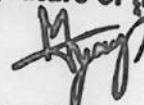
Part B. To be filled by Treatment, storage and disposal facility operators

1.	Total quantity received	NA
2.	Quantity in stock at the beginning of the year	NA
3.	Quantity treated	NA
4.	Quantity disposed in landfill as such and after treatment	Nil
5.	Quantity incinerated (if applicable)	(Being dispatch to Cement industries)
6.	Quantity processed other than specified above	NA
7.	Quantity in storage at the end of the year	NA

Part C. To be filled by recyclers or co-processors or other users

1.	Total quantity received during the year	NA
	(i) Domestic sources	NA
	(ii) Imported (if applicable)	NA
2.	Quantity in stock at the beginning of the year	NA
3.	Quantity recycled or co-processed or used	NA
4.	Quantity of products dispatched (wherever applicable)	NA
5.	Quantity of waste generated	NA
6.	Quantity of waste disposed	NA
7.	Quantity re-exported (wherever applicable)	NA
8.	Quantity in storage at the end of the year	NA

Signature of the Occupier



Name: Manas Tyagi
Designation: Site Director

Date: 14.06.2023

Place: Zinc Smelter Debari, Udaipur

Details of Hazardous Wastes for the period of April 2022 to March 2023

S. No	Category & Name of Waste and authorized quantity (MT)	Sch/code as per HWR 2016	Qty. of Waste generated/ recycled/Disposed	Mode of Transportation	Physical Form	Chemical form	Method of storage / Disposal
1.	7.2 Cooler Cake 1017 MTA	I/7.2	826T	Dumper	Cake	Cd 0.003 - 0.004 % Cu 0.003 - 0.004 % Zn 3.000 - 4.000 %	Disposed at Common Hazardous Waste Treatment Facility at Gudli
2.	7.2 Anode Mud 1500 MTA	I/7.2	1492T	Dumper	Cake	Cd 0.003 - 0.004 % Cu 0.008 - 0.009 % Pb 8.000 - 12.000 % Zn 0.500 - 1.000 %	Co processing in cement plant /Registered recycler/Reprocess
3.	17.2 Spent Catalyst 27 MTPA	I/17.2	24.2T	Drum (Through Dumper)	Solids	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
4.	34.2 Sludge from treatment of waste water arising out of cleaning/ disposal of barrels / containers	I/34.2	0	Dumper	Solid	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
5.	33.3 Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes (10 MTA)	I/33.1	0.51T	Dumper	Solid	-	Disposed at Common Hazardous Waste Treatment Facility at Gudli
6.	35.3 Chemical sludge from waste water treatment (ETP Sludge) 14500 MTA	I/35.3	8690 DMT 16260 WMT	Dumper	Cake	Zn 3.000 - 4.000 %	Recycled in Moore cake treatment Plant/ CTDF
7.	7.2 Purification Cake 2000TPA	I/7.2	1766T	Dumper	Cake	Zn 32.20-44.00% Cd 2.92-7.00% Cu 1.27-2.48%	Reuse in process/sales to registered recyclers
8.	5.2 Filter contaminated with oil 2 MTA	I/5.2	0	Dumper	Solid	-	CTDF Udaipur/ co-incineration in cement kiln
9.	5.1 Used / Spent Oil 55 MTPA	I/5.1	Generated (MT) 11.7 Sold to users/ Recycler(MT) 11.7	Drum (Through Truck)/Tanker	Liquid	Stored in 200 ltr. Drums/Tanks and disposed by sale to actual users / recyclers registered with MOEF.	Stored in 200 ltr. Drums/Tanks and disposed by sale to actual users/recyclers registered with MOEF.
10.	35.2 Water Purification resin or spent ion exchange resin containing toxic metals (2 MTPA)	I/35.2	0	Dumper	Solid	-	CTDF Udaipur
11.	7.2 Process residues (50 MTPA)	I/7.2	2181.8MT (875.2 T CTDF +1306.6T Reuse)	Dumper	Cake	-	CTDF Udaipur
12.	7.2 Process residues (1200 MTPA)	I/7.2	24.55 T	Dumper	Solid	-	CTDF Udaipur
13.	14 Zinc ash/skinning/other zinc bearing wastes arising from smelting and refining, zinc dross bottom (5250 MTPA)	IV/14	523.1 T	Dumper	Solid	-	Sales to Registered Recycler/CTDF Udaipur
14.	OW Jarosite (85000 MTPA)	III/OW	Generated (MT) 65684.5 Sold to Cement (MT) 74104.6	Dumper	Cake	Cd 0.030-0.040% Pb 4.000-4.500% Zn 2.000-2.500%	Co processing in cement plant

Solid waste:

Jarosite characteristic: Cd 0.030-0.040%
Pb 4.000-4.500%
Zn 2.000-2.500%

HINDUSTAN ZINC LIMITED
ZINC SMELTER, DEBARI

Used oil/ Waste oil sold/ recycled/ reused during the period April-2022 to March-2023

Month	Quantity of hazardous Waste Generation (Residues containing oil) (MT)	Residues containing oil (MT) Sold to the recycler/ refiner registered with CPCB/MoEF	Quantity of hazardous Waste Generation (Used Oil) (MT)	Used oil (MT) Sold to the recycler/ refiner registered with CPCB/ MoEF
April-22	Nil	Nil	Nil	Nil
May-22	Nil	Nil	Nil	Nil
June-22	Nil	Nil	Nil	Nil
July-22	Nil	Nil	0.71	Nil
August-22	Nil	Nil	0.56	Nil
September-22	Nil	Nil	1.67	2.89
October-22	Nil	Nil	2.13	Nil
November-22	Nil	Nil	0	Nil
December-22	Nil	Nil	2.24	4.18
January-23	Nil	Nil	1.92	Nil
February-23	Nil	Nil	0.6	Nil
March-23	Nil	Nil	0.8 (*-0.19)	Nil
			1.29	4.61

versal in record as water present in used oil was removed and sent to ETP for treatment.

Annex - VI

Pezometer analysis from April 2022 to December 2022									
Parameter	Norm	UMO	Sample date	Report number	Apr-22	Sample date	Report number	Aug-22	Dec-22
Pezometer No.-1	PH	6.5-9.5	-	-	7.6	-	-	7.41	7.76
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-2	Zinc	5	mg/l	-	0.08	-	-	0.04	0.03
	PH	6.5-9.5	-	-	7.54	-	-	7.18	7.41
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
Pezometer No.-3	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Zinc	5	mg/l	-	0.08	-	-	0.04	0.03
	PH	6.5-9.5	-	-	7.74	-	-	7.74	7.38
	Iron	0.03	mg/l	-	0.07	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-4	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Zinc	5	mg/l	-	0.05	-	-	BDL(<0.01)	BDL(<0.01)
	PH	6.5-9.5	-	-	7.57	-	-	7.58	0.04
Pezometer No.-5	Iron	0.03	mg/l	-	0.06	-	-	BDL(<0.01)	7.59
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.001)	BDL(<0.001)
	Zinc	5	mg/l	-	0.41	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-6	PH	6.5-9.5	-	-	7.68	-	-	0.02	7.64
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-7	Zinc	5	mg/l	-	BDL(<0.01)	-	-	0.02	0.07
	PH	6.5-9.5	-	-	7.4	-	-	7.5	7.71
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
Pezometer No.-8	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.001)	BDL(<0.001)
	Zinc	5	mg/l	-	0.08	-	-	BDL(<0.01)	BDL(<0.01)
	PH	6.5-9.5	-	-	7.4	-	-	7.47	7.49
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-9	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.001)	BDL(<0.001)
	Zinc	5	mg/l	-	0.72	-	-	0.02	BDL(<0.01)
	PH	6.5-9.5	-	-	7.38	-	-	7.5	7.65
Pezometer No.-10	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.001)	BDL(<0.001)
	Zinc	5	mg/l	-	0.81	-	-	BDL(<0.01)	BDL(<0.01)
Pezometer No.-11	PH	6.5-9.5	-	-	7.68	-	-	7.56	0.05
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	7.41
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.001)	BDL(<0.001)
Pezometer No.-12	Zinc	5	mg/l	-	0.03	-	-	BDL(<0.01)	BDL(<0.01)
	PH	6.5-9.5	-	-	7.42	-	-	7.58	7.44
	Iron	0.03	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Cadmium	0.003	mg/l	-	BDL(<0.001)	-	-	BDL(<0.001)	BDL(<0.001)
Pezometer No.-13	Lead	0.01	mg/l	-	BDL(<0.01)	-	-	BDL(<0.01)	BDL(<0.01)
	Zinc	5	mg/l	-	0.04	-	-	BDL(<0.01)	0.03
	PH	6.5-9.5	-	-	-	-	-	-	-
	Iron	0.03	mg/l	-	-	-	-	-	-



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)

Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

ISO 9001:2015,

ISO 14001:2015,

ISO 45001:2018 (OH&S)

JDA/UDH

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C-Scheme, Jaipur - 302001, Rajasthan
Phone : +91 6377210064, 9414077379,
Website : www.teamtesthouse.com
Email : team.bdhead@gmail.com

Laboratory : G1-584, RIICO Industrial Area,
Sitapura, Jaipur - 302022, Rajasthan
Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

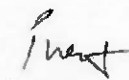
Report No./ULR No. :	TTH/SA/HZL/D/2022-23/01	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-1	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025 1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.80	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.04	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst
Puran Mal Yogi


Authorized Signatory
(Report No: TTH/SA/HZL/D/2022-23/01)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/02	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-2	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.53	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.04	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst

Puran Mal Yogi

Authorized Signatory

(Report No: TTH/SA/HZL/D/2022-23/02)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/03	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No -3	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.56	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.08	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst

Purish Dial Yogi

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(Report No: TTH/SA/HZL/D/2022-23/03)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/04	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection	Peizometer No.-4	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025.1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.63	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.06	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst
Puran Mal Yogi

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(Report No: TTH/SA/HZL/D/2022-23/04)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/05	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-5	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.89	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.03	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst
Purush Mal Yogi

Authorized Signatory
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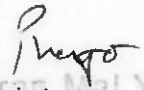
Report No./ULR No. :	TTH/SA/HZL/D/2022-23/06	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-6	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.58	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.02	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst


Authorized Signatory
(Report No: TTH/SA/HZL/D/2022-23/06)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/07	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-7	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.65	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.01	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst

Purush Mal Yogi

Authorized Signatory

(Report No: TTH/SA/HZL/D/2022-23/07)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/08	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-8	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025.1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S No	Parameters	Observed Value	Testing Protocol
1	pH	7.79	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.06	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Senior Analyst

Authorized Signatory

(Report No: TTH/SA/HZL/D/2022-23/08)



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TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/09	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No.-9	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S No	Parameters	Observed Value	Testing Protocol
1	pH	7.74	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.05	IS 3025 (Part 49) : 1994 RA 2019

Notes :-

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Senior Analyst

Pran Mal Yogi

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(Report No: TTH/SA/HZL/D/2022-23/09)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TTH/SA/HZL/D/2022-23/10	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ground Water	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Peizometer No -10	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	1 Ltr	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol
1	pH	7.74	IS 3025 (Part 11) : 1983 RA 2017
2	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019
3	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019
4	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019
5	Zinc [mg/l]	0.05	IS 3025 (Part 49) : 1994 RA 2019

Notes -

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Purani

Senior Analyst

Purani Lal Yogi

Baj

Authorized Signatory
(Report No: TTH/SA/HZL/D/2022-23/10)

Annex - VII

Ambient Noise Monitoring from April'2022 to December'2022	
	August'21

S.NO.	Location	Month	Apr'22						August '21						November'21					
		Freq.	Day	Night	Sample Date	Report number	Day	Night	Sample Date	Report number	Day	Night	Sample Date	Report number						
		Norms UoM	75 dB(A)	70 dB(A)			75 dB(A)	70 dB(A)			75 dB(A)	70 dB(A)								
1	Near Roster		65.7	56.8		15/04/2021	TC502521600009901	65.3	58.8	03/08/2021	TC502521600001514	67.6	67.6	24/11/2021	TC502521600002470					
2	Near MCTP Entrance		65.2	57.9		14/04/2021	TC502521600009900	67.7	57.2	03/08/2021	TC502521600001613	63.8	56.4	24/11/2021	TC502521600002469					
3	Near Leaching		68.8	61.3		14/04/2021	TC502521600008999	63.2	56.3	04/08/2021	TC502521600001612	66.5	55.8	23/11/2021	TC502521600002468					
4	Near Weigh Bridge		66.4	59.1		14/04/2021	TC502521600008988	67.2	60.6	04/08/2021	TC502521600001611	65.7	57.4	23/11/2021	TC502521600002467					
5	Near ZE		69.2	58.4		14/04/2021	TC502521600008987	66.8	59.6	04/08/2021	TC502521600001610	64.6	57.3	23/11/2021	TC502521600002466					
6	Near Railway Gate		69.9	60.8		13/04/2021	TC502521600008983	61.65	53.9	03/08/2021	TC502521600001606	64.8	57.5	22/11/2021	TC502521600002462					
7	Near ETP		68.1	58.7		13/04/2021	TC502521600008984	60.7	51.8	03/08/2021	TC502521600001607	66.5	58.5	22/11/2021	TC502521600002463					
8	Near ZSD Main Gate		71.4	62.3		15/04/2021	TC502521600008986	62.7	55.2	04/08/2021	TC502521600001609	63.7	56.5	23/11/2021	TC502521600002465					
9	Near Work Shop		64.6	56.3		15/04/2021	TC502521600009902	64.6	55.5	03/08/2021	TC502521600001615	62.8	54.3	24/11/2021	TC502521600002471					
10	Near Solar Area		60.9	55.2		15/04/2021	TC502521600009903	61.7	52.4	03/08/2021	TC502521600001617	62.5	55.2	24/11/2021	TC502521600002472					
11	Near Hospital		52.6	45.8		15/04/2021	TC502521600009904	57.5	49.5	05/08/2021	TC502521600001618	58.7	51.5	22/11/2021	TC502521600002473					
12	Near STP		63.9	57.2		15/04/2021	TC502521600009905	63.5	54.7	05/08/2021	TC502521600001619	65.8	58.5	22/11/2021	TC502521600002475					
13	Near Store		64.5	55.4		14/04/2021	TC502521600009906	59.8	52.1	04/08/2021	TC502521600001605	61.8	53.5	22/11/2021	TC502521600002475					
14	Near Env. Lab		68.2	58.9		14/04/2021	TC502521600008982	59.6	52.7	04/08/2021	TC502521600001608	63.2	56.5	22/11/2021	TC502521600002461					
15	Near DG Set		67.9	58.2		13/04/2021	TC502521600008985	63.6	55.8	04/08/2021	TC502521600001608	67.5	58.2	22/11/2021	TC502521600002464					



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000521	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited (Debari Zinc Smelter) PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	18-03-2023
Point of Collection :	Near Railway Gate/ SRP	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	63.7	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	55.6	IS 9989	70

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502523600000521)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000522	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:10 to 18-03-2023 16:10
Point of Collection :	Near ETP	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	69.4	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	60.4	IS 9989	70

Notes :-

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[Signature]
Senior Analyst

[Signature]
Authorized Signatory
(Report No: TC502523600000522)



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TEST REPORT

Report No./ULR No. :	TC502523600000523	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:10 to 18-03-2023 16:11
Point of Collection :	Near DG Set Room	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	67.5	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	60.7	IS 9989	70

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502523600000523)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC50252360000524	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:11 to 18-03-2023 16:11
Point of Collection :	Near ZSD Main Gate	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	71.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	62.8	IS 9989	70

Notes :-

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P. Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC50252360000524)



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TEST REPORT

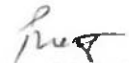
Report No./ULR No. :	TC502523600000525	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:12 to 18-03-2023 16:12
Point of Collection :	Near ZE	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

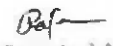
RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	69.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	61.3	IS 9989	70

Notes :-

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Senior Analyst


Authorized Signatory
(Report No: TC502523600000525)



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TEST REPORT

Report No./ULR No. :	TC502523600000526	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:13 to 18-03-2023 16:13
Point of Collection :	Near Weigh Bridge	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	65.9	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	57.8	IS 9989	70

Notes :-

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Purvi
Senior Analyst

Rajin
Authorized Signatory
(Report No: TC502523600000526)



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TEST REPORT

Report No./ULR No. :	TC502523600000527	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:14 to 18-03-2023 16:15
Point of Collection :	Near Leaching	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	67.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	59.5	IS 9989	70

Notes :-

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Purush
Purush Mai Yogi
Senior Analyst

Rajesh
Rajesh Maneshwar
Authorized Signatory
(Report No: TC502523600000527)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000528	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:15 to 18-03-2023 16:15
Point of Collection :	Near MCTP Entrance	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	73.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	65.2	IS 9989	70

Notes :-

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P. N. Singh
Senior Analyst

Banwari Lal Kumawat
Authorized Signatory
(Report No: TC502523600000528)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000529	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:16 to 18-03-2023 16:16
Point of Collection :	Near Roaster	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	~	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	71.2	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	61.8	IS 9989	70

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Puran Mar Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523600000529)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000530	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:17 to 18-03-2023 16:17
Point of Collection :	Near Work Shop	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	66.5	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	57.5	IS 9989	70

Notes :-

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P. Yogi
Senior Analyst

Neelam Maheshwari
Authorized Signatory
(Report No: TC502523600000530)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000531	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan).	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:18 to 18-03-2023 16:18
Point of Collection :	Near Solar Area	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	65.5	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	56.7	IS 9989	70

Notes :-

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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

[Signature]
Senior Analyst

[Signature]
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523600000531)



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)



Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

ISO 9001:2015,

ISO 14001:2015,

ISO 45001:2018 (OH&S)

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TEST REPORT

Report No./ULR No. :	TC502523600000532	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:18 to 18-03-2023 16:19
Point of Collection :	Near STP	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	65.4	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	55.9	IS 9989	70

Notes :-

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[Signature]

Senior Analyst Yogi

[Signature]

Authorized Signatory
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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000533	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:20 to 18-03-2023 16:20
Point of Collection :	Near Hospital	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	53.4	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	44.3	IS 9989	70

Notes :-

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Purest
Senior Analyst

Rajesh
Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523600000533)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502523600000534	Date :	01-04-2023
Issued To :	M/S Hindusthan Zinc Limited [Debari Zinc Smelter] PO : Zinc Smelter, District Udaipur (Rajasthan),	Type of Unit :	Smelter
Type of sample / Discipline :	Ambient Noise Level Monitoring / Chemical	Date of Sample Collection/Monitoring :	17-03-2023 16:20 to 18-03-2023 16:20
Point of Collection :	Near Store	Date of Receipt :	21-03-2023
Date of Test/Analysis :	21-03-2023 to 01-04-2023	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Ms. Neha Maheshwari	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Day Time) : Leq [dB(A)]	60.9	IS 9989	75
2	Noise Level (Night Time) : Leq [dB(A)]	54.2	IS 9989	70

Notes :-

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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

P. Yogendra
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502523600000534)