



Regd. Office: JSW Centre
Bandra Kurla Complex,
Bandra (East), Mumbai – 400 051
CIN : L27102MH1994PLC152925
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000
Website : www.jsw.in

No. JSW/S/CO/2025/429

Date: 19/09/2025

To,
The Member Secretary
State Pollution Control Board, Odisha
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8,
BHUBANESHWAR - 751012

Sub: - Submission of Environment Statement (Form-V) for the year 2024-25 in compliance of EC & CTO Condition for Narayanposhi Iron & Manganese Ore Mine of M/s JSW Steel Ltd.

Ref: - 1. Vested Environment Clearance Letter dated 18.06.2019 issued by MOEF&CC, GOI.
2. Consent Order No 2944 vide letter no 4651/IND-I-CON-2258 dated 30.03.2024.

Dear Sir,

With reference to aforesaid subject, please find enclosed herewith the Environment Statement (Form-V) for the year 2024-25 in compliance of EC & CTO Condition for Narayanposhi Iron & Manganese Ore Mine of M/s JSW Steel Ltd.

Seeking your co-operation as always.

For JSW Steel Ltd

Vijay Kumar
19/9/25

Vijay Kumar
(Authorized Signatory)

Encl: As above
Copy to-

1. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (Eastern Zone), A/3, Chandersekharpur, Bhubaneswar – 751023
2. The Regional Officer, Regional Office, Rourkela, Office of the State Pollution Control Board, At-Near Panposh Hockey Chowk, AT/PO. - Panposh, Rourkela – 769 004, DisSundargarh, Odisha



**JSW Steel Limited
Narayanposhi Iron & Manganese Ore Mine**



**ENVIRONMENTAL STATEMENT FOR
NARAYANPOSHI IRON & MANGANESE ORE MINE
(FINANCIAL YEAR ENDING MARCH 31ST 2025)**

PREPARED & SUBMITTED BY

**Narayanposhi Iron & Manganese Ore Mine
of M/s JSW Steel Ltd**

Tehsil - Koira, District – Sundergarh

Odisha

Form V

(See Rule 14)

Environment Statement for the Financial Year ending the 31st March 2025

Part A

(i)	Name and address of the owner/occupier of the industry operation or process	Narayanposhi Iron & Manganese Ore Mine of M/s JSW Steel Ltd in villages Harischandrapur, Koira, Kashira, Kusumdihi and Kathamala RF villages under Koira tehsil of Sundergarh district, Odisha state
(ii)	Industry Category Primary: - (STC Code) Secondary :- (SIC Code)	Red Category SIC (Standard Industrial Classification)- Code-1000 Industry Type- Metal Mining
(iii)	Production capacity: Units	Operating Mine of 6.0 MTPA Iron Ore & 0.036 MTPA Mn Ore.
(iv)	Year of establishment	Mining operation commenced from the 01.07.2020
(v)	Date of the last Environment Statement Submitted	16 September 2024

Part B

Water and Raw Material Consumption

(i)	Water consumption m3/d	
	Process (Spraying in Mine pit or Haul Road Dust Suppression or dry fog dust suppression) *	454 m3/day**
	Cooling	Nil
	Domestic (Drinking purpose)	144 m3/day

Note: *Spraying in mine pit or haul road dust suppression is not exactly a process driven parameter, which is linked with the extent of haul road in usage during mining operation.

**Maximum Rain water collected in the mine pits & seepage water from Mn Pit being reused for dust suppression purpose.

Name of Product	Process water consumption per unit of product output(cum/MT)	
	During the previous financial year	During the current financial year
	(1)	(2)
Iron Ore	0.048124	0.037387

Raw material consumption: - Not Applicable

Name of raw material	Name of products	Consumption of raw material per unit of output MT	
		During the previous financial year	During the current financial year
Not Applicable			

Polluting Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C**Pollution discharged to environment/ unit of output**

(Parameter as specified in the consent issued)

Pollutants	Qty. of pollutants discharged (mass/day)	Concentrations of pollutants in discharged (mass/volume)	Percentage of variation from prescribed standard with reason
(a) Air	There are no point sources of emissions or process stacks releasing pollutants into the environment. Ambient air quality is monitored at four core zone and four buffer zone locations in accordance with NAAQS-2009, and the results remain well within the prescribed standards. The consolidated environmental monitoring data for FY 2024-25 is enclosed as Annexure-I .		
(b) Water	No effluent is generated as no industrial process is involved in the mining operation. However, the surface run-off from the mine complies with all prescribed limits. An ETP with an Oil & Grease Trap with complete recirculation system is in place. The surface run off water quality is enclosed as Annexure II .		

PART- D**HAZARDOUS WASTES**

(as specified under Hazardous Wastes / Management and Handling Rules, 1989)

Hazardous Wastes	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process (Used or spent Oil)	51.82 T	50.9 T
(b) From pollution control	Nil	Nil

PART- E**Solid Wastes**

	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Over Burden- 705343 cum	Over Burden- 425766 cum
(b) From pollution control	Not Applicable	Not Applicable
(c) (1) Quantity recycled or re-utilized within the unit	Nil	Nil
(2) Sold	Nil	Nil
(3) Disposed	OB is disposed at ear marked area in of the mine as per Approved Mine Plan.	OB is disposed at ear marked area in of the mine as per Approved Mine Plan.

PART-F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.

Solid Waste- Overburden of **425766 cum** generated during the reporting period. The OB/Waste being disposed of at the earmarked area and after maturity same will be stabilized with plantation as per approved Mine Plan.

Hazardous Waste- A total of **50.9 T** of hazardous waste was generated during the reporting period which was sold to an authorized dealer of Hazardous waste as per CPCB guidelines.

PART-G

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

Our aim is to preserve the long- term health of the natural environment affected by our operations. We set and achieve targets that promote efficient use of resources and include the reduction and prevention pollution.

**Air Management-
Blasting Operation**

- Controlled blasting method is in practice by restriction of explosive charge in the holes.
- Well-designed blast by effective stemming and use of milli second delay detonators, Proper blasting designing to see that the optimum breakage occurs.
- To control ground vibrations and arrest fly rocks, advanced initiation system is being used for blasting.
- Ground vibrations are also being monitored and the results are well within limits.

Excavation, Hauling and Crushing & Screening

- Dry fog system for crusher & screen plants are provided.
- Using sharp teeth for shovels and other soil excavation equipment, and their periodical replacements.
- Acoustic enclosures for operator cabin.
- Avoiding overloading of dumpers
- Provision of dust filters / masks to workers working at highly dust prone and affected areas
- Imparting sufficient training to operators on safety and Environmental parameters.

Transportation

- Regular water sprinkling is being carried out by engaging mobile water tankers on the mine benches, mine haul, loading and unloading points and transfer points, mineral transportation roads for dust suppressions.
- Maintenance of haul road by regular grading is carried out through grader, dozer.
- Ensuring that all mineral trucks are covered by tarpaulin.
- Vehicular emissions controlled through regular and proper preventive maintenance schedules.
- Regular water sprinkling arrangements have been made on the transportation roads/public road through mobile water tankers.
- A road sweeping machine utilizing vacuum cleaning technology is deployed on mineral transportation roads to control the re-suspension of dust.



Wet Drilling and Dust Extractor System in Drilling Operation



Quick Dispatch System



Existing Fixed Sprinkling System



Water Tanker Arrangement for Haul Road Dust Suppression



Dry Fog System in Mineral Handling Plants



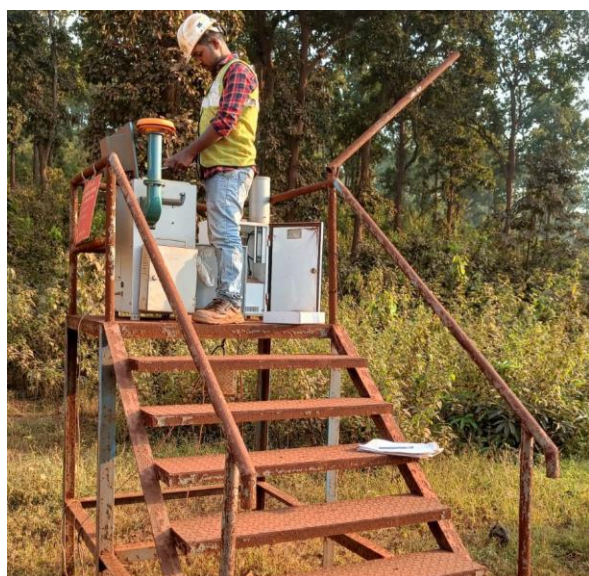
Mechanised wheelwashing System



Road Sweeping Machine



Continuous Ambient Air Quality Monitoring Stations



Air Quality Monitoring



Electronic Digital Display Board at Narayanposhi Mine Gate

Water & OB Management

- Garland drains maintained of suitable size around mine area and dump with proper gradients to prevent rain water descent into active mine area.
- Settling ponds maintained to prevent flow of fine particles from OB / Waste dumps, check dams, parapet / retaining walls & garland drains.
- Usage of stored water in the settling ponds for watering of haul roads, vehicle washing and green belt development etc.
- De- silting of garland drains & settling ponds are being carried out at regular intervals.
- Maintenance of all the runoff management structures.



Retaining Wall



Settling Pond near Quarry 5



Settling Pond near Gate 2



Settling Pond near Dispensary



Dump Plantation



Coir matting on Manganese Dump

Noise Management

- Providing sound proof operator's cabin for equipment like dumpers, shovel, tippers, etc.
- All HEMMs are monitored for any abnormal sound and rectified with due precaution by maintenance personnel.
- Providing workers with ear muffs & earplugs against high noise levels.
- Controlling the time of exposure of workers towards high noise areas.
- Online Noise Monitoring Device is installed for continuous monitoring.



Online Noise Monitoring Device

PART-G

Additional measures/investment proposal for environment protection including abatement of pollution /prevention of pollution.

Narayanposhi Environmental Protection Measures Expenditure (head wise breakup) incurred from in FY 24-25 is given below-

Expenditure Incurred on Environmental Protection Measures for the Financial Year 2024-25		
Sl No	Expenditure head -Particulars	Cost incurred in INR
		Narayanposhi
1	Construction of Retaining walls	540000
2	Construction of Garland drains, desiltation of settling ponds	272160
3	Geotextile works for dump stabilization	795000
5	Greenbelt development- Pit digging, plantation and maintenance	2040920
6	Operation of Road sweeping machines	2040000
7	Operation of fixed sprinklers	50000
8	Operation of mobile sprinklers	11521418
9	Use of chemical dust suppressants in sprinkling	472000
10	Online air quality monitoring	493065.36
11	Environment monitoring through NABL Accredited third party	1069111
12	Installation of Sewage treatment Plant	1975000
13	Study conducted on hydrogeology from CGWA Accredited Agency	410000
14	Nursery Development	-
15	Landscape development	606000
16	Environmental Awareness Programmes	400000
17	Flowmeter calibration and stamping	105000
18	Drip irrigation for plantation	45600
Total		22835274.36

Annexure 1

Consolidated Air Quality Monitoring Data of FY 2024-2025

NARAYANPOSHI IRON ORE MINES										
AAQ DATA FOR THE PERIOD APRIL 2024 TO MARCH 2025										
	PM10 [µg/m3]		PM2.5 [µg/m3]		SO2 [µg/m3]		NO2 [µg/m3]		CO [mg/m3]	
	Maxi mum	Mini mum	Maxi mum	Mini mum	Maxi mum	Mini mum	Maxi mum	Mini mum	Maxi mum	Min i mu m
CORE ZONE										
Near Mines Office	78.8	58.0	36.9	18.1	20.9	14.8	25.6	15.1	0.69	0.55
Near Babamath	76.5	58.1	36.9	18.2	20.9	13.5	26.1	15.1	0.73	0.51
Gate No.1	78.7	58.2	36.9	18.3	20.8	15.1	27.5	15.1	0.73	0.55
Rest Shelter	78.0	57.9	36.4	18.0	21.0	14.9	24.9	15.0	0.72	0.53
BUFF ER ZONE										
Kasira Basti	56.8	34.3	32.0	10.5	17.9	9.0	23.9	19.6	0.53	0.30
Koira Basti	56.6	34.1	31.5	10.1	17.9	9.1	24.0	10.2	0.51	0.31
Segasah i Vill	60.1	34.1	31.6	10.0	17.4	9.1	23.5	10.3	0.60	0.30
Bhanjapali Vill	56.9	34.1	31.4	10.0	17.5	9.2	23.5	10.1	0.57	0.30
NAAQ (24 hourly standa rd)	100 [µg/m3]		60 [µg/m3]		80 [µg/m3]		80 [µg/m3]		2 [mg/m3] (8 hourly)	



ECOMEN MINING PVT. LTD
(Formerly known as Ecomen Laboratories Pvt. Ltd.)
Second Floor Hall, House No. B-1/8, Sector-H, Aliganj, Lucknow - 226 024
Phone No. : 0522 - 4079201/2746282

E-mail: contactus@ecomen.in, Website: www.ecomen.in, CIN - U74210UP1989PTC010601, GSTIN : 09AAACE6076H1Z1



TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	Narayanposhi Iron & Manganese Ore Mines M/s JSW Steel Ltd.	ULR No.	TC127512400000439F
		Test Report No.	ECO/LAB/SW/0092/0439/09/2024
		Issue Date of Test Report	08.10.2024
Type of Sample	Surface Water		
Sample Registration No.	0092	Name of Location	Mine Runoff Crusher Area
Sampling Method	APHA	Sample Collected By	EMPL Representative
Date of Sample Collection	16.09.2024	Time of Sample Collection	-
Date of Sample Received	16.09.2024	Time of Sample Received	05:30 PM
Start Date of Analysis	16.09.2024	End Date of Analysis	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	Sample Quantity	As Per Requirement
	Humidity: 53 %	Sample ID Code	ECO/LAB/0439/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIAN STANDARDS as IS-2296 (C)
1.	Colour	Hazen	APHA, 24rd Ed.2017,2120 B	5 -100	30.0	300
2.	pH	-	APHA, 24rd Ed.2017,4500H+A+B	2 - 12	7.34	6.5-8.5
3.	Total Suspended Solids as TSS	mg/l	APHA, 24rd Ed.2017,2540D	5-5000	45.0	-
4.	Total Dissolved Solids as TDS	mg/l	APHA, 24rd Ed.2017,2540-C	5 - 5000	303.0	1500
5.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	2.8	3.0
6.	Chemical Oxygen Demand as COD	mg/l	APHA, 24rd Ed.2017, 5220 A+C	1-1000	12	-
7.	Oil & Grease as O&G	mg/l	APHA, 24rd Ed.2017,5520 A+D	5-600	BDL	0.1
8.	Dissolved Oxygen as DO	mg/l	APHA, 24rd Ed.2017,4500 A+C	1 -15	5.1	4
9.	Chloride as Cl	mg/l	APHA, 24rd Ed.2017,4500 Cl A+B	5 - 1000	28.0	600
10.	Sulphate as SO ₄	mg/l	APHA, 24rd Ed.2017,4500-SO42- E	1 - 250	25.5	400
11.	Nitrate Nitrogen as NO ₃	mg/l	APHA, 24rd Ed.2017,4500-NO3 2- E	5 - 100	12.5	50
12.	Fluoride as F	mg/l	APHA, 24rd Ed.2017, 4500-C	0.05 -10	0.45	1.5
13.	Iron as Fe	mg/l	APHA, 24rd Ed.2017, 3500 Fe B	0.02-50	0.20	50.0
14.	Arsenic as As	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-2	BDL	0.2
15.	Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA,24th Ed. : 2023, 3111 A+B	0.05-20	BDL	0.05
16.	Copper as Cu	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.05-5	BDL	1.5
17.	Zinc as Zn	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.02-50	0.10	15
18.	Phenolic Compound as C ₆ H ₅ OH	mg/l	APHA, 24rd Ed.2017,5530 A+C	0.05 - 10	BDL	0.005
19.	Anionic Detergent as MBAS	mg/l	APHA, 24rd Ed.2017,5540 A+C	0.01-5	BDL	1.0
20.	Lead as Pb	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-1	BDL	0.1
21.	Cadmium as Cd	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.002-2	BDL	0.01
22.	Total coliform	MPN /100 ml	APHA, 24rd Ed.2017,9221 A+B	1.8	190.0	5000

Statement of Conformity: The above tested parameters confirm as per IS-2296 Class-C limits for above tested parameters and the results are related to the sample tested.

Note: - BDL- Below Detection Limit.

Verified By

[Signature]
Technical Manager

Authorized By

[Signature]
Quality Manager
B-1/8,
Second Floor,
Sector-H, Aliganj,
Lucknow - 226 024



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TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	Narayanposhi Iron & Manganese Ore Mines M/s JSW Steel Ltd.	ULR No.	TC127512400000440F
		Test Report No.	ECO/LAB/SW/0092/0440/09/2024
		Issue Date of Test Report	08.10.2024
Type of Sample	Surface Water		
Sample Registration No.	0092	Name of Location	Mine Runoff Haulage Road
Sampling Method	APHA	Sample Collected By	EMPL Representative
Date of Sample Collection	16.09.2024	Time of Sample Collection	-
Date of Sample Received	16.09.2024	Time of Sample Received	05:30 PM
Start Date of Analysis	16.09.2024	End Date of Analysis	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	Sample Quantity	As Per Requirement
	Humidity: 53 %	Sample ID Code	ECO/LAB/0440/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIAN STANDARDS as IS-2296 (C)
1.	Colour	Hazen	APHA, 24rd Ed.2017,2120 B	5 -100	25.0	300
2.	pH	-	APHA, 24rd Ed.2017,4500H+A+B	2 - 12	7.68	6.5-8.5
3.	Total Suspended Solids as TSS	mg/l	APHA, 24rd Ed.2017,2540D	5-5000	31.0	-
4.	Total Dissolved Solids as TDS	mg/l	APHA, 24rd Ed.2017,2540-C	5 - 5000	289.0	1500
5.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	3.0	3.0
6.	Chemical Oxygen Demand as COD	mg/l	APHA, 24rd Ed.2017, 5220 A+C	1-1000	16	-
7.	Oil & Grease as O&G	mg/l	APHA, 24rd Ed.2017,5520 A+D	5-600	BDL	0.1
8.	Dissolved Oxygen as DO	mg/l	APHA, 24rd Ed.2017,4500 A+C	1 -15	5.8	4
9.	Chloride as Cl	mg/l	APHA, 24rd Ed.2017,4500 Cl A+B	5 - 1000	18.0	600
10.	Sulphate as SO ₄	mg/l	APHA, 24rd Ed.2017,4500-SO42- E	1 - 250	12.5	400
11.	Nitrate Nitrogen as NO ₃	mg/l	APHA, 24rd Ed.2017,4500-NO3 2- E	5 - 100	8.50	50
12.	Fluoride as F	mg/l	APHA, 24rd Ed.2017, 4500-C	0.05 -10	0.39	1.5
13.	Iron as Fe	mg/l	APHA, 24rd Ed.2017, 3500 Fe B	0.02-50	0.21	50.0
14.	Arsenic as As	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-2	BDL	0.2
15.	Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA,24th Ed. : 2023, 3111 A+B	0.05-20	BDL	0.05
16.	Copper as Cu	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.05-5	BDL	1.5
17.	Zinc as Zn	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.02-50	0.10	15
18.	Phenolic Compound as C ₆ H ₅ OH	mg/l	APHA, 24rd Ed.2017,5530 A+C	0.05 - 10	BDL	0.005
19.	Anionic Detergent as MBAS	mg/l	APHA, 24rd Ed.2017,5540 A+C	0.01-5	BDL	1.0
20.	Lead as Pb	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-1	BDL	0.1
21.	Cadmium as Cd	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.002-2	BDL	0.01
22.	Total coliform	MPN /100 ml	APHA, 24rd Ed.2017,9221 A+B	1.8	110.0	5000

Statement of Conformity: The above tested parameters confirm as per IS-2296 Class-C limits for above tested parameters and the results are related to the sample tested.

Note: - BDL- Below Detection Limit.

Verified By

Technical Manager

Authorized By

Quality Manager



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E-mail: contactus@ecomen.in, Website: www.ecomen.in, CIN - U74210UP1989PTC010601, GSTIN : 09AAACE6076H1Z1



TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	Narayanposhi Iron & Manganese Ore Mines M/s JSW Steel Ltd.	ULR No.	TC127512400000441F
		Test Report No.	ECO/LAB/SW/0092/0441/09/2024
		Issue Date of Test Report	08.10.2024
Type of Sample	Surface Water		
Sample Registration No.	0092	Name of Location	Mine Runoff screen plant area
Sampling Method	APHA	Sample Collected By	EMPL Representative
Date of Sample Collection	16.09.2024	Time of Sample Collection	-
Date of Sample Received	16.09.2024	Time of Sample Received	05:30 PM
Start Date of Analysis	16.09.2024	End Date of Analysis	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	Sample Quantity	As Per Requirement
	Humidity: 53 %	Sample ID Code	ECO/LAB/0441/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIAN STANDARDS as IS-2296 (C)
1.	Colour	Hazen	APHA, 24rd Ed.2017,2120 B	5 -100	15.0	300
2.	pH	-	APHA, 24rd Ed.2017,4500H+A+B	2 - 12	7.39	6.5-8.5
3.	Total Suspended Solids as TSS	mg/l	APHA, 24rd Ed.2017,2540D	5-5000	21.0	-
4.	Total Dissolved Solids as TDS	mg/l	APHA, 24rd Ed.2017,2540-C	5 - 5000	244.0	1500
5.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	2.6	3.0
6.	Chemical Oxygen Demand as COD	mg/l	APHA, 24rd Ed.2017, 5220 A+C	1-1000	12	-
7.	Oil & Grease as O&G	mg/l	APHA, 24rd Ed.2017,5520 A+D	5-600	BDL	0.1
8.	Dissolved Oxygen as DO	mg/l	APHA, 24rd Ed.2017,4500 A+C	1 -15	5.9	4
9.	Chloride as Cl	mg/l	APHA, 24rd Ed.2017,4500 Cl A+B	5 - 1000	28.0	600
10.	Sulphate as SO ₄	mg/l	APHA, 24rd Ed.2017,4500-SO42- E	1 - 250	22.5	400
11.	Nitrate Nitrogen as NO ₃	mg/l	APHA, 24rd Ed.2017,4500-NO3 2- E	5 - 100	7.5	50
12.	Fluoride as F	mg/l	APHA, 24rd Ed.2017, 4500-C	0.05 -10	0.42	1.5
13.	Iron as Fe	mg/l	APHA, 24rd Ed.2017, 3500 Fe B	0.02-50	0.21	50.0
14.	Arsenic as As	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-2	BDL	0.2
15.	Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA,24th Ed. : 2023, 3111 A+B	0.05-20	BDL	0.05
16.	Copper as Cu	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.05-5	BDL	1.5
17.	Zinc as Zn	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.02-50	0.09	15
18.	Phenolic Compound as C ₆ H ₅ OH	mg/l	APHA, 24rd Ed.2017,5530 A+C	0.05 - 10	BDL	0.005
19.	Anionic Detergent as MBAS	mg/l	APHA, 24rd Ed.2017,5540 A+C	0.01-5	BDL	1.0
20.	Lead as Pb	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-1	BDL	0.1
21.	Cadmium as Cd	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.002-2	BDL	0.01
22.	Total coliform	MPN /100 ml	APHA, 24rd Ed.2017,9221 A+B	1.8	170.0	5000

Statement of Conformity: The above tested parameters confirm as per IS-2296 Class-C limits for above tested parameters and the results are related to the sample tested.

Note: - BDL- Below Detection Limit.

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Technical Manager

Authorized By

Quality Manager



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TEST REPORT

FORMAT NO. ECO/QS/FORMAT/07

NAME & ADDRESS OF CUSTOMER:	Narayanposhi Iron & Manganese Ore Mines M/s JSW Steel Ltd.	ULR No.	TC127512400000442F
		Test Report No.	ECO/LAB/SW/0092/0442/09/2024
		Issue Date of Test Report	08.10.2024
Type of Sample	Surface Water		
Sample Registration No.	0092	Name of Location	Mine Runoff View Point Area Road
Sampling Method	APHA	Sample Collected By	EMPL Representative
Date of Sample Collection	16.09.2024	Time of Sample Collection	-
Date of Sample Received	16.09.2024	Time of Sample Received	05:30 PM
Start Date of Analysis	16.09.2024	End Date of Analysis	08.10.2024
Laboratory Environmental Condition	Temperature: 27 ± 2 °C	Sample Quantity	As Per Requirement
	Humidity: 53 %	Sample ID Code	ECO/LAB/0442/09/2024

S. No.	TESTS	Unit	PROTOCOL	DETECTION RANGE	RESULT	INDIA N STAN DARD S as IS- 2296 (C)
1.	Colour	Hazen	APHA, 24rd Ed.2017,2120 B	5 -100	20	300
2.	pH	-	APHA, 24rd Ed.2017,4500H+A+B	2 - 12	7.52	6.5- 8.5
3.	Total Suspended Solids as TSS	mg/l	APHA, 24rd Ed.2017,2540D	5-5000	34.0	-
4.	Total Dissolved Solids as TDS	mg/l	APHA, 24rd Ed.2017,2540-C	5 - 5000	254.0	1500
5.	Biochemical Oxygen Demand as BOD	mg/l	IS-3025 Part-44,1993	1 -1000	2.8	3.0
6.	Chemical Oxygen Demand as COD	mg/l	APHA, 24rd Ed.2017, 5220 A+C	1-1000	13	-
7.	Oil & Grease as O&G	mg/l	APHA, 24rd Ed.2017,5520 A+D	5-600	BDL	0.1
8.	Dissolved Oxygen as DO	mg/l	APHA, 24rd Ed.2017,4500 A+C	1 -15	5.5	4
9.	Chloride as Cl	mg/l	APHA, 24rd Ed.2017,4500 Cl A+B	5 - 1000	24.0	600
10.	Sulphate as SO ₄	mg/l	APHA, 24rd Ed.2017,4500-SO42- E	1 - 250	20.5	400
11.	Nitrate Nitrogen as NO ₃	mg/l	APHA, 24rd Ed.2017,4500-NO3 2- E	5 - 100	7.5	50
12.	Fluoride as F	mg/l	APHA, 24rd Ed.2017, 4500-C	0.05 -10	0.32	1.5
13.	Iron as Fe	mg/l	APHA, 24rd Ed.2017, 3500 Fe B	0.02-50	0.21	50.0
14.	Arsenic as As	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-2	BDL	0.2
15.	Hexavalent Chromium as Cr ⁺⁶	mg/l	APHA,24th Ed. : 2023, 3111 A+B	0.05-20	BDL	0.05
16.	Copper as Cu	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.05-5	BDL	1.5
17.	Zinc as Zn	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.02-50	0.11	15
18.	Phenolic Compound as C ₆ H ₅ OH	mg/l	APHA, 24rd Ed.2017,5530 A+C	0.05 - 10	BDL	0.005
19.	Anionic Detergent as MBAS	mg/l	APHA, 24rd Ed.2017,5540 A+C	0.01-5	BDL	1.0
20.	Lead as Pb	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.01-1	BDL	0.1
21.	Cadmium as Cd	mg/l	APHA, 24rd Ed.2017, 3111 A+B	0.002-2	BDL	0.01
22.	Total coliform	MPN /100 ml	APHA, 24rd Ed.2017,9221 A+B	1.8	92.0	5000

Statement of Conformity: The above tested parameters confirm as per IS-2296 Class-C limits for above tested parameters and the results are related to the sample tested.

Note: - BDL- Below Detection Limit.

Verified By

Technical Manager

Authorized By

Quality Manager