



To  
✓ The Environmental Engineer & Regional In-charge  
West Bengal Pollution Control Board, Regional Office,  
P.S: Bhabanipur, Raghunathchak,  
PO: Barghasipur, Haldia,  
Dist-Purba Medinipur, Pin-721657



Letter No. – Brgs/EMD/006/25

Date - 12/9/25

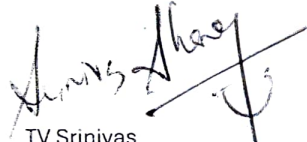
Sub: Submission of Environmental Statement in FORM V for the year 2024-2025

Dear Sir,

Please find enclosed herewith the following Form 5 (Environment Statement for the financial year ending on 31<sup>st</sup> March 2025) of M/S Tata Steel Ltd, Bearings Division, Kharagpur for the period between 01.04.2024 to 31.03.2025 for your kind perusal.

Thanks & regards,

For Tata Steel Limited, Bearings Division

  
TV Srinivas  
EIC – Bearings Division  
Tata Steel Ltd.  
Kharagpur

Encl. Form 5

Copy to: Chief Engineer (O&E), West Bengal Pollution Control Board, Paribesh Bhawan, Kolkata 700106

**TATA STEEL LIMITED**

Kharagpur 721 301 India

Tel 91 3222 233317 Fax 91 3222 233353

Registered Office Bombay House 24 Homi Mody Street Mumbai 400 001

Tel 91 22 66658282 Fax 91 22 66657724

Corporate Identity Number L27100MH1907PLC000260 Website : [www.tatasteel.com](http://www.tatasteel.com)

**FORM V**  
(See Rule 14)

Environmental Statement for the financial year ending on 31<sup>st</sup> March 2025.

**PART - A**

i.	Name and address of the Owner/Occupier of the industry, operation, or process	M/s Tata Steel Ltd, Bearings Division, Sadatpur, P.O:- Rakhajungle, PS: Kharagpur (Local), Paschim Medinipur-721301
ii.	Industry category	Red
iii.	Production capacity	<ul style="list-style-type: none"> <li>Ball Bearings and Taper Roller Bearings - 3750000 Numbers/Month.</li> <li>36150486 units of Ball Bearings and Taper Roller Bearings produced between 01.04.2024 &amp; 31.03.2025</li> </ul>
iv.	Year of Establishment	September 1979
v.	Date of the last environmental Statement Submitted	19 <sup>th</sup> September 2024

**PART - B**

**B-1: Water and Raw Materials Consumption**

	During the previous Financial Year (2023-24)	During the Financial Year (2024-25)
1. Water consumption (annual avg.)		
a) Process Water (KL/day)	85.01	33.03
b) Domestic (KL/day)	439.69	61.01

**B-2: Process Water Consumption per unit of product (cubic meter/number)**

Name of Product	Process Water Consumption per unit of product (cubic meter/number)	
	Previous Year (2023-24)	Current Year (2024-25)
Ball Bearings & Taper Roller bearings of different size	0.00090 cubic meter / number	0.00035 cubic meter /number

**B-3: Raw Material Consumption**

Name of Raw material	Name of Product	Consumption of Raw Material per unit of Output Average (gms. /number)	
		During Previous Financial Year (2023-24)	During Current financial Year (2024-25)
RACES	Ball Bearings & Taper Roller bearings of different size	197.24	64.3
BEARING			34.2
RUBBER SEAL			0.5
CAGE			4.2
CUILD SHIELD			0.1
BALL			11.4
ROLLER			5.7
SNAP RING			0.8

**PART – C**

**Pollution discharged to Environment/ unit of output.  
(Parameters as Specified in the Consent issued)**

**C-1: Water Pollution**

Pollutant Parameters	Prescribed Standard (mg/l)	Concentration of pollutants discharge (mg/l)	Percentage variation from prescribed standards with reasons	
Water (1 TP Outlet Water)				
1. BOD	1. 30	1. 14.0	1. Less by 53%	
2. COD	2. 250	2. 62.5	2. Less by 75%	
3. TSS	3. 100	3. 42.0	3. Less by 58%	
4. pH	4. 5.5 – 9.0	4. 7.23	4. Within Range	
5. O&G	5. 10	5. 2.2	5. Less by 78%	

Water discharge =

Zero Discharge

2) TSS- 0 kgs

3) Oil & grease- 0 kgs

**C2 : Air Pollution**

A) AIR POLLUTION : STACK EMISSIONS	PM Prescribed Standard (mg/Nm <sup>3</sup> )	PM (mg/nm3)	% Variation from standards	PM (kg/day)
DG Set 860 KVA	150	61	Less by 59%	0.08
DG Set 860 KVA	150	60	Less by 60%	0.00
DG Set 1720 KVA (Left Side)	150	70	Less by 53%	0.09
DG Set 1720 KVA (Right Side)	150	72	Less by 52%	0.09
Induction Furnace Tempering Zone	150	15	Less by 90%	0.10
Induction Furnace Hardening Zone	150	21	Less by 86%	0.12

**PART – D**

**HAZARDOUS WASTE**

(As specified under Hazardous Waste management and Handling Rules 1989)

Hazardous Waste	Total Quantity (Kilo Liters) / (MT)	
	During the Previous financial year (FY 24)	During the Current financial year (FY 25)
D1. From Process		
Used oil	10.90 Ton	6.51 Ton

Oil Soaked Jute / cotton waste	26.20 Ton	19.5 Ton
Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	0	2.88 Ton
D2. From Pollution Control Facility (oily muck from ETP/STP)	2 Ton	0

#### **PART – E**

#### **SOLID WASTE**

Description	Total Quantity (Generated)	
	During the Current financial year (FY 24)	During the Current financial year (FY 25)
<b>E1. From Process</b>		
Grinding Swarf / Muck	75.03 MT	125.16 MT
Iron Chips	0.47 MT	0.61 MT
<b>E2. From Pollution Control Facility</b>		
STP sludge (From dry bed of STP)	2 MT	0
<b>E3.(1) Quantity recycled or reutilized within the units</b>	2 MT(STP Sludge.)	0
<b>E3.(2) Sold</b>	Iron Chips -0.47 MT	Iron Chips -0.61 MT
	M.S Scrap -50.67 MT	M.S Scrap -47.85 MT
	Hard Bearings components- 88.070 MT	Hard Bearings components- 52.53 MT
	Bearings 2 <sup>nd</sup> grade 19.970 MT	Bearings 2 <sup>nd</sup> grade – 24.69 MT
	Electrical scrap -0.29MT	Electrical scrap - 0.594 MT
	Scrap Wood – 68.430 MT	Scrap Wood – 77.93 MT
	Used Cardboard Box- 47.750 MT	Used Cardboard Box-48.20 MT
	Rejected filters - 0.57 MT	Rejected filters - 0.62 MT
	Scrap(Plastic/Rubber)-21.25 MT	Scrap (Plastic/Rubber)-20.24 MT
	Scrap electrodes-0 MT	Scrap electrodes-0 MT
	Rejected Rubber seal - 0.13 MT	Rejected Rubber seal - 0.23 MT
	Used grinding wheels – 3.62 MT	Used grinding wheels – 5.73 MT
<b>E3. (3) Disposed</b>	Grinding Swarf – 75.03 MT	Grinding Swarf – 125.16 MT
	Canteen Waste - 3.8 MT	Canteen Waste - 4.3 MT

#### **PART – F**

Please specify the characteristics in terms of composition and quantum hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

**I-1: Hazardous Wastes**

Description	Composition / Nature of Waste	Disposal Method
1. Used oil	Hazardous	Sell off to WBPCB Authorized vendors
2. Oil Soaked cotton jute / waste	pH7.21, Oil Grease 3.58%, Cyanide <1.00, Chromium 870.39 mg/kg, Cu 60.83 mg/kg, Lead 54.74 mg/kg, / Hazardous	Disposed off Through CHW -TSDF
3. Empty barrels/containers/with hazardous chemicals /wastes	Hazardous	Sell off to WBPCB Authorized vendors
4. ETP / STP Sludge	pH7.25, Oil Grease 2.05%, Chromium 176.61 mg/kg, Cu 23.24 mg/kg, Lead 18.17 mg/kg, Zn 108.17 mg/kg, Nickel 9.19 mg/kg/Hazardous	Disposed off Through CHW -TSDF

**Disposal practice of solid waste**

The solid Non-Hazardous waste generated from process has been sold to authorized vendors for processing. We have proper arrangements for storage of hazardous waste. Covered shed with concrete floor, all round drain and catch pit has been provided for safe storage before disposal to authorized recyclers.

**PART – G**

**Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:**

Various improvement project taken under TPM, ISO-9001:2015, ISO 14001:2015, ISO 45001:2018 , ASPIRE for yield improvement , reduction of electricity consumption, water consumption ,oil consumption & safe working zone etc.

Power Savings Initiatives	KPI	FY'25 RESULTS
Contain power cost through reduction in power consumption – 1. Replacement of old AC Units 2. Through upgradation of m/cs – 13Nos. Machine in FY'25 and also saving out of upgraded m/cs in Q4 FY'24 3. 3.Replacement of re-winded motors and right sizing of motors by energy efficient motors 4. Replacement of Air Dryer	Power Consumption reduction in KWH	176502KWH

The treated water from E.T.P. is profitably used in watering of adjacent land.  
 Water savings to the extent of 20 m3/ month by installation of push type taps in all washrooms and canteens.  
 Replacing, repairing of corroded pipelines.

## PART-H

### **Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution:**

All the drains are being cleaned regularly. This division of TATA STEEL has been registered with m/s W.B.W.M.L, Haldia for disposal & treatment of hazardous waste generated during manufacturing process. All bio medicals wastes generated in our dispensary disposed within 48hrs for treatment at m/s W.B.W.M.L, Haldia.

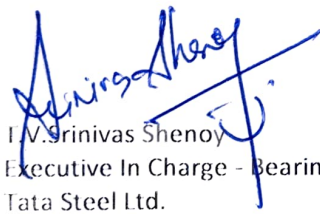
We are testing all the stack , ambient air, oil mist level, ventilation , illumination , Bio assay & Chloride test of E.T.P treated Water , Noise level of different location to avoid abnormalities in process. The monitoring report is attached as Annexure 1.

To maintain E.T.P process we are testing final discharged water regularly on monthly basis. We conduct medical tests of all employees and provide necessary medical treatment as per requirement.

## PART -I

Plantation - About 100 saplings were planted near to the housing complex and in few schools in the surrounding community.

World Environment Day & Awareness campaigns - We organize a weeklong event to celebrate World Environment Day through which we create a lot of awareness among employees and visitors on the importance of protecting our environment, considering the current global and local environmental issues.



I.V.Srinivas Shenoy  
Executive In Charge - Bearings Division  
Tata Steel Ltd.  
Kharagpur

**STACK, AMBIENT AIR, NOISE,  
EFFLUENT & DRINKING WATER  
SAMPLING  
&  
ANALYSIS REPORT  
OF  
M/s. TATA Steel Ltd.  
(Bearing Division)**

**Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur - 721 301**

**MAY - 2024**

**PREPARED BY :**

**INDICATIVE CONSULTANT INDIA**

HPL Link Road, Basudevpur, P.O. – Khanjanchak, Haldia  
Dist. – Purba Medinipur, Pin Code – 721 602

  
**Parbati Golui**  
Quality Manager  
INDICATIVE CONSULTANT INDIA



# INDICATIVE CONSULTANT INDIA



(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/HIL/A/PTC-367/2024	Format No: ICI/FM/H/58
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-367
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 23.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 10:35 AM
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	:	STACK AIR	Analysis complete Date : 28.05.2024
#Location	:	HARDENING ZONE MOUTH OF 500 KG (FURNACE NO. - 03)	
Sample Condition	:	In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	:	CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant	:	Stack attached to	:	HARDENING ZONE MOUTH OF 500 KG (FURNACE NO. - 03)	Shape of Stack	:	Circular
Emission due to	:	Fuel Used	:	Combustion of LPG	Material of Construction	:	M.S
Rated Fuel Consumption	:	Working Fuel Consumption	:	LPG	Stack ID at sampling point (M)	:	0.15
Calorific Value (Kcal/kg)	:	Sulphur Content (% by Wt)	:	-	At Bottom (M)	:	-
Ash Content (% by Wt)	:	Pollution Control Device	:	-	At Top (M)	:	0.15
Whether Stack is provided with permanent Platform / Ladder	:		:	Nil	Height Details :		
	:		:		a) Total Ht. Of stack from GL(M)	:	10.5
	:		:		b) Total Ht. Of stack from RL(M)	:	-
	:		:		c) Ht. of sampling port from GL(M)	:	1.0
	:		:		d) Ht. of port from disturbance zone (M)	:	-

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	:	237	<b>Steam Generation Capacity :</b>		
Barometric Pressure,(mm Hg)	:	754	a) Rated	:	-
Velocity of Gas flow (m/s)	:	10.59	b) Running	:	-
Quantity of Gas flow (Nm³/hr)	:	391.25	<b>Load :</b>		
Pressure	:	-	a) Rated	:	-
	:		b) Running	:	-

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	21.0	IS 11255 (Part-1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO₂ (V/V) - (mg/Nm³)	-	
03.	Sulphur di-oxide (mg/ Nm³)	50.05	IS 11255 (Part-2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	24.20	IS 11255 (Part-7): 2005 (RA 2017)
05.	Carbon mono oxide (as CO)- % (V/V)	<0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO₂)-% (V/V)	1.8	IS 13270:1992 (RA 2019)

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required -

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- # Information provided by customer
  - Sample is drawn by M/s. Indicative Consultant India.
  - Sample submitted and identified by customer as: NA
  - Test results shown in this test report relate only to the sample (s) only.
  - The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - The reproduction of the report except in full is invalid without written approval of the laboratory.
  - Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-163 from the date of issue unless otherwise specified.
  - Location of Testing: Haldia Laboratory

Page 1 of 1

End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



TC-11628

## TEST REPORT

Date: 31.05.2024	Report No: ICI/HIL/PTC-368/2024	Format No: ICI/FM/II/58
Customer Name	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-368
Address	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024
#Customer Representative Name & Contact Number	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 01:35 PM
#Work Order No.	3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	STACK AIR	Analysis complete Date : 28.05.2024
#Location	D.G. SET NO. - 03 (1720 KVA) RIGHT SIDE	
Sample Condition	In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant		Shape of Stack	: Circular
Stack attached to	D.G. SET NO. - 03 (1720 KVA) RIGHT SIDE	Material of Construction	: M.S
Emission due to	Combustion of H.S.D.	Stack ID at sampling point (M)	: 0.38
Fuel Used	H.S.D.	At Bottom (M)	: -
Rated Fuel Consumption	300 Lit/Hr.	At Top (M)	: -
Working Fuel Consumption	300 Lit/Hr.	Height Details :	
Calorific Value(Kcal/kg)	-	a) Total Ht. Of stack from GL(M)	: 15.00
Sulphur Content (% by Wt)	-	b) Total Ht. Of stack from RL(M)	: -
Ash Content (% by Wt.)	-	c) Ht. of sampling port from GL(M)	: 10.24
Pollution Control Device	Nil	d) Ht. of port from disturbance zone (M)	: -
Whether Stack is provided with permanent Platform / Ladder :	Yes		

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	: 199	Steam Generation Capacity :	
Barometric Pressure, (mm Hg)	: 754	a) Rated	: -
Velocity of Gas flow (m/s)	: 14.8	b) Running	: -
Quantity of Gas flow (Nm³/hr)	: 3691.81	Load : a) Rated	: 1720 KVA
Pressure	: -	b) Running	: 1720 KVA

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	72.0	IS 11255 (Part -1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO₂ (V/V) - (mg/Nm³)	-	
03.	Sulphur di-oxide (mg/ Nm³)	240.23	IS 11255 (Part -2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	276.57	IS 11255 (Part -7): 2005 (RA 2017)
05.	Carbon mono oxide (as CO)- % (V/V)	<0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO₂)-% (V/V)	7.0	IS 13270:1992 (RA 2019)

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required.

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- 1 # Information provided by customer
  - 2 Sample is drawn by M/s. Indicative Consultant India.
  - 3 Sample submitted and identified by customer as: NA
  - 4 Test results shown in this test report relate only to the sample (s) only.
  - 5 The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - 6 The reproduction of the report except in full is invalid without written approval of the laboratory.
  - 7 Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - 8 Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-164 from the date of issue unless otherwise specified.
  - 9 Location of Testing: Haldia Laboratory

Page 1 of 1

End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970  
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# INDICATIVE CONSULTANT INDIA



(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	: Report No: ICI/HIA/PTC-369/2024	Format No: ICI/FM/11/58
Customer Name	: M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-369
Address	: Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024
#Customer Representative Name & Contact Number	: Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 12:30 PM
#Work Order No.	: 3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	: STACK AIR	Analysis complete Date : 28.05.2024
#Location	: D.G. SET NO. - 03 (1720 KVA) LEFT SIDE	
Sample Condition	: In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	: CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant		Shape of Stack	: Circular
Stack attached to	: D.G. SET NO. - 03 (1720 KVA) LEFT SIDE	Material of Construction	: MS
Emission due to	: Combustion of H.S.D.	Stack ID at sampling point (M)	: 0.38
Fuel Used	: H.S.D.	At Bottom (M)	: -
Rated Fuel Consumption	: 300 Lit/Hr.	At Top (M)	: -
Working Fuel Consumption	: 300 Lit/Hr.	Height Details :	
Calorific Value(Kcal/kg)	: -	a) Total Ht. Of stack from GL(M)	: 15.00
Sulphur Content (% by Wt)	: -	b) Total Ht. Of stack from RL(M)	: -
Ash Content (% by Wt.)	: -	c) Ht. of sampling port from GL(M)	: 10.24
Pollution Control Device	: Nil	d) Ht. of port from disturbance zone (M)	: -
Whether Stack is provided with permanent Platform / Ladder : Yes			

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	: 190	Steam Generation Capacity :	
Barometric Pressure,(mm Hg)	: 754	a) Rated	: -
Velocity of Gas flow (m/s)	: 13.45	b) Running	: -
Quantity of Gas flow (Nm³/hr)	: 3420.49	Load : a) Rated	: 1720 KVA
Pressure	: -	b) Running	: 1720 KVA

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	: 70.0	IS 11255 (Part -1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO <sub>2</sub> (V/V) - (mg/Nm³)	: -	
03.	Sulphur di-oxide (mg/ Nm³)	: 220.21	IS 11255 (Part -2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	: 260.53	IS 11255 (Part -7): 2005 (RA 2017)
05.	Carbon mono oxide (as CO)- % (V/V)	: <0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO <sub>2</sub> )-% (V/V)	: 7.0	IS 13270:1992 (RA 2019)

Prepared By: P. Das

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required.

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- 1 # Information provided by customer
  - 2 Sample is drawn by M/s. Indicative Consultant India.
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  - 8 Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-165 from the date of issue unless otherwise specified.
  - 9 Location of Testing: Haldia Laboratory

End of Report

Page 1 of 1

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

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# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/HL/APTC-370/2024	Format No: ICI/FM/HS
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-370
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 11.20 AM
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	:	STACK AIR	Analysis complete Date : 28.05.2024
#Location	:	D.G. SET NO. - 02 (860 KVA)	
Sample Condition	:	In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	:	CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant	:	Stack attached to	:	D.G. SET NO. - 02 (860 KVA)	Shape of Stack	:	Circular
Emission due to	:	Combustion of H.S.D.	:		Material of Construction	:	MS
Fuel Used	:	H.S.D.	:		Stack ID at sampling point (M)	:	0.38
Rated Fuel Consumption	:	150 Lit/Hr.	:		At Bottom (M)	:	-
Working Fuel Consumption	:	150 Lit/Hr.	:		At Top (M)	:	-
Calorific Value(Kcal/kg)	:	-	:		Height Details :		
Sulphur Content (% by Wt)	:	-	:		a) Total Ht. Of stack from GL(M)	:	15.00
Ash Content (% by Wt.)	:	-	:		b) Total Ht. Of stack from RL(M)	:	-
Pollution Control Device	:	Nil	:		c) Ht. of sampling port from GL(M)	:	7.00
Whether Stack is provided with permanent Platform / Ladder	:	Yes	:		d) Ht. of port from disturbance zone (M)	:	-

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	:	171	<u>Steam Generation Capacity :</u>		
Barometric Pressure,(mm Hg)	:	754	a) Rated	:	-
Velocity of Gas flow (m/s)	:	13.16	b) Running	:	-
Quantity of Gas flow (Nm³/hr)	:	3503.83	<u>Load :</u> a) Rated	:	860 KVA
Pressure	:	-	b) Running	:	860 KVA

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	60.0	IS 11255 (Part -1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO₂ (V/V) - (mg/Nm³)	-	
03.	Sulphur di-oxide (mg/Nm³)	150.14	IS 11255 (Part -2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	174.14	IS 11255 (Part -7): 2005 (RA 2017)
05.	Carbon mono oxide (as CO)- % (V/V)	<0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO₂)-% (V/V)	6.8	IS 13270:1992 (RA 2019)

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required.

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- 1 # Information provided by customer
  - 2 Sample is drawn by M/s. Indicative Consultant India.
  - 3 Sample submitted and identified by customer as: NA
  - 4 Test results shown in this test report relate only to the sample (s) only.
  - 5 The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - 6 The reproduction of the report except in full is invalid without written approval of the laboratory.
  - 7 Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - 8 Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-166 from the date of issue unless otherwise specified.
  - 9 Location of Testing: Haldia Laboratory

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End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 31.05.2024	: Report No: ICI/ILA/PTC-371/2024	Format No: ICI/FM/II/58
Customer Name	: M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-371
Address	: Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024
#Customer Representative Name & Contact Number	: Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 10.05 AM
#Work Order No.	: 3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	: STACK AIR	Analysis complete Date : 28.05.2024
#Location	: D.G. SET NO. - 01 (860 KVA)	
Sample Condition	: In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	: CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant		Shape of Stack	: Circular
Stack attached to	: D.G. SET NO. - 01 (860 KVA)	Material of Construction	: M.S
Emission due to	: Combustion of H.S.D.	Stack ID at sampling point (M)	: 0.38
Fuel Used	: H.S.D.	At Bottom (M)	: -
Rated Fuel Consumption	: 150 Lit/Hr.	At Top (M)	: -
Working Fuel Consumption	: 150 Lit/Hr.	Height Details :	
Calorific Value(Kcal/kg)	: -	a) Total Ht. Of stack from GL(M)	: 15.00
Sulphur Content (% by Wt)	: -	b) Total Ht. Of stack from RL(M)	: -
Ash Content (% by Wt.)	: -	c) Ht. of sampling port from GL(M)	: 7.00
Pollution Control Device	: Nil	d) Ht. of port from disturbance zone (M)	: -
Whether Stack is provided with permanent Platform / Ladder	: Yes		

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	: 153	Steam Generation Capacity :	
Barometric Pressure (mm Hg)	: 754	a) Rated	: -
Velocity of Gas flow (m/s)	: 14.05	b) Running	: -
Quantity of Gas flow (Nm³/hr)	: 3898.84	Load : a) Rated	: 860 KVA
Pressure	: -	b) Running	: 860 KVA

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	: 61.0	IS 11255 (Part -1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO₂ (V/V) - (mg/Nm³)	: -	
03.	Sulphur di-oxide (mg/ Nm³)	: 140.13	IS 11255 (Part -2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	: 200.77	111255 (Part -7): 2005 (RA 2017)
05.	Carbon mono oxide (as CO)- % (V/V)	: <0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO₂)-% (V/V)	: 6.6	IS 13270:1992 (RA 2019)

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- 1 # Information provided by customer
  - 2 Sample is drawn by M/s. Indicative Consultant India.
  - 3 Sample submitted and identified by customer as: NA
  - 4 Test results shown in this test report relate only to the sample (s) only.
  - 5 The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - 6 The reproduction of the report except in full is invalid without written approval of the laboratory.
  - 7 Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - 8 Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-167 from the date of issue unless otherwise specified.
  - 9 Location of Testing: Haldia Laboratory

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End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / Indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/IIL/A/PTC-366/2024	Format No: ICI/FM/II/58
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/PA-366
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 23.05.2024
#Customer Representative Name & Contact Number	:	Mr Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 12:05 PM
#Work Order No.	:	3000171050/656 Dtd 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	:	STACK AIR	Analysis complete Date : 28.05.2024
#Location	:	TEMPERING ZONE MOUTH OF 500 KG (FURNACE NO. - 03)	
Sample Condition	:	In Glass Microfiber Thimble & Plastic Bottle	
Sampling Method	:	CPCB, Emission Regulation (Part III)	

### A.] # GENERAL INFORMATION ABOUT STACK:

Particulars of the Plant		Shape of Stack	:	Circular
Stack attached to	:	Material of Construction	:	M.S
	:	Stack ID at sampling point (M)	:	0.15
Emission due to	:	At Bottom (M)	:	-
Fuel Used	:	At Top (M)	:	0.15
Rated Fuel Consumption	:	Height Details :		
Working Fuel Consumption	:	a) Total Ht. Of stack from GL(M)	:	15.00
Calorific Value (Kcal/kg)	:	b) Total Ht. Of stack from RL(M)	:	-
Sulphur Content (% by Wt)	:	c) Ht. of sampling port from GL(M)	:	6.00
Ash Content (% by Wt)	:	d) Ht. of port from disturbance zone (M)	:	-
Pollution Control Device	:			
Whether Stack is provided with permanent Platform / Ladder	:			

### B.] PHYSICAL DATA:

Flue Gas Temperature (°C)	:	55	Steam Generation Capacity :	
Barometric Pressure, (mm Hg)	:	754	a) Rated	:
Velocity of Gas flow (m/s)	:	8.49	b) Running	:
Quantity of Gas flow (Nm³/hr)	:	487.76	Load : a) Rated	:
Pressure	:	-	b) Running	:

### C.] RESULT OF SAMPLING:

Sl. No.	Parameters	Result Obtained	Test Method
01.	Particulate Matter (mg/Nm³)	15.0	IS 11255 (Part -1): 1985 (RA 2019)
02.	Particulate Matter Normalised to 12% CO₂ (V/V) - (mg/Nm³)	-	
03.	Sulphur di-oxide (mg/ Nm³)	30.03	IS 11255 (Part -2): 1985 (RA 2019)
04.	Oxides of Nitrogen (as NOx)-(mg/m³)	17.34	IS 11255 (Part -7): 2005 (RA 2017)
05.	Carbon mono.oxide (as CO)- % (V/V)	<0.2	IS 13270:1992 (RA 2019)
06.	Carbon di oxide (as CO₂)-% (V/V)	1.6	IS 13270:1992 (RA 2019)

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)

Estimated Uncertainty: Not Required

- Note:
- # Information provided by customer
  - Sample is drawn by M/s. Indicative Consultant India.
  - Sample submitted and identified by customer as: NA
  - Test results shown in this test report relate only to the sample (s) only.
  - The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - The reproduction of the report except in full is invalid without written approval of the laboratory.
  - Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - Retention period of tested samples (Thimbles) is 180 days & thimbles no. T-168 from the date of issue unless otherwise specified.
  - Location of Testing: Haldia Laboratory

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

End of Report

Page 1 of 1

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

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KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/HIL/A/RN-350/2024	Format No: ICI/FM/H/61
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/AC-350
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024 to 23.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Analysis Start Date : 27.05.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	Analysis complete Date : 30.05.2024
#Sample Description	:	AMBIENT AIR	
#Location	:	NEAR MAIN GATE (OUTSIDE)	
Sample Condition	:	In Glass Microfibre Filter Paper & Plastic Bottle, Suction of ambient air direct into analyser through Teflon tube and in Plastic Bottle	
Sampling Method	:	CPCB, Emission Regulation (Part III) / Air Sampling & Analysis 3 <sup>rd</sup> Edition, CPCB Guideline (Vol. - 1)	
Test Specification	:	National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18 <sup>th</sup> November '2009	

Sl. No.	Parameters	Unit	SAMPLING TIME			24 Hours Average	Test Method
			09:30 AM to 05:30 PM	05:45 PM to 01:45 AM	02:00 AM to 10:00 AM		
1.	Respirable Particulate Matter (PM <sub>10</sub> )	µg / m <sup>3</sup>	81.72	95.29	85.34	87.45	IS 5182 (Part - 23):2006 (RA 2022)
2.	Respirable Particulate Matter (PM <sub>2.5</sub> )	µg / m <sup>3</sup>	33.29	38.56	35.44	35.76	IS 5182 (Part - 24):2019
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg / m <sup>3</sup>	17.23	24.32	21.32	20.96	IS 5182 (Part - 2):2001 (RA 2022)
4.	Oxides of Nitrogen (NO <sub>2</sub> )	µg / m <sup>3</sup>	42.88	48.13	44.63	45.21	IS 5182 (Part - 6):2006 (RA 2022)
5.	Lead (as Pb)	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Guidelines for Measurement of ambient air pollutant (Vol.1) NAAQMS/36/2012-13 Atomic AAS Method
6.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 11):2006 (RA 2017)
7.	Ammonia (as NH <sub>3</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Method of Air Sampling & Analysis 3 <sup>rd</sup> Edition, 1988 Method No. 408
8.	Ozone (as O <sub>3</sub> )	µg / m <sup>3</sup>	43.2	-	-	43.2	Guidelines for Measurement of ambient air pollutant (Vol.1) NAAQMS/36/2012- 13 (Chemical Method)
9.	Carbon Monoxide (as CO)	mg / m <sup>3</sup>	0.3328	0.3841	0.4179	0.3783	Non-Dispersive Infrared Spectrometry Method
10.	Benzo(a)Pyrene (BaP)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 12):2004 (RA 2019)
11.	Arsenic (as As)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
12.	Nickel (as Ni)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
13.	Ambient Temperature (Average)	°C	33.0	29.0	29.0	30.0	Hygrometer

Limit: (µg / m<sup>3</sup>) Ambient Air Quality standard (National)

PM<sub>10</sub>= 100 µg/m<sup>3</sup>, PM<sub>2.5</sub>=60 µg/m<sup>3</sup>, SO<sub>2</sub>=80 µg/m<sup>3</sup>, NO<sub>2</sub>=80 µg/m<sup>3</sup>, Lead=1.0 µg/m<sup>3</sup>, Ammonia=400 µg/m<sup>3</sup>, 24 hours basis, Carbon mono oxide=2 mg/m<sup>3</sup>, O<sub>3</sub>=100µg/m<sup>3</sup> 8hours basis, Benzene=5 µg/m<sup>3</sup>, Benzopyrene=1 ng/m<sup>3</sup>, Arsenic =6 ng/m<sup>3</sup>, Nickel=20ng/m<sup>3</sup>, Annual basis. For, Industrial, Residential, Rural & Other Area and Ecologically Sensitive Area

Ref: National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18<sup>th</sup> November '2009

Prepared By: P. Das

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

- Note:
1. Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India.
  3. Sample submitted and identified by customer as: NA
  4. Test results shown in this test report relate only to the sample (s) only.
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  6. The reproduction of the report except in full is invalid without written approval of the laboratory.
  7. Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  8. Retention period of tested samples (Filter Paper) is 180 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing : Haldia Laboratory

Page 1 of 1

End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	: Report No: ICI/HLA/RN-351/2024	Format No: ICI/FM/HU/61
Customer Name	: M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/AC-351
Address	: Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 23.05.2024 to 24.05.2024
#Customer Representative Name & Contact Number	: Mr. Supriyo Tikader Mob. No. +91-9263710584	Analysis Start Date : 27.05.2024
#Work Order No.	: 3000171050/656 Dtd. 16.04.2024	Analysis complete Date : 30.05.2024
#Sample Description	: AMBIENT AIR	
#Location	: NEAR BEARING TESTING & VALIDATION CENTRE	
Sample Condition	: In Glass Microfibre Filter Paper & Plastic Bottle, Suction of ambient air direct into analyser through Teflon tube and in Plastic Bottle	
Sampling Method	: CPCB, Emission Regulation (Part III) / Air Sampling & Analysis 3 <sup>rd</sup> Edition, CPCB Guideline (Vol. - 1)	
Test Specification	: National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18 <sup>th</sup> November '2009	

Sl. No.	Parameters	Unit	SAMPLING TIME			24 Hours Average	Test Method
			08:30 AM to 04:30 PM	04:45 PM to 12:45 AM	01:00 AM to 09:00 AM		
1.	Respirable Particulate Matter (PM <sub>10</sub> )	µg / m <sup>3</sup>	79.44	88.73	82.77	83.65	IS 5182 (Part - 23):2006 (RA 2022)
2.	Respirable Particulate Matter (PM <sub>2.5</sub> )	µg / m <sup>3</sup>	31.63	34.78	33.42	33.28	IS 5182 (Part - 24):2019
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg / m <sup>3</sup>	18.24	23.31	20.27	20.61	IS 5182 (Part - 2):2001 (RA 2022)
4.	Oxides of Nitrogen (NO <sub>x</sub> )	µg / m <sup>3</sup>	42.00	45.50	43.75	43.75	IS 5182 (Part - 6):2006 (RA 2022)
5.	Lead (as Pb)	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Guidelines for Measurement of ambient air pollutant (Vol.1) NAAQMS/36/2012-13 Atomic AAS Method
6.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 11):2006 (RA 2017)
7.	Ammonia (as NH <sub>3</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Method of Air Sampling & Analysis 3 <sup>rd</sup> Edition, 1988 Method No. 408
8.	Ozone (as O <sub>3</sub> )	µg / m <sup>3</sup>	41.7	-	-	41.7	Guidelines for Measurement of ambient air pollutant (Vol.1) NAAQMS/36/2012- 13 (Chemical Method)
9.	Carbon Monoxide (as CO)	mg / m <sup>3</sup>	0.3259	0.3863	0.4187	0.3770	Non-Dispersive Infrared Spectrometry Method
10.	Benzo(a)Pyrene (BaP)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 12):2004 (RA 2019)
11.	Arsenic (as As)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
12.	Nickel (as Ni)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
13.	Ambient Temperature (Average)	°C	33.0	30.0	30.0	31.0	Hygrometer

Limit: (µg / m<sup>3</sup>) Ambient Air Quality standard (National)

PM<sub>10</sub>= 100 µg/m<sup>3</sup>, PM<sub>2.5</sub>=60 µg/m<sup>3</sup>, SO<sub>2</sub>=80 µg/m<sup>3</sup>, NO<sub>x</sub>=80 µg/m<sup>3</sup>, Lead=1.0 µg/m<sup>3</sup>, Ammonia=400 µg/m<sup>3</sup>, 24 hours basis, Carbon mono oxide=2 mg/m<sup>3</sup>, O<sub>3</sub>=100µg/m<sup>3</sup> 8hours basis, Benzene=5 µg/m<sup>3</sup>, Benzopyrene=1 ng/m<sup>3</sup>, Arsenic =6 ng/m<sup>3</sup>, Nickel=20ng/m<sup>3</sup>, Annual basis. For, Industrial, Residential, Rural & Other Area and Ecologically Sensitive Area

Ref: National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18<sup>th</sup> November '2009

Prepared By: P. Das

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

Note:

- # Information provided by customer
- Sample is drawn by M/s. Indicative Consultant India.
- Sample submitted and identified by customer as: NA
- Test results shown in this test report relate only to the sample (s) only.
- The test results referred in test report are based on observations & measurements under the stated environmental conditions.
- The reproduction of the report except in full is invalid without written approval of the laboratory.
- Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
- Retention period of tested samples (Filter Paper) is 180 days from the date of issue of test report unless otherwise specified.
- Location of Testing : Haldia Laboratory

End of Report

Page 1 of 1

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	: Report No: ICI/IL/A/RN-352/2024	Format No: ICI/FM/II/61
Customer Name	: M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/AC-352
Address	: Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 22.05.2024 to 23.05.2024
#Customer Representative Name & Contact Number	: Mr. Supriyo Tikader Mob. No. +91-9263710584	Analysis Start Date : 27.05.2024
#Work Order No.	: 3000171050/656 Dtd. 16.04.2024	Analysis complete Date : 30.05.2024
#Sample Description	: AMBIENT AIR	
#Location	: BACK SIDE OF THE PLANT (NEAR LPG TANK)	
Sample Condition	: In Glass Microfibre Filter Paper & Plastic Bottle, Suction of ambient air direct into analyser through Teflon tube and in Plastic Bottle	
Sampling Method	: CPCB, Emission Regulation (Part III) / Air Sampling & Analysis 3 <sup>rd</sup> Edition, CPCB Guideline (Vol. - 1)	
Test Specification	: National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18 <sup>th</sup> November '2009	

Sl. No.	Parameters	Unit	SAMPLING TIME			24 Hours Average	Test Method
			09:45 AM to 05:45 PM	06:00 PM to 02:15 AM	02:30 AM to 10:30 AM		
1.	Respirable Particulate Matter (PM <sub>10</sub> )	µg / m <sup>3</sup>	74.13	92.33	86.48	84.31	IS 5182 (Part - 23):2006 (RA 2022)
2.	Respirable Particulate Matter (PM <sub>2.5</sub> )	µg / m <sup>3</sup>	28.07	36.55	33.04	32.55	IS 5182 (Part - 24):2019
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg / m <sup>3</sup>	18.24	21.28	19.26	19.59	IS 5182 (Part - 2):2001 (RA 2022)
4.	Oxides of Nitrogen (NO <sub>2</sub> )	µg / m <sup>3</sup>	42.00	47.25	43.75	44.33	IS 5182 (Part - 6):2006 (RA 2022)
5.	Lead (as Pb)	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Guidelines for Measurement of ambient air pollutant (Vol. 1) NAAQMS/36/2012-13 Atomic AAS Method
6.	Benzene (as C <sub>6</sub> H <sub>6</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 11):2006 (RA 2017)
7.	Ammonia (as NH <sub>3</sub> )	µg / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	Method of Air Sampling & Analysis 3 <sup>rd</sup> Edition, 1988 Method No. 408
8.	Ozone (as O <sub>3</sub> )	µg / m <sup>3</sup>	42.5	-	-	42.5	Guidelines for Measurement of ambient air pollutant (Vol. 1) NAAQMS/36/2012-13 (Chemical Method)
9.	Carbon Monoxide (as CO)	mg / m <sup>3</sup>	0.3196	0.3704	0.4179	0.3693	Non-Dispersive Infrared Spectrometry Method
10.	Benzo(a)Pyrene (BaP)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	IS 5182 (Part - 12):2004 (RA 2019)
11.	Arsenic (as As)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
12.	Nickel (as Ni)	ng / m <sup>3</sup>	BLQ	BLQ	BLQ	BLQ	AAS Method
13.	Ambient Temperature (Average)	°C	33.0	30.0	29.0	31.0	Hygrometer

Limit: (µg / m<sup>3</sup>) Ambient Air Quality standard (National)

PM<sub>10</sub>= 100 µg/m<sup>3</sup>, PM<sub>2.5</sub>=60 µg/m<sup>3</sup>, SO<sub>2</sub>=80 µg/m<sup>3</sup>, NO<sub>2</sub>=80 µg/m<sup>3</sup>, Lead=1.0 µg/m<sup>3</sup>, Ammonia=400 µg/m<sup>3</sup>, 24 hours basis, Carbon mono oxide=2 mg/m<sup>3</sup>, O<sub>3</sub>=100µg/m<sup>3</sup> 8hours basis, Benzene=5 µg/m<sup>3</sup>, Benzopyrene=1 ng/m<sup>3</sup>, Arsenic =6 ng/m<sup>3</sup>, Nickel=20ng/m<sup>3</sup>, Annual basis. For, Industrial, Residential, Rural & Other Area and Ecologically Sensitive Area

Ref: National Ambient Air Quality Standards vide Central Pollution Control Board, New Delhi Notification dated 18<sup>th</sup> November '2009

Prepared By: P. Das

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India.
  3. Sample submitted and identified by customer as: NA
  4. Test results shown in this test report relate only to the sample (s) only.
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  6. The reproduction of the report except in full is invalid without written approval of the laboratory.
  7. Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  8. Retention period of tested samples (Filter Paper) is 180 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing : Haldia Laboratory

Page 1 of 1

End of Report

Reviewed By: QM/ TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

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# INDICATIVE CONSULTANT INDIA



(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	: Report No: ICI/TSL-001/2024
Customer Name	: M/s. TATA STEEL LTD. (BEARING DIVISION)
Address	: Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur
	Sampling Date : 22.05.2024 to 27.05.2024
#Customer Representative Name & Contact Number	: Mr. Supriyo Tikader Mob. No. +91-9263710584
#Work Order No.	: 3000171050/656 Dtd. 16.04.2024
#Sample Description	: FUGITIVE AIR

## ANALYSIS REPORT OF OIL MIST

Sl. No.	#LOCATIONS	RESULT (mg/m <sup>3</sup> )
1	• HEALD MACHINE NO. - 2	0.45
2	• HEALD MACHINE NO. - 3	0.49
3	• HEALD MACHINE NO. - 4	0.37
4	• HEALD MACHINE NO. - 5	0.33
5	• THILENHAUS No. - I	0.31
6	• THILENHAUS No. - IX	0.36
7	• NOVA No. - II	0.28
8	• NOVA No. - V	0.29
9	• CIMET No. - III	0.37
10	• CIMET No. - IV	0.33
11	• R 7 2 A - II	0.25
12	• R E G S	0.017
13	• R E G D - I	0.122
14	• R E P C - V	0.127
15	• Z-C- 3-2	0.121
16	• CHEMICAL LABORATORY	Nil
17	• TOOL ROOM	Nil
18	• ROLLING ELEMENT	0.35
19	• BALL GRINDING	0.32
20	• O. D. GRINDING	0.136
21	• HEAT TREATMENT SHOP	0.125
22	• HEADER & FLASHING AREA	0.121
23	• ABC - MODULE - II	0.187
24	• ABC - MODULE - V	0.175
25	• BASEMENT, NEAR HARPOON	0.33
26	• BASEMENT, NEAR DIRTY COOLANT TANK	0.24
27	• BASEMENT, BESIDE COOLANT BAY	0.37
28	• ASSEMBLY- HAWK LINE NO.9 (WASHING MACHINE)	0.32
29	• ASSEMBLY - CRYSTAL LINE NO. - 5 (WASHING MACHINE)	0.31
30	• ASSEMBLY - SURAKSHA LINE NO. - 2 (WASHING MACHINE)	0.36

Prepared By: N. Mondal

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil

Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
- 1 # Information provided by customer
  - 2 Sample is drawn by M/s. Indicative Consultant India.
  - 3 Sample submitted and identified by customer as: NA
  - 4 Test results shown in this test report relate only to the sample (s) only.
  - 5 The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - 6 The reproduction of the report except in full is invalid without written approval of the laboratory.
  - 7 Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - 8 Retention period of tested samples (Oil Mist) is Zero Days from the date of issue unless otherwise specified.
  - 9 Location of Testing: Haldia Laboratory

End of Report

Page 1 of 1

Reviewed By: QM/TM

**CENTRAL LABORATORY :** HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

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**KOLKATA LABORATORY :** B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

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# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/IL/N/TC-081/2024	Format No: ICI/FM/II/68
Customer Name	:	M/s. TATA STEEL LTD (BEARING DIVISION)	
Address	:	Rakhajungle, Nimpur, Kharagpur, Paschim Medinipur, Pin-721 301	
#Customer Representative Name & Contact No.	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	WORKZONE NOISE	
Sampling Method	:	By Digital Noise Meter	
Test Method	:	IS 4758:1968 (RA 2017)	
Monitoring Details:			
Height from the floor	:	1.5 M	Total Time (T) : 18 Min
Distance of Source	:	3.0 M	Difference (dt) : 2 Min

#Noise Source/ Location: INSIDE D.G. ROOM						DAY TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-404	23.05.2024	10:45 AM	88.47	89.6	87.3	As per note

\*\*\*Remarks: During sampling time D.G. are running condition

#Noise Source/ Location: COMPRESSOR ROOM						DAY TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-405	23.05.2024	12:30 PM	81.48	82.7	80.4	As per note

\*\*\*Remarks: During sampling time Compressor are running condition

#Noise Source/ Location: GRINDING AREA						DAY TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-406	23.05.2024	01:05 PM	78.14	79.4	76.8	As per note

#Noise Source/ Location: OUTSIDE OF D.G. ROOM						DAY TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-407	23.05.2024	11:05 AM	71.68	73.3	69.8	As per note

\*\*\*Remarks: During sampling time D.G. are running condition

### \*Note:

OSHA's Permissible limit (PEL) is 90 dB (A) for all workers of an 8 Hour Day with 5 dB (A) exchange Rate  
Indian Factory Act'1948 Permissible limit (PEL) is 90 dB (A) for all workers of an 8 Hour Day

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Sampling was done in front of customer's representative  
Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note :
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  6. Noise data was recorded at the customer site in presence of customer's representative.
  7. Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  8. The reproduction of the report except in full is invalid without written approval of the laboratory
  9. Location of Testing: Plant Site & Report was generated from Haldia Laboratory

Page 1 of 1

End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

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# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/IIL/N/TC-082/2024	Format No: ICI/FM/II/68
Customer Name	:	M/s. TATA STEEL LTD (BEARING DIVISION)	
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	
#Customer Representative Name & Contact No.	:	Mr. Supriyo Tikader Mob No. +91-9263710584	
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	AMBIENT NOISE	
Sampling Method	:	By Digital Noise Meter	
Test Method	:	IS 9989:1981 (RA 2020)	
Monitoring Details:			
Height from the floor	:	1.5 M	Total Time (T) : 18 Min
Distance of Source	:	3.0 M	Difference (dt) : 2 Min

#Noise Source/ Location: NEAR MAIN GATE						DAY TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-408	23.05.2024	09:05 AM	58.74	60.4	57.3	As per note

#Noise Source/ Location: NEAR MAIN GATE						NIGHT TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-409	23.05.2024	10:10 PM	52.27	53.6	50.8	As per note

#Noise Source/ Location: NEAR ADMINISTRATIVE BUILDING						DAY TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-410	23.05.2024	09:25 AM	57.68	59.2	56.5	As per note

#Noise Source/ Location: NEAR SCRAP YARD						DAY TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-411	23.05.2024	09:55 AM	62.04	63.4	60.2	As per note

#Noise Source/ Location: NEAR ADMINISTRATIVE BUILDING						NIGHT TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-412	23.05.2024	10:30 AM	51.60	52.8	50.8	As per note

#Noise Source/ Location: NEAR SCRAP YARD						NIGHT TIME
Sample ID	Sampling Date	Sampling Time	Results dB(A)			Limit* dB(A)
			Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	
2024/N-413	23.05.2024	10:05 PM	58.27	59.2	57.3	As per note

Page 1 of 3

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

**CENTRAL LABORATORY :** HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973  
**KOLKATA LABORATORY :** B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970  
**WEBSITE :** www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / Indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 31.05.2024	:	Report No: ICI/ILN/TC-082/2024	Format No: ICI/FM/II/68	
Customer Name	:	M/s. TATA STEEL LTD (BEARING DIVISION)		
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301		
#Customer Representative Name & Contact No.	:	Mr. Supriyo Tikader Mob. No. +91-9263710584		
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024		
#Sample Description	:	AMBIENT NOISE		
Sampling Method	:	By Digital Noise Meter		
Test Method	:	IS 9989:1981 (RA 2020)		
Monitoring Details:				
Height from the floor	:	1.5 M	Total Time (T)	: 18 Min
Distance of Source	:	3.0 M	Difference (dt)	: 2 Min

#Noise Source/ Location: NEAR GUEST HOUSE						DAY TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-414	23.05.2024	02:10 PM	59.53	61.2	58.4	As per note

#Noise Source/ Location: NEAR GUEST HOUSE						NIGHT TIME
Sample ID	Sampling Date	Sampling Time	Equivalent Noise (L <sub>eq</sub> ) dB(A)	Maximum Noise (L <sub>max</sub> ) dB(A)	Minimum Noise (L <sub>min</sub> ) dB(A)	Limit* dB(A)
2024/N-415	23.05.2024	11:35 PM	52.03	53.2	50.8	As per note

\*Note:

### NOISE STANDARD

Area Code	Category of Area/ Zone	Limits dB (A) Leq	
		Day Time (06:00 AM to 10:00 PM)	Night Time (10:00 PM to 06:00 AM)
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Source: The Noise Pollution (Regulation & Control) Rules, 2000

For, INDICATIVE CONSULTANT INDIA

Prepared By: P. Das

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

Test Witnessed By: Sampling was done in front of customer's representative  
Estimated Uncertainty: Not Required

- Note :
- # Information provided by customer
  - Sample is drawn by M/s. Indicative Consultant India
  - Sample submitted and identified by customer as: N.A.
  - Test results shown in this test report relate only to the sample (s) only
  - The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  - Noise data was recorded at the customer site in presence of customer's representative.
  - Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  - The reproduction of the report except in full is invalid without written approval of the laboratory
  - Location of Testing: Haldia Laboratory

Page 3 of 3

End of Report

Reviewed By: QM/TM

**CENTRAL LABORATORY** : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

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# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/IL/E/TC-627/2024	Format No: ICI/FM/H/66
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-627
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob No. +91-9263710584	Sampling Time : 11:30 AM Analysis Start Date : 27.05.2024 Analysis complete Date : 04.06.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	EFFLUENT	
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part 1): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
#Location	:	ETP INLET	

Sl. No.	Parameters	Unit	Result	Method Followed
1.	pH (at 27°C)	---	7.19	IS:3025(Part-11):2022 , APHA 24 <sup>th</sup> Edition 4500-H* B
2.	Total Suspended Solid (TSS)	mg/L	66.0	IS:3025 (Part-17): 2022 APHA 24 <sup>th</sup> Edition 2540D ,
3.	Chemical Oxygen Demand (COD)	mg/L	104.2	APHA 24 <sup>th</sup> Edition 5220B
4.	Bio-Chemical Oxygen Demand (for 3 days at 27°C)	mg/L	24.0	IS:3025 (Part-44): 2023
5.	Oil and Grease	mg/L	4.9	IS:3025 (Part-39): 2021 APHA 24 <sup>th</sup> Edition 5520B,
6.	Chloride (as Cl)	mg/L	46.5	IS:3025(Part-32):1988: RA 2019 APHA 24 <sup>th</sup> Edition 4500Cl* B
7.	Mixed Liquor Suspended Solids (as MLSS)	mg/L	48.0	APHA 24 <sup>th</sup> Edition 2540C, IS:3025 (Part-17): 2022

For, INDICATIVE CONSULTANT INDIA

Prepared By: N. Mondal

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

- Note :
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  6. The reproduction of the report except in full is invalid without written approval of the laboratory
  7. Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  8. Retention period of tested samples (Water) is 10 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing: Haldia Laboratory

End of Report

Page 1 of 1

Reviewed By: QM/TM

**CENTRAL LABORATORY** : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

**KOLKATA LABORATORY** : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

**WEBSITE** : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA



(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 05.06.2024	Report No: ICI/HLE/TC-628/2024	Format No: ICI/FM/II/66
Customer Name	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-628
Address	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 11:35 AM Analysis Start Date : 27.05.2024 Analysis complete Date : 04.06.2024
#Work Order No.	3000171050/656 Dtd. 16.04.2024	
#Sample Description	EFFLUENT	
Sample Condition	In Plastic Bottle & Glass Bottle	
Sampling Method	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
#Location	ETP OUTLET	
#Material/ Test Specification	Schedule – VI: General Standards for Discharge of Environmental Pollutants: Part A: Effluents: The Environment (Protection) Rules, 1986	

Sl. No.	Parameters	Unit	Result	Schedule – VI: General Standards for Discharge of Environmental Pollutants Part A: Effluents**		Method Followed
				Inland Surface Water	Land for Irrigation	
1.	pH (at 27°C)	—	7.23	5.5-9.0	5.5-9.0	IS:3025(Part-11):2022 , APHA 24 <sup>th</sup> Edition 4500-H <sup>+</sup> B
2.	Total Suspended Solid (TSS)	mg/L	42.0	100 mg/L (max)	200 mg/L (max)	IS:3025 (Part-17): 2022 APHA 24 <sup>th</sup> Edition 2540D ,
3.	Chemical Oxygen Demand (COD)	mg/L	62.5	250 mg/L (max)	-	APHA 24 <sup>th</sup> Edition 5220B
4.	Bio-Chemical Oxygen Demand (for 3 days at 27°C)	mg/L	14.0	30 mg/L (max)	100 mg/L (max)	IS 3025 (Part-44): 2023
5.	Oil and Grease	mg/L	2.2	10 mg/L (max)	10 mg/L (max)	IS:3025 (Part-39): 2021 APHA 24 <sup>th</sup> Edition 5520B,
6.	Chloride (as Cl)	mg/L	44.0	Not Specified		IS:3025(Part-32):1988 RA 2019 APHA 24 <sup>th</sup> Edition 4500Cl <sup>-</sup> B
7.	Mixed Liquor Suspended Solids (as MLSS)	mg/L	20.0	Not Specified		APHA 24 <sup>th</sup> Edition 2540C, IS:3025 (Part-17): 2022

\*\*The Environment (Protection) Rules, 1986

For, INDICATIVE CONSULTANT INDIA

Prepared By: N. Mondal

Checked By: N. Pramanik

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note :
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
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  8. Retention period of tested samples (Water) is 10 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing: Haldia Laboratory

End of Report

Page 1 of 1

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/HL/W/RN-624/2024	Format No: ICI/FM/H/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-624
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 10:10 AM Analysis Start Date : 27.05.2024 Analysis complete Date : 04.06.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	DRINKING WATER	
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	:	CANTEEN	
Material Specification	:	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
1.	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Part-5):2018 APHA 24 <sup>th</sup> Edition 2150 B
2.	pH (at 27°C)	-	6.78	6.5 to 8.5	No Relaxation	IS:3025(Part-11):2022 APHA 24 <sup>th</sup> Edition 4500-H <sup>+</sup> B
3.	Colour	Hazen Unit	<5.0	5	15	IS:3025(Part-4): 2021
4.	Conductivity	µS/cm	256.6	-	-	IS: 3025(Part-14):2013:RA 2019 APHA 24 <sup>th</sup> Edition 2510 B
5.	Turbidity	N.T.U.	<1.0	1 (Max)	5 (Max)	IS:3025(Part-10):2023 APHA 24 <sup>th</sup> Edition 2130 B
6.	Total Dissolved Solid (TDS)	mg/L	202.0	500 (Max)	2000 (Max)	IS:3025(Part-16):2023 APHA 24 <sup>th</sup> Edition 2540 C
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
7.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	103.3	200 (Max)	600 (Max)	IS:3025(Part-21):2009: RA 2019 APHA 24 <sup>th</sup> Edition 2340 C
8.	Ca Hardness (as CaCO <sub>3</sub> )	mg/L	64.0	-	-	APHA 24 <sup>th</sup> Edition 2340 C
9.	Mg Hardness (as CaCO <sub>3</sub> )	mg/L	39.3	-	-	APHA 24 <sup>th</sup> Edition 2340 C
10.	Calcium (as Ca)	mg/L	25.7	75 (Max)	200 (Max)	IS:3025(Part-40):Amd 1:2014 APHA 24 <sup>th</sup> Edition 3500Ca B
11.	Magnesium (as Mg)	mg/L	9.5	30 (Max)	100 (Max)	IS:3025(Part-46):2023 APHA 24 <sup>th</sup> Edition 3500Mg B
12.	Chloride (as Cl)	mg/L	41.6	250 (Max)	1000 (Max)	IS:3025(Part-32):1988: RA 2019 APHA 24 <sup>th</sup> Edition 4500Cl <sup>-</sup> B
13.	Total Alkalinity (as CaCO <sub>3</sub> )	mg/L	123.5	200 (Max)	600 (Max)	IS:3025(Part-23):2023 APHA 24 <sup>th</sup> Edition 2320 B
14.	P-Alkalinity (as CaCO <sub>3</sub> )	mg/L	Nil	-	-	APHA 24 <sup>th</sup> Edition 2320B
15.	M-Alkalinity (as CaCO <sub>3</sub> )	mg/L	123.5	-	-	APHA 24 <sup>th</sup> Edition 2320B
16.	Iron (as Fe)	mg/L	0.13	0.3 (Max)	No Relaxation	IS:3025(Part-53):2003: RA 2019 APHA 24 <sup>th</sup> Edition 3500-Fe B
17.	Phosphate (as P)	mg/L	<0.02	-	-	APHA 24 <sup>th</sup> Edition 4500P D
18.	Fluoride (as F)	mg/L	<0.04	1 (Max)	1.5 (Max)	IS:3025(Part-60):2008: RA 2019 APHA 24 <sup>th</sup> Edition 4500 FD

Page: 1 of 2

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

**CENTRAL LABORATORY :** HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

**KOLKATA LABORATORY :** B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970  
**WEBSITE :** www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA



(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/IHL/W/RN-624/2024	Format No: ICI/FM/H/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-624
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 10:10 AM Analysis Start Date : 27.05.2024 Analysis complete Date : 04.06.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	DRINKING WATER	
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	:	CANTEEN	
Material Specification	:	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
19.	Appearance	-	Clear	-	-	Visual
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
20.	Sulfate (as SO <sub>4</sub> )	mg/L	11.0	200 (Max)	400 (Max)	IS:3025(Part-24/ Sec 1): 2022 APHA 24 <sup>th</sup> Edition 4500 SO <sub>4</sub> <sup>2-</sup> E
21.	Silica (as SiO <sub>2</sub> )	mg/L	6.5	-	-	IS:3025(Part-35):1988, RA 2023 APHA 24 <sup>th</sup> Edition 4500 SiO <sub>2</sub> C
22.	Manganese (as Mn)	mg/L	<0.1	0.1 (Max)	0.3 (Max)	APHA 24 <sup>th</sup> Edition 3111 B
PARAMETERS CONCERNING TOXIC SUBSTANCES						
23.	Arsenic (as As)	mg/L	<0.01	0.01 (Max)	0.05 (Max)	APHA 24 <sup>th</sup> Edition 3500As B
BACTERIOLOGICAL PARAMETERS						
24.	Total Coliform	MPN/100 ml	BLQ	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)
25.	E. Coli	CFU/100ml	Absent	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)

LOQ= Limits of Quantification; BLQ= Below Limit of Quantification (LOQ- 1.8 MPN/100 ml)

### Remarks:

- 1) Chemical test Parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012
- 2) Bacteriological test parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012

Prepared By: N. Mondal

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Gohi  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)

Estimated Uncertainty: Not Required

Parbati Gohi  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note:
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
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  8. Retention period of tested samples (Water) is 10 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing: Haldia Laboratory

Page 2 of 2

-----End of Report-----

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602  
Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970  
WEBSITE : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / Indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/HL/W/RN-625/2024	Format No: ICI/FM/H/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-625
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 10:45 AM
			Analysis Start Date : 27.05.2024
			Analysis complete Date : 04.06.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	DRINKING WATER	
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	:	GUEST HOUSE	
Material Specification	:	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
1.	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Part-5):2018 APHA 24 <sup>th</sup> Edition 2150 B
2.	pH (at 27°C)	-	6.57	6.5 to 8.5	No Relaxation	IS:3025(Part-11): 2022 APHA 24 <sup>th</sup> Edition 4500-H <sup>+</sup> B
3.	Colour	Hazen Unit	<5.0	5	15	IS:3025(Part-4): 2021
4.	Conductivity	µS/cm	281.4	-	-	IS: 3025(Part-14):2013.RA 2019 APHA 24 <sup>th</sup> Edition 2510 B
5.	Turbidity	N.T.U.	<1.0	1 (Max)	5 (Max)	IS:3025(Part-10):2023 APHA 24 <sup>th</sup> Edition 2130 B
6.	Total Dissolved Solid (TDS)	mg/L	230.0	500 (Max)	2000 (Max)	IS:3025(Part-16):2023 APHA 24 <sup>th</sup> Edition 2540 C
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
7.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	103.3	200 (Max)	600 (Max)	IS:3025(Part-21):2009: RA 2019 APHA 24 <sup>th</sup> Edition 2340 C
8.	Ca Hardness (as CaCO <sub>3</sub> )	mg/L	59.0	-	-	APHA 24 <sup>th</sup> Edition 2340 C
9.	Mg Hardness (as CaCO <sub>3</sub> )	mg/L	44.3	-	-	APHA 24 <sup>th</sup> Edition 2340 C
10.	Calcium (as Ca)	mg/L	23.6	75 (Max)	200 (Max)	IS:3025(Part-40):Amd 1:2014 APHA 24 <sup>th</sup> Edition 3500Ca B
11.	Magnesium (as Mg)	mg/L	10.8	30 (Max)	100 (Max)	IS:3025(Part-46):2023 APHA 24 <sup>th</sup> Edition 3500Mg B
12.	Chloride (as Cl)	mg/L	34.2	250 (Max)	1000 (Max)	IS:3025(Part-32):1988: RA 2019 APHA 24 <sup>th</sup> Edition 4500Cl B
13.	Total Alkalinity (as CaCO <sub>3</sub> )	mg/L	92.6	200 (Max)	600 (Max)	IS:3025(Part-23):2023 APHA 24 <sup>th</sup> Edition 2320 B
14.	P-Alkalinity (as CaCO <sub>3</sub> )	mg/L	Nil	-	-	APHA 24 <sup>th</sup> Edition 2320B
15.	M-Alkalinity (as CaCO <sub>3</sub> )	mg/L	92.6	-	-	APHA 24 <sup>th</sup> Edition 2320B
16.	Iron (as Fe)	mg/L	0.14	0.3 (Max)	No Relaxation	IS:3025(Part-53):2003: RA 2019 APHA 24 <sup>th</sup> Edition 3500-Fe B
17.	Phosphate (as P)	mg/L	<0.02	-	-	APHA 24 <sup>th</sup> Edition 4500P D
18.	Fluoride (as F)	mg/L	<0.04	1 (Max)	1.5 (Max)	IS:3025(Part-60):2008: RA 2019 APHA 24 <sup>th</sup> Edition 4500 FD

Page: 1 of 2

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

**CENTRAL LABORATORY** : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

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**KOLKATA LABORATORY** : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

**WEBSITE** : www.indicativeconsultantindia.com

Towards Sustainable Growth



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/ILAV/RN-625/2024	Format No: ICI/FM/II/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-625
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Talader Mob No +91-9263710584	Sampling Time : 10:45 AM
#Work Order No.	:	3000171050/656 Dtd 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	:	DRINKING WATER	Analysis complete Date : 04.06.2024
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	:	GUEST HOUSE	
Material Specification	:	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
19.	Appearance	-	Clear	-	-	Visual
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
20.	Sulfate (as SO <sub>4</sub> )	mg/L	11.0	200 (Max)	400 (Max)	IS: 3025(Part-24/ Sec 1), 2022 APHA 24 <sup>th</sup> Edition 4500 SO <sub>4</sub> <sup>2-</sup> E
21.	Silica (as SiO <sub>2</sub> )	mg/L	5.9	-	-	IS:3025(Part-35):1988, RA 2023 APHA 24 <sup>th</sup> Edition 4500 SiO <sub>2</sub> -C
22.	Manganese (as Mn)	mg/L	<0.1	0.1 (Max)	0.3 (Max)	APHA 24 <sup>th</sup> Edition 3111 B
PARAMETERS CONCERNING TOXIC SUBSTANCES						
23.	Arsenic (as As)	mg/L	<0.01	0.01 (Max)	0.05 (Max)	APHA 24 <sup>th</sup> Edition 3500As B
BACTERIOLOGICAL PARAMETERS						
24.	Total Coliform	MPN/100 ml	BLQ	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)
25.	E. Coli	CFU/100ml	Absent	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)

LOQ= Limits of Quantification; BLQ= Below Limit of Quantification (LOQ= 1.8 MPN/100 ml)

### Remarks:

- 1) Chemical test Parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012
- 2) Bacteriological test parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012

Prepared By: N. Mondal

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

### Note :

1. # Information provided by customer
2. Sample is drawn by M/s. Indicative Consultant India
3. Sample submitted and identified by customer as: N.A.
4. Test results shown in this test report relate only to the sample (s) only
5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
6. The reproduction of the report except in full is invalid without written approval of the laboratory
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8. Retention period of tested samples (Water) is 10 days from the date of issue of test report unless otherwise specified.
9. Location of Testing: Haldia Laboratory

Page 2 of 2

End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

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# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com



## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/IIL/W/RN-626/2024	Format No: ICI/FM/II/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-626
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 11:05 AM Analysis Start Date : 27.05.2024 Analysis complete Date : 04.06.2024
#Work Order No.	:	3000171050/656 Dtd. 16.04.2024	
#Sample Description	:	DRINKING WATER	
Sample Condition	:	In Plastic Bottle & Glass Bottle	
Sampling Method	:	IS:3025 (Part 1): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	:	QUARTER NO. - B - 408	
Material Specification	:	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
1.	Odour	-	Agreeable	Agreeable	Agreeable	IS:3025(Part-5):2018 APHA 24 <sup>th</sup> Edition 2150 B
2.	pH (at 27°C)	-	6.58	6.5 to 8.5	No Relaxation	IS:3025(Part-11):2022 APHA 24 <sup>th</sup> Edition 4500-H* B
3.	Colour	Hazen Unit	<5.0	5	15	IS:3025(Part-4): 2021
4.	Conductivity	µS/cm	271.0	-	-	IS: 3025(Part-14):2013:RA 2019 APHA 24 <sup>th</sup> Edition 2510 B
5.	Turbidity	N.T.U.	<1.0	1 (Max)	5 (Max)	IS:3025(Part-10):2023 APHA 24 <sup>th</sup> Edition 2130 B
6.	Total Dissolved Solid (TDS)	mg/L	218.0	500 (Max)	2000 (Max)	IS:3025(Part-16):2023 APHA 24 <sup>th</sup> Edition 2540 C
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
7.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	98.4	200 (Max)	600 (Max)	IS:3025(Part-21) 2009: RA 2019 APHA 24 <sup>th</sup> Edition 2340 C
8.	Ca Hardness (as CaCO <sub>3</sub> )	mg/L	54.10	-	-	APHA 24 <sup>th</sup> Edition 2340 C
9.	Mg Hardness (as CaCO <sub>3</sub> )	mg/L	44.3	-	-	APHA 24 <sup>th</sup> Edition 2340 C
10.	Calcium (as Ca)	mg/L	21.7	75 (Max)	200 (Max)	IS:3025(Part-40):Amd 1:2014 APHA 24 <sup>th</sup> Edition 3500Ca B
11.	Magnesium (as Mg)	mg/L	10.8	30 (Max)	100 (Max)	IS:3025(Part-46):2023 APHA 24 <sup>th</sup> Edition 3500Mg B
12.	Chloride (as Cl)	mg/L	19.6	250 (Max)	1000 (Max)	IS:3025(Part-32) 1988: RA 2019 APHA 24 <sup>th</sup> Edition 4500Cl B
13.	Total Alkalinity (as CaCO <sub>3</sub> )	mg/L	111.2	200 (Max)	600 (Max)	IS:3025(Part-23):2023 APHA 24 <sup>th</sup> Edition 2320 B
14.	P-Alkalinity (as CaCO <sub>3</sub> )	mg/L	Nil	-	-	APHA 24 <sup>th</sup> Edition 2320B
15.	M-Alkalinity (as CaCO <sub>3</sub> )	mg/L	111.2	-	-	APHA 24 <sup>th</sup> Edition 2320B
16.	Iron (as Fe)	mg/L	0.12	0.3 (Max)	No Relaxation	IS:3025(Part-53):2003: RA 2019 APHA 24 <sup>th</sup> Edition 3500-Fe B
17.	Phosphate (as P)	mg/L	<0.02	-	-	APHA 24 <sup>th</sup> Edition 4500P D
18.	Fluoride (as F)	mg/L	<0.04	1 (Max)	1.5 (Max)	IS:3025(Part-60):2008: RA 2019 APHA 24 <sup>th</sup> Edition 4500 FD

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Parbat Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

**CENTRAL LABORATORY** : HPL Link Road, Basudevpur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

**KOLKATA LABORATORY** : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

**WEBSITE** : www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



9001:2015



45001:2018

EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 05.06.2024	Report No: ICI/IIL/W/RN-626/2024	Format No: ICI/FM/I/67
Customer Name	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-626
Address	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	Mr. Supriyo Tikader Mob. No. +91-9263710584	Sampling Time : 11:05 AM
#Work Order No.	3000171050/656 Dtd. 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	DRINKING WATER	Analysis complete Date : 04.06.2024
Sample Condition	In Plastic Bottle & Glass Bottle	
Sampling Method	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	
# Location	QUARTER NO. - B - 408	
Material Specification	IS 10500: 2012	

Sl. No.	Parameters	Unit	Result	As Per IS:10500:2012		Method Followed
				Desirable Limit	Permissible limit in the absence of alternate source	
ORGANOLEPTIC AND PHYSICAL PARAMETERS						
19.	Appearance	-	Clear	-	-	Visual
GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS						
20.	Sulfate (as SO <sub>4</sub> )	mg/L	10.5	200 (Max)	400 (Max)	IS 3025(Part-24/ Sec 1): 2022 APHA 24 <sup>th</sup> Edition 4500 SO <sub>4</sub> <sup>2-</sup> E
21.	Silica (as SiO <sub>2</sub> )	mg/L	5.3	-	-	IS 3025(Part-35): 1988, RA 2023 APHA 24 <sup>th</sup> Edition 4500 SiO <sub>2</sub> C
22.	Manganese (as Mn)	mg/L	<0.1	0.1 (Max)	0.3 (Max)	APHA 24 <sup>th</sup> Edition 3111 B
PARAMETERS CONCERNING TOXIC SUBSTANCES						
23.	Arsenic (as As)	mg/L	<0.01	0.01 (Max)	0.05 (Max)	APHA 24 <sup>th</sup> Edition 3500As B
BACTERIOLOGICAL PARAMETERS						
24.	Total Coliform	MPN/100 ml	BLQ	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)
25.	E. Coli	CFU/100ml	Absent	Shall not be detectable in any 100 ml of sample	-	IS: 1622:1981 (RA 2019)

LOQ= Limits of Quantification; BLQ= Below Limit of Quantification (LOQ- 1.8 MPN/100 ml)

### Remarks:

- 1) Chemical test Parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012
- 2) Bacteriological test parameters: Compliance – The above-mentioned test parameters are within desirable limit as per specification IS 10500:2012

Prepared By: N. Mondal

Checked By: N. Pramanik

For, INDICATIVE CONSULTANT INDIA

Parbati Golui  
(Quality Manager)  
Signatory Authority

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

Parbati Golui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

- Note :
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
  6. The reproduction of the report except in full is invalid without written approval of the laboratory
  7. Once issued, the test report/certificate is in public domain and laboratory is not responsible for the authenticity of photocopied test report
  8. Retention period of tested samples (Water) is 10 days from the date of issue of test report unless otherwise specified.
  9. Location of Testing: Haldia Laboratory

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End of Report

Reviewed By: QM/TM

CENTRAL LABORATORY : HPL Link Road, Basudevapur, Khanjanchak, Haldia, Purba Medinipur, Pin- 721602

Phone No. : 03224-275765, 9434017584, 9232395890, 7797506973

KOLKATA LABORATORY : B1-1/22/1-2, Santoshpur(M), Block-B, Maheshtala, Kolkata-700142, Mob. : 7797245819, 7797506970

WEBSITE

: www.indicativeconsultantindia.com



# INDICATIVE CONSULTANT INDIA

(GOVT. REGISTERED TEST HOUSE)



EMAIL : indicativeconsultantindia@gmail.com / indicativeconsultantindia.kol@gmail.com

## TEST REPORT

Date: 05.06.2024	:	Report No: ICI/IIL/W/RN-629/2024	Format No: ICI/FM/II/67
Customer Name	:	M/s. TATA STEEL LTD. (BEARING DIVISION)	Sample ID No : 2024/W-629
Address	:	Rakhajungle, Nimpura, Kharagpur, Paschim Medinipur, Pin-721 301	Sampling Date : 24.05.2024
#Customer Representative Name & Contact Number	:	Mr. Supriyo Tikader Mob. No +91-9263710584	Sampling Time : 11:45 AM
#Work Order No.	:	3000171050/656 Dtd 16.04.2024	Analysis Start Date : 27.05.2024
#Sample Description	:	POND WATER	Analysis complete Date : 04.06.2024
Sample Condition	:	In Plastic Bottle	
Sampling Method	:	IS:3025 (Part I): 1987 (RA 2019), APHA 24 <sup>th</sup> Edition, 2023	

Sl. No.	Parameter	Unit	Result	Reference Limits**
1.	Bio-assay test (using Zebra Fish)	% Survival of Fish after 96 hours in 100% effluent	94.0	90% Survival of Fish after 96 hours in 100% effluent

\*\*Limit as Per General Effluent Standards Schedule - VI, Part A, GSR 801(E) Dt. 3 1.12.93

For, INDICATIVE CONSULTANT INDIA

Prepared By: N. Mondal

Checked By: N. Pramanik

Parbati Gokui  
(Quality Manager)  
Signatory Authority

Parbati Gokui  
Quality Manager  
INDICATIVE CONSULTANT INDIA

Test Witnessed By: Nil (Sampling was done in front of customer representatives)  
Estimated Uncertainty: Not Required

- Note :
1. # Information provided by customer
  2. Sample is drawn by M/s. Indicative Consultant India
  3. Sample submitted and identified by customer as: N.A.
  4. Test results shown in this test report relate only to the sample (s) only
  5. The test results referred in test report are based on observations & measurements under the stated environmental conditions.
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End of Report

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Reviewed By: QM/TM

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