

Ref. No. - TSG/EC/2025-26/Nov-25/01

18/11/2025

To,

Deputy Director General of Forests (C)
Ministry of Environment, Forest and Climate Change
Integrated Regional Office, 2nd Floor, Headquarter- Jharkhand State Housing Board
Harmu Chowk, Ranchi, Jharkhand – 834002

Subject: Half yearly environmental clearance compliance report of Tata Steel Limited, Gamharia for the period from April 2025 to September 2025

Reference:

- 1. Environment clearance vide letter no. J/11011/681/2007 IA II (I) dt. 11.10.2007
- 2. Environment clearance vide letter no. J/11011/611/2010 IA II (I) dt. 25.10.2011

Sir,

We are herewith submitting half yearly compliance report along with environmental monitoring report of Tata Steel Limited, Gamharia situated at Adityapur Industrial Area, Village: Jhurkuli, Tehsil: Gamharia, District: Saraikela-Kharsawan. The compliance report is for the period from April 2025 to September 2025.

This is for your kind information and necessary records please.

Thanking you,

Yours sincerely

For Tata Steel Limited, Gamharia

Ravi Ranjan Prasoon Head - Environment

Cc:

- 1. The Zonal Head, CPCB, Kolkata
- 2. The Member Secretary, JSPCB
- 3. The Regional Officer, JSPCB

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S.N.	EC Conditions	Compliance Status
~	Specific conditions	
i	Electrostatic precipitator (ESP) to captive power plant, bag house to sinter plant and bag filter to blast furnace shall be provided to control gaseous emissions within the permissible limits of Jharkhand SPCB or prescribed under E (P) A whichever is more stringent. Agglomerative dust suppression system shall be provided to coal crusher screens, coal transfer points and sinter plant. Fume extraction system shall be provided to steel melting shop. Sprinklers shall be provided in dust prone areas including roads.	Complied. Adequate Pollution control devices are installed at all required locations to maintain emissions within permitted norms. The equipment installed are as below – Captive Power Plant (CPP): Electrostatic precipitator (ESPs) are provided in all WHRBs and Coal based boilers. Water sprinkling arrangement, Dry fog system, sprinklers and rain guns are provided in coal handling area including crushers, screens and transfer points. Sinter Plant: ESPs are provided in sinter process and product circuit to control emissions. In Flux Crusher and screen circuits bag filters are provided. Dry fog Dust Suppression system is provided in ground hopper and rain gun sprinklers are installed in material storage yard for dust
		Blast furnace: Bag filters are installed in Raw Material Handling Area and Cast House. Gas Cleaning Plant (GCP) is installed for blast furnace gas cleaning. 7 Nos of Mist beam water cannon are provided in RMHS and cast House area for suppression of dust during material handling. Steel Melting Shop: The steel melting shop is provided with Fume Extraction System. Bag filters are provided in all raw material handling circuits for control of fugitive dust. Water sprinklers are installed at all dust prone areas viz. slag handling area, material storage yards etc. List of details APC systems installed is attached as Annexure-3.
ii	Secondary fugitive emissions from arc furnace and sinter plant shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guideline/ Code of Practice issued by the CPCB shall be followed.	Complied. Secondary emissions from SMS and Sinter Plant are controlled through high-capacity Fume Extraction System (FES) and Bag Filters respectively. Work-zone Air Quality monitoring is carried out by NABL accredited agency at regular intervals and values are maintained within permitted levels. Guidelines / Code of Practice of the statutory bodies issued from time to time are regularly followed. Work-Zone Air Quality monitoring reports are attached

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		as Annexure-5.
iii	Total water requirement from River Subranarekha shall not exceed 12,110 m ³ /day as per the permission accorded by the State Govt. No ground water shall be used. All the wastewater shall be recycled and reused for industrial applications, dust suppressions, ash disposal and green belt development and no wastewater shall be discharged outside the premises. Domestic effluent shall be treated in septic tank followed by dispersion trench/ soak pits.	Complied. Water needed for the process is drawn from Subranarekha river as per the permission granted by Water Resources department, Govt. of Jharkhand. All wastewater generated is reused back in the process after appropriate treatment in the Effluent Treatment Plant (ETP). ETP treated water is used for slag granulation, coke quenching, in cooling circuit of Pellet Plant, spraying over roads for dust suppression, plantation and horticulture activities. Domestic effluent is treated through sewage treatment plant with Capacity 250 KLD and septic tank / soak pit arrangement. The treated effluent is used within the plant for various process such as plantation, gardening etc.
iv	Continuous monitoring of Total Organic Compounds (TOCs) shall be done at the outlet of ETP (BOD plant).	Complied. As there is no "Recovery type Coke Oven" in the plant the requirement for BOD Plant and Continuous Monitoring of TOC isn't needed. Online monitoring facility of pH, TSS, COD and BOD is provided at the outlet of centralized effluent treatment plant.
V	Ground water monitoring around the solid waste disposal site/ secured landfill (SLF) shall be carried out regularly and report submitted to the Ministry's Regional Office at Bhuvaneswar, CPCB and Jharkhand SPCB.	Complied. Ground water monitoring is carried out by NABL accredited agency at regular intervals around the solid waste disposal site. Monitoring reports are submitted to statutory bodies as directed in the condition. Ground water monitoring report attached as Annexure-6

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vi	All the solid wastes shall be properly	Being Complied. Solid waste generated within the plant are
	utilized. Rolling mill scrap shall be recycled as steel scrap. Mill scale shall be sold to cement industry. Grinding dust and dust from steel melting shop and fume extraction system shall be used in blast furnace. Dust from blast furnace gas cleaning plant shall be sold to smokeless fuel industry. Slag/ coke from blast furnace shall be used in sinter plant or used in making fly ash bricks. Slag from arc furnace shall be used in road construction. Waste oil shall be used in blast furnace.	segregated and most of the waste are recycled back in process. (i) Rolling mill scrap is partially recycled as steel scrap in SMS and partially sold as scrap to outside vendor. (ii) Mill scale is used in sinter making process at Sinter Plant and also sold to the outside vendor. (iii) FES Dust from SMS is being used in sinter plant. (iv) Flue Dust from blast furnace, Bag Filter Dust and wet GCP dust is also used in Sinter plant. (v) 100 percent Blast furnace Granulated slag is sold to open market. (Used by major cement industry). (vi) Metal is recovered from the slag of the arc furnace and recycled. Non-metallic slag is used for backfilling low-lying areas. (vii) Used Oil / Waste Oil / Spent oil is collected and stored in designated place and sold to authorized recycler.
vii	All the char from DRI plant shall be utilized in AFBC boiler of power plant and no char shall be accumulated anywhere else.	Complied. Char from DRI is used in Power Plant as a partial replacement of Coal which reduces CO2 emission from the process. Char is also reused in sponge Iron Plant to improve bed fluidity. Excess quantity of char is sold to outside users.
viii	All the fly ash shall be provided to cement and brick manufacturers for further utilization and bottom ash shall be used for land filling. Proper utilization of fly ash shall be ensured as per Fly ash Notification, 1999 and subsequent amendment in 2003.	Complied. Fly ash and bottom bricks are provided to local fly ash brick manufacturers for the production of fly ash bricks. TSG has successfully obtained the Stabilization certification for the legacy ash mound from the Jharkhand State Pollution Control Board (JSPCB). This achievement marks a significant milestone within the Tata Steel ecosystem. TSG also achieved 100% utilization of ash in a 3-year cycle as per the Fly Ash Notification 2021.
ix	Permission and recommendation of the State Forest Department regarding impact of proposed expansion on the protected forest located at 2.5 km shall be obtained and all the recommendation shall be implemented.	Agreed.
х	Permission and recommendations of the Chief Wildlife Warden regarding impact of the proposed expansion of the iron and steel Plant on Dalma Sanctuary shall be obtained and all the recommendations shall be implemented. General Conditions	Complied. As per letter No. 1221 dated 26.07.2004 from Chief Conservator of Forests – cum – Chief Wildlife Warden, Jharkhand Dalma sanctuary is beyond 15KM from the plant and hence away from the impact zone. Letter is attached Annexure-11

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i	The project authorities must strictly adhere to the stipulation made by the Jharkhand Pollution Control Board (Jharkhand SPCB) and the State Government. No further expansion or	Agreed. Agreed. Expansion or modification in the plant shall not be
11	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.	carried out without prior approval of MoEFCC.
iii	The gaseous emissions from various process units shall confirm load the load/ mass-based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters, keeping in view the nature of the industry and its size and location. Online stack monitoring facilities for all the stacks including new sinter plant and powerhouse and sufficient air pollution control devices shall be provided to keep the emission levels below the permissible limit and reports submitted to the Jharkhand SPCB & CPCB. At no time, the emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	Complied. Monitoring of gaseous pollutants in all major stacks is periodically done and record maintained. The monitoring reports are sent to statutory bodies at regular intervals. Online stack monitoring facility is provided in all major stacks. Adequate pollution control devices such as ESPs, bag filters are provided for control of stack dust emission and Particulate matter emissions are maintained within norms. Stack monitoring result attached as Annexure-1.
iv	At least four ambient air quality monitoring stations shall be established in the downwind direction as well as where maximum ground level concentration of SPM, SO2 and NOx are anticipated in consultation with the Jharkhand SPCB. Data on ambient air quality	Complied. Four Continuous Ambient Air Quality Monitoring Stations (CAAQMS) have been installed inside the plant premises in consultation with JSPCB. Ambient Air Quality Monitoring and stack monitoring is carried out by JSPCB accredited agency and report is submitted to JSPCB / CPCB & Regional office of MOEFCC on half-yearly basis.
	and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the Jharkhand SPCB/ CPCB once in six months.	Stack monitoring result attached as Annexure-1. Ambient air monitoring result attached as Annexure-2.

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In - plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Dust extraction system and dry fogging system shall be provided to control air emissions at material transfer and sizing plants. ESP and bag filters shall be provided wherever required to keep the emission levels below permissible limit. Gas cleaning plant shall be provided to BF. Further, specific measures like water sprinkling shall be carried out and fugitive emissions controlled, shall be regularly monitored and records maintained.

Being Complied. Adequate pollution control equipment (APCE) is installed in different units for control of pollution. The type of Pollution Control Equipment installed in different locations are as below –

- a) DRI Bag Filters
- b) Power plant ESPs, Bag Filters
- c) Sinter Plant ESPs, Dry Fog System, Bag Filters
- d) Steel Melting Shop Fume Extraction Systems, bag filters
- e) Blast Furnace Bag Filters, Dry and Wet Gas Cleaning Plant

Dust conditioning systems are provided at required locations to minimize generation of dust during unloading of hoppers / silos. Fixed and mobile sprinklers are deployed at dust generation points for control of fugitive dust. Monitoring records are maintained.

List of details APC systems installed, and other environmental initiatives is attached as Annexure-3

vi Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December 1993 or as amend from time to time. The treated wastewater shall be utilized for plantation purpose.

vii

Complied. Industrial effluent generated at various locations within the plant is collected and treated in centralized Effluent Treatment Plant (ETP) of 7200 KLD. Treated water is reused back in Pellet Plant, Blast furnace, Coke Oven etc for various purposes including slag granulation, Coke quenching, spraying over roads for dust suppression and plantation and horticulture activities.

ETP treated water analysis report is attached as Annexure-7.

The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).

Being Complied. Noise generation sources are isolated with appropriate acoustic enclosures. Equipment is fitted with silencers and acoustic hoods to minimize noise at source. Ambient noise level is maintained within the norms specified under Environment Protection Act, 1986.

Ambient Noise monitoring report is attached as Annexure-8.

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viii	Green belt shall be developed in 33% area within and around the plant premises as per the CPCB guidelines in consultation with DFO.	Complied. Continuous efforts are made to plant more trees within the plant area. Plan is drawn and executed every year during monsoon for plantation of saplings of different species viz. Gulmohar, Peltophorum, Mahogany, Kadam, Neem, Pipal, Bargad, Jamun, Mango, Guava, Alstonia etc. In addition, we are developing dense forest inside plant. Details of green Belt developed, and landscape area given in Annexure-4.
ix	The company shall develop surface as well as ground water harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	Being Complied. Rainwater harvesting plan as approved by Ground Water Directorate, Jharkhand is implemented within the plant. Rainwater harvesting structures have been set-up at Sinter plant, Power plant, DRI & Mill area.
х	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied. Health check-up for workers is done at periodic intervals and records maintained. The test conducted includes LFT, audiometric tests, ophthalmic investigations, X ray, routine urine and blood tests.
xi	Recommendations made in the Corporate Responsibility for Environment Conservation (CREP) issued for the steel plants shall be implemented.	Complied. Recommendations made in Corporate Responsibility for Environment Conservation (CREP) for steel plants is regularly reviewed and implemented. CREP compliance Status is attached as Annexure-10
xii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP report. Further, the company must undertake socio-economic development activities in the surrounding village like community development program, educational program, drinking water supply and health care etc.	Being Complied. Environment protection measures stated in EIA/EMP are systematically implemented. Company through its dedicated CSR team undertakes multiple socioeconomic initiatives in surrounding panchayats. The CSR department follows a logical process to extend the required and most needed benefits to its local community through its short-term and long-term CSR plans. Key CSR activities in Tata Steel Limited, Gamharia are attached as Annexure-9

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xiii	As mentioned in the EIA/ EMP, Rs. 90.00 Crores and 2.10 Crores earmarked towards the capital cost and recurring cost/ annum for environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Complied. Separate funds for environment management are allocated and spent for betterment of environment.
xiv	The Regional Office of this Ministry at Bhubaneswar / CPCB/ Jharkhand SPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Complied. Half-yearly compliance report along with monitoring data are regularly submitted to regional office, MoEFCC, CPCB and JSPCB as per stipulated guidelines. Previous Compliance report (Refer. No. TSG/EC/2024-25/May-25/01 Dated. 16/05/2025) was submitted on 20/05/2025. Copy of submission on Parivesh Portal is Attached as Annexure-14
xvi	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OSPCB/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office. Project authorities should inform the Regional Office as well as Ministry, the date of financial closure and final	Complied. Complied. Date of Financial closure: 2007 Date of issue of consent to establish by JSPCB: -
	the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Date of issue of consent to establish by JSPCB: - 17.11.2007 vide letter no 4250

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COMPLIANCE OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE

SN	EC Conditions	Compliance Status
A	Specific conditions	
i	Efforts shall be made to mitigate RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all stacks shall be provided.	 Being Complied. Several Steps are taken to mitigate RSPM levels in ambient air. Measures taken for control of dust levels in ambient air includes the following – Fixed type sprinklers including rain guns are installed in raw material handling areas. 7 Nos of Water mist canon is installed in the RMHS and slag dumping area of MBF to control fugitive emission during material handling. Mobile sprinklers are provided to reduce fugitive dust from roads. Source emissions are controlled by effective operation of pollution control systems viz. ESPs, Bag filters, dry fog systems etc. Broad leaved trees are planted in open areas within the department and plant periphery. Construction of RCC roads inside plant. All the paved roads are cleaned by vacuum road sweeper to arrest dust emission due to vehicular movement. Raw material stock yards are covered with tarpaulin. Construction of Four Nos Coal Storage Shed at DRI, MBF, CPP & Coke Oven Installation of New Bag Filter at MBF-2 RMHs, Coke Circuit, Sinter Storage Bins, SMS-3 RMHs to control fugitive emission. 4 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) are installed in different corners of the plant for ambient air quality monitoring. 09 online gas analyzers and 23 online dust monitors are also installed at different stacks for monitoring of emission from the stack. Stack monitoring result attached as Annexure-1 Ambient Air monitoring result attached as Annexure-2
ii	Stack monitoring facilities for all the major stacks and adequate air pollution control systems to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under the Environment (Protection) Act shall be followed. ESP shall be installed to control	Complied. Stack monitoring facilities are provided at all major stacks. 09 online gas analyzers and 23 online dust monitors are installed covering all major stacks for monitoring of emission from the stacks. Adequate pollution control devices are installed to control the particulate matter emission from coke oven and pellet plant. PM, SO ₂ , and NOx in flue gas of Coke Oven is monitored at regular intervals. The monitoring reports are

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	the particulate emissions from the pellet plant. The reports shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.	regularly submitted to MoEFCC Ranchi, CPCB and JSPCB. Stack monitoring result attached as Annexure-1
iii	Multistage scrubber shall be installed to control gaseous and dust emissions from the coke oven stack. Measures shall be taken to prevent leakages from coke oven plant.	Complied. Coke Oven installed is of Non-Recovery Type and hence dust and gaseous emission from the plant is very negligible. Non-recovery type ovens work on negative pressure and leakages in the system is insignificant.
iv	The prescribed emission standards for coke oven plants, as notified vide notification no. GSR 46 (E) dated 3 rd February 2006 and subsequently amended shall be complied with.	Complied. The prescribed emission standard is for Recovery type, whereas the Coke Ovens installed at TSG is of non-recovery type and hence not applicable.
V	In-plant control measures like bag filters, de-dusting and dust suppression systems shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression systems shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.	Being Complied. Adequate pollution control devices are installed at all required locations. Water sprinkling arrangements are provided to control secondary fugitive dust generated from vehicular movement, ground hoppers etc. List of details APC systems installed, and other environmental initiatives is attached as Annexure-3.
vi	Secondary fugitive emissions shall be controlled within the prescribed limits, regularly monitored and records maintained. Guidelines / code of Practice issued by the CPCB in this regard shall be followed.	Complied. Secondary emissions from SMS and Sinter Plant are controlled through high-capacity Fume Extraction System (FES) and Bag Filters respectively. Work-zone Air Quality monitoring is carried out by NABL accredited agency at regular intervals and values are maintained within permitted levels. Guidelines / Code of Practice of the statutory bodies issued from time to time are regularly followed. Work-Zone Air Quality monitoring reports are attached as Annexure-5.

(Management,

Handling

Transboundary Movement) Rules, 2008.

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vii	Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall be made to control dust emissions during loading and unloading of the raw material and finished product. Efforts shall also be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored and records kept.	Being Complied. Fugitive emissions due to movement of vehicles are controlled through water spraying. Fixed and mobile type sprinklers are deployed at strategic locations to maintain fugitive dust levels. Dust extraction system is installed in conveyor belts for control of dust during material transfer. Material carrying vehicles are closely monitored to prevent any overloading. Vehicles carrying fines and other materials are covered with tarpaulin to prevent emission during transport.
viii	Total requirement of the water for the proposed expansion shall not exceed 3,440 m3/day. All the treated wastewater shall be recycled for dust suppression and green belt development. Domestic wastewater shall be treated in septic tank followed by soak pit and used for green belt development. Zero effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.	Complied. Water needed for the process is drawn from Subranarekha river as per the permission granted by Water Resources department, Govt. of Jharkhand. All wastewater generated is reused back in the process after appropriate treatment in the Effluent Treatment Plant (ETP). ETP treated water is used for slag granulation, coke quenching, in cooling circuit of Pellet Plant, spraying over roads for dust suppression, plantation and horticulture activities. Domestic effluent is treated through sewage treatment plant with Capacity 250 KLD and septic tank / soak pit arrangement. The treated effluent is used within the plant for various process such as plantation, gardening etc.
ix	Efforts shall be made to make use of rain water harvesting. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Being Complied. Rainwater harvesting plan as approved by Ground Water Directorate, Jharkhand is implemented within the plant. Rainwater harvesting structures have been set-up at Sinter plant, Power plant, DRI & Mill area.
х	Waste from the hard coke unit, shall be used as fuel in the captive power plant or sold. The iron ore sludge shall be sold to the bricks manufacturing units. Coal and coke fines shall be recycled and reused in the process. The waste oil shall be properly disposed off as per the Hazardous Waste	Complied. Coke breeze from Coke Oven Plant is 100% re-used internally in Sinter Plant. Waste Oil generated within the plant is disposed of periodically to authorized recycler.

and

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xi	As proposed, green belt shall be developed in 33% of the plant area within and around the project site to mitigate the impact of fugitive emissions as per the CPCB guidelines in consultation with local DFO.	Complied. Continuous efforts are made to plant more trees within the plant area. We have achieved 33 percent green belt within the plant. Plan is drawn and executed every year during monsoon for plantation of saplings of different species viz. Gulmohar, Peltophorum, Mahogany, Kadam, Neem, Pipal, Bargad, Jamun, Mango, Guava, Alstonia etc. In addition, we adopted Miyawaki plantation method for developing dense forest inside plant. Details of green Belt developed, and landscape area given in Annexure-4.
xii	The recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Coke Oven Plant shall be implemented.	Complied. The recommendation of CREP applicable to integrated Iron & Steel Industry is implemented and reviewed regularly. CREP Compliance status is attached Annexure-10
xiii	Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environmental clearance letter.	Complied. Risk & disaster management plan has been prepared & submitted to JSPCB.
xiv	At least 5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner. The action plan shall include major items like school, vocational training etc.	Being Complied. Environment protection measures stated in EIA/EMP are systematically implemented. Company through its dedicated CSR team undertakes multiple socio-economic initiatives in surrounding panchayats. The CSR department follows a logical process to extend the required and most needed benefits to its local community through its short-term and long-term CSR plans. Key CSR activities in Tata Steel Limited, Gamharia are attached as Annexure-9
xv	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. Required infrastructure as directed in EC were provided during project and commissioning stages of the plant.

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xvi	The company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of noncompliance / violation environmental norms to the Board of Board of Directors of the company and/or stakeholders or shareholders.	Complied. The company has a well-defined IMS (Integrated Management System) covering all aspects of environmental governance. Standard Operating Procedure (SOP) / Work Instruction (WI) are prepared for all key environmental activities. An environment management cell comprising of scientists and engineers are established to oversee the environmental functions with the plant.
В	General Conditions:	
i	The project authorities shall strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JSPCB) and State Govt.	Agreed.
ii	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Complied. Measures are taken to maintain emissions within permitted norms. The performance of pollution control equipment is constantly evaluated through scheduled O & M practices. Preventive maintenance schedules are drawn for equipment to reduce unforeseen break downs or failures.
iii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Complied. No expansion or modification in the plant shall be carried out without prior approval of MoEFCC.
iv	The gaseous emissions from various process units shall conform to the load/mass-based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	Complied. These features are taken care of in Design & Engineering of the project and emissions are maintained within norms.

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v	The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000. Authorization from JSPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.	Complied. The provisions of Hazardous Chemicals Rules 1989 and its amendment are strictly followed. Handling and disposal of hazardous waste is also done as per Hazardous and Other Wastes Rules, 2016. The unit has obtained valid authorization for its handling from JSPCB. Hazardous Waste Authorization copies are attached as Annexure-20
vi	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008. Authorization from Jharkhand Pollution Control Board must be obtained for collection/treatment/storage/disposal of hazardous wastes.	Complied. Responsibilities applicable under Hazardous Wastes (Management, Handling & Trans-boundary movement) Rules, 2008 and its last amendment in 2016 are strictly complied. Hazardous wastes generated in the plant are disposed to authorized recyclers.
vii	The overall noise levels in and around the plant area shall be kept well within the standards 85 dB(A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dB(A) (day time) and 70 dB(A) (night time).	Being Complied. Acoustic hoods, Silencers, Mufflers, and enclosures are provided at high noise generation areas for control of noise pollution. Noise level in and around the plant monitored and precautionary steps are taken in high noise areas. Ambient Noise Monitoring Report is attached as Annexure-8
viii	The company shall develop rainwater harvesting structures to harvest the rainwater for utilization in the lean season besides recharging the ground water table.	Being Complied. Rainwater harvesting plan as approved by Ground Water Directorate, Jharkhand is implemented within the plant. Rainwater harvesting structures have been set-up at Sinter plant, Power plant, DRI & Mill area.
ix	Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Complied. Health check-up for workers is done at periodic intervals and records maintained. The test conducted includes LFT, audiometric tests, ophthalmic investigations, X ray, routine urine and blood tests.
Х	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.	Being Complied. Environmental protection measures proposed in the EIA/EMP of the project are systematically implemented.

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xi	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions.	Complied. A multi-disciplinary team of engineers and environmental scientists is set up to oversee the environmental management function of the plant. An environmental laboratory is also established to conduct various analysis of air and water.
xii	As proposed, Rs. 50 Crores and Rs. 2.5 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and judiciously used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. A time bound implementation schedule shall be submitted to the Ministry and its Regional Office at Bhubaneswar to implement all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Complied. The funds provided for EMP are not diverted for any other purpose.
xiii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied.
xiv	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective Zonal Office of CPCB and the PCB. The criteria pollutant levels namely; RSPM (PM2.5 and PM10), SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied. Status of compliance of the EC conditions is being uploaded in the website of the company. The status of the same is periodically updated and sent to various government bodies including MoEFCC, CPCB and JSPCB twice in a year. The monitored data of stack emissions, ambient air quality and effluent quality is displayed in the electronic display board near the main gate of the company. Photographs of the electronic display board are attached as Annexure-12

EC Accord No: F. No: J-11011/611/2010-IA-II (I)

xv	The Project Proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to Regional Office of MoEF, the respective Zonal Office of CPCB and JPCB. The Regional Office of this Ministry/CPCB/JSPCB shall monitor the stipulated conditions.	Complied. Compliance and monitoring reports are submitted in PARIVESH portal once in every six months as stipulated. Acknowledgement copy is attached as Annexure-15
xvi	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.	Complied. Environmental Statement for each financial year is submitted regularly to JSPCB before 30 th of September every year. Last Environment Statement (Refer. No. TSG/EMD/ES/FY'25) is submitted on 05/09/2025. Last ES copy is attached as Annexure-16
xvii	The Project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the JSPCB and may also be seen at website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.	Complied. The issuance of environmental clearance was advertised in local newspaper - Prabhat Khabar & Avenue Mail dated 01.07.2012. Paper cutting of Prabhat Khabar is attached as Annexure-17
xvii i	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Complied. Date of financial closure: 01.02.12. NOC issue date by JSPCB: 18.01.12. Land development job started on: 15.02.12

Stack Emission Monitoring Report

S.No	Unit	Stack Attached to	Report No.	Sampling on	Flue Gas Temp. (Deg.C)	Stack Gas Velocity (m/s)	Gas Flow (Nm3/hr)	PM (mg/Nm3)	SO2 (mg/Nm3)	NOX (mg/Nm3)
1	CPP	CPP 25 MW	RN-240715001 S09	09.04.2025	122	7.0	186898	70.1	645.1	366.1
2	CIT	WHRB - 4 & 5 (DRI-4&5)	RN-240715001 S02	02.04.2025	110	8.4	182681	32.2	364.2	142.3
3	SMS	FES of SMS - 1 & 2	RN-240715001 S10	11.04.2025	75	6.8	402359	22.3	66.1	124.2
4	31113	FES of SMS - 3	RN-240715001S 19	23.04.2025	78	8.2	475975	23.4	95.2	152.0
5		Sinter Process	RN-240715001 S18	22.04.2025	112	6.3	497044	75.3	75.2	144.2
6	Sinter Plant	Sinter Dedusting	RN-240715001S 20	25.04.2025	62	5.9	288556	31.3	-	-
7		Sinter Product House	RN-240715001 S03	03.04.2025	45	8.5	72520	55.4	-	-
8		MBF - 1 Cast House	RN-240715001 S12	16.04.2025	46	5.7	58793	21.2	39.2	45.1
9	MBF - 1	MBF - 1 Ground Hopper	RN-240715001 S13	16.04.2025	38	12.7	27061	22.0	-	-
10		MBF - 1 Stock House	RN-240715001 S11	15.04.2025	39	6.9	26215	18.5	-	-
11		MBF - 2 Stoves	RM-240715001 S08	08.04.2025	186	6.9	64823	16.3	71.6	92.5
12	MBF-2	MBF - 2 Cast House	RM-240715001 S06	07.04.2025	43	9.2	172831	22.3	42.1	38.6
13		MBF - 2 PCI Stack	RN-240715001 S07	07.04.2025	65	13.2	31770	23.1	-	-
14		MBF - 2 RMHS-1	RN-240715001 S01	01.04.2025	42	8.6	71598	25.7	-	-
15		CPP 25 MW	RN-240715001 S08	14.05.2025	120	5.6	150522	72.4	608.3	371.5
16		WHRB - 1 & 40 TPH	RN-240715001 S07	13.05.2025	125	6.6	139835	32.1	324.4	81.1
17	CPP	WHRB - 2 & 3 (DRI-2&3)	RN-240715001 S11	19.05.2025	122	7.3	154682	30.2	351.6	74.5
18		Coke Oven WHRB - 1	RN-240715001 S09	15.05.2025	185	10.5	117440	20.1	294.1	63.3
19		Coke Oven WHRB - 2	RN-240715001 S10	16.05.2025	170	10.3	134016	21.3	208.4	96.0
20	SMS	FES of SMS - 1 & 2	RN-240715001 S13	23.05.2025	60	6.3	386358	16.2	68.4	130.6
21	WRM	WRM Reheating Furnace	RN-240715001 S03	06.05.2025	391	10.0	27710	22.4	78.4	160.3
22	Blooming Mill	BM Reheating Furnace	RN-240715001 S04	07.05.2025	360	10.0	51760	32.2	98.4	181.9
23	Sinter Plant	Sinter Process	RN-240715001 S01	02.05.2025	120	6.1	488254	64.5	82.6	150.6
24	Siliter Flaint	Sinter Dedusting	RN-240715001 S02	02.05.2025	110	6.3	269827	27.2	-	-
25	Pellet Plant	Pellet Kiln	RN-240715001 S05	09.05.2025	40	5.7	534188	19.6	132.0	133.9
26	MDF 1	MBF - 1 Cast House	RN-240715001 S16	28.05.2025	42	5.9	61401	20.3	44.3	50.5
27	MBF - 1	MBF - 1 Stock House	RN-240715001 S12	20.05.2025	45	6.9	25628	20.3	-	-
28		MBF - 2 Stoves	RN-240715001S 20	30.05.2025	122	5.7	62800	15.2	76.4	97.9
29	MBF-2	MBF - 2 Cast House	RN-240715001S 14	26.05.2025	40	8.8	168360	21.5	46.9	44.0
30		MBF - 2 PCI Stack	RN-240715001 S15	26.05.2025	65	13.3	32288	17.1	-	-
31		CPP 25 MW	RN-240715001S14	25.06.2025	116	5.0	135323	68.1	605.2	364.8
32		WHRB - 1 & 40 TPH	RN-240715001 S11	17.06.2025	121	6.1	130118	30.3	322.0	76.9
33		WHRB - 2 & 3 (DRI-2&3)	RN-240715001 S06	11.06.2025	118	6.8	146041	28.4	348.5	67.8
34	CPP	WHRB - 4 & 5 (DRI-4&5)	RN-240715001 S10	16.06.2025	106	7.9	175478	33.7	361.1	135.6
35		Coke Oven WHRB - 1	RN-240715001 S07	12.06.2025	181	10.1	114024	18.6	291.7	59.1
36		Coke Oven WHRB - 2	RN-240715001 S08	12.06.2025	166	9.9	114928	20.1	205.3	89.3
37		FES of SMS - 3	RN-240715001S17	27.06.2025	74	7.8	458335	20.4	92.8	148.1
38	SMS - 3	SMS-3 RMHS	RN-240715001S16	26.06.2025	40	6.2	122551	15.3	-	
39	Pellet Plant	Pellet Kiln	RN-240715001S13	24.06.2025	121	5.9	437973	20.5	130.2	129.7
40		MBF - 2 Cast House	RN-240715001519	13.06.2025	36	8.5	163980	19.2	44.5	39.8
41	MBF - 2	MBF - 2 RMHS	RN-240715001 S12	23.06.2025	38	8.0	69437	26.6	-	-
42	Coke Oven	Coke Route	RN-240715001515	26.06.2025	36	12.0	105397	18.6	109.9	328.4
43	CORC OVEII	CPP 25 MW	RN-240715001313	22.07.2025	118	6.9	187899	62.1	553.1	369.6
44		WHRB - 1 & 40 TPH	RN-240715001 S19	21.07.2025	123	6.3	145109	54.3	392.5	83.1
45		WHRB - 2 & 3 (DRI-2&3)	RN-240715001 S06	08.07.2025	120	7.4	157347	31.2	322.1	72.6
46	CPP	WHRB - 4 & 5 (DRI-4&5)		10.07.2025	108	7.4	168649	30.1		140.4
		Coke Oven WHRB - 1	RN-240715001 S08					t	342.6	
47		Coke Oven WHRB - 2	RN-240715001 S02	03.07.2025	183	9.9	110743	20.1	251.2	63.9
48		+	RN-240715001 S03 RN-240715001 S11	03.07.2025	168	9.6	111555	17.5	278.6	95.5
49	SMS	FES of SMS - 1 & 2		15.07.2025	62	6.6	403996	18.2	61.3	136.8
50	\A/DN4	SMS-3 RMHS	RN-240715001 S16	17.07.2025	78	8.1	470970	22.1	72.6	105.1
51	WRM	WRM Reheating Furnace	RN-240715001 S10	11.07.2025	393	10.7	29433	23.4	72.6	165.1
52	Blooming Mill	BM Reheating Furnace	RN-240715001 S09	10.07.2025	362	9.6	49704	25.6	88.7	188.1
53	Cint. DI	Sinter Process	RN-240715001 S14	16.07.2025	122	6.3	497063	73.4	76.2	155.4
54	Sinter Plant	Sinter Dedusting	RN-240715001 S15	16.07.2025	112	6.1	262607	26.8	-	-
55		Sinter Product House	RN-240715001 S23	23.07.2025	52	8.7	72343	29.1	-	-
56	Pellet Plant	Pellet Kiln	RN-240715001 S22	23.07.2025	123	7.4	550953	20.5	112.4	134.5
57		MBF - 1 Stoves	RN-240715001 S18	18.07.2025	265	13.2	51458.9	16.1	112.4	64.1
58	MRF_1	MBF - 1 Cast House	RN-240715001 S12	15.07.2025	44	5.6	57837	19.2	40.2	55.3

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59	11101 1	MBF - 1 Ground Hopper	RN-240715001 S13	15.07.2025	48	12.2	25173	17.1	-	-
60		MBF - 1 Stock House	RN-240715001 S17	18.07.2025	47	6.7	24520	18.2	-	-
61		MBF - 2 Stoves	RN-240715001 S24	24.07.2025	124	6.1	66807	18.6	71.3	102.7
62		MBF - 2 Cast House	RN-240715001 S25	24.07.2025	38	8.3	159267	17.3	40.2	46.0
63	MBF-2	MBF - 2 PCI Stack	RN-240715001 S07	09.07.2025	67	13.2	31830	16.4	-	-
64	IVIDF=2	MBF - 2 Stock House	RN-240715001 S01	01.07.2025	50	9.4	105193	18.4	-	-
65		MBF - 2 RMHS	RN-240715001 S05	04.07.2025	50	6.4	31762	15.1	-	-
66		MBF - 2 RMHS-1	RN-240715001 S04	04.07.2025	40	7.8	67188	20.3	-	-
67	COKE OVEN	Coke Route	RN-240715001 S21	22.07.2025	38	17.2	150125	20.2	134.5	334.6
68		CPP 30 MW	RN-240715001 S01	06.08.2025	132	9.4	244717	24.3	521.5	224.1
69		WHRB - 1 & 40 TPH	RN-240715001 S11	29.08.2025	192	7.0	125056	47.5	364.1	80.1
70	CPP	WHRB - 2 & 3 (DRI-2&3)	RN-240715001 S05	21.08.2025	138	7.2	146700	30.1	304.5	64.2
71	CFF	WHRB - 4 & 5 (DRI-4&5)	RN-240715001 S03	20.08.2025	125	7.4	155804	28.4	331.6	132.1
72		Coke Oven WHRB - 1	RN-240715001 S06	22.08.2025	192	12.0	131471	22.4	232.1	54.2
73		Coke Oven WHRB - 2	RN-240715001 S07	22.08.2025	187	10.5	116637	19.5	264.1	83.3
74		FES of SMS - 1 & 2	RN-240715001 S08	25.08.2025	68	6.7	399948	18.3	58.5	128.5
75	SMS	FES of SMS - 3	RN-240715001 S12	29.08.2025	87	6.5	369383	22.4	55.4	123.4
76		SMS-3 RMHS	RN-240715001 S10	28.08.2025	55	8.6	350877	17.6	-	-
77	Sinter Plant	Sinter Process	RN-240715001 S04	21.08.2025	145	7.3	548318	45.0	74.2	142.1
78	MBF - 2	MBF - 2 RMHS-1	RN-240715001 S09	28.08.2025	46	5.9	49754	20.4	-	-
79		WHRB - 1 & 40 TPH	RN-250303003 S03	10.09.2025	180	7.4	136836	38.6	368.3	88.3
80		WHRB - 2 & 3 (DRI-2&3)	RN-250303003 S04	10.09.2025	145	8.3	165857	33.4	309.1	74.0
81	CPP	WHRB - 4 & 5 (DRI-4&5)	RN-250303003 S13	18.09.2025	111	7.1	154901	28.3	335.8	140.3
82		Coke Oven WHRB - 1	RN-250303003 S05	11.09.2025	225	11.8	120999	18.6	236.3	62.4
83		Coke Oven WHRB - 2	RN-250303003 S06	11.09.2025	195	10.6	115950	20.2	268.7	39.1
84	SMS	FES of SMS - 1 & 2	RN-250303003 S07	12.09.2025	60	6.7	411476	20.9	62.7	136.7
85	SIVIS	FES of SMS - 3	RN-250303003 S08	12.09.2025	85	7.4	424387	23.7	60.0	133.2
86	WRM	WRM Reheating Furnace	RN-250303003 S09	15.09.2025	390	8.3	23044	21.3	76.8	173.3
87	Blooming Mill	BM Reheating Furnace	RN-250303003 S10	15.09.2025	380	8.9	44592	24.7	93.3	197.9
88	Sinter Plant	Sinter Process	RN-250303003 S01	05.09.2025	115	6.4	517935	47.6	78.4	150.3
89	Pellet Plant	Pellet Kiln	RN-250303003 S02	09.09.2025	134	8.0	577135	19.2	117.0	144.3
90	MBF-2	MBF - 2 Stoves	RN-250303003 S11	16.09.2025	115	5.9	65804	16.9	75.5	110.9
91	IVIDF-Z	MBF - 2 Cast House	RN-250303003 S12	16.09.2025	40	8.7	164616	18.6	44.8	55.8



HILD No.

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

TC-16135

/ULIC NO.1	C 1 0	3 3	2 3	0 0	0 0 0	0 6 2			
Discipline: Chemical	and the discount	Group: At	mospheric Polli	pheric Pollution Sub-Group: Stack Emission					
Report Issue Date: 09-0	7-2025		Test Re	port No.: RI	N-2407150018	501			
Sample ID: 250707AP0	9001				: Stack Emissi				
Challan No./P.O. No.: 3	000173714/J02	2007 20127	Challar	No./P.No. I	Date: 15-07-202	24			
Name and Contact Deta	E-mail Id- kish M/s Tata Steel (Formerly Tata	or.pramanik1@ Limited, Steel Long Pro	tatasteel.com		Khareawan Ibar	rkhand 9371/19			
Type of Industry: Iron		se v, runyapi	r Industrial Area, Seraikela-Kharsawan, Jharkhand-832108 Condition of Sample: Fit For Test						
Sampling Protocol: IS:1	1255; 2009		THE RESERVE OF THE PERSON NAMED IN	Sampling Date: 01-07-2025(11:00 am - 11:56 am)					
Protocol: CPCB Guideli	ne (LATS/80/2013-	14) & amp; IS !	Method 11255 8	Series					
Sampling Location: ME									
Field Meteorological In	formation A. Ten	np. (°C): 29	R.H. (%): 72	W.C.:	Partly Sunny	W.D.: SE to NW			
Location of performance	e of the Laborator	y Activity: IE	M Laboratory,	Ranchi					
Sample Receiving Date:	07-07-2025	Testing St	tarted: 07-07-2	rted: 07-07-2025 Testing Ended: 09-07-2025					
-0.	Int	formation ob	tained from	Customer					
Stack Identification	Single	Stack	Height from (Ground Leve	el (m)	30			
Emission Due to		Port	Hole Height fre	ic Height from Ground Level (m) 23					

Plat Form	Permanent	Inner Dimension of Stack (m)	2.1
Stack Description	MBF-2 STOCK HOUSE	Type of Fuel Used	
Shape of Stack	Circular	Production Capacity	

Sampling Port Yes Pollution Control Device (if any) Bag Filter

Flue Gas Temperature (°C): 50 Flue Gas Velocity (m/s): 9.4 Flue Gas Volumetric Flow Rate (Nm³/hr): 105193

----Test Result----

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	-	18.4
2.	Sulphur Dioxide (SO ₂)	1S 11255 (Part-2)	mg/Nm1	***	
3.	Oxides of Nitrogen (NO2)	IS 11255 (Part-7)	mg/Nm ³	***	
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% V/V	244	
5.	Carbon Monoxide (CO)	IS 13270:1992	ppm	***	
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		

Env. Condition of Lab.	Laboratory is maintaining Temperature 27x 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced
Tested by	Akanksha Sourabh
Sample Drawn by	Rabul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Specific Contractual Notes: -

- 1. The laboratory accepts responsibility for content of this report.
- 2. This report shall not be reproduced except in full, without approval of the MD.
- 3. This report is intended for only guidance and not for legal purpose or for advertisement.
- 4. Any complaint about this report should be communicated in writing within 7 days of its issue
- Total liability of institute for Environmental Management will be limited to invoiced amount only.
 In case of feedback/ complaints, please send an email at smillemeco@gmail.com

On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by

Authorized Signatory

(Taugeer Ahmad)

Technical Manager

Ranchi(Dr. S. C. Jain)

Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

ULR No.:	T	C	1	6	- 1	3	5	2	5	0	0	0	0	0	0	6	1 2	2
Discipline: Ch	emical		17774	-		Group	: Atm	osphe	eric Pol	lution	1000		Sub-C	roup	: Stac	k Emi	ssion	
Report Issue	Date: ()9-	-07-20	25						Test R	eport	No.: F	RN-24	407150					
Sample ID: 25	50707AP	13001											ack Em	of advisors design				
Challan No./F	.O. No.:	30001	73714	1/J02	15/451	9755			Challa	ın No.	P.No.	Date	: 15-07	-2024				
		(Forme Gamah		a St	mited, eel Long V, Adit					raikela	-Khai	rsawan,	Jhark	hand-l	83210	8	
Type of Indus	tev: Iron				10000000	1 3 1 10011	inp un	-					it For T		THE TOTAL	00410		
Sampling Pro		-		,								and the second second	025(10	mental Lineau	n - 10:	53 am)	
Protocol: CPC	B Guide	line (L	ATS/8	80/2013	3-14) & amp;	IS M	lethod	11255	Series		-	www.combine.com	or or demand a constraint				
Sampling Loc	ation: C	OKE (VEN	WHRE	3 L/N	NIT-1												
Field Meteoro	logical I	nform	ation	A. Te	mp	(°C): 2	9	R.H.	(%): 7	4	W.C	ir Se	mi-Clo	ody	W.D.:	NW	to SE	
Location of pe	erforma	nce of	the La	borate	ry /	Activity	: IEN	1 Labo	oratory,	Ranch	hi			-				
Sample Receiv	ving Dat	e: 07-0	7-202	5		Testin	g Sta	rted:	07-07-2	2025		Te	esting E	nded	: 09-0	7-202	5	
- 02				1.	. far			in land	A from	Car	4							

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	45.5
Emission Due to	Oven	Port Hole Height from Ground Level (m)	32
Plat Form	Permanent	Inner Dimension of Stack (m)	2.5
Stack Description	COKE OVEN WHRB UNIT-I	Type of Fuel Used	Coking Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	N/A

Flue Gas Temperature (*C): 183 | Flue Gas Velocity (m/s):9.9 Flue Gas Volumetric Flow Rate (Nm3/hr): 110743 --- Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	20.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³	944	251.2
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	***	63.9
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	8.8
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	2000	76
6.	Oxygen (O2)	IS 13270:1992	% v/v	***	8.8

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 18 Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Fested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Diselaimees	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Tested by Sample Drawn by	Akanksha Sourabh Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

(Taugeer Ahmad)

Br/S. C. Jain)

Technical Manager Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

TC-16135

ULR No.:	T	C	1	6	1		3	5	2	5	0	0	0	0	0	0	6	2	3
Discipline: Che	mical					G	roup	: Atn	nosph	eric Pol	lution	11,000	IC ACT	Sub-C	Group	: Stac	k Emis	sion	
Report Issue D	ate: 09-	07-203	2.5							Test F	Report	No.: F	RN-2	107150	00150	03.			
Sample ID: 250	7707AP	13002								Samp	le Dese	criptio	n: St	ack En	aissio	n			
Challan No./P.	O. No.:	30001	73714	/J02	Haras					Challe	an No.	P.No.	Date	: 15-07	-2024				
		(rly Ta	ita S	teel	Long			Limited strial A		Name of the Owner,	MINA A DATE OF	CONTRACTOR OF STREET		khand-	83210	8	
Type of Indust	rv: Iron			act sa e						Condi	tion of	f Sami	ole: F	it For T	est				
Type of Indust Sampling Prote		& Ste	el							Condi						m -01:	25 pm)		
	ocol: IS:	& Ste	el ; 2009)		1) &:	amp;	IS N	1ethoc	Samp	ling D	ate: 03		025 (1		m -01:	25 pm)		
Sampling Prote	ocol: IS: B Guide	& Ste 11255 line (L	el ; 2009 ATS/8	80/201	3-14	1) &:	amp;	IS N	1ethoc	Samp	ling D	ate: 03				m -01:	25 pm)		
Sampling Proto Protocol: CPCI	ocol: IS: B Guide tion: Co	& Ste 11255 line (L oke Ov	el ; 2009 ATS/8 en Wi	80/201 HRB :	3-14					Samp	Series	ate: 03	3-07-2		2:30pi		4		
Sampling Prote Protocol: CPCI Sampling Loca	ocol: IS: B Guide tion: Co ogical I	& Ste 11255 line (L oke Ov nform	el ; 2009 ATS/8 en Wi ation	80/201 HRB :	3-14 2 emp). (°(C): 2	9	R.H	Samp 111255	Series	w.c	3-07-2	025 (12	2:30pi		4		

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	45.5
Emission Due to	Oven	Port Hole Height from Ground Level (m)	32
Plat Form	Permanent	Inner Dimension of Stack (m)	2.5
Stack Description	Coke Oven WHRB 2	Type of Fuel Used	Coking Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	None

Flue Gas Temperature (*C): 168 Flue Gas Velocity (m/s):9.6 Flue Gas Volumetric Flow Rate (Nm³/hr): 111555

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	17.5
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³		278.6
3.	Oxides of Nitrogen (NO ₂)	1S 11255 (Part-7)	mg/Nm ³	***	95.5
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	222	7.9
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	Charles Co.	82
6.	Oxygen (O2)	IS 13270:1992	% v/v		10.6

Env. Condition of Lab.	Laboratory is maintaining Temperature 27+ 2°C and Relative Humidity 65±5 % in all lesting area as per 1S 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by

(Tauqeer Ahmad)

Technical Manager

Authorized Signatory

Dr. S. C. Jain)

Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,

Ranchi-834002, Jharkhand, India Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TC-16135

TEST REPORT

ULR No.:	T	C	1	6		1	3	5	2	5	0	0	0	0	0	0	6	2	4
Discipline: Ch	emical	-	Tringe	100	- 1	G	roup	: Atm	osphe	ric Pol	lution	111111111		Sub-C	roup	: Stack	Emis	sion	1
Report Issue I)ate: 09	-07-20	25							Test F	Report	No.: f	RN-2	407150	0150)4			
Sample 1D: 25	0707AP	14001												ack Em					
Challan No./P	O. No.:	30001	17371	4/J02	2	.7.	11/2/11			Challa	an No.	P.No.	Date	: 15-07	-2024				
			M/s T (Form	ata S erly	teel l Tata	imit Steel	ed, Long	proc	lucts I	el.com .imited trial Ar		raikela	i-Kha	rsawan,	Jhark	hand-E	32108	3	
Type of Indus	try: Iron							i al						it For T			-		
Sampling Prot				19										025(01		n - 02:	07 pm)	
Protocol: CPC					013-	4) &	tamp;	IS M	lethod										
Sampling Loca	ation: M	IBF-2	RMH	S-1								0							
Field Meteoro	logical I	nform	ation	A.	Tem	p. (°	C): 3	0	R.H.	(%);	76	W.C	: Se	mi-Clou	ady	W.D.:	NW t	o SE	
Location of pe	rforma	nce of	the L	abor	ator	Act	tivity:	: IEN	A Labo	oratory,	Ranch	hi	100						
Sample Receiv	ing Dat	e: 07-4	97-20	25		7	festin	g Sta	rted:	07-07-	2025		Te	esting E	nded	: 09-00	7-2025	9	
200	200				Inf	orm	ation	n ob	taine	d fron	n Cus	tome	r	- 25					

Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter
Shape of Stack	Circular	Production Capacity	and:
Stack Description	MBF-2 RMHS-1	Type of Fuel Used	***
Plat Form	Permanent	Inner Dimension of Stack (m)	1,816
Emission Due to	Raw material Circuit	Port Hole Height from Ground Level (m)	22
Stack Identification	Single	Stack Height from Ground Level (m)	35.5

Flue Gas Temperature (°C): 40 Flue Gas Velocity (m/s):7.8 Flue Gas Volumetric Flow Rate (Nm3/hr): 67188

----Test Result--

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³		20.3
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³		
3.	Oxides of Nitrogen (NO2)	IS 11255 (Part-7)	mg/Nm³	+++	
4,	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		
5.	Carbon Monoxide (CO)	IS 13270:1992	ppm		
6.	Oxygen (O2)	IS 13270:1992	% v/v	***	444

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 18 196:1966(C)
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by (Taugeer Ahmad)

Randy

Director

norzed Signatory

Technical Manager



Corporate office - A-B, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,

Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

TC-16138

ULR No.:	T	C	-1	6	1	3	5	2	- 5	0	0	0	0	0	0	6	2	5
Discipline: Ch	nemical	111111111111111111111111111111111111111				Group	e: Atn	nosphe	ric Pol	lution		***************************************	Sub-G	roup	: Stack	Emis	ssion	-
Report Issue	Date: 09	-07-202	15						Test F	cport	No.:	RN-2	407150	015	05			
Sample ID: 25	50707AP	14002							Samp	le Des	criptic	m: St	ack Em	issio	n			
Challan No./F	.O. No.:	30001	73714	/J02	750	1950			Challa	an No.	P.No	Date	: 15-07-	2024	1			
		0	Forme		a Ste	el Lon	Section 1		imited		raikel	a-Kha	rsawan,	Jhari	khand-	83210	8	
Type of Indus	try+ Iron					.,				and the second second	the state of the s		it For T	distribution (removal of				
Sampling Pro												Marine and Authorization Company	2025(11:	0.50	m - 11:	37 am)	
Protocol: CPC	B Guide	line (L.	ATS/	30/2013	3-14)	&	; IS N	1ethod	11255	Series	5					No. of Contract of	Acris and a second	
Sampling Loc	ation: N	1BF-2 F	RMHS					61			40							
Field Meteoro	ological l	laform	ation	A. Te	mp.	(°C):	30	R.H.	(%):	70	W.C	:: Pa	urtly Sun	ny	W.D.	SE to	NW	
Location of pe	erforma	nce of t	he La	borate	ry A	Activity	y: IE	M Lab	oratory	Ranc	hí		-27	377				
Sample Recei	ving Dat	e: 07-0	7-202	5		Testi	ng St	arted:	07-07-	2025		T	esting E	ndec	1: 09-0	7-202	5	
				1.	for	matio	n ab	taine	d from	o Cas	tome	int.	2.5					

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	30
Emission Due to	Furnace	Port Hole Height from Ground Level (m)	24.5
Plat Form	Permanent	Inner Dimension of Stack (m)	1.4
Stack Description	MBF-2 RMHS	Type of Fuel Used	RMHS
Shape of Stack	Circular	Production Capacity	444
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 50 Flue Gas Velocity (m/s):6.4 Flue Gas Volumetric Flow Rate (Nm³/hr): 31762
---Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	15.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³		
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3		-
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	
6.	Oxygen (O2)	IS 13270:1992	% v/v		

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C)
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by Authorized Signatory

(Tauqeer Ahmad)

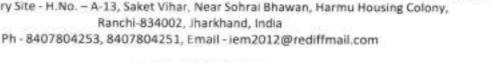
(Dr/S. C. Jain)
Rand® Director

Technical Managek

---End of Report---



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,





TC-16135

TEST REPORT

ULR No.:	T	C	1	6	1.	3	5	2	5	0	0	0	0	0	0	6	2	6
Discipline: Ch	emical			15-21-17		Group	: Atn	osphe	pheric Pollution Sub-Group: Stack Emission									
Report Issue	Date: 16	-07-2025	5						Test Report No.: RN-240715001S06									
Sample ID: 250714AP14001												ack Em						
Challan No./P.O. No.: 3000173714/J02									Chall	an No.	P.No.	Date	: 15-07	-2024	1			
		(Fe	orme	ta Steel rly Tata aria Ph	a Ste	el Long					raikela	a-Kha	rsawan,	Jhark	chand-	83210	8	
Type of Indus	ency leave			aria Ph	ase-v	, Adit	yapur								chand-	83210	8	
Sampling Pro									Condition of Sample: Fit For Test Sampling Date: 08-07-2025(10:30 am - 11:02 am)									
Protocol: CPC					-14)	Ramo	18 N					5-07-2	025(10	.30 ar	n - 11:	UZ am)	
Sampling Loc							1-3 (4)	receiou	11433	Series	V							
Field Meteoro							8	R.H.	(%):	70	W.C	la Se	mi-Clou	idy [W.D.	: NW	to SE	
Location of pe					ON PARTY OF	* Territoria de la constitución	Anna Calendaria	CONTRACTOR OF THE PARTY OF THE			_	UIL-						
Sample Receiving Date: 14-07-2025 Testing Started						rted:	Control to the Control of the Contro											
=33				In	for	matio	n ob	taine	fron	n Cus	tome	r	777					

Stack Identification	Common	Stack Height from Ground Level (m)	63
Emission Due to	DRI Making Process	Port Hole Height from Ground Level (m)	20.2
Plat Form	Permanent	Inner Dimension of Stack (m)	3.2
Stack Description	WHRB - 2 & 3 (DRI-2 & 3)	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C): 120 | Flue Gas Velocity (m/s):7.4 Flue Gas Volumetric Flow Rate (Nm3/hr): 157347 -- Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	31.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³		322.1
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3		72.6
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		14.2
5,	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	130
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		12.4

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C)
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 1S Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
l'ested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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aperini	CONTR	COLUMB !	INCHES.

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Reviewed by

Authorized Signatory

(Taugeer Ahmad)

Technical Manager

(Br/S. C. Jain)

Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TC-16135

TEST REPORT

ULR No.:	T	C	1	6	1	3	5	2	5	0	0	0	0	- 0	0	6	2	7
Discipline: Ch	emical.					Group	: Atm	osphe	heric Pollution Sub-Group: Stack Emission									
Report Issue Date: 16-07-2025										Test Report No.: RN-240715001S07								
Sample ID: 250714AP16001									Sample									
Challan No./P	O. No.:	30001	73714	/J02					Challa	n No.	P.No.	Date	: 15-07	-2024	1			
		1	M/s Ta	ita Ste	el Li					0								
7	u. Jene	1	M/s Ta (Forme Gamah	ita Ste erly Ta	el Lir ata St	nited, eel Lon	g Proc	ducts L	imited) trial An	ea, Ser		AND REPORTS AND REST		Assistant Advanced	chand-l	832108		
Type of Indus	THE RESERVE OF THE PERSON NAMED IN	& Ste	M/s Ta (Forme Gamah eel	ita Ste erly Ta iária P	el Lir ata St	nited, eel Lon	g Proc	ducts L Indus	imited) trial Arc	ea, Ser	Sam	ple: F	it For T	est				
Sampling Pro	ocol: IS	& Ste	M/s Ta (Forme Gamah eel 5; 2009	ita Ste erly Ta iaria P	el Lir ata St 'hase-	nited, eel Lon V, Adit	g Proc yapur	ducts L Indus	imited) trial Arc Condit Sampli	ea, Ser ion of ing Da	Sam te: 09	ple: F	it For T	est				
Sampling Protocol: CPC	ocol: IS B Guide	& Ste 11255 line (I	M/s Ta (Forme Gamah sel s; 2009 ATS/	ita Ste erly Ta iaria P	el Lir ata St 'hase-	nited, eel Lon V, Adit	g Proc yapur	ducts L Indus	imited) trial Arc Condit Sampli	ea, Ser ion of ing Da	Sam te: 09	ple: F	it For T	est				
Sampling Protocol: CPC Sampling Loc	ocol; IS B Guide ation: M	& Ste 11255 line (I BF - 2	M/s Ta (Forme Gamah sel s; 2009 ATS/ 2 PC1	nta Ste erly Ta naria P 9 80/20	el Linata St hase-	nited, eel Lon V, Adii) &	g Proc yapur ; IS M	ducts I. Indus	imited) trial Arc Condit Sampli 11255	ea, Ser ion of ing Da Series	Samp ite: 09	ple: F	it For T 025(10	est :05 ar	n - 10:	45 am)		
Sampling Protocol: CPC	ocol; IS B Guide ation: M	& Ste 11255 line (I BF - 2	M/s Ta (Forme Gamah sel s; 2009 ATS/ 2 PC1	nta Ste erly Ta naria P 9 80/20	el Linata St hase-	nited, eel Lon V, Adii) &	g Proc yapur ; IS M	ducts I. Indus	imited) trial Arc Condit Sampli	ea, Ser ion of ing Da Series	Samp ite: 09	ple: F	it For T	est :05 ar	n - 10:	45 am)		th
Sampling Protocol: CPC Sampling Loc	ocol: IS B Guide ation: M logical I	& Ste 11255 line (L BF - 2	M/s Ta (Forme Gamah seel s; 2009 ATS/8 2 PC1 aution	nta Ste erly Ta naria P 80/20	el Linata St hase- 13-14	nited, eel Lon V, Adii) & amp	g Proc yapur ; IS M	ducts L Indus fethod	imited) trial Arc Condit Sampli 11255 (%): 7	ea, Serion of ing Da Series	Sam ite: 09	ple: F	it For T 025(10	est :05 ar	n - 10:	45 am)		th

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	30.2
Emission Due to	PCI handling	Port Hole Height from Ground Level (m)	30
Plat Form	Permanent	Inner Dimension of Stack (m)	1
Stack Description	MBF - 2 PCI	Type of Fuel Used	PCI
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 67 Flue Gas Velocity (m/s):13.2 | Flue Gas Volumetric Flow Rate (Nm³/hr): 31830 --- Test Result---

SL NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	***	16.4
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³		
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm³		-0.00
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm		
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		***

Env. Condition of Lab.	Laboratory is maintaining Temperature 27+ 2°C and Relative Humidity 65+5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 18 Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

utherized Signatory

(Taugeer Ahmad)

Technical Manager

C. Jain)

Director



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Ranchi-834002, Jharkhand, India





TC-16135

TEST REPORT

8 ULR No.: Group: Atmospheric Pollution Sub-Group: Stack Emission Discipline: Chemical Report Issue Date: 16-07-2025 Test Report No.: RN-240715001S08 Sample 1D: 250714AP18001 Sample Description: Stack Emission Challan No./P.No. Date: 15-07-2024 Challan No./P.O. No.: 3000173714/J02 Name and Contact Details of Customer: Kishor Pramanik (9905340012) E-mail Id- kishor.pramanik1@tatasteel.com M/s Tata Steel Limited, (Formerly Tata Steel Long Products Limited), Gamaharia Phase-V, Adityapur Industrial Area, Seraikela-Kharsawan, Jharkhand-832108 Condition of Sample: Fit For Test Type of Industry: Iron & Steel Sampling Protocol: IS:11255; 2009 Sampling Date: 10-07-2025(10:30 am - 11:36 am) Protocol: CPCB Guideline (LATS/80/2013-14) & Department of the Protocol Sampling Location: WHRB - 4 & 5 (DRI-4&5) Field Meteorological Information | A. Temp. (°C): 27 R.H. (%): 68 W.C.: Partly Sunny W.D.: SE to NW

Testing Started: 14-07-2025 Sample Receiving Date: 14-07-2025 Information obtained from Custo

Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi

Stack Identification	Common	Stack Height from Ground Level (m)	63
Emission Due to	DRI Making Process	Port Hole Height from Ground Level (m)	22.2
Plat Form	Permanent	Inner Dimension of Stack (m)	3.2
Stack Description	WHRB - 4 & 5 (DRI-4&5)	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Volumetric Flow Rate (Nm3/hr): 168649 Flue Gas Temperature (°C): 108 Flue Gas Velocity (m/s):7.7 -Test Result-

SL NO.	Parameters	Test Methods	Unit	Norms**	Result
1,	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	nee .	30.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³		342.6
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	244	140.4
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	244	13.2
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	New York	360
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	12

Env. Condition of Lab.	Laboratory is maintaining Temperature 27+ 2°C and Relative Humidity 65=5 % in all testing area as per 18 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

(Taugeer Ahmad)

Technical Manager

prized Signatory

Testing Ended: 16-07-2025

Rank Director

---End of Report---



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Ph - 8407804253, 8407804251, Email - lem2012@rediffmail.com



TEST REPORT

TC-16135

Discipline: Che Report Issue D	mical																	- 9
Report Issue D					Group	o: Atn	nosphe	spheric Pollution Sub-Group: Stack Emission										
report rasue D	ate: 16-	07-20	25						Test Report No.: RN-240715001S09									
Sample ID: 250	714AP	18002							Sample Description: Stack Emission									
Challan No./P.		Challan No./P.No. Date: 15-07-2024																
Type of Indust	es Iron	(Gamah	rly Ta	ta Ste	el Lon				rea, Se			rsawan,		chand-	832108	3	
Sampling Prote					_				Condition of Sample: Fit For Test Sampling Date: 10-07-2025(12:30 pm - 01:24 pm)									
Protocol: CPC					3-14)	&	; IS N	fethod				171.154	Very La	-20 h	11 - 91,	a-s pini	-	
Sampling Loca	tion; B	oomir	ig Mill	(RHF)						20				0			
Field Meteorological Information A. Temp. (°C): 27									.H. (%): 68 W.C.: Partly Sunny W.D.: S					SE to	NW			
Location of per	forman	ce of	the La	borat	ory A	etivity	y: IE	M Lab	oratory	Ranci	hi	11	63	12				
Sample Receiving Date: 14-07-2025 Testing Starte									E 4 O.M.	2025		1997	esting E	Acres 6	2.00	T-2026		

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	80
Emission Due to	Reheating Furnace	Port Hole Height from Ground Level (m)	22
Plat Form	Permanent	Inner Dimension of Stack (m)	2
Stack Description	Blooming Mill (RHF)	Type of Fuel Used	BF Gas & LDC
Shape of Stack	Circular	Production Capacity	CTT C
Sampling Port	Yes	Pollution Control Device (if any)	None

Flue Gas Temperature (°C): 362 Flue Gas Velocity (m/s):9.6 Flue Gas Volumetric Flow Rate (Nm³/hr): 49704

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1,	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	***	25.6
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm	***	88.7
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³	***	188.1
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		14.4
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	90
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	16.4

Env. Condition of Lab.	Laboratory is maintaining Temperature 27= 2°C and Relative Humidity 65±5 % in all testing area as per 15 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 15 Method 11253 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Fested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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4001

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T	C	1.1		6	1.	3	5	2	5	0	0	0	0	0	. 0	6	3	- 0
Discipline: Chemical		1111111				Group	e: Atn	nosph	eric Poll	ution			Sub-G	roup	: Stack	Emis	sion	Transition.
Report Issue Date:	6-07-20	025							Test Report No.: RN-240715001S10									
Sample ID: 250714/	P1900	1							Sample Description: Stack Emission									
Challan No./P.O. No	.: 3000	1737	14/J0	02					Challan No./P.No. Date: 15-07-2024									
		M/s (Forn	Tata nerly	Stee y Tat	l Lin	nited, sel Lon	g Pro	ducts	eel.com Limited strial Ar		raikela	-Kha	rsawan,	Jhark	hand-8	3210	8	
Type of Industry: in	on & St	teel					- Marca di Conso		Condition of Sample: Fit For Test									
Sampling Protocol:	S:1125	5; 20	09						Sampling Date: 11-07-2025(11:00 am - 11:49 am)									
Protocol: CPCB Gui	deline (LATS	3/80/	2013	5-14)	&	; IS N	4ethor	d 11255	Series	8							
Sampling Location:	delineration and the	distribution of the		obsession of the same of the s		1 17		ott.			V.							
Field Meteorologica											E	.: Pa	rtly Sun	ny	W.D.:	NW t	to SE	
Location of perform				orate	ry /						hi	-	-71	30 11				
Sample Receiving D	Sample Receiving Date: 14-07-2025 Testing Starte										ted: 14-07-2025 Testing Ended: 16-07-2025						5	
N. 10350				- 11	ifor	matio	n ob	taine	ed from	a Cus	tome	r	271					
Stack Identification	Sing	gle						Sta	ack Heis	ght fro	m Gr	ound	Level (m)	5	5		
Construction for Contract annual Contract Contract in Contract Con								_	Complete Company of the Company of t	-			-					

Stack Identification	Single	Stack Height from Ground Level (m)	55
Emission Due to	Reheating	Port Hole Height from Ground Level (m)	30
Plat Form	Permanent	Inner Dimension of Stack (m)	1.5
Stack Description	Wire Rod Mill (RHF)	Type of Fuel Used	BF & LDO
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	N/A

Flue Gas Temperature (°C): 393 | Flue Gas Velocity (m/s):10.7 | Flue Gas Volumetric Flow Rate (Nm³/hr): 29433 ----Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
17	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	23.4
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm		72.6
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³		165.1
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	14.4
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	120
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	16.6

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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TC-16135

TEST REPORT

ULR No.:	T	C	1	6	1	3	5	2 5	0	-0	0	0	0	0	6	3	1	
Discipline: Ch	emical					Group:	Atmo	spheric P	llution			Sub-(Froup	: Stack	k Emis	ssion	ALT Y	
Report Issue I	Date: 23-	07-20	25					Test	Test Report No.; RN-240715001S11									
Sample ID: 25	50721AP	15001	100					Sam	Sample Description: Stack Emission									
Challan No./P	Cha	Challan No./P.No. Date: 15-07-2024																
			Gamah					ndustrial	Area, Se					hand-	83210	8		
Type of Indus									Condition of Sample: Fit For Test									
Sampling Pro	tocol: IS	:11255	5; 2009)				Sam	Sampling Date: 15-07-2025 (10:00 am - 10:35 am)									
Protocol: CPC	B Guide	line (L	ATS/	80/201	3-14)	& amp; I	S Me	thod 1125	5 Series	8								
Sampling Loc	ation: S	MS-1	& 2 FE	S	117.5	400	- 10			87								
Field Meteoro	R.H. (%)	72	W.C	l.: Se	mi-Clo	udy	W.D.	: SW	to NE									
Location of po	erforma	nce of	the La	borat	ory A	ctivity:	IEM	Laborator	y, Ranc	hi								
Sample Receiv	vino Dat	0: 21-6	07-202	5		Testing	Star	ted: 21-0	-2025		Te	estino I	Ended	: 23-0	7-202	5		

Information obtained from Customer

Stack Identification	Common	Stack Height from Ground Level (m)	46.1
Emission Due to	EAF	Port Hole Height from Ground Level (m)	36
Plat Form	Permanent	Inner Dimension of Stack (m)	5
Stack Description	SMS-1 & 2 FES	Type of Fuel Used	Electricity
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	FES

Flue Gas Volumetric Flow Rate (Nm3/hr): 403996 Flue Gas Temperature (°C): 62 | Flue Gas Velocity (m/s):6.6 ----Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	***	18.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³	****	61.3
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3		136.8
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% V/V	***	18.2
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	164
6.	Oxygen (O2)	IS 13270:1992	% v/v	***	19

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C)
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 18 Method 11255 Series.
Remark	Sample Comply with prescribed specification
Opinion & Interpretation	Not Practiced.
Fested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Director Technical Manager



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TEST REPORT

ULR No.: T C 1 6	1 3	5	2 5	.0	0	0 (0	0	6	3	1.2
Discipline: Chemical	Group	: Atmos	spheric Polls	ution		Sul	-Grou	ip: Stac	k Emis	sion	1100
Report Issue Date: 23-07-2025			Test R	eport	No.: R	N-24071	50018	312			
Sample ID: 250721AP17001			Sample	e Des	cription	: Stack	Emissi	on			
Challan No./P.O. No.: 3000173714/J02	Challa	n No.	P.No.	Date: 15-	-07-202	24					
E-mail Id- kisl M/s Tata Stee (Formerly Tata Gamaharia Ph	Limited, a Steel Long	g Produc	ts Limited)		raikela-	Kharsaw	an, Jha	rkhand-	832108		
Type of Industry: Iron & Steel	and the same and	Epodlacio vine		-		le: Fit Fo					
Sampling Protocol: IS:11255; 2009			Sampli	Sampling Date: 15-07-2025(01:00 pm - 01:42 pm)							
Protocol: CPCB Guideline (LATS/80/2013	-14) & amp:	IS Met									
Sampling Location: MBF-1 CAST HOUS	E	- 44			33			W = -			
Field Meteorological Information A. Te	mp. (°C): 3	0 B	LH. (%): 7.	2	W.C.	: Semi-C	loudy	W.D.	: SW to	NE	
Location of performance of the Laborato	ry Activity	: IEM I	aboratory,	Ranc	hi	23 -		1.U.			
Sample Receiving Date: 21-07-2025	Testin	g Start	ed: 21-07-2025 Testing Ended: 23-07-2025								
In	formation	n obtai	ined from	Cus	tomer						

Information obtained from Custon

Stack Identification	Single	Stack Height from Ground Level (m)	30
Emission Due to	Blast Furnace Process	Port Hole Height from Ground Level (m)	25
Plat Form	Permanent	Inner Dimension of Stack (m)	2
Stack Description	MBF-1 CAST HOUSE	Type of Fuel Used	Coke,PCI
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Velocity (m/s):5.6 Flue Gas Temperature (°C):44 Flue Gas Volumetric Flow Rate (Nm3/hr):57837 -- Test Result--

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1,	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm		19.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³		40.2
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³		55.3
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		
5.	Carbon Monoxide (CO)	1S 13270:1992	Ppm	***	
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		

Env. Condition of Lab.	Laboratory is maintaining Temperature 27+ 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C)				
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit				
Norms** is Specified	As per the 15 Method 11253 Series.				
Remark	Sample Comply with prescribed specification.				
Opinion & Interpretation	Not Practiced				
Tested by	Akanksha Sourabh				
Sample Drawn by	Rahul Singh & Team				
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.				

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Reviewed by

(Taugeer Ahmad)

(Dr S. C. Jain) Director

hithorized Signatory

Technical Manager

---End of Report-



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TEST REPORT

TC-16135

ULR No.:	T	C	1	6	1	3	5	2	5	0	0	0	0	0	0	6	3	3
Discipline: Chemical Group: Atmosp										lution			Sub-C	roup	: Stack	Emis	sion	
Report Issue I	Date: 23-	07-20	25						Test B	teport	No.: f	RN-24	107150	0151	3	Notation in the second		
Sample ID: 25	0721AP	17002							Sampl	le Dese	criptio	n: St	ack Em	ission	1			
Challan No./P	O. No.:	30001	73714	l/J02									: 15-07					
		(Forme Gamah		ta Ste	el Lon		ducts I r Indus			raikela	-Khai	rsawan,	Jhark	hand-8	32108		
Type of Indus	tes: Iron				mark	7+1100	yapai								manu-	272100	-	
Sampling Pro)			- CV (VII		Condition of Sample: Fit For Test Sampling Date: 15-07-2025(03:00 pm - 03:43 pm)									
Protocol: CPC	B Guide	line (L	ATS/	80/201	3-14)	&	: IS N	Aethod	11255	Series					7-10-00			
Sampling Loc	ation: M	BF-1	Groun	d Hopp	er	111/2					, Judeo		Service	51F V	00.04			
Field Meteoro	logical I	nform	ation	A. T	emp.	(°C):	30	R.H.	(%):	72	W.C	.: Se	mi-Clou	ady	W.D.:	SW to	NE.	
Location of pe	rformar	ice of	the La	borat	ory A	ctivity	v: IEN	M Labo	ratory,	Ranch	hi	VIS2			-2000	325		
Sample Receiv	ing Dat	e: 21-(77-202	5	0.00	Testi	ng St	arted:	d: 21-07-2025 Testing Ended: 23-07-2025									
				- 1	nfor	matio	n oh	taine	d from	o Cue	tomo	*						

Informa	tion	obtain	ed from	n Customer
---------	------	--------	---------	------------

Stack Identification	Single	Stack Height from Ground Level (m)	30
Emission Due to	Crushing	Port Hole Height from Ground Level (m)	22
Plat Form	Permanent	Inner Dimension of Stack (m)	30.9
Stack Description	MBF-1 Ground Hopper	Type of Fuel Used	RMHS
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C):48 Flue Gas Velocity (m/s):12.2 Flue Gas Volumetric Flow Rate (Nm³/hr): 25173

SI, NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	-	17.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	-	2-0
3,	Oxides of Nitrogen (NO ₂)	1S 11255 (Part-7)	mg/Nm ³	***	6.2
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		200
5.	Carbon Monoxide (CO)	1S 13270:1992	Ppm	1000	
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	**

Env. Condition of Lab.	Eaboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
l'ested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

rohme Authorized Signatory

(Taugeer Ahmad)

(Dr./S. C. Jain)

Technical Manager Range Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T C 1 6				0 0	0	0	- 12	.0	6	3	. 4
Discipline: Chemical	Group	: Atmos	pheric Polls	tion.		Sub-Gr	roup:	Stack	Emiss	ion	
Report Issue Date: 23-07-2025			Test Re	port No.:	RN-2	4071500	11514				
Sample 1D: 250721AP18001			Sample	Descripti	ion: St	ack Emi	ssion				
Challan No./P.O. No.: 3000173714/J02	MC OF THE PARTY		Challa	No./P.No	o. Date	: 15-07-2	2024				
M/s Tata Steel L (Formerly Tata S Gamaharia Phase	Steel Long		dustrial Are	a, Seraike				and-83	32108		
Type of Industry: Iron & Steel											
A TOTAL CONTRACTOR AND A SECRETARIAN AND ASSESSMENT				on of San		Vertical Automotive States	Malagore Secret Andrew Secretary	*****			
The second section of the second section of the second section of the second section of the second section sec			Sampli	ng Date:		Vertical Automotive States	Malagore Secret Andrew Secretary	- 11:0	7 am)		
	4) &	IS Met	Sampli	ng Date:		Vertical Automotive States	Malagore Secret Andrew Secretary	- 11:0	17 am)		
Protocol: CPCB Guideline (LATS/80/2013-1		IS Met	Sampli	ng Date:		Vertical Automotive States	Malagore Secret Andrew Secretary	- 11:0	77 am)		
Protocol: CPCB Guideline (LATS/80/2013-1			Sampli	ng Date:	16-07-2	Vertical Automotive States	30 am		et/memorically		
Sampling Location: Sinter Plant Process ESI	p. (°C): 2	9 R	Sampli hod 11255 : LH. (%): 7	ng Date: Series W.	16-07-2	025 (10:	30 am		et/memorically		Ğ.

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	78
Emission Due to	Sinter Making Process	Port Hole Height from Ground Level (m)	31.2
Plat Form	Permanent	Inner Dimension of Stack (m)	6.2
Stack Description	Sinter Plant Process ESP	Type of Fuel Used	BF Gas & Coal.Coke
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C): 122 | Flue Gas Velocity (m/s):6.3 | Flue Gas Volumetric Flow Rate (Nm³/hr): 497063

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	73.4
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	***	76.2
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	444	155.4
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	11.4
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	3242
6.	Oxygen (O2)	IS 13270:1992	% v/v		24

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rabul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm_leneco@gmail.com	(Tauqeer Ahmad) Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Director



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Ph - 8407804253, 8407804251, Email - lem2012@rediffmail.com



TEST REPORT

ULR No.:	1 (C 1	6	1		3	5	2	5	0	0	- 0	0	0	0	6	3	1 3
Discipline: Cher	mical				Gre	oup	: Atr	mospi	heric Pol	lution	1		Sub-G	roup	: Stack	Emis	sion	
Report Issue Da	ite: 23-07-	2025							Test I	Repor	t No.:	RN-2	4071500	115	15			
Sample ID: 250	721AP180	02											ack Emi					
Challan No./P.C). No.: 300	00173714	4/302						Chall	an No	P.No	. Date	e: 15-07-2	2024	1			
		M/s Ti (Forme	ata Ste erly T	eel Li ata S	mited teel L	i, .ong	, Pro	ducts	Limited	0,	eraikel	s-Kha	rsawan, J	lhark	hand.S	3210	2	
Type of Industr	v: Iron &			THEFE	7.1.2.3	- Contract	upran	11044					it For Te		CHILINA-C	32100		
Sampling Protoc			9						THE RESIDENCE OF THE PARTY OF T	THE RESTORAGE	A TAX TO A TAX TO SHARE THE	Annaharan .	2025 (01:		m - 01:	53 pm	0)	
Protocol: CPCB	Guideline	(LATS/	80/20	13-14) & ai	mp;	IS N	4etho					(produced become	-		-		
Sampling Locati	ion: Sinte	r plant De	edusti	ng							-01			-				
Field Meteorolo	gical Info	rmation	A. 7	Гетр	. (°C): 2	9	R.I	H. (%):	70	W.C	: Se	mi-Cloud	iy.	W.D.:	West	to Eas	st
Location of perf	formance	of the La	ibora	tory	Activ	ity:	IE)	M La	boratory	Ranc	chi							
Sample Receiving	ng Date: 2	1-07-202	15		Te	stin	g St	arted	1: 21-07-	2025		T	esting Er	ided	1: 23-07	7-2025	,	
	7			Info	rmat	tion	a ob	tain	ed from	n Cu	stome	*						

Stack Identification	Single	Stack Height from Ground Level (m)	50
Emission Due to	Raw Material Circuit	Port Hole Height from Ground Level (m)	26.5
Plat Form	Permanent	Inner Dimension of Stack (m)	4.5
Stack Description	Sinter plant Dedusting	Type of Fuel Used	***
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C): 122 Flue Gas Velocity (m/s):6.1 Flue Gas Volumetric Flow Rate (Nm3/hr): 26.8 ---Test Result---

SI, NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm3		26.8
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm3		
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm³	***	
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	444	
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	
6.	Oxygen (O2)	IS 13270:1992	% v/v	***	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27+ 2°C and Relative Humidity 65±5 % in all testing area as per 1S 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

(Tauqeer Ahmad)

Technical Manager

(Dr. S. C. Jain)

Director

uthorized Signatory

---End of Report-



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001

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T C 6	1 3 3	2 5	0 0	0 0 0	0 6 3 6
Discipline: Chemical	Group: A	tmospheric Poll	ution	Sub-Grou	ip: Stack Emission
Report Issue Date: 23-07-2025		Test R	eport No.: RN	-2407150015	316
Sample ID: 250721AP19001		Sample	Description:	Stack Emissi	on
Challan No./P.O. No.; 3000173714/J02	0321325 DOC	Challa	n No./P.No. D	ate: 15-07-202	24
M/s Tata Stee (Formerly Ta	ta Steel Long Pr	roducts Limited) ur Industrial Are		Charsawan, Jha	erkhand-832108
Type of Industry: Iron & Steel		Advanture - constitution of the constitution o	ion of Sample		
Sampling Protocol: 1S:11255; 2009					am - 11:35 am)
Protocol: CPCB Guideline (LATS/80/201	3-14) & amp; IS	Method 11255	Series		
Sampling Location: SMS-3 FES	12.1		100		
Field Meteorological Information A. T	emp. (°C): 31	R.H. (%): 6	8 W.C.:	Partly Sunny	W.D.: SE to NW
Location of performance of the Laborat	ory Activity: II	EM Laboratory,	Ranchi		
Sample Receiving Date: 21-07-2025	Testing S	tarted: 21-07-2	025	Testing Ende	ed: 23-07-2025

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	43
Emission Due to	EAF	Port Hole Height from Ground Level (m)	33.3
Plat Form	Permanent	Inner Dimension of Stack (m)	5
Stack Description	SMS-3 FES	Type of Fuel Used	Electricity
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 78 Flue Gas Velocity (m/s):8.1 Flue Gas Volumetric Flow Rate (Nm³/hr): 470970

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	22.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	***	50.2
3.	Oxides of Nitrogen (NO2)	IS 11255 (Part-7)	mg/Nm3		136.5
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% V/V		10.2
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm		68
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		12

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 18 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 15 Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm.emeco@gmail.com	(Taugeer Ahmad)	(Die S. C. Jain)
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TEST REPORT

ULR No.:	T	C	1	6	1	1	3	5	2	5	0	0	0	0	0	0	6	3	7
Discipline: Ch	emical	1000	-		- 111		Group	: Atr	nosph	eric Pol	lution			Sub-C	roup	: Stack	Emis	sion	
Report Issue	Date: 23-	07-20	25							Test R	teport	No.:	RN-24	107150	0151	17			
Sample ID: 2:	50721AP	20001	0112							Sampl									
Challan No./F	.O. No.:	30001	7371	4/J02	8. s.		racera in		ATTACL OF	Challa	an No.	P.No.	Date	: 15-07	-2024				
		- 1	(Form	erly T	ata	Ste		-		Limited strial Ar		raikela	-Khar	sawan,	Jhark	hand-8	32108	3	
	ann taga		***	haria	Pha	se-	V, Adi	yapu	r Indus	Condi	-	and the second second		article and the second second		hand-	832108	5	
Type of Indus Sampling Pro				(D)					-	Sampl			and the second	Committee and the second		nt 10	55 au		
Protocol: CPC					VI 2	EAS	Prame	- 1C A	Anthod				Y-01-2	023 (11	1,20 a	m - 10.	ani cc.	/	
Sampling Loc							ocamp	5 158 W	пециос	111233	Series								
Field Meteore							(°C):	32	R.H	. (%): 7	72	W.C	.: Par	tly Sur	iny	W.D.:	SE to	NW	
Location of pe																			
Sample Recei										ed: 21-07-2025 Testing Ended: 23-07-2025									
					Int	or	matio	n ob	taine	d fron	n Cus	tome	r	10.					

Stack Identification	Single	Stack Height from Ground Level (m)	30
Emission Due to	Raw Material Circuit	Port Hole Height from Ground Level (m)	27
Plat Form	Permanent	Inner Dimension of Stack (m)	1.2
Stack Description	MBF-1 STOCK HOUSE	Type of Fuel Used	res.
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C):47 Flue Gas Velocity (m/s):6,7 Flue Gas Volumetric Flow Rate (Nm³/hr): 24520 --- Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³		18.2
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³		***
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³	***	
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v		***
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	****	***
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		***

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 1S 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 18 Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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TEST REPORT

TC-16135

ULR No.: T C 1 6	1 3 5	5 2	5 0	0	0	0	0 0	6	3	8
Discipline: Chemical	Group: A	Atmospheric	Pollutio	n		Sub-Gro	oup: Sta	ck Emis	sion	
Report Issue Date: 23-07-2025		Т	est Repor	rt No.:	RN-24	0715001	S18			
Sample ID: 250721AP20002		S	ample De	scriptio	on: Sta	ck Emiss	sion			
Challan No./P.O. No.: 3000173714/J02		C	hallan N	o./P.No.	Date:	15-07-20	324			
M/s Tata Steel I (Formerly Tata Gamaharia Phas	Steel Long P			Seraikeli	a-Khar	sawan, Jh	arkhanc	J-83210	8	
Type of Industry: Iron & Steel	ic-v, realiyaş	the party of the contract of t	Action and but what promote had	the transmission of the latest transmission of t		Citie Santine, Commenced of Santine States		102210		
Sampling Protocol: IS:11255; 2009			Condition of Sample: Fit For Test Sampling Date: 18-07-2025 (12:30 pm - 01:10 pm)							
Protocol: CPCB Guideline (LATS/80/2013-	14) & amp; 15				-				-	
Sampling Location: MBF-1 STOVE				Att.			-77			
Field Meteorological Information A. Ten	sp. (°C): 32	R.H. (%): 72	W.C	at Par	tly Sunny	WJ).: SE to	NW	
Location of performance of the Laborator	y Activity: I	EM Labora	tory, Ran	nehi	- 15		7			
Sample Receiving Date: 21-07-2025	Testing S	Started: 21	-07-2025		Tes	sting End	led: 23-	07-2025	,	

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	45.1
Emission Due to	Furnace	Port Hole Height from Ground Level (m)	4-
Plat Form	Permanent	Inner Dimension of Stack (m)	1.6
Stack Description	MBF-1 STOVE	Type of Fuel Used	Coke, PCI
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	Wet gas Cleaning plant

Flue Gas Temperature (°C):265 | Flue Gas Velocity (m/s):13.2 | Flue Gas Volumetric Flow Rate (Nm³/hr): 51458.9

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³		16.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³	1322	112.4
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³		64.1
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	8.2
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	3845
6.	Oxygen (O ₂)	IS 13270:1992	% v/v		4.8

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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III R No.

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D1 (\$22)

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

3 5 2 5 0 0 0 0 0 0 6 3 9

TC-16135

Discipline: Chemical	ne: Chemical Group: Atmospheri			Sub-Grou	p: Stack Emission	
Report Issue Date: 30-07-2025		Test Repor	rt No.: RN-	2407150018	19	
Sample ID: 250728AP10001				Stack Emissio		
Challan No./P.O. No.: 3000173714/J02	Challan No	o./P.No. Da	te: 15-07-202	4		
M/s Tata Steel (Formerly Tata	or.pramanikl@tata Limited, a Steel Long Production. Se-V, Adityapur In	cts Limited),	eraikela-K	arsawan, Jhar	rkhand-832108	
Type of Industry: Iron & Steel		and the second section of the second section is a second section of the second section is a second section of	and the street of the street o	Fit For Test		
Sampling Protocol: 1S:11255; 2009		Sampling Date: 21-07-2025(11:10 am - 11:44 am)				
Protocol: CPCB Guideline (LATS/80/2013-	-14) & amp; IS Met	hod 11255 Serie	es			
Sampling Location: WHRB-1 (DRI-1) & 4	0 TPH					
Field Meteorological Information A. Ter	mp. (°C): 31	R.H. (%): 65	W.C.: 5	iemi-Cloudy	W.D.: SW to NE	
	er: A setleriture ICAA I	shouston Dan	ohi			
Location of performance of the Laborator	y Activity: IEM	Laboratory, Ran	CHI			

Information obtained from Customer

Stack Identification	Common	Stack Height from Ground Level (m)	63
Emission Due to	Kiln	Port Hole Height from Ground Level (m)	32
Plat Form	Permanent	Inner Dimension of Stack (m)	3.2
Stack Description	WHRB-1 (DRI-1) & 40 TPH	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C):123 Flue Gas Velocity (m/s):5.9 Flue Gas Volumetric Flow Rate (Nm³/hr): 145109

---Test Result---

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	54.3
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	***	392.5
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm³	***	83.1
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	9.4
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	**
6.	Oxygen (O2)	IS 13270:1992	% v/v		

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 1S 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 15 Method 11255 Series.
Remark	Sample Comply with prescribed specification
Opinion & Interpretation	Not Practiced.
Tested by	Akunksha Sourabh
Sample Drawn by	Rabul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Ph - 8407804253, 8407804251, Email - Iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T C 6	1 3 5	2 5	0	. 0	0	0 0	0 1	0 6	4	0
Discipline: Chemical	Group: A	tmospheric P	ollution	n		Sub-Gro	up: St	tack Emis	sion	
Report Issue Date: 30-07-2025		Test	Repor	rt No.:	RN-240	0715001	S20			
Sample ID: 250728AP11001						ck Emiss				
Challan No./P.O. No.: 3000173714/J02 Challan No.				o./P.No	. Date:	15-07-20	24			
E-mail Id- kish M/s Tata Steel (Formerly Tata Gamaharia Pha	Limited, Steel Long Pr	oducts Limit	ed),	Seraikel	a-Khars	awan Ih	arkhar	nd-83210	8	
Type of Industry: Iron & Steel	e-v, runtyap					For Test		MP-032.100	,	
Sampling Protocol: IS:11255; 2009			Sampling Date: 22-07-2025 (11:00 am - 11:34 am)							
Protocol: CPCB Guideline (LATS/80/2013-	14) & amp; IS	Method 112:	5 Serie	es						
Sampling Location: 25 MW CPP	2/4			- 01						
Field Meteorological Information A. Ten	sp. (°C): 32	R.H. (%)	: 70	W.C	C.: Part	ly Sunny	W.	D.: SE to	NW	
Location of performance of the Laborator	y Activity: II	EM Laborator	y, Ran	chi	15.10					
Sample Receiving Date: 28-07-2025	Testing S	tarted: 28-0	7-2025		Tes	ting End	ed: 30	0-07-2025		
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Inform	ation	ahta	hod	fram	Custo	mer
ABLOCKER	a 1.1 O D	0.01.0	1110	1 1 10 111	T HALO	mer

Stack Identification	Single	Stack Height from Ground Level (m)	79.7
Emission Due to	Power generation	Port Hole Height from Ground Level (m)	26.5
Plat Form	Permanent	Inner Dimension of Stack (m)	3.6
Stack Description	25 MW CPP	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C):118 Flue Gas Velocity (m/s):6.9 Flue Gas Volumetric Flow Rate (Nm³/hr): 187899

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	444	62.1
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm3	444	553.1
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	***	369.6
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	11.8
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	80
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	14

Env. Condition of Lab.	Laboratory is maintaining Temperature 27= 2°C and Relative Humidity 65±5 % in all testing area as per 15 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm lemecod@omail.com	(Taugeer Ahmad)	(On S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Perich Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T C 1 6	1 3	5 2	2	0 (0 (. 0	4	-
Discipline: Chemical	Group: /	Atmospher	ic Pollu	tion	4 (1912)	Sub-Gro	up: Stack	Emiss	ion	111.00
Report Issue Date: 30-07-2025			Test Re	port No	.: RN-2-	40715001	S21			
Sample ID: 250728AP11002			Sample	Descrip	tion: St	ack Emiss	ion			
Challan No./P.O. No.; 3000173714/J02				No./P.N	No. Date	:: 15-07-20	24			
M/s Tata Stee (Formerly Tat	hor.pramanik1 l Limited, a Steel Long P ase-V, Aditya	roducts Li	mited),		ela-Kha	rsawan. Jha	ırkhand-l	32108		
Type of Industry: Iron & Steel		the same of the sa				it For Test		22.50.00		
Sampling Protocol: IS:11255; 2009		5	Sampling Date: 22-07-2025 (01:30 pm - 02:01 pm)							
Protocol: CPCB Guideline (LATS/80/2013	1-14) & amp; 15	Method 1	11255 8	eries						
Sampling Location: COKE ROUTE	100			- 33			11.			
Field Meteorological Information A. To	mp. (°C): 32	R.H. ((%): 70	W	/.C.: Pa	rtly Sunny	W.D.:	SE to	NW.	
Location of performance of the Laborate	ry Activity: 1	IEM Labor	ratory, I	Ranchi						
Sample Receiving Date: 28-07-2025	Testing	Started: 2	8-07-2	025	To	esting End	ed: 30-0	7-2025		
1.	formation .	obtained	from	Custor	mer	- 30				

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	35.5
Emission Due to		Port Hole Height from Ground Level (m)	25
Plat Form	Permanent	Inner Dimension of Stack (m)	1.82
Stack Description	COKE ROUTE	Type of Fuel Used	
Shape of Stack	Circular	Production Capacity	Hex
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 38 Flue Gas Velocity (m/s):17.2 Flue Gas Volumetric Flow Rate (Nm³/hr): 150125

SL NO.	Parameters	Test Methods	Unit	Norms**	Result	
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	20.2	
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	-122	134.5	
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ¹	***	334.6	
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v			
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***		
6.	Oxygen (O ₂)	IS 13270:1992	% v/v			

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 15, 196;1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm.lemeco@gmail.com	(Taugeer Ahmas)	(Ør/S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director



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Ph - 8407804253, 8407804251, Email - Iem2012@rediffmail.com



TC-16135

TEST REPORT

ULR No.: Discipline: Chemical Group: Atmospheric Pollution Sub-Group: Stack Emission Report Issue Date: 30-07-2025 Test Report No.: RN-240715001S22 Sample ID: 250728AP12001 Sample Description: Stack Emission Challan No./P.O. No.; 3000173714/J02 Challan No./P.No. Date: 15-07-2024 Name and Contact Details of Customer: Kishor Pramanik (9905340012) E-mail Id- kishor.pramanik1@tutasteel.com M/s Tata Steel Limited, (Formerly Tata Steel Long Products Limited), Gamaharia Phase-V, Adityapur Industrial Area, Seraikela-Kharsawan, Jharkhand-832108 Type of Industry: Iron & Steel Condition of Sample: Fit For Test Sampling Protocol: 15:11255; 2009 Sampling Date: 23-07-2025 (10:10 am - 10:42 am) Protocol: CPCB Guideline (LATS/80/2013-14) & Samp; IS Method 11255 Series

Sampling Location: Pellet Plant (Kiln Stack)

Field Meteorological Information | A. Temp. (°C): 32 W.C.: Partly Sunny W.D.: SE to NW

Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi

Sample Receiving Date: 28-07-2025 Testing Started: 28-07-2025 Testing Ended: 30-07-2025

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	78
Emission Due to	Kiln	Port Hole Height from Ground Level (m)	31
Plat Form	Permanent	Inner Dimension of Stack (m)	6.0
Stack Description	Pellet Plant (Kiln Stack)	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	ESP

Flue Gas Temperature (°C): 123 | Flue Gas Velocity (m/s):7.4 Flue Gas Volumetric Flow Rate (Nm3/hr): 550953 ---Test Result---

SL NO.	Parameters	Test Methods	Unit	Norms**	Result	
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm3	344	20.5	
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm ³	***	112.4	
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	***	134.5	
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	18.8	
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	444	114	
6.	Oxygen (O2)	IS 13270:1992	% v/v		16.6	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the 18 Method 11255 Series.
Remark	Sample Comply with prescribed specification
Opinion & Interpretation	Not Practiced
Tested by	Akankshi Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

onmanifecized Signatory

Taugeer Ahmad)

Technical Manager Director



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TEST REPORT

TE-16135

ULR No.: T C 1 6	1 3 5	2 5	0 0 (0 0 0	0 6 4 3				
Discipline: Chemical	Group: A	tmospheric Pollu	Sub-Grou	Sub-Group: Stack Emission					
Report Issue Date: 30-07-2025		Test Re	port No.: RN-	2407150018	323				
Sample ID: 250728AP12002			Description:						
Challan No./P.O. No.: 3000173714/J02		Challan	No./P.No. Da	ite: 15-07-202	24				
Gamaharia Phas	Limited, Steel Long Pr	roducts Limited), ur Industrial Are	a, Seraikela-Kl		rkhand-832108				
Type of Industry: Iron & Steel		Conditi	on of Sample:	Fit For Test					
Sampling Protocol: 1S:11255; 2009		Samplin	Sampling Date: 23-07-2025 (12:30 pm - 01:30 pm)						
Protocol: CPCB Guideline (LATS/80/2013-	14) & amp; IS	Method 11255 S	eries						
Sampling Location: Sinter Plant Product Bir	n		20000						
Field Meteorological Information A. Tem	ip. (°C): 32	R.H. (%): 64	W.C.: 1	Partly Sunny	W.D.: SE to NW				
Location of performance of the Laboratory	y Activity: Il	EM Laboratory, F	tanchi	Saire Control	111000000000000000000000000000000000000				
Sample Receiving Date: 28-07-2025	Testing S	tarted: 28-07-20)25	Testing Ende	ed: 30-07-2025				

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	35.5
Emission Due to	Sinter production Circuit	Port Hole Height from Ground Level (m)	22
Plat Form	Permanent	Inner Dimension of Stack (m)	1.82
Stack Description	Sinter Plant Product Bin	Type of Fuel Used	Coal
Shape of Stack	Circular	Production Capacity	***
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 52 Flue Gas Velocity (m/s):8.7 Flue Gas Volumetric Flow Rate (Nm³/hr): 72343

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result	
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	***	29.1	
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm3	444		
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm3	***		
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***		
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***		
6.	Oxygen (O ₂)	IS 13270:1992	% V/V	***		

Env. Condition of Lab.	Laboratory is maintaining Temperature 27# 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11253 Series.
Remark	Sample Comply with prescribed specification
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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(Tauquer Ahman)
Technical Manager

Director

Reviewed by

Lithorized Signatory



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

ULR No.:	T	6	1	6	-1	3	5	2	- 5	0	0	0	0	0.	0	- 6	4	4
Discipline: Chemical Group: Atmosp							nosphe	ric Poll	ution			Sub-C	roup	: Stacl	k Emis	sion		
Report Issue I	Date: 30-	07-202	25						Test R	eport	No.: F	RN-24	07150	0152	24			
Sample ID: 25	0728AP	13001							Sampl	e Dese	riptio	n: Sta	ck Em	issio	n			
Challan No./P	.O. No.:	30001	73714	/J02					Challa	n No.	P.No.	Date:	15-07	-2024				
		1.7																
Tune of Indus	ten Iron	(ìamah					Indust	imited) rial An	ea, Se		COLUMN TO A STATE OF THE PARTY	and the second second	Addition to the	chand-	83210	8	
Type of Indus	THE RESERVE OF THE PARTY OF THE	& Ste	ìamah el	aria Pi				Indust	rial An Condit	ea, Se	Samp	ole: Fi	For T	est	1011511000			
Sampling Pro	tocol: IS:	& Ste	iamah el ; 2009	aria Pi	nase-	V, Adit	yapur	Indust	rial An Condit Sampli	ea, Se ion of ing Da	Samp ite; 24	ole: Fi	For T	est	1011511000			
Sampling Pro Protocol: CPC	tocol: IS: B Guide	& Ste 11255 ine (L	iamah el ; 2009 ATS/8	aria Pi 80/201	nase-	V, Adit	yapur	Indust	rial An Condit Sampli	ea, Se ion of ing Da	Samp ite; 24	ole: Fi	For T	est	1011511000			
Sampling Pro Protocol: CPC Sampling Loc	tocol; IS: B Guide ation: M	& Ste 11255 ine (L BF-2 5	iamah el ; 2009 ATS/8 STOV	aria Pl 80/201 E	nase-\	V. Adit	yapur ; IS N	Indust	rial Ar Condit Sampli 11255	ea, Series	Samp ite: 24	ole: Fi -07-20	For T 025(10	est :05 ar	n - 10:	43am)		
Sampling Pro	tocol; IS: B Guide ation: M	& Ste 11255 ine (L BF-2 5	iamah el ; 2009 ATS/8 STOV	aria Pl 80/201 E	nase-\	V. Adit	yapur ; IS N	Indust	rial An Condit Sampli	ea, Series	Samp ite: 24	ole: Fi -07-20	For T	est :05 ar	n - 10:	43am)		
Sampling Pro Protocol: CPC Sampling Loc	tocol: IS: B Guide ation: M logical I	& Ste 11255 ine (L BF-2 5	iamah el ; 2009 ATS/8 STOV ation	aria Pi 80/201 E A. T	3-14) emp.	V, Adit & (°C): 2	yapur ; IS N	Indust fethod	rial An Condit Sampli 11255 (%): 7	ea, Series 2	Samp ite: 24	ole: Fi -07-20	For T 025(10	est :05 ar	n - 10:	43am)		

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	50
Emission Due to	Blast Furnace process	Port Hole Height from Ground Level (m)	30
Plat Form	Permanent	Inner Dimension of Stack (m)	2.3
Stack Description	MBF-2 STOVE	Type of Fuel Used	Coke, PCI
Shape of Stack	Circular	Production Capacity	App.
Sampling Port	Yes	Pollution Control Device (if any)	Dry GCP

Flue Gas Temperature (°C): 124 | Flue Gas Velocity (m/s):6.1 | Flue Gas Volumetric Flow Rate (Nm³/hr): 66807

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	***	18.6
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³	***	71.3
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³	***	102.7
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	15.2
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	40
6.	Oxygen (O ₂)	IS 13270:1992	% v/v	***	15

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 18 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Reviewed by

Tall I

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(Taugeer Ahmad) Technical Manager (DigS/ C. Jain) Director

Authorized Signatory

---End of Report---



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TEST REPORT

TC-16135

ULR No.: T C 1 6	1 1 1										
Discipline: Chemical	Group: A	tmospheric Pollu	ospheric Pollution Sub-Group: Stack Emission								
Report Issue Date: 30-07-2025		Test Re	Test Report No.: RN-240715001S25								
Sample ID: 250728AP13002	Sample	Descripti	on: St	ick Em	ission						
Challan No./P.O. No.: 3000173714/J02	Challan	No./P.No	. Date	: 15-07-	2024						
M/s Tata Stee	Limited,	@tatasteel.com									
Gamaharia Ph		roducts Limited), our Industrial Area Condition					hand-8	32108	1		
Gamaharia Ph Type of Industry: Iron & Steel		ur Industrial Area Condition	on of Sam	ple: F	t For To	ist					
Gamaharia Ph	ase-V, Adityap	ur Industrial Area Condition Samplin	on of Sam g Date: 2	ple: F	t For To	ist					
Gamaharia Ph Type of Industry: Iron & Steel Sampling Protocol: IS:11255; 2009	ase-V, Adityap 3-14) & amp; IS	ur Industrial Area Condition Samplin	on of Sam g Date: 2	ple: F	t For To	ist					
Gamaharia Ph Type of Industry: Iron & Steel Sampling Protocol: IS:11255; 2009 Protocol: CPCB Guideline (LATS/80/2013 Sampling Location: MBF - 2 CAST HOU	ase-V, Adityap 3-14) & SE	Condition Condition Condition Samplin Method 11255 S	on of Sam g Date: 2 eries	ple: F 4-07-2	t For To	st 30 pm	n - 01:3	3 pm)		
Gamaharia Ph Type of Industry: Iron & Steel Sampling Protocol: IS:11255; 2009 Protocol: CPCB Guideline (LATS/80/2013	ase-V, Adityap 3-14) & SE emp. (°C): 29	Condition Sampling Method 11255 S	on of Sam g Date: 2 eries	ple: F 4-07-2	t For To 025(12:	st 30 pm	n - 01:3	3 pm)		

Information obtained from Customer

Stack Identification	Single	Stack Height from Ground Level (m)	30.3
Emission Due to	Blast Furnace Process	Port Hole Height from Ground Level (m)	25
Plat Form	Permanent	Inner Dimension of Stack (m)	2.7
Stack Description	MBF - 2 CAST HOUSE	Type of Fuel Used	Coke, PCI
Shape of Stack	Circular	Production Capacity	
Sampling Port	Yes	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (°C): 38 Flue Gas Velocity (m/s):8.3 Flue Gas Volumetric Flow Rate (Nm³/hr): 159267

SI. NO.	Parameters	Test Methods	Unit	Norms**	Result
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	***	17.3
2.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	mg/Nm³	444	40.2
3.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	mg/Nm ³	444	46
4.	Carbon Dioxide (CO ₂)	IS 13270:1992	% v/v	***	***
5.	Carbon Monoxide (CO)	IS 13270:1992	Ppm	***	***
6.	Oxygen (O2)	IS 13270:1992	% v/v	***	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the IS Method 11255 Series.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Amibent Air Quality Monitoring

SN.	Sampling Location	Report No.	Sampling on	SO2 (μg/m3)	NO2 (μg/m3)	PM10 (μg/m3)	PM2.5 (μg/m3)	CO (mg/m3)	Ozone (µg/m3)	Lead (µg/m3)	Ammonia (µg/m3)	Benzene (µg/m3)	Benzo(a)pyrene (ng/m3)	Arsenic (ng/m3)	Nickel (ng/m3)
1	Plant North Side Boundary	RN-240715001A03	01-04-2025	24.3	46.1	136.2	29.3	BDL(MDL 0.1)	25.0	0.5	40.3	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
2	Plant North Side Boundary	RN-240715001A07	15-04-2025	28.6	41.8	90.3	41.8	BDL(MDL 0.1)	30.5	0.6	42.1	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
3	Plant West Side Boundary	RN-240715001A04	01-04-2025	24.8	43.6	199.2	67.1	BDL(MDL 0.1)	33.9	0.5	57.9	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
4	Plant West Side Boundary	RN-240715001A08	15-04-2025	26.4	44.7	95.4	49.1	BDL(MDL 0.1)	31.9	0.5	52.4	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
5	Plant East Side Boundary	RN-240715001A01	03-04-2025	27.0	42.4	82.5	34.6	BDL(MDL 0.1)	29.0	0.4	47.7	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
6	Plant East Side Boundary	RN-240715001A09	16-04-2025	22.2	43.9	93.6	37.0	BDL(MDL 0.1)	29.3	0.4	44.3	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
7	Plant South Side Boundary	RN-240715001A02	03-04-2025	28.8	51.4	103.4	32.5	BDL(MDL 0.1)	34.0	0.5	44.1	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
8	Plant South Side Boundary	RN-240715001A10	16-04-2025	27.0	46.1	95.3	52.1	BDL(MDL 0.1)	28.2	0.4	52.5	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
9	Plant North Side Boundary	RN-240715001A03	27-05-2025	26.7	52.8	78.4	37.5	BDL(MDL 0.1)	27.5	0.4	43.6	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
10	Plant West Side Boundary	RN-240715001A04	27-05-2025	27.2	50.3	88.6	45.2	BDL(MDL 0.1)	36.4	0.4	61.6	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
11	Plant East Side Boundary	RN-240715001A01	26-05-2025	29.4	49.1	77.8	42.1	BDL(MDL 0.1)	31.5	0.3	51.0	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
12	Plant South Side Boundary	RN-240715001A02	26-05-2025	31.2	58.1	98.7	35.8	BDL(MDL 0.1)	36.5	0.4	47.4	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
13	Plant North Side Boundary	RN-240715001A03	20.06.2025	22.5	46.4	69.9	30.6	BDL(MDL 0.1)	15.0	0.3	36.1	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
14	Plant West Side Boundary	RN-240715001A04	20.06.2025	22.4	43.7	81.7	37.8	BDL(MDL 0.1)	23.5	0.4	54.0	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
15	Plant East Side Boundary	RN-240715001A01	21.06.2025	25.2	42.7	69.3	35.2	BDL(MDL 0.1)	19.0	0.4	43.5	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
16	Plant South Side Boundary	RN-240715001A02	21.06.2025	26.4	51.5	91.8	28.4	BDL(MDL 0.1)	23.6	0.3	40.2	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
17	Plant North Side Boundary	RN-240715001A01	03.07.2025	20.3	43.1	66.5	31.3	BDL(MDL 0.1)	16.5	0.4	33.7	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
18	Plant West Side Boundary	RN-240715001A02	03.07.2025	19.8	40.1	78.1	36.7	BDL(MDL 0.1)	25.4	0.5	51.2	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
19	Plant East Side Boundary	RN-240715001A03	08.07.2025	23.0	39.4	65.9	31.0	BDL(MDL 0.1)	20.5	0.5	41.1	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
20	Plant South Side Boundary	RN-240715001A04	08.07.2025	23.8	47.9	88.2	41.5	BDL(MDL 0.1)	25.5	0.4	37.4	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
21	Plant North Side Boundary	RN-250303003A03	20.08.2025	18.5	40.7	63.3	29.1	BDL(MDL 0.1)	15.6	0.4	31.0	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL-2)	BDL (MDL- 4)
22	Plant West Side Boundary	RN-250303003A04	20.08.2025	18.0	37.7	74.3	34.2	BDL(MDL 0.1)	24.5	0.5	48.5	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
23	Plant East Side Boundary	RN-250303003A05	21.08.2025	21.2	37.0	62.7	28.8	BDL(MDL 0.1)	19.6	0.5	38.4	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
24	Plant South Side Boundary	RN-250303003A06	21.08.2025	22.0	45.5	84.4	38.8	BDL(MDL 0.1)	24.6	0.4	34.7	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
25	Plant North Side Boundary	RN-250303003A01	05.09.2025	20.9	43.9	68.1	31.3	BDL(MDL 0.1)	18.2	0.4	33.6	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
26	Plant West Side Boundary	RN-250303003A02	05.09.2025	21.1	44.3	79.9	36.8	BDL(MDL 0.1)	26.7	0.5	50.3	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
27	Plant East Side Boundary	RN-250303003A03	10.09.2025	23.6	49.6	67.5	31.1	BDL(MDL 0.1)	22.2	0.4	41.0	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)
28	Plant South Side Boundary	RN-250303003A04	10.09.2025	25.1	52.7	90.0	41.4	BDL(MDL 0.1)	26.8	0.4	36.5	BDL (MDL- 0.5)	BDL (MDL- 0.01)	BDL (MDL- 2)	BDL (MDL- 4)



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

ULR No.:	T	C	1	6		1	3	5	2	5	0	0	0	0	0	0	9	9	2
Discipline: Cl	nemical					13	Group	: Atr	nosph	pheric Pollution Sub-Group: Ambient Air									
Report Issue Date: 10-09-2025										Test Report No.: RN-250303003A01									
Sample ID: 250908AP09001										Sampl	e Des	criptio	m: Ar	mbient	Air				
Challan No./I	O. No.:	3000	17989	7/J02			-14-4			Challa	in No.	/ P.No	. Dat	e: 03-03	3-202	5			
Information o	htained		M/s T Gamal	ata St haria I	eel I Phas	_im	ited, , Adit	1111111111		el.com strial Ar	en, Se	raikela	-Khar	rsawan,	Jhark	hand-8	32108	8	
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Type of Indus Sampling Pro	Long to Street Contract And				_	_				Condition of Sample: Fit for Test Sampling Date: 05-09-2025 to 06-09-2025									
Protocol: CPC				MS/3	6/20	012	-13) &	IS N	tethod			10000	0.7.2	17-6-17-147	000				
Sampling Loc																			
Field Meteore										. (%):	62	W.C	it Se	mi-Clo	udy	W.D.:	West	to Eas	t
Location of p	erforma	nce of	the L	abora	ator	y A	ctivity	: IE	M Lab	oratory.	Ranc	hi							
Sample Recei	ving Dat	e: 08-	09-20	25		1	Testi	ng St	arted:	08-09-	2025		Testing Ended: 10-09-2025						
					_	_		- 20	Yr	e lee			W						

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Sl.No.	Parameters	Test Method No.	Unit	Norms**	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	µg/m³	100	68.1
2.	Particulate Matter (PM2.5)	IS 5182 Part 24:2019	µg/m³	60	31.3
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part-02	μg/m³	80	20.9
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06	μg/m³	80	43.9
5.	Ammonia (NH ₃)	IS 5182 Part 25	μg/m ³	400	33.6
6.	Ozone (O ₃)	IS 5182 Part 09	μg/m ²	180	18.2
7.	Arsenic (as As)	USEPA 1.O. 3.2	ng/m³	****	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	μg/m³	1.0	0.4
9.	Nickel (Ni)	1S 5182 Part 26	ng/m³	****	BDL (MDL-4)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced,
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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TEST REPORT

Discipline: Chemical	Group: At	mospheric Pollution			p: Ambient Air			
Report Issue Date: 10-09-2025	100000000000000000000000000000000000000	Test Report No.: RN-250303003A03						
Sample ID: 250908AP09001			Sample Description: Ambient Air					
Challan No./P.O. No.: 3000179897/	J02	Challan No.	/ P.No. Date	e: 03-03-202	25			
M/s Tat	omer: Kishor Pramar Id- kishor,pramanik l@ ta Steel Limited, tria Phase-V, Adityapu	tatasteel.com	raikela-Khar	sawan, Jhar	khand-832108			
Information obtained from custom								
Type of Industry: Iron & Steel	ecolecting week	Condition o	f Sample: F	it for Test				
Sampling Protocol: I.S 5182		Sampling D	Sampling Date: 05-09-2025 to 06-09-2025					
Protocol: CPCB Guideline (NAAQN	4S/36/2012-13) & IS	Method 5182 Series						
Sampling Location: STATION-1 Pl	LANT NORTH SIDE	BOUNDARY	-					
Field Meteorological Information	A. Temp. (°C): 28	R.H. (%): 62	W.C.: Se	mi-Cloudy	W.D.: West to East			
Location of performance of the La	boratory Activity: II	M Laboratory, Ranc	:hi					
Sample Receiving Date: 08-09-202:	5 Testing S	tarted: 08-09-2025	Te	Testing Ended: 10-09-2025				
	T	est Results	-					

St. No.	Parameters	Test Method	Unit	Limits	Result
10.	Benzene (C ₆ H ₆)	IS 5182 Part 11: 2006	μg/m³		BDL (MDL- 0.5)
11.	Benzo (a) Pyrene (Bap) Particulate Phase Only	IS 5182 Part 12: 2004	ng/m³	-	BDL (MDL0.01)
12.	Carbon Monoxide	IEM/SOP/Air-01:2022	mg/m ³		BDL (MDL 0.1)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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34001

75.45474

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

ULR No.:	T	C	1		6	1	3	5	2	5	0	0	0	0	0	0	9	9	3
Discipline: Ch	emical						Group	p: Atr	nosphe	oberic Pollution Sub-Group: Ambient Air									
Report Issue		-09-20	25							Test B	Report	No.: 1	RN-25	030300	03A04	2			
Sample ID: 250908AP09002									Samp	le Des	criptic	m: Ar	nbient	Air					
Challan No./F	.O. No.:	3000	17989	97/30)2					Challa	ın No.	/ P.No	. Date	e: 03-0:	3-202	5			
Information o	htsined		M/s 7 Gama	Fata ahari	Stee a Ph	l Lir ase-	nited. V, Adi	1000		el.com strial Ar		raikela	-Khar	sawan,	Jhark	chand-8	32108		
Type of Indus	minor primary discount for the sti-	And a comprehension of the		mer	(11)	any)	E INCO		_	Condi	tion o	f Sam	nle: E	it for T	net				
Sampling Pro										Condition of Sample: Fit for Test Sampling Date: 05-09-2025 to 06-09-2025									
Protocol: CPC				QMS	5/36/	201	2-13) 8	LISN	fethod	-									
Sampling Loc											4000								
Field Meteore										. (%):	62	W.C	: Se	mi-Clo	udy	W.D.:	West	to Eas	st
Location of pe	erforma	nce of	the I	abo	rate	ry /	Activity	y: IE	M Lab	oratory	Ranc	hi		el Unit TV		NEW YEAR			
Sample Recei	ving Dat	e: 08-	09-20)25			Testi	ng St	arted:	08-09-	2025		Testing Ended: 10-09-2025						
								787	. A. D	a selder			-						

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SLNo.	Parameters	Test Method No.	Unit	Norms**	Results
1.	Particulate Matter (PM ₃₀)	IS 5182 Part 23:2006	μg/m³	100	79.9
2.	Particulate Matter (PM2.5)	IS 5182 Part 24:2019	μg/m³	60	36.8
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part-02	μg/m ³	80	21.1
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06	μg/m ³	80	44.3
5.	Ammonia (NH ₃)	IS 5182 Part 25	μg/m	400	50,3
6.	Ozone (O ₃)	IS 5182 Part 09	μg/m ³	180	26.7
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m³	****	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	μg/m³	1.0	0.5
9.	Nickel (Ni)	IS 5182 Part 26	ng/m"		BDL (MDL-4)

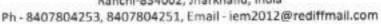
Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Specific Contractual Notes: -	Reviewed by Annie Authorized Signatory						
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In case of feedback/ complaints, please send an email at sm_emeco@gmail.com	(Tauqeer Ahmad) (D/S. C. Jain)						
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manage Randy Director						



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Ranchi-834002, Jharkhand, India





TEST REPORT

Discipline: Chemical	Group: At	nospheric Pollution Sub-Group: Ambient Air							
Report Issue Date: 10-09-2025	11.000000000000000000000000000000000000	Test Report	Test Report No.: RN-250303003A04.						
Sample ID: 250908AP09002		Sample Des	Sample Description: Ambient Air						
Challan No./P.O. No.: 3000179897/			/ P.No. Date: 03-03-20)25					
M/s Tat	ld- kishor.pramanik1@ a Steel Limited,	dtatasteel.com	raikela-Kharsawan, Jhi	rkhand-832108					
Information obtained from custom	SECURITY OF THE PARTY OF THE PA								
Type of Industry: Iron & Steel	VVIV-1112070		f Sample: Fit for Test						
Sampling Protocol: 1.S 5182			Sampling Date: 05-09-2025 to 06-09-2025						
Protocol: CPCB Guideline (NAAQN	4S/36/2012-13) & 1S	Method 5182 Series							
Sampling Location: STATION-2 Pl	ANT WEST SIDE B	OUNDARY							
Field Meteorological Information			W.C.: Semi-Cloudy	W.D.: West to East					
Location of performance of the La	boratory Activity: II	EM Laboratory, Ranc							
Sample Receiving Date: 08-09-2025	Testing S	tarted: 08-09-2025	Testing End	Testing Ended: 10-09-2025					
		ast Basulte							

----Test Results----

SI. No.	Parameters	Test Method	Unit	Limits	Result
10.	Benzene (C ₆ H ₆)	IS 5182 Part 11: 2006	μg/m³		BDL (MDL- 0.5)
11.	Benzo (a) Pyrene (Bap) Particulate Phase Only	IS 5182 Part 12: 2004	ng/m³		BDL (MDL0.01)
12.	Carbon Monoxide	IEM/SOP/Air-01:2022	mg/m³	**	BDL (MDL 0.1)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

onn Authorized Signatory Reviewed by Specific Contractual Notes: - The laboratory accepts responsibility for contant of this report. 2. This report shall not be reproduced except in full, without approval of the MD. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue 5. Total liability of institute for Environmental Management will be limited to invoiced amount only. (Or/S. C. Jain) (Taugeer Ahmad) 6. In case of feedback/ complaints, please send an email at smiemeco@gmail.com On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report **Hanchi** Director Technical Manager is issued by the Director of the Organization.



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,

Ranchi-834002, Jharkhand, India Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

										7.7								
ULR No.:	T	C	1	6	1	3	5	2	5	0	0	0	0	0	0	9	0	4
Discipline: Che	emical			1,000		Group:	Atm	nosphe	ric Poll	ution	- 11		Sub-C	roup	: Amb	ient A	ir	
Report Issue I		-09-20	25						Test R	eport	No.: 1	KN-25	030300	3A0	1			
Sample ID: 25									Sample	e Dese	criptio	n: An	nbient	Air	50			
Challan No./P.	O. No.:	30001	79897	302		1-50			Challa	n No.	P.No	. Date	: 03-0.	3-202:	5			
Information of	btained			aria Ph	iase-	V, Adity	apur	r Indus	trial Ar	ea, Se	raikel	-Khai	rsawan	, Jhark	chand-	83210	8	
and the compact of provided the development of the forest property of the compact				er (it i	iny):	: NUM		-	Candit	lan of	FEam	slee U	t for T	ned .				_
Type of Indust				_					Condition of Sample: Fit for Test									
Sampling Prot									Sampling Date: 10-09-2025 to 11-09-2025									
Protocol: CPC										eries								
Sampling Loca	ation: S	TATIC	DN-3 P	LANT	EAS	T SIDE	BO	UNDA	RY					- 11				
Field Meteoro	logical I	nform	ation	A. Te	mp.	(°C): 26		R.H.	(%):	72	W.C	.: Se	mi-Clo	udy	W.D.:	: South	to No	rth
Location of pe	rforma	nce of	the La	borato	ry A	etivity:	TEN	M Labo	oratory,	Rancl	hi	11.45000			a contrat delegat			
Sample Receiv	ing Dat	e: 15-	09-202	5		Testing	Sta	arted:	15-09-2	025		Te	sting I	Ended	1: 17-0	9-202	5	

---- Test Results----

SLNo.	Parameters	Test Method No.	Unit	Norms**	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	μg/m³	100	67.5
2.	Particulate Matter (PM2.5)	IS 5182 Part 24:2019	μg/m³	60	31.1
3.	Sulphur Dioxide (SO ₂)	1S 5182 Part-02	μg/m³	80	23.6
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06	μg/m	80	49.6
5.	Ammonia (NH ₃)	IS 5182 Part 25	μg/m	400	41.0
6.	Ozone (O ₃)	IS 5182 Part 09	μg/m ³	180	22.2
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m	****	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	μg/m³	1.0	0.4
9.	Nickel (Ni)	IS 5182 Part 26	ng/m³	****	BDL (MDL-4)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm.emeco@gmail.com	(Taugeer Ahmad) \$ (Dr. S.	C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Randa Dir	ector



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	mospheric Pollution	Too Views	Sub-Group	p: Ambient Air			
Report Issue Date: 17-09-2025	- Incompany and a second	Test Report	Test Report No.: RN-250303003A03				
Sample ID: 250915AP13001		Sample Des	cription:	Ambient Air			
Challan No./P.O. No.: 3000179897/J0.	2	Challan No.	/ P.No. I	Pate: 03-03-202	25		
M/s Tata 5	kishor.pramanik1@ Steel Limited,		eraikela-k	Charsawan, Jhai	rkhand-832108		
Information obtained from customer		100000000					
Type of Industry: Iron & Steel	Control of the control		Condition of Sample: Fit for Test				
Sampling Protocol; I.S 5182		Sampling D	Sampling Date: 10-09-2025 to 11-09-2025				
Protocol: CPCB Guideline (NAAQMS	/36/2012-13) & IS !	Method 5182 Series					
Sampling Location: STATION-3 PLA	NT EAST SIDE BO	DUNDARY	in the second				
Field Meteorological Information A	. Temp. (°C): 26	R.H. (%): 72	W.C.:	Semi-Cloudy	W.D.: South to North		
Location of performance of the Labo	ratory Activity: IE	M Laboratory, Ranc	hi				
Sample Receiving Date: 15-09-2025	tarted: 15-09-2025 Testing Ended: 17-09-2025						
7	700	est Desculte					

---- Test Results----

Sl. No.	Parameters	Test Method	Unit	Limits	Result
10.	Benzene (C ₆ H ₆)	IS 5182 Part 11: 2006	μg/m³	-	BDL (MDL- 0.5)
H	Benzo (a) Pyrene (Bap) Particulate Phase Only	IS 5182 Part 12: 2004	ng/m³		BDL (MDL0.01)
12.	Carbon Monoxide	IEM/SOP/Air-01:2022	mg/m³		BDL (MDL 0.1)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Reviewed by uthorized Signatory Specific Contractual Notes: -1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. (Taugeer Ahmad) C. Jain) In case of feedback/ complaints, please send an email at sm.iemeco@omail.com Plancts On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report Technical Manager Director is issued by the Director of the Organization.



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,

Ranchi-834002, Jharkhand, India





TEST REPORT

ULR No.:	T	C	48	6	1	3	5	2	5	0	0	0	0	0	0	9	9	- 5
Discipline: Chemical Group: Atmosp							nosphe	oheric Pollution Sub-Group: Ambient Air										
Report Issue Date: 17-09-2025									Test B	teport	No.: I	N-25	030300	3A06	4			
Sample ID: 250915AP13002								Sampl	e Desc	criptio	n: An	nbient	Air	50				
Challan No./P	O. No.:	30001	79897	7/302					Challe	in No.	P.No	. Date	: 03-0	3-202	5			
				nta Stee					3000E		300							
					_		tyapu	r Indus	trial A	rea, Se	raikela	-Khai	sawan	, Jhari	khand-	832108	8	
Information o		from c	custon		_		tyapu	r Indus				0 no			khand-	83210	8	
Type of Indus	try: Iron	from 6 & Ste	custon el		_		tyapu	r Indus	Condi	tion of	Samj	ole: Fi	t for T	est		83210	8	
Type of Indus Sampling Prot	try: Iron tocol: LS	from 6 & Ste 5182	el el	ner (if	any):	N/A			Condi Sampl	tion of	Samj	ole: Fi	t for T	est		83210	8	
Type of Indus Sampling Protocol: CPC	try: Iron tocol: 1.8 B Guide	from 6 & Ste 5182 line (N	custon el AAQ	ner (if MS/36	any): /2012	N/A -13) &	IS M	fethod	Condi Sampl 5182 S	tion of	Samj	ole: Fi	t for T	est		83210	8	
Type of Indus Sampling Prot	try: Iron tocol: 1.8 B Guide	from 6 & Ste 5182 line (N	custon el AAQ	ner (if MS/36	any): /2012	N/A -13) &	IS M	fethod	Condi Sampl 5182 S	tion of	Samj	ole: Fi	t for T	est		83210	8	
Type of Indus Sampling Protocol: CPC	try: Iron tocol: I.S B Guide ation: S	from 6 & Ste 5182 line (N FATIC	el AAQ N-4 P	MS/36	2012 SOU	N/A -13) & TH SI	IS M	lethod OUNI	Condi Sampl 5182 S OARY	tion of ing Da eries	f Samj ate: 10	de: Fi -09-2	t for To 025 to	est 11-09				nth
Type of Indus Sampling Protocol: CPC Sampling Loc	try: Iron tocol: 1.8 B Guide ation: S logical I	From 6 & Ste 5182 line (N FATIC nform	AAQ NAAQ NAAQ ation	MS/36 PLANT	2012 SOU	N/A -13) & TH SI (°C): 7	IS M DE B	fethod OUNI R.H.	Condi Sampl 5182 S OARY (%):	tion of ing Da eries	Samj	de: Fi -09-2	t for To 025 to	est 11-09	-2025			nth

---- Test Results----

Test Results								
SLNo.	Parameters	Test Method No.	Unit	Norms**	Results			
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23-2006	μg/m³	100	90.0			
2.	Particulate Matter (PM23)	IS 5182 Part 24:2019	μg/m³	60	41.4			
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part-02	µg/m³	80	25.1			
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06	μg/m³	80	52.7			
5.	Ammonia (NH ₁)	IS 5182 Part 25	µg/m³	400	36.5			
6.	Ozone (O ₃)	IS 5182 Part 09	μg/m³	180	26.8			
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m²		BDL (MDL-2)			
8.	Lead (as Pb)	IS 5182 Part 22	μg/m ³	1.0	0,4			
9.	Nickel (Ni)	IS 5182 Part 26	ng/m ³	****	BDL (MDL-4)			

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	mospheric Pollution	ospheric Pollution Sub-Group: Ambient Air					
Report Issue Date: 17-09-2025	Test Report	Test Report No.: RN-250303003A04					
Sample ID: 250915AP13002		Sample Des	cription:	Ambient Air			
Challan No./P.O. No.: 3000179897/J02		Challan No.	P.No. D	ate: 03-03-202	25		
M/s Tata Stee Gamaharia P	shor.pramanik1@ el Limited, hase-V, Adityap		eraikela-K	harsawan, Jha	rkhand-832108		
Information obtained from customer (if	any): N/A	To the	60 1	error er			
Type of Industry: Iron & Steel			Condition of Sample: Fit for Test				
Sampling Protocol: I.S 5182		Sampling D	Sampling Date: 10-09-2025 to 11-09-2025				
Protocol: CPCB Guideline (NAAQMS/36	/2012-13) & IS !	Method 5182 Series					
Sampling Location: STATION-4 PLANT	SOUTH SIDE	BOUNDARY	w-14-4-1-				
Field Meteorological Information A. To	emp. (°C): 26	R.H. (%): 72	W.C.:	Semi-Cloudy	W.D.: South to North		
Location of performance of the Laborate	ory Activity: IE	M Laboratory, Ranc					
Sample Receiving Date: 15-09-2025	arted: 15-09-2025 Testing Ended: 17-09-2025			d: 17-09-2025			
The state of the s	T	act Basulte					

Test Mesuris								
Sl. No.	Parameters	Test Method	Unit	Limits	Result			
10.	Benzene (CoHo)	IS 5182 Part 11: 2006	µg/m³	**	BDL (MDL- 0.5)			
11.	Benzo (a) Pyrene (Bap) Particulate Phase Only	IS 5182 Part 12: 2004	ng/m³	-	BDL (MDL0.01)			
12.	Carbon Monoxide	IEM/SOP/Air-01:2022	mg/m ³		BDL (MDL 0.1)			

Env. Condition of Lab.	Laboratory is maintaining Temperature 27# 2°C and Relative Humidity 65±5 % in all testing area as per 1S 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Reviewed by Authorized Signatory
T. Almost
(Taugeer Ahmad) (Qr S. C. Jain)
Technical Manager Director

List of Major Air Pollution Control (APC) Systems installed.

SN	Unit	Stack attached to	APC
1		DRI based WHRB-1	ESP
2		DRI based WHRB-2	ESP
3		DRI based WHRB-3	ESP
4	ODD	DRI based WHRB-4	ESP
5	CPP	DRI based WHRB-5	ESP
6		25 MW_CPP	ESP
7		30 MW_CPP	ESP
8		40 TPH_CPP	ESP
9		Sinter Process	ESP
10		Sinter Dedusting	ESP
11	Sinter Plant	Flux Crusher	Bag-Filter
12		Flux Screen	Bag-Filter
13		Sinter Product House	Bag-Filter
14		Pellet Process	ESP
15	D-11-4 D14	PCI	BAG-FILTER
16	Pellet Plant	Dryer	BAG-FILTER
17]	TG Building	BAG-FILTER
18	Coke Oven	Coke Route	Bag-Filter
19		SMS-1&2 _FES	Bag-Filter
20]	LRF-1 & 3	Bag-Filter
21	SMS	SMS-3 _FES	Bag-Filter
22		RMHS-2 _SMS-2	Bag-Filter
23		RMHS-3 _SMS-3	Bag-Filter
25		MBF-1_Cast House	Bag-Filter
26		MBF-1_Stock House	Bag-Filter
27		MBF-1_Ground Hopper	Bag-Filter
28		MBF-2_Cast House	Bag-Filter
29	MBF	MBF-2_Stock House	Bag-Filter
30		MBF-2_PCI	Bag-Filter
31		MBF-2_RMHS	Bag-Filter
32		MBF-2_Dry Gcp	Bag-Filter
33		MBF-2 RMHS-1	Bag-Filter
34		DE-1_DRI-1 Product Circuit	Bag-Filter
35		DE-1A_DRI-1,2,3 Product Circuit	Bag-Filter
36		DE-2_DRI-1,2,3 PSB	Bag-Filter
37] [DE-2A_DRI-1,2,3 PSB	Bag-Filter
38	DRI	DE-3_DRI-4 & 5 Product Circuit	Bag-Filter
39	DKI	DE-4_ DRI-4 & 5 PSB	Bag-Filter
40		DE-5 _ DRI-3 Product Circuit	Bag-Filter
41		DE-6 _ DRI-2 Product Circuit	Bag-Filter
39] [DE-7_ Intermediate Bin DRI-1,2,3	Bag-Filter
40		DE-8_ DRI-1,2,3 PSB	Bag-Filter





Installation of New Bag Filter at MBF-2 RMHs

Adequate APCS have been Installed at different

Sewage Treatment Plant (250 KLD)





Effluent Treatment Plant (7200KLD)





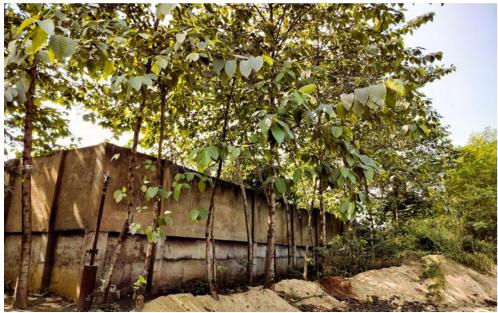
Annexure-4



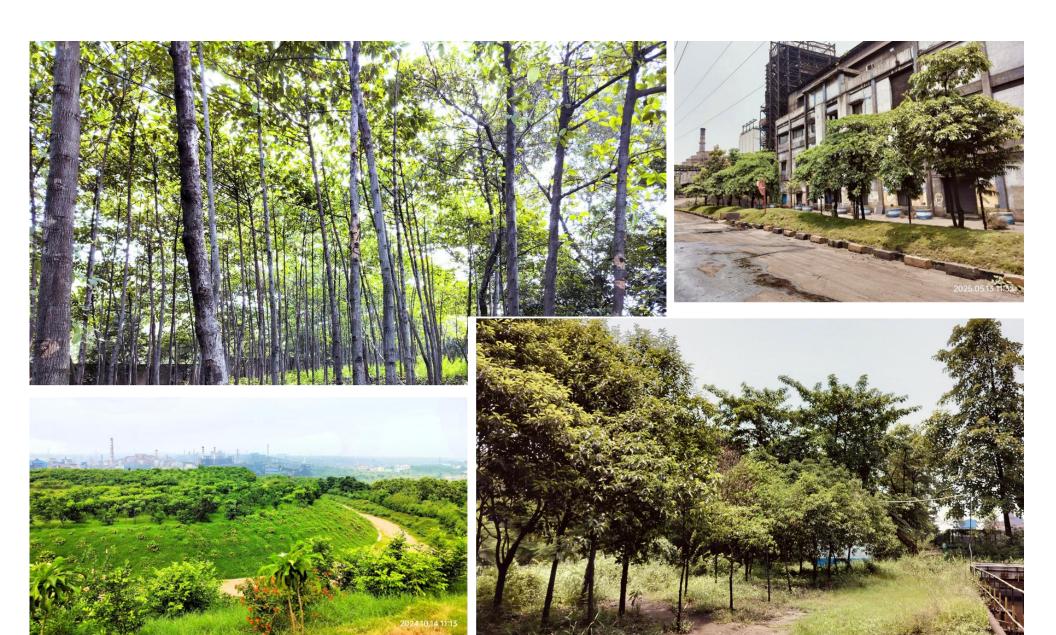
Green Belt developed inside the Plant













Reservoir

Testing Ended: 16-07-2025

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT



Sample Receiving Date: 14-07-2025

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



Discipline: Chemical	Group: Atmospheric	Pollution	Sub-Group: Work Ex	nvironment & Indoor Air	
Report Issue Date: 16-07-2025		Test Repor	Test Report No.: RN-230714001FE02		
Sample ID: 250714AP15001		Sample De	scription: Work Zone A	ir	
Challan No./P.O. No.: 3000173714/J02		Challan No	o./ P.No. Date: 15-07-20.	24	
	E-mail Id- kishor.pramanik1@ M/s Tata Steel Limited, (Formerly Tata Steel Long Pro Gamaharia Phase-V, Adityapa	oducts Limited),	Seraikela-Kharsawan, Jha	rkhand-832108	
Type of Industry: Iron & Ste	and the state of t	Condition	of Sample: Fit for Test		
Sampling Protocol: IS Metho			Date: 09-07-2025		
Protocol: CPCB Guideline (N	AAQMS/36/2012-13) & 18 !				
Sampling Location: MBF-2	NEAR CAST HOUSE PLAT	FORM			
Field Meteorological Inform	R.H. (%): 74	W.C.: Semi-Cloudy	W.D.: South to North		
Location of performance of	the Laboratory Activity: IE	M Laboratory, Ran	ichi		

1	est	Resul	ts
		Wed-Dave	6.0

Testing Started: 14-07-2025

		- I Cat Ixcounts			
Sl. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	μg/m³		1172.8
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	μg/m³	***	39.2
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³		71
4.	Lead (Pb)	IS 5182 Part-22	μg/m²	***	0.50
5.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3		BDL (MDL-1.8)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).		
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit		
Norms** is Specified	As per the Environmental (Protection) Rule - 1986.		
Remark	Sample Comply with prescribed specification.		
Opinion & Interpretation	Not Practiced.		
Tested by	Akanksha Sourabh		
Sample Drawn by	Rahul Singh & Team		
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 		

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4. Any complaint about this report should be communicated in writing within 7 days of its issue

5. Total liability of Institute for Environmental Management will be limited to invoiced amount only.

6. In case of feedback/ complaints, please send an email at sm/lemecodomal com

On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by

Reviewed by

(Tauqueer Ahmad)

(Tauqueer Ahmad)

Technical Manager

Technical Manager



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ranchi-834002, Jharkhand, India Ph.-8407804253, 8407804251, Email - iem2012@rediffmail.com



Discipline: Chemical Group: Atmospheric F		on Sub-Group: Work Environment & Indoor Air	
Report Issue Date: 16-07-2025		Test Report No.: RN-230714001FE03	
Sample ID: 250714AP17001		Sample Description: Work Zone Air	
Challan No./P.O. No.: 3000173714/J02		Challan No./ P.No. Date: 15-07-2024	

E-mail Id- kishor.pramanik (@tatasteel.com

M/s Tata Steel Limited,

(Formerly Tata Steel Long Products Limited),

Gamaharia Phase-V, Adityapur Industrial Area, Seraikela-Kharsawan, Jharkhand-832108

Information obtained from customer (if any): N/A

Type of Industry: Iron & Steel Condition of Sample: Fit for Test
Sampling Protocol: IS Method 5182 Sampling Date: 10-07-2025

Protocol: CPCB Guideline (NAAQMS/36/2012-13) & IS Method 5182 Series

Sampling Location: DRI 4,5 NEAR PSB DISPATCH ROOM

Field Meteorological Information A. Temp. (°C): 27 R.H. (%): 68 W.C.: Partly Sunny W.D.: SE to NW

Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi

Sample Receiving Date: 14-07-2025 Testing Started: 14-07-2025 Testing Ended: 16-07-2025

---Test Results---

St. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Suspended Particulate Matter (SPM)	IS 5182 Part 04	μg/m³		1630.6
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	μg/m³		32.8
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³	***	60.1
4.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3	- 1	BDL(MDL-1.8)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).		
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit		
Norms** is Specified	As per the Environmental (Protection) Rule - 1986.		
Remark	Sample Comply with prescribed specification.		
Opinion & Interpretation	Not Practiced.		
Tested by	Akanksha Sourabh		
Sample Drawn by	Rahul Singh & Team		
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 		

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Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	Gro	up: Atmospheric	Pollution	Sub-Group: Work Environment & Indoor Ai			
Report Issue Date: 16-07-2025			Test Repor	Test Report No.: RN-230714001FE04			
Sample ID: 250714AP17002				Sample Description: Work Zone Air			
			Challan No	o./ P.No. Date: 15-07-2024			
	E-mail Id- ki M/s Tata Ste (Formerly Ti Gamaharia P	shor.pramanik1@ el Limited, ata Steel Long Pro hase-V, Adityapı	(tatasteel.com oducts Limited),	Seraikela-Kharsawan, Jharkhand-832108			
Information obtained from	customer (if	any): N/A					
Type of Industry: Iron & Ste	el		Condition	Condition of Sample: Fit for Test			
Sampling Protocol: IS Meth	od 5182		Sampling l	Sampling Date: 10-07-2025			
Protocol: CPCB Guideline (1	NAAQMS/3	5/2012-13) & IS !	Method 5182 Series				
Sampling Location: DR1-4 &	5 RMHS	HODOCCA NOT THE	CAN BASHWAN IN THE				
Field Meteorological Information A. Temp. (°C): 27 R			R.H. (%): 68	W.C.: Partly Sunny W.D.: SE to NW			
Location of performance of	the Labora	tory Activity: IE	M Laboratory, Ran	chi			
Sample Receiving Date: 14-07-2025 Testing Starte		tarted: 14-07-2025	Testing Ended: 16-07-2025				
The state of the s			F - D - 1-	The second secon			

---- Test Results----

SI. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Suspended Particulate Matter (SPM)	IS 5182 Part 04	μg/m³		1429.3
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02; 2001 RA 2017	µg/m³		33.7
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³		65.1
4.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3	***	BDL(MDL-1.8)

Env. Condition of Lab.	aboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all sting area as per IS 196:1966(C).		
Abbreviation MDL: Minimum Detection Limit, BDL: Below Detection Limit			
Norms** is Specified	As per the Environmental (Protection) Rule – 1986.		
Remark	Sample Comply with prescribed specification.		
Opinion & Interpretation	Not Practiced.		
Tested by	Akanksha Sourabh		
Sample Drawn by	Rahul Singh & Team		
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.		

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In case of feedback/ complaints, please send an email at mecochonal.com In case of feedback/ complaints, please send an email at mecochonal.com	(Taugeer Ahmad) (Br./S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Randa Director

(4)

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	Group: Atr	nospheric	Pollution	Sub-C	croup: Work Er	nvironment & Indoor Air	
Report Issue Date: 16-07-2025	Test Repor	Test Report No.: RN-230714001FE05					
Sample ID: 250714AP17003	otiso-ecci	Sample Description: Work Zo				ir	
Challan No./P.O. No.: 300017371-	1/J02	Challan No./ P.No. Date: 15-07-2024				24	
M/s T (Form	l Id- kishor.pri ata Steel Limit erly Tata Stee	amanik1@ ted, I Long Pr	tatasteel.com oducts Limited), ar Industrial Area, S	Jeraikela-l	Kharsawan, Jha	rkhand-832108	
Information obtained from custon	ner (if any):)	N/A				displanter oxiden —	
Type of Industry: Iron & Steel			Condition	of Sampl	e: Fit for Test		
Sampling Protocol: 1S Method 518	2		Sampling I	Sampling Date: 10-07-2025			
Protocol: CPCB Guideline (NAAQ	MS/36/2012-	13) & 15 !	Method 5182 Series				
Sampling Location: DRI 4,5 NEA	R ESP HOPPI	ER.	Variation of the second				
Field Meteorological Information	A. Temp. (C): 27	R.H. (%): 68	W.C.:	Partly Sunny	W.D.: SE to NW	
Location of performance of the La	aboratory Ac	tivity: IE	M Laboratory, Ran	chi			
Sample Receiving Date: 14-07-2025 Testing Start			tarted: 14-07-2025	rted: 14-07-2025 Testing Ended: 16-07-2025			
		-	F D		•		

-Test	Results	

		4 601 5001011			
Sl. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Suspended Particulate Matter (SPM)	IS 5182 Part 04	µg/m³	***	1762.8
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	μg/m³	***	36.2
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³		57.2
4.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3		BDL(MDL-1.8)

Env. Condition of Lab. Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65 testing area as per IS 196:1966(C).			
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit		
Norms** is Specified	As per the Environmental (Protection) Rule – 1986,		
Remark	Sample Comply with prescribed specification.		
Opinion & Interpretation	Not Practiced.		
Tested by	Akanksha Sourabh		
Sample Drawn by	Rahul Singh & Team		
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.		

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Con the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by Authorized Signatory

(Tauqueer Ahmad)

(Tauqueer Ahmad)

Technical Manager

Director

(4)

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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	Grou	p: Atmospheric	Pollution	Sub-C	Group: Work Environment & Indoor Ai		
Report Issue Date: 23-07-20	25		Test Repor	Test Report No.: RN-230714001FE07			
Sample ID: 250721AP14002	ne sources		Sample De	scription	: Work Zone Ai	г	
Challan No./P.O. No.: 3000	73714/J02		Challan No	o./ P.No. I	Date: 15-07-202	24	
	E-mail Id- kis M/s Tata Stee (Formerly Tat	hor.pramanik1@ Limited, a Steel Long Pr		eraikela-F	Charsawan, Jhar	khand-832108	
Information obtained from	customer (if a	my): N/A	210000-00000-0000-0000			VVC 00000 0000 0000 0000 0000 0000 0000	
Type of Industry: Iron & Ste	el		Condition	of Sample	sample: Fit for Test		
Sampling Protocol: IS Meth-	od 5182		Sampling I	Sampling Date: 15-07-2025			
Protocol: CPCB Guideline (?	AAQMS/36/	2012-13) & IS !	Method 5182 Series	5			
Sampling Location: SMS 1	& 2 NEAR EA	F PLATFORM					
Field Meteorological Inform	ation A. Te	mp. (°C): 30	R.H. (%): 72	W.C.:	Semi-Cloudy	W.D.: SW to NE	
Location of performance of	the Laborato	ry Activity: IE	M Laboratory, Ran	chi			
Sample Receiving Date: 21-	Receiving Date: 21-07-2025 Testing Started: 21-07-2025 Testing Ended: 23-07-2025			d: 23-07-2025			

--- Test Results----

		2 200 2 200 200 200 200 200 200 200 200			
St. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	μg/m³		1373.9
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02; 2001 RA 2017	μg/m³	280	29.5
3.	Nitrogen Dioxide (NO ₂)	1S 5182 Part-06: 2006 RA 2017	µg/m		52
4.	Lead (Pb)	IS 5182 Part-22	µg/m²		0.46
5.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3	. ***	BDL (MDL- 1.8)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the Environmental (Protection) Rule – 1986.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by Authorized Signatory

Authorized Signatory

Tauqueer Ahman

(Tauqueer Ahman)

Technical Manager

Director



Corporate office - A-B, Modi Heights, Opp.-Ail India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001. Laboratory Site - H.No. – A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical	Group: Atmospheric	Pollution	Sub-C	Group: Work Er	ivironment & Indoor Air	
Report Issue Date: 23-07-2025	Test Repor	Test Report No.: RN-230714001FE08				
Sample ID: 250721AP16001	Some field 2	Sample De	scription	: Work Zone Ai	r	
Challan No./P.O. No.: 3000173714	/302	The second secon		Date: 15-07-202		
M/s Ta (Forme Gamah	Id- kishor.pramanik1@ ta Steel Limited, rly Tata Steel Long Praria Phase-V, Adityapa	etatasteel.com	eraikela-l	Kharsawan, Jhar	khand-832108	
Information obtained from custon	ier (if any): N/A	V				
Type of Industry: Iron & Steel		Condition	of Sample	nple: Fit for Test		
Sampling Protocol: IS Method 518	2	Sampling I	Date: 15-0	07-2025		
Protocol: CPCB Guideline (NAAQ)	MS/36/2012-13) & IS !					
Sampling Location: MBF-1 NEAR	RMHS					
Field Meteorological Information	A. Temp. (°C): 30	R.H. (%): 72	W.C.:	Semi-Cloudy	W.D.: SW to NE	
Location of performance of the La	boratory Activity: IE	M Laboratory, Ran	chi			
Sample Receiving Date: 21-07-202	tarted: 21-07-2025	rted: 21-07-2025 Testing Ended: 23-07-2025				
	-	ant Beaute				

---- Test Results----

		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
SI. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	μg/m³		1715.7
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	μg/m³	***	42.9
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³	***	84.6
4.	Lead (Pb)	IS 5182 Part-22	μg/m³		0.50
5.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3	127	BDL(MDL-1.8)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the Environmental (Protection) Rule - 1986,
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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6. In case of feedback/ complaints, please send an email at smilemecoffigmaticom	(Taugeer Ahmad)	(Dr.S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

Discipline: Chemical		: Atmospheric	Pollution	Sub-C	roup: Work Er	nvironment & Indoor Air	
Report Issue Date: 23-07-2025			Test Repor	Test Report No.: RN-230714001FE09			
Sample ID: 250721AP16002	and the second service		The state of the s	and the first feet and the first feet and the feet and th	: Work Zone A		
Challan No./P.O. No.: 30001	73714/J02		The beautiful distance and an incident	the balance of the same and	Date: 15-07-203		
	E-mail Id- kish M/s Tata Steel Formerly Tata Gamaharia Pha	or.pramanik1@ Limited, Steel Long Pr se-V, Adityapi		ieraikela-k	Charsawan, Jhar	rkhand-832108	
Information obtained from	ustomer (if ar	ny); N/A	THE CAMPACA THE SAME				
Type of Industry: Iron & Ste	el		Condition	Condition of Sample: Fit for Test			
Sampling Protocol: IS Metho	od 5182		Sampling I	Sampling Date: 15-07-2025			
Protocol: CPCB Guideline (N	AAQMS/36/2	012-13) & IS!					
Sampling Location: MBF-1				0.			
Field Meteorological Inform	ation A. Ten	np. (°C): 30	R.H. (%); 72	W.C.:	Semi-Cloudy	W.D.: SW to NE	
Location of performance of	the Laborator	y Activity: IE	M Laboratory, Ran	chi		Indiana in the second s	
Sample Receiving Date: 21-07-2025 Testing Started: 21-07-2025 Testing Ended:			d: 23-07-2025				

----Test Results----

		Test Heading			
SI. No.	Parameters	Test Method	Unit	Norms**	Result
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006 RA 2017	μg/m³		1184.7
2.	Sulphure Dioxide (SO ₂)	IS 5182 Part-02: 2001 RA 2017	μg/m³	***	39.1
3.	Nitrogen Dioxide (NO ₂)	IS 5182 Part-06: 2006 RA 2017	μg/m³		74.4
4.	Lead (Pb)	IS 5182 Part-22	μg/m³	575.5	0.50
5.	Carbon Monoxide (CO)	IEM/SOP/2022/01	mg/m3	***	BDL(MDL-1.8)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	As per the Environmental (Protection) Rule - 1986.
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Akanksha Sourabh
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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6. In case of feedback/ complaints, please send an email at sm jemecoffigmail.com	(Taugeer Ahmad) • (Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

TC-16135

ULR No.:	T	C	1	6	1	3	5	2	5	0	0	0	0	0	0	6	1	-1
Discipline: Ch	emical				-37	Group	: Wat	er					Sub-G	roup	: Grou	nd wat	ter	
Report Issue I	ate: 16-	07-203	25						Test R	eport	No.: I	RN-2	3071400	1GW	1			
Sample ID: 25	0712W/	401001							Sample	Desc	criptio	m: G	round V	Vater	(Bore	well)		
Challan No./P	O. No.:	30001	73714	/J02			000000		Challa	n No.	P.No	. Dat	e: 15-07	-202	4			
		(M/s Ta Forme Gamal		Lim Ste	nited, sel Long V, Adit	g Proc	fucts L	.imited)		raikeli	ı-Kha	rsawan,	Jhark	chand-8	832108	8	
Information o	btained	from o	custor	ner (if a	ny):	N/A												
Type of Indus	try: Iron	& Ste	el		751				Condit	ion o	f Sam	ple: I	it for Te	est				
Sampling Pro	tocol: LS	1761	4 (Par	t-1):202	5				Sampli	ing D	ate: 12	2-07-2	2025					
Protocol; CPC	B Guide	line &	IS Me	ethod 30	25.5	series 8	¿ API	IA	- 21									
Sampling Loc	ation: B	AGAN	PDD	A.														
Field Meteoro		4.				John William	100	and the second	4866	E-Ch.	British a sub-		10 Later 1		the second	size and the	Witness	
FICKL MELCOLO	logical l	nform	ation	A. Te	mp.	(°C): 3	0	R.H.	(%):	70	W.C	.: St	mi-Clou	idy	W.D.:	SE to	NW	
Location of pe												la Se	mi-Clou	кlу	W.D.:	SE to	NW	

--- Test Result---

SI.	Tested Parameters	Tested Parameters Unit Method No.		Ne	orms**	Develte	
No.		Cuit	Method No.	Acceptable	Permissible	Results	
1.	PH Value	440	IS 3025 (Part - 11)	6.5 to 8.5	No Relaxation	7.1	
2.	Conductivity	µs/cm	IS 3025 (Part - 14)	40	**	503	
3.	Taste	***	IS 3025 (Part - 07)	Agreeable	Agreeable	Agreeable	
4.	Turbidity	NTU	IS 3025 (Part - 10)	1	5	<1	
5.	Colour	Hazen	IS 3025 (Part - 04)	5	15	<5	
6.	Odour	***	1S 3025 (Part - 05)	Agreeable	Agreeable	Agreeable	
7.	Total Dissolved Solids	mg/l	1S 3025 (Part - 16)	500	2000	355	
8.	Calcium (as Ca)	mg/l	IS 3025 (Part - 40)	75	200	52.1	
9.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part - 23)	200	600	144	
10.	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part -21)	200	600	192	
11.	Chloride (as Cl)	mg/l	IS 3025 (Part - 32)	250	1000	56	
12.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part - 24)	200	400	45.1	
13.	Magnesium (as Mg)	mg/l	APHA 3500 Mg B. 2023	30	100	15.1	
14.	Copper	mg/l	APHA 3111 B.2023	0.05	1.5	BDL (MDL - 0.2)	
15.	Chromium	mg/l	APHA 3111 B.2023	0.05	No Relaxation	BDL (MDL - 0.2)	
16.	Zinc	mg/l	APHA 3111 B,2023	5	15	0.98	

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manage Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

--- Test Result----

SI.	F I D	10.4	Method No.	No	orms**	Results	
No.	Tested Parameters	Unit	Michod No.	Acceptable	Permissible	Results	
17.	Nickel	mg/l	APHA 3111 B.2023	0.3	No Relaxation	BDL (MDL+ 0.2)	
18.	Mercury	mg/l	APHA 3112 C,2023	0.001	No Relaxation	BDL (MDL - 0.05)	
19.	Arsenic	mg/I	APHA 3114 C.2023	0.01	No Relaxation	BDL (MDL - 0.02)	
20	Manganese	mg/l	APHA 3111 B.2023	0.1	No Relaxation	BDL (MDL - 0.2)	
21	Nitrite Nitrogen	mg/l	IS 3025 (Part - 34)	3-+		BDL (MDL - 0.1)	
22	Fluoride (as F)	mg/l	APHA 4500 F D. 2023	1.0	1.5	0.48	
23	Iron	mg/l	APHA 3111 B.2023	1.0	No Relaxation	0.35	
24	Lead	mg/l	APHA 3111 B.2023	0.01	No Relaxation	BDL (MDL - 0.2)	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	IS 10500 :2012
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Mahendranath Mahto
Sample Drawn by	Rahul Singh & Team
Disclaimers	The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

Specific Contractual Notes: -	Reviewed by Rothorized Signatory
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In case of feedback/ complaints, please send an email at sm lemeco@gmail.com	(Taugeer Ahmad) S. (Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Paneth Director



Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001 Laboratory Site - H.No. — A-13, Saket Vihar. Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India



Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

TC-16135

ULR No.: T C 1 6	1 3	5 2	5	0	0	0	0	.0	0	6	1	2
Discipline: Chemical	Group	: Water	-127	1	di one	101	Sub-C	roup	p: Grou	nd wa	ter	
Report Issue Date: 16-07-2025			Test R	eport	No.:	RN-2.	3071400	HGW	V2			
Sample ID: 250712WA01002							round \			well)	Ŋ.	
Challan No./P.O. No.: 3000173714/J02	0.0		Challa	in No.	/ P.Ne	Dat	e: 15-07	-202	4			
E-mail Id- kish M/s Tata Steel (Formerly Tata Gamaharia Pha Information obtained from customer (if a	Limited, Steel Long se-V, Adit	g Products	Limited		raikela	a-Kha	rsawan,	Jharl	khand-t	33210	8	
Type of Industry: Iron & Steel	ny); to A		Condi	tion o	f Sam	nle: F	it for Te	est				
Sampling Protocol: I.S 17614 (Part-1):2025	5		Sampl					CP4				
Protocol: CPCB Guideline & IS Method 30	25 Series &	APHA		100								
Sampling Location: JHARGOVINDPUR						12-17-5						
Field Meteorological Information A. Ter	np. (°C): 3	0 R.H	l. (%):	70	W.C	:: Se	mi-Clo	idy	W.D.:	SE to	NW	
Location of performance of the Laborator	y Activity	: IEM Lab	oratory,	Ranc	hi	-						
Sample Receiving Date: 12-07-2025	Testir	ng Started	: 12-07-	2025		T	esting F	nde	d: 16-0	7-2025	5	

----Test Result----

SI.	Tested Representant	Unit	Mark of No.	No	rms**	Results	
No.	Tested Parameters	Tested Parameters Unit Method No. Accepta		Acceptable	Permissible	Results	
1.	PH Value		IS 3025 (Part - 11)	6.5 to 8.5	No Relaxation	7.2	
2.	Conductivity	µs/cm	IS 3025 (Part - 14)			418	
3.	Taste		IS 3025 (Part - 07)	Agreeable	Agreeable	Agreeable	
4.	Turbidity	NTU	IS 3025 (Part - 10)	1	5	<1	
5.	Colour	Hazen	IS 3025 (Part - 04)	5	15	<5	
6.	Odour	***	IS 3025 (Part - 05)	Agreeable	Agreeable	Agreeable	
7.	Total Dissolved Solids	mg/l	IS 3025 (Part - 16)	500	2000	291	
8.	Calcium (as Ca)	mg/l	IS 3025 (Part - 40)	75	200	41.7	
9.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part - 23)	200	600	104	
10.	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part -21)	200	600	164	
11.	Chloride (as Cl)	mg/l	IS 3025 (Part - 32)	250	1000	38	
12.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part - 24)	200	400	34	
13.	Magnesium (as Mg)	mg/l	APHA 3500 Mg B. 2023	30	100	14.6	
14.	Copper	mg/l	APHA 3111 B.2023	0.05	1.5	BDL (MDL - 0.2)	
15.	Chromium	mg/l	APHA 3111 B.2023	0.05	No Relaxation	BDL (MDL - 0.2)	
16.	Zinc	mg/l	APHA 3111 B.2023	5	15	0.91	

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TEST REPORT

TC-16135

--- Test Result----

SI.	T 1 P	Plant.	Made at Marc	No	orms**	Results	
No.	Tested Parameters	Unit	Method No.	Acceptable	Permissible	Resuits	
17.	Nickel	mg/l	APHA 3111 B,2023	0.3	No Relaxation	BDL (MDL=0.2)	
18.	Mercury	mg/l	APHA 3112 C.2023	0.001	No Relaxation	BDL (MDL - 0.05)	
19.	Arsenic	mg/l	APHA 3114 C.2023	0.01	No Relaxation	BDL (MDL - 0.02)	
20	Manganese	mg/l	APHA 3111 B.2023	0.1	No Relaxation	BDL (MDL - 0.2)	
21	Nitrite Nitrogen	mg/l	15 3025 (Part - 34)			BDL (MDL - 0.1)	
22	Fluoride (as F)	mg/l	APHA 4500 F D. 2023	1.0	1.5	0.39	
23	Iron	mg/l	APHA 3111 B.2023	1.0	No Relaxation	0.31	
24	Lead	mg/l	APHA 3111 B.2023	0.01	No Relaxation	BDL (MDL - 0.2)	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL; Below Detection Limit
Norms** is Specified	IS 10500 :2012
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced,
Tested by	Mahendranath Mahto
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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6. In case of feedback/ complaints, please send an email at sm. emeco@cmail.com.	(Taugeer Ahmad) (Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Director



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TEST REPORT

TC-16135

ULR No.:	T	C	1		6	1.	3	- 5	2	5	0	0	0	0	0	0	6	1.	3
Discipline: Ch	emical						Group	: Wa	ter	-1		1		Sub-(Group	p: Grou	nd wa	ter	
Report Issue I	Date: 16	-07-20	125							Test F	teport	No.: 1	RN-22	307140	01GW	V3	00.		
Sample ID: 250712WA01003										Sample Description: Ground Water (Bore well)									
Challan No./P.O. No.: 3000173714/J02										Challa	ın No.	/ P.No	. Dat	e: 15-0	7-202	4			
			M/s T (Form Game	Fata nerly ahari	Steel Tata ia Phi	Lim a Ste asc-\	nited, sel Lon V, Adi	ig Pro	ducts I	el.com Limited strial A		eraikela	ı-Kha	rsawan	, Jhar	khand-	83210	8	
Information o				mer	(if a	my):	N/A					***			27101				
Type of Indus										Condition of Sample: Fit for Test									
Sampling Pro										Sampling Date: 12-07-2025									
Protocol: CPC	B Guide	eline 8	E IS M	Aeth/	od 30	125 5	Series e	& API	HA	100	71								
Sampling Loc	ation: N	EEM	DIH			7115			a North House										
Field Meteoro	logical l	Inform	natio	n /	. Te	mp.	(°C):	30	R.H.	. (%):	70	W.C	Lt Se	emi-Clo	udy	W.D.	SE to	NW	
Location of pe	rforma	nce of	the I	abo	rato	ry A	ctivity	: IEN	d Labo	oratory.	Ranc	hi							
Sample Receiv	ing Dat	er 17.	07-20	125		11	Testi	ne Car	a francisco de	12.02	2026		190	esting l	Post of me	2. 26 14	20020		

--- Test Result-

SL	* 4 4 0	#11-14	Notes de No	No	rms**	D It.
No.	Tested Parameters	Unit	Method No.	Acceptable	Permissible	Results
1.	PH Value		IS 3025 (Part - 11)	6.5 to 8.5	No Relaxation	7.4
2.	Conductivity	µs/cm	IS 3025 (Part - 14)		**	559
3.	Taste	-	IS 3025 (Part - 07)	Agrecable	Agreeable	Agreeable
4.	Turbidity	NTU	IS 3025 (Part - 10)	1	5	<1
5.	Colour	Hazen	IS 3025 (Part - 04)	5	15	<5
6.	Odour		IS 3025 (Part - 05)	Agreeable	Agreeable	Agreeable
7.	Total Dissolved Solids	mg/l	IS 3025 (Part - 16)	500	2000	397
8.	Calcium (as Ca)	mg/l	IS 3025 (Part - 40)	75	200	59.3
9.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part - 23)	200	600	164
10.	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part -21)	200	600	216
11.	Chloride (as Cl)	mg/l	IS 3025 (Part - 32)	250	1000	68
12.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part - 24)	200	400	55.1
13.	Magnesium (as Mg)	mg/l	APHA 3500 Mg B. 2023	30	100	16.5
14.	Copper	mg/l	APHA 3111 B.2023	0.05	1.5	BDL (MDL - 0.2)
15.	Chromium	mg/l	APHA 3111 B.2023	0.05	No Relaxation	BDL (MDL - 0.2)
16.	Zinc	mg/l	APHA 3111 B.2023	5	15	0.88

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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by Control Apthorized Signatory

(Tauqeer Ahmad) Technical Manager (Dr. S. C. Jain)

Director



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Ph - 8407804253, 8407804251, Email - Iem2012@rediffmail.com



TEST REPORT

---Test Result----

SI.	T	Unit	Method No.	No	orms**	Results
No.	Tested Parameters	Citie	Method No.	Acceptable	Permissible	Results
17.	Nickel	mg/l	APHA 3111 B.2023	0.3	No Relaxation	BDL (MDL- 0.2)
18.	Mercury	mg/l	APHA 3112 C.2023	0.001	No Relaxation	BDL (MDL - 0.05)
19.	Arsenic	mg/l	APHA 3114 C.2023	0.01	No Relaxation	BDL (MDL - 0.02)
20	Manganese	mg/l	APHA 3111 B.2023	0.1	No Relaxation	BDL (MDL - 0.2)
21	Nitrite Nitrogen	mg/l	IS 3025 (Part - 34)	***) ee /	BDL (MDL - 0.1)
22	Fluoride (as F)	mg/l	APHA 4500 F D. 2023	1,0	1.5	0.59
23	Iron	mg/l	APHA 3111 B.2023	1.0	No Relaxation	0.25
24	Lead	mg/l	APHA 3111 B.2023	0.01	No Relaxation	BDL (MDL - 0.2)

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	IS 10500 :2012
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Mahendranath Mahto
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at sm_emeco@gmail.com	(Taugeer Ahmad)	(Or S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

ULR No.: Group: Water Sub-Group: Ground water Discipline: Chemical Test Report No.: RN-230714001GW4 Report Issue Date: 16-07-2025 Sample ID: 250712WA01004 Sample Description: Ground Water (Bore well) Challan No.J P.No. Date: 15-07-2024 Challan No./P.O. No.: 3000173714/J02 Name and Contact Details of Customer: Kishor Pramanik (9905340012) E-mail Id- kishor.pramanik1@tasasteel.com M/s Tata Steel Limited. (Formerly Tata Steel Long Products Limited), Gamaharia Phase-V, Adityapur Industrial Area, Seraikela-Kharsawan, Jharkhand-832108 Information obtained from customer (if any): N/A Type of Industry: Iron & Steel Condition of Sample: Fit for Test Sampling Protocol: I.S 17614 (Part-1):2025 Sampling Date: 12-07-2025 Protocol: CPCB Guideline & IS Method 3025 Series & APHA Sampling Location: JHARKHULI Field Meteorological Information A. Temp. (°C): 30 W.D.: SE to NW R.H. (%): 70 W.C.: Semi-Cloudy Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi Testing Started: 12-07-2025 Testing Ended: 16-07-2025 Sample Receiving Date: 12-07-2025

Test Result-

SI.	12010	ALC: N		No	orms**	Decute
No.	Tested Parameters	Unit	Method No.	Acceptable	Permissible	Results
1.	PH Value	***	IS 3025 (Part - 11)	6.5 to 8.5	No Relaxation	6.9
2	Conductivity	µs/cm	IS 3025 (Part - 14)		**	470
3.	Taste	***	IS 3025 (Part - 07)	Agreeable	Agreeable	Agreeable
4.	Turbidity	NTU	IS 3025 (Part - 10)	1	5	<1
5.	Colour	Hazen	1S 3025 (Part - 04)	5	15	<5
6.	Odour		1S 3025 (Part - 05)	Agreeable	Agreeable	Agreeable
7.	Total Dissolved Solids	mg/l	1S 3025 (Part - 16)	500	2000	330
8.	Calcium (as Ca)	mg/l	1S 3025 (Part - 40)	75	200	48.1
9.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part - 23)	200	600	124
10.	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part -21)	200	600	178
11.	Chloride (as CI)	mg/l	IS 3025 (Part - 32)	250	1000	52
12.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part - 24)	200	400	41,1
13.	Magnesium (as Mg)	mg/l	APHA 3500 Mg B. 2023	30	100	14.1
14.	Copper	mg/l	APHA 3111 B.2023	0.05	1.5	BDL (MDL - 0.2)
15.	Chromium	mg/l	APHA 3111 B.2023	0.05	No Relaxation	BDL (MDL - 0.2)
16.	Zinc	mg/l	APHA 3111 B.2023	5	15	0.93

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TC-16135

TEST REPORT

---Test Result----

SI.	The state of the s	27.34	M. a. IN	No	orms**	Darulte	
No.	Tested Parameters	Unit	Method No.	Acceptable	Permissible	Results	
17.	Nickel	mg/l	APHA 3111 B.2023	0.3	No Relaxation	BDL (MDL-0.2)	
18.	Mercury	mg/l	APHA 3112 C.2023	0.001	No Relaxation	BDL (MDL - 0.05)	
19.	Arsenic	mg/l	APHA 3114 C.2023	0.01	No Relaxation	BDL (MDL - 0.02)	
20	Manganese	mg/l	APHA 3111 B 2023	0.1	No Relaxation	BDL (MDL - 0.2)	
21	Nitrite Nitrogen	mg/l	IS 3025 (Part - 34)		**	BDL (MDL - 0.1)	
22	Fluoride (as F)	mg/l	APHA 4500 F D. 2023	1.0	1.5	0.43	
23	Iron	mg/l	APHA 3111 B.2023	1.0	No Relaxation	0.29	
24	Lead	mg/l	APHA 3111 B.2023	0.01	No Relaxation	BDL (MDL - 0.2)	

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	IS 10500 :2012
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Practiced.
Tested by	Mahendranath Mahto
Sample Drawn by	Rahul Singh & Team
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified.

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In case of feedback/ complaints, please send an email at pm.iemeco@gmail.com	(Taugeer Ahmad) (Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager Director

	Treated Effluent Water Quality Report										
Month	Sampling location	Sampling on	рН	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	O&G (mg/l)	NH3 (mg/l)	CN (mg/l)	Phenol (mg/l)	
Apr'25	ETP OUTLET	16-04-2025	8.1	29	12	56	BDL (MDL- 4)	5.6	BDL(MDL-0.05)	0.3	
May'25	ETP OUTLET	31-05-2025	8.2	34	13	64	BDL (MDL- 4)	6.1	BDL(MDL-0.05)	0.35	
Jun'25	ETP OUTLET	20.06.2025	7.8	39	15	72	BDL (MDL- 4)	6.3	BDL(MDL-0.05)	0.39	
Jul'25	ETP OUTLET	08.07.2025	8.1	45	17	80	BDL (MDL- 4)	6.7	BDL(MDL-0.05)	0.43	



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



W.D.: NW to SE

W.C.: Semi-Cloudy

TEST REPORT

ULR No.:	T	C	1	6	1	3	5	2	5	0	0	0	0	0	0	6	4	9
Discipline: Chem	Discipline: Chemical Group: Pollution							lution &	& Envi	ronmei	nt		Sub-C	Group	: Wast	e Wat	er	
Report Issue Date: : 11-07-2025									Test R	Report	No.: I	RN-24	071500	01WW	2			
Sample ID: 2507	08PE	01002							Sampl	le Desc	riptio	n: Wa	aste Wa	ater (E	ffluent)		
Challan No./P.O	. No.:	30001	73714	/J02					Challa	n No./	P.No	. Date	e: 15-0'	7-2024				
Name and Conta	act De	tails o	f Cust	omer:	Kish	or Pra	mani	k (990:	534001	2)								
]	E-mail	Id- ki	shor. _J	oraman	ik1@	tatastee	el.com									
]	M/s Ta	ita Stee	el Lir	nited,												
		(Forme	erly Ta	ta Ste	eel Lon	g Pro	ducts L	imited),								
			Gamal	naria P	hase-	V, Adi	tyapu	r Indus	trial Aı	rea, Se	raikela	a-Kha	rsawan	, Jhark	hand-8	32108	3	
Information obta	ained	from (custon	ner (if	any)	: N/A												
Type of Industry	Type of Industry: STEEL INDUSTRY Condition of Sample: Fit for Test																	
Sampling Protoc	Sampling Protocol: I.S: 17614(Part-1):2025							Sampling Date: 08-07-2025										
Protocol: CPCB	Protocol: CPCB Guideline & IS Method 3025 Series																	

Field Meteorological Information A. Temp. (°C): 28 R.H. (%): 70

Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi

Sampling Location: ETP Outlet

----Test Results----

Sl. No.	Tested Parameters	Unit	Method No.	Norms**	Results
1.	pH value at 25°C		IS 3025 (Part-11)	5.5 - 9.0	8.1
2.	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part-17)	100	45
3.	Biological Oxygen Demand (BOD)	mg/l	IS 3025 (Part-44)	30	16.9
4.	Chemical Oxygen Demand (COD)	mg/I	IS 3025 (Part-58)	250	80
5.	Ammonical Nitrogen as N	mg/l	IS 3025 (Part-34)	50	6.7
6.	Phenols as C ₆ H ₅ OH	mg/l	APHA 5530 C:2023	10	0.43
7.	Oil & Grease	mg/l	IS 3025 (Part-39)	0.2	BDL(MDL-4)
8.	Cyanide as CN	mg/l	APHA 4500-CN C:2023	1.0	BDL(MDL-0.05)

Env. Condition of Lab.	Laboratory is maintaining Temperature $27\pm 2^{\circ}$ C and Relative Humidity 65 ± 5 % in all testing area as per IS 196:1966(C).				
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit				
Norms** is Specified As per the Environmental (Protection) Rule – 1986					
Remark	Sample Comply with prescribed specification.				
Opinion & Interpretation	Not Practiced.				
Tested by	Mahendranath Mahato				
Sample Drawn by	Rahul Singh & Team				
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 				

Specific Contractual Notes: -	Reviewed byAuthorized Signatory
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On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report	Technical Manager Pachi Director
is issued by the Director of the Organization.	Technical Manager
7 1 40	

Ambient Noise Monitoring Report

Sampling on	Plant North S	ide Boundary	Plant South S	ide Boundary	Plant East Si	de Boundary	Plant West Side Boundary		
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	
Apr'25	74.1	63.2	72.4	62.4	71.9	65.3	69.6	67.7	
May'25	73.4	62.4	70.4	64.7	73.5	62.2	68.8	60.8	
Jun'25	71.1	59.8	67.9	61.9	71.2	59.6	66.3	58.0	
July'25	69.3	58.0	66.1	60.1	66.1	60.1	64.5	56.2	
Aug'25	67.5	56.2	64.3	58.3	67.6	56.0	62.7	54.4	
Sept'25	70.9	59.0	67.6	60.7	71.2	58.8	66.0	56.8	



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4001 (F) (100)

TC-16135

Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

8 **ULR No.:** Group: Atmospheric Pollution Sub-Group: Ambient Noise Level (Excluding Vibrations) Discipline: Chemical Report Issue Date: 10-09-2025 Test Report No.: RN-250303003N01 Sample ID: 250908AP10001 Sample Description: Ambient Noise Level Challan No./P.O. No.: 3000179897/J02 Challan No./ P.No. Date: 03-03-2025 Name and Contact Details of Customer: Kishor Pramanik (9905340012) E-mail Id- kishor.pramanik1@tatasteel.com M/s Tata Steel Limited, Gamaharia Phase-V, Adityapur Industrial Area, Seraikela-Kharsawan, Jharkhand-832108 Information obtained from customer (if any): N/A Condition of Sample: Fit for Test Type of Industry: Iron & Steel Sampling Date: 05-09-2025 to 06-09-2025 Sampling Protocol: I.S 5182 Protocol: CPCB Guideline & IS Method 9989:1981 Sampling Location: STATION-1 PLANT NORTH SIDE BOUNDARY

Field Meteorological Information A. Temp. (°C): 28 R.H. (%): 62 W.C.: Semi-Cloudy W.D.: West to East

Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi

Sample Receiving Date: 08-09-2025 Testing Started: 08-09-2025 Testing Ended: 10-09-2025

----Test Results----

SI. No.	Danamatana	Test Method	Unit	Res	Norms**	
	Parameters	No.	Ont	Day Time	Night Time	NOTHIS
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	70.9	59.0	Day - 75 Night - 70

Note: -

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) Leg denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- 5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- 6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab. Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±3 testing area as per IS 196:1966(C).		
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit	
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.	
Remark	Sample Comply with prescribed specification.	
Opinion & Interpretation	Not Practiced.	
Tested by	Akanksha Sourabh	
Sample Drawn by	Rahul Singh & Team	
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 	

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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com

TEST REPORT

ULR No.: T C 1 6 1	3 5 2	5 0 0 0	0 0 0 0					
Discipline: Chemical Group: Atmos	spheric Pollution	Sub-Group: Ambient Noise Level (Excluding Vibrations)						
Report Issue Date: 10-09-2025		Test Report No.: RN-250303003N2						
Sample ID: 250908AP10002		Sample Description: A	ambient Noise Level					
Challan No./P.O. No.: 3000179897/J02		Challan No./ P.No. Da	te: 03-03-2025					
Name and Contact Details of Customer: Kis	shor Pramanik (99	05340012)						
E-mail Id- kishor	.pramanik1@tataste	eel.com						
M/s Tata Steel L	imited,							
Gamaharia Phase	-V, Adityapur Indus	trial Area, Seraikela-Kha	arsawan, Jharkhand-832108					
Information obtained from customer (if any): N/A							
Type of Industry: Iron & Steel		Condition of Sample: Fit for Test						
Sampling Protocol: I.S 5182		Sampling Date: 05-09-2025 to 06-09-2025						
Protocol: CPCB Guideline & IS Method 9989	:1981							
Sampling Location: STATION-2 PLANT W	EST SIDE BOUND	ARY						
Field Meteorological Information A. Temp	Field Meteorological Information A. Temp. (°C): 28 R.H. (%): 62 W.C.: Semi-Cloudy W.D.: West to East							
Location of performance of the Laboratory	Activity: IEM Lab	oratory, Ranchi						
Sample Receiving Date: 08-09-2025 Testing Started: 08-09-2025 Testing Ended: 10-09-2025								

----Test Results----

SI.	Parameters Test Method		Unit	Res	Norms**		
No.	rarameters	No.	Ont	Day Time	Night Time	Norms	
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	66.0	56.8	Day - 75 Night - 70	

Note: -

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- 5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- 6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).			
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit			
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.			
Remark	Sample Comply with prescribed specification.			
Opinion & Interpretation	Not Practiced.			
Tested by	Akanksha Sourabh			
Sample Drawn by	Rahul Singh & Team			
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 			

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Reviewed by uthorized Signatory Jain) (Taugeer Ahmad ranch Director Technical Manager



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TEST REPORT

ULR No.: T C 1 6 1 3 5 2	5 0 0 0 0 0 1 0 0 0					
Discipline: Chemical Group: Atmospheric Pollution	Sub-Group: Ambient Noise Level (Excluding Vibrations)					
Report Issue Date: 17-09-2025	Test Report No.: RN-250303003N3					
Sample ID: 250915AP14001	Sample Description: Ambient Noise Level					
Challan No./P.O. No.: 3000179897/J02	Challan No./ P.No. Date: 03-03-2025					
Name and Contact Details of Customer: Kishor Pramanik (99	05340012)					
E-mail Id- kishor.pramanik1@tatast	eel.com					
M/s Tata Steel Limited,						
Gamaharia Phase-V, Adityapur Indu	strial Area, Seraikela-Kharsawan, Jharkhand-832108					
Information obtained from customer (if any): N/A						
Type of Industry: Iron & Steel	Condition of Sample: Fit for Test					
Sampling Protocol: I.S 5182	Sampling Date: 10-09-2025 to 11-09-2025					
Protocol: CPCB Guideline & IS Method 9989:1981						
Sampling Location: STATION-3 PLANT EAST SIDE BOUND	Sampling Location: STATION-3 PLANT EAST SIDE BOUNDARY					
Field Meteorological Information A. Temp. (°C): 26 R.H.	H. (%): 72 W.C.: Semi-Cloudy W.D.: South to North					
Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi						
Sample Receiving Date: 15-09-2025 Testing Started	: 15-09-2025 Testing Ended : 17-09-2025					

----Test Results----

SI.	Parameters	Test Method	Unit	Results		Norms**
No.	rarameters	No.	Ont	Day Time	Night Time	Norms
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	71.2	58.8	Day - 75 Night - 70

Note: -

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- 5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- 6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).				
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit				
Norms** is Specified National Ambient Air Quality Standards (NAAQS), 2009.					
Remark Sample Comply with prescribed specification.					
Opinion & Interpretation	Not Practiced.				
Tested by	Akanksha Sourabh				
Sample Drawn by	Rahul Singh & Team				
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 				

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onmerkuthorized Signatory Reviewed by

(Taugeer Ahmad Dr C. Jain)

Technical Manager

----End of Report----

Director



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Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com



TEST REPORT

TC-16135

ULR No.: T C	1 6 1	3 5	2	5 0	0	0 0	0 1	0	0	1
Discipline: Chemical Group: Atmospheric Pollution			on S	Sub-Group: Ambient Noise Level (Excluding Vibrations)				ns)		
Report Issue Date: 23-09-202	25		Te	st Repo	rt No.: R	N-25030300)3N4			
Sample ID: 250915AP14002			Sa	nple D	escription	: Ambient 1	Noise Lev	vel		
Challan No./P.O. No.: 30001	79897/J02		Ch	allan N	o./ P.No.	Date: 03-03	3-2025			
Name Name and Contact De	tails of Custome	r: Kishor Pr	amanik (9905340	0012)					
I	E-mail Id- kishor.	pramanik1@t	atasteel.c	om						
l I	M/s Tata Steel Lir	nited,								
G	amaharia Phase-	V, Adityapur	Industrial	Area, S	Seraikela-K	Charsawan, J	harkhanc	1-832108		
Information obtained from o	ustomer (if any)	: N/A				-				
Type of Industry: Iron & Ste	el		Co	Condition of Sample: Fit for Test						
Sampling Protocol: I.S 5182			Sa	Sampling Date: 10-09-2025 to 11-09-2025						
Protocol: CPCB Guideline &	IS Method 9989:	1981								
Sampling Location: STATIO	N-4 PLANT SO	JTH SIDE B	OUNDAI	Y						
Field Meteorological Information A. Temp. (°C): 26 R.H.): 72	W.C.:	Semi-Clou	dy W.I	D.: South	to No	rth
Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi										
Sample Receiving Date: 20-09-2025 Testing Started: 20-09-2025 Testing Ended: 23-09-2025										

----Test Results----

Sl.	Parameters Test Method Unit		Unit	Res	Norms**	
No.	1 arameters	No.	Ome	Day Time	Night Time	Norms
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	67.6	60.7	Day - 75 Night - 70

Note: -

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- 5. A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- 6. Leg: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature $27\pm 2^{\circ}C$ and Relative Humidity 65 ± 5 % in all testing area as per IS $196:1966(C)$.				
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit				
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.				
Remark	Sample Comply with prescribed specification.				
Opinion & Interpretation	Not Practiced.				
Tested by	Akanksha Sourabh				
Sample Drawn by	Rahul Singh & Team				
Disclaimers	 The results relate only to the item tested, calibrated or sampled. Additions to, deviations, or exclusions from the method is not practiced if not mentioned. Results from external providers are not used if not specified. 				

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Reviewed by

merAuthorized Signatory

(Taugeer Ahmad

C. Jain) Dr

Technical Manager

Director



Half Yearly update of key sensitive locations (till Sept'26)

TSL Gamharia

Education

Scaling Up NRBC...

After Successful household survey Completion in the remaining bastis adjacent to TSG to identify out-of-school children and assess their educational needs. Large Number of Out of School /Drop out student identified. **Twenty Non-Residential Bridge Course** centres in different vulnerable locations of Gamharia. The teacher/volunteer also identified from local area aswell to sustain the centre and improve education level of students. currently 767 Students is enrolled in which 368 are girls.

PLC: Primary learning center (PLC) of Bara Gamharia and Dugdha is in continue in which 75 students is enroll. New center of Chhota Gamharia start operation after assessment and interview of teacher. Currently 30 Students enroll in this center.

Super 20 Promotion Drive

Publicity, propaganda, door to door campaign and covering nearby colleges for SUPER20 program is on to identify and encourage talented girls for giving them wings to their career. The drive focused on outreach and motivation for underprivileged youth.



Disaster Response - Flood

"Emergency Support Services'



Flash floods coupled with huge discharges of rain waters from all sides affected the low-lying areas and non-concrete houses. Tree uprooted, tilting of electric posts, obstructed main pathways, heavy wind in some areas in and around plant especially Jhurkuli village disrupted the normal life. Villagers had to remain without power for more than 40 hours and waterlogging all around. Villagers approached TSF for immediate help, with help of the environment department, removed the fallen trees making the road fully accessible for the household. Another 200 households of municipality slums and villages were supported with necessary food essentials and tarpaulin to devasted houses. Residents of that area share their gratitude through a thankful letter.











Livelihood – Skill Development



Kaushalyaan Convocation Ceremony

The Kaushalyan programme was organized in Amdih village with the objective of enhancing digital literacy and computer skills among rural students. A total of 98 students from Kuchideh, Dugdha, and Barkatand actively participated in the training sessions.

Mr. Ranjan Kumar Singh, Chief Tata Steel Limited Gamharia felicitated certificates to the students in the graduation ceremony. The Deputy Mukhiya appreciated the trainer, volunteer and TSF staff present during the event for guiding the students to share the knowledge with their friends and colleagues.





Drinking Water



May is typically one of the hottest months in many parts of India, including Jharkhand, where TSG located. This intense heat has several direct and indirect implications for water scarcity

Dugdha village which are part of Dugdha Panchayat in Gamharia ward having population about 1600, which are facing Shortage of portable drinking water especially in summer season.

The water is having high TDS with iron contains beyond acceptable limit. The entire population of the village depends on few water outlets for drinking purposes for which they have to cover a long patch to fetch the water.

After continuous demand from community member for availability of drinking water in peak summer and health concern. An alternative and temporary solution to supply portable drinking water through TSUISL is supplied for 45 days in dugdha village.







On the eve of 121st birthday of Sir JRD Tata, a plantation drive of 50 different fruit bearing plants were undertaken inside Utkramit Madhya Vidyalaya, Jhargovindpur. Mr.Ranjan Singh, Chief TSG and Mr. BK Dinda, Gen. Secy. TKU along with other dignitaries involved school students in this plantation programme. M/s. Maa Construction voluntarily committed school authorities for bush cutting and cleaning of school premises and do further plantation. The students were gifted pen & pencils. Mr. Prasana Pradhan Mr. Ashutosh & Mr. Jagannath were among the team who helped Tata.





Health - mPHU

TATA

mPHU (mobile Public Health Unit) is continuous running on weekly basis in Four location i.e Jhurkuli,Namo Pra,Bagan Para and Gorai Para. It is mobile clinics — offer a wide range of benefits that significantly improve healthcare access and outcomes, particularly for underserved populations of sensitive areas.

By being present in the community, mobile clinics foster trust between healthcare providers and residents, and it improve community engagement.55 people got benefited from these regular camp.







Nukkad Natak

A Street Skit was organized at Nimpada Basti by Youth Leadership Programme (YLP) students of Gamharia to spread awareness about dengue among the locals. The play conveyed key messages on it's symptoms, how dengue spreads, and prevention. These twentytwo youngsters focussed on behaviour change component, seeking timely medical attention in case of fever or other symptoms. Post the fifteen minutes play, the YLP students conducted small group session & one-to-one interaction with the residents of Basti to address their minor queries & confusions, further reinforcing the message of health & hygiene. Nearly 100 spectators connected the performance with their daily living and urged such awareness as an effective medium for generating awareness in a simple and engaging manner. They liked the SING BAJA drums & beats to gather the mass for the Nukkad Natak, the team was happy to get a platform to do contribute for their locals. .







Public Entitlement

TSF is creating path for remote citizens of Saraikela district who often don't avail benefits of social security measures of government. Mukhyamantri Abua Swasthya Yojana, is one such state-government schemes of Jharkhand that provides health coverage to marginalized communities up to 15 lakhs during hospitalisation & further treatment. Upperbera village is just near to Tata Growth Shop. These residents due to lack of awareness, incomplete information regarding eligibility, complex application processes, administrative barriers were not availing its benefits. As Mrs. Sabita Hansda mentioned that she visit twice a week in block but doesn't listen about Abua Helath insurence, TSF team only know about it to mePublic Entitlement through Health initiative are in continue in different villages. Till 24th September 2025 TSF Gamharia team unlock **Rs.** 31.92 crore for the wellbeing of community.

SL No	Village/Panchayat	Potential Leverage (in Lakh)
1	Jhurkuli	317.5
2	Dugdha	490.00
3	Chhota Gamharia	185.00
3	Tetuldanga	80.00
4	Bada Gamharia	1770.00
5	Saharbera	15
6	Upperbera	330.00
7	Sapra	5
	Total	3192.5



TATA STEEL FOUNDATION

SN.	Condition	Compliance status/Action taken
1	Coke Oven Plant: To meet the parameters PLD (% leaking doors), PLL (% leaking lids), PLO (% leaking off take) of the notified standards under EPA. To rebuild at least 40% of the coke oven batteries* in next 10 years by December 2012.	Our Coke Oven Plant is non-recovery type coke oven and this requirement is not applicable.
2	Steel Melting Shop: Steel Melting Shop Fugitive Emission Status To reduce 30% by March 2004 and 100% by March 2008 (including installation of secondary dedusting facilities).	Dedicated secondary Fume Extractive System are installed in EAF & LRF and fugitive emissions are significantly reduced. To measure the stack emission dedicated online dust Monitors are installed in the respective stacks and it's data uploading to JSPCB & CPCB Server on real time basis.
3	Blast Furnace - Direct inject of reducing agents in blast furnace	Pulverized Coal injection (PCI) system installed and commissioned along with bag filter as an air pollution control measures (bag filter with stack) to reduce fugitive emission during direct injection.
4	Solid Waste / Hazardous Waste Management: Utilization of Steel Melting Shop (SMS) / Blast Furnace (BF) slag as per the following. • By 2004 – 70% • By 2006 – 80% and • By 2007 – 100% Hazardous Waste: - Charge of tar sludge / ETP sludge to coke oven by June 2003 Inventorization of Hazardous waste as per Hazardous waste (M & H) Rules, 1989 as amended in 2000 and implementation of the rules by December 2003. (Tar sludge, acid sludge, waste lubricating oil and type fuel fall in the category of HZ).	Solid waste generated within the plant are segregated and most of the waste are recycled back in process. (i) Rolling mill scrap is partially recycled as steel scrap in SMS and partially sold as scrap to outside vendor. (ii) Mill scale is used in sinter making process at Sinter Plant. (iii) FES Dust from SMS is being used in sinter plant. (iv) Flue Dust from blast furnace, Bag Filter Dust and wet GCP dust is also used in Sinter plant. (v) 100% Blast furnace slag is sold to open market. (Used by major cement industry). (vi) Metal is recovered from slag of arc furnace and recycled. (vii) Used Oil / Waste Oil / Spent oil is collected and stored in designated place and sold to authorized recycler.

		Hazardous Waste: Our coke oven plant is non-recovery type and hence Tar sludge & ETP sludge is not applicable. The waste oil and other hazardous wastes generated is being disposed to authorized vendors as per the Hazardous Waste Management Rule 2016.
5	Water Conservation / Water Pollution - To reduce specific water consumption to 5 m3/t for long products and 8 m3/t for flat products by December 2005.	We maintained Zero Effluent Discharge. There are only evaporation losses. We are presently manufacturing only long products and our specific water consumption is well within the prescribed limit
6	Installation of continuous stack monitoring	Stack monitoring facilities are provided at all major stacks. 7 online gas analysers and 23 online dust monitors are installed covering all major stacks for monitoring of emission from the stacks as per CTO condition and the real time data of PM, SO2 & NOx are transmitted to JSPCB / CPCB servers. Apart from the above, manual monitoring is being conducted by a NABL accredited external laboratory on monthly basis. The monitoring results are well within the permissible limits.
7	To operate the existing pollution control equipment efficiently and to keep proper record of run hours, failure time and efficiency with immediate effect. Compliance report in this regard be submitted to CPCB / SPCB every three months.	The pollution control equipments are being operated efficiently and proper records are maintained for running hours, failure time and efficiency. Any failure leads to APC is resulted exceedance alarm from CPCB server and justification along with corrective action reports are being submitted to RTDMS Portal.
8	To implement the recommendations of Life Cycle Assessment (LCA) study sponsored by MoEF by December 2003.	Being Complied

- 9 The industry will initiate the steps to adopt the following clean technologies measures to improve the performance of industry towards production, energy and environment.
 - Energy recovery of top Blast Furnace (BF) gas.
 - Use of Tar- free runner linings.
 - De-dusting of Cast house at tap holes, runners, skimmers ladle and charging points.
 - Suppression of fugitive emissions using nitrogen gas or other inert gas
 - To study the possibility of slag and fly ash transportation back to the abandoned mines, to the abandoned mines, to fill up the cavities through empty railway wagons while they return back to the mines and its implementation.
 - Processing of the waste containing flux & ferrous wastes through waste recycling plant.
 - To implement rainwater harvesting
 - Reduction Green House Gases by:
 - 1. Reduction in power consumption
 - 2. Use of by –products gases for power generation
 - 3. Promotion of Energy Optimisation technology including energy/ audit
 - To set targets for Resource Conservation such as Raw material, energy and water consumption to match International Standards.
 - Up-gradation in the monitoring and analysis facilities for air and water pollution. Also, to impart elaborate training to the manpower so that realistic data is obtained in the environmental monitoring laboratories.

- Our BF gas pressure (plant capacity is 0.65 MTPA only) is not adequate to install TRT.
- Our coke oven plant is nonrecovery type and hence not applicable.
- The de-dusting system commissioned at MBF-I & II cast house covering tap holes, runners, skimmers ladles and charging points.
- Water sprinkling system, Dry & Wet fog systems and the compressed air are used for suppression of fugitive emissions at RMHs area.
- Since we are purchasing raw materials from outside sources, it is not applicable.
- The waste containing flux & ferrous waste is utilized to the maximum extent possible in the Pellet & Sinter plant. 100 % of waste containing flux and ferrous is utilized in the pellet & Sinter plant.
- Rainwater harvesting structures are created within the premises to harvest rainwater. Open reservoirs within the plant also act as sink for rainwater during rainy season the water of which is used in the plant.
- Various initiatives and measures are being taken to reduce the GHG emissions and present level of GHG emission is 4.44 tCO2e/tcs. Major focus are being given to maximise the waste heat utilisation, Reduction of Coal / Coke rate in BF & DRI Process, Maximum utilization of Char, resource conservation. To reduce the power consumption VFDs are being installed wherever possible. LED lights are installed to replace the sodium vapor lamps and many Kaizens are implemented conserve power. By product BF gas is being used as fuel in Power Plant, Mills, Sinter Production Process.

	• To house	Improve keeping.	overall	 A separate Environment cell is already available and need based training is being imparted to the monitoring personnels as and when required. Mechanized housekeeping is introduced to done within the plant. Fixed and mobile sprinklers are deployed at required locations for suppression of fugitive dust.
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OFFICE OF THE CHIEF CONSERVATOR OF FORESTS-CUM-CHIEF WILD LIFE WARDEN, JHARKHAND, RANCHI

Letter no.- 1291

Dated 96/7/04

From,

Chief Conservator of Forests-cum-Chief Wild Life Warden, Jharkhand, Ranchi

To,

M/s Usha Martin Limited, (Usha Alloys & Steels Divn.) Gamharia, Jamshedpur

Sub:

Aerial Distance between Usha Martin Factory at Gamharia and specified points of Dalma Wildlife Sanctuary boundary.

Ref:

Companies letter no. Nil dated-28.04.2004.

Sir,

In response to your letter under reference, a report was sought from the Divisional Forest Officer, Wild Life Division, Ranchi and Conservator of Forests, Wild Life Circle, Ranchi. On the basis of their reports it is stated that the distances between the three points on the boundary of the Dalma Wildlife Sanctuary and the location of the factory at Gamaharia are as under:

1) Dalgaon - the north west corner of the sanctuary - 15.75 Km.

2) Machabera - the south east corner of the sanctuary - 33.75 Km. and

3) Dimna Jhor - the mid point of the sanctuary - 15.50 Km.

Since the content of the letter from the MOEF is not clear to us, no further comments are being made.

Yours sincerely,

Chief Conservator of Forests-cum-Chief Wild Life Warden, Jharkhand, Ranchi



5/20/25, 7:02 PM Home Page Annexure - 14

Your (Half Yearly Compliance Report) has been Submitted with following details				
Proposal No	IA/JH/IND/6114/2007			
Compliance ID	127028161			
Compliance Number(For Tracking)	EC/M/COMPLIANCE/127028161/2025			
Reporting Year	2024			
Reporting Period	01 Jun(01 Oct - 31 Mar)			
Submission Date	20-05-2025			
RO/SRO Name	Shri Senthil Kumar Sampath			
RO/SRO Email	agmu156@ifs.nic.in			
State	JHARKHAND			
RO/SRO Office Address	Integrated Regional Offices, Ranchi			

Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, JHARKHAND with Notification to Project Proponent.

5/22/25, 12:10 PM Home Page Annexure - 15

Your (Half Yearly Compliance Report) has been Submitted with following details				
Proposal No	IA/JH/IND/132216/2019			
Compliance ID	127092303			
Compliance Number(For Tracking)	EC/M/COMPLIANCE/127092303/2025			
Reporting Year	2024			
Reporting Period	01 Jun(01 Oct - 31 Mar)			
Submission Date	22-05-2025			
RO/SRO Name	Shri Senthil Kumar Sampath			
RO/SRO Email	agmu156@ifs.nic.in			
State	JHARKHAND			
RO/SRO Office Address	Integrated Regional Offices, Ranchi			

Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, JHARKHAND with Notification to Project Proponent.

भारक



े नेधि व अन्य

फोटो । प्रभात खबर

प्रभावित हुए.

सदस्यों के साथ बैठक की

कृत्यानंद यूनेस्को क्लब के सदस्यों के प्राथ अमेरिकी प्रतिनिधियों ने होटल एलकॉल में बैठक की. जिसमें ग्रामीण क्षेत्र के भ्रमण पर विस्तृत चरचा की गयी. बैठक में प्रतिनिधियों ने कहा कि 🏄

धरोहर को भी देखा



अभेरिकी प्रतिनिधियों की वामीणों ह्मरा धान से बनाये गये मुकूट को देखकर आंखे खुली रह गयी. इस दौरान प्रतिनिधियों ने संतालियों के जाहेरथान (पूजा स्थल) समेत अन्य सांस्कृतिक धरोहरों को भी देखा.

अमेरिकी सरकार द्वारा जो-जो सुविधा प्राप्त हो सकती है, उसे अतिशीघ्र पुरा करने का प्रयास किया जायेगा.

याद किये गये सिदो

में हुल दिवस -कान्ह् याद किये द्वारा आयोजित ई सोरेन उपस्थित सच्चे नायक थे. , रामदास हेंब्रम, र मीरूडीह चौक सरा के नेतृत्व में मंताली ऑर्केस्ट्रा ए, जिन्हें सफल आदि की अहम



भूमिका रही. करनडीह आदिवासी भवन में केंद्रीय प्रधान महासचिव दिल बहादुर ने कहा कि भ्रष्टाचार खत्म करने के लिए आजसू व जेपीपी 15 नवंबर से आंदोलन शुरू करेंगी. इसमें कृतिवास मंडल, सुनील, राजेश, राजेश घोषाल आदि उपस्थित थे. झाविमो द्वारा परसुडीह मंडल अध्यक्ष रूद्र मुंडा के नेतृत्व में मोटरसाइकिल रैली निकाली गयी.

छोटा कादल वाटरशेड समिति गठित

गम्हरिया = सामाजिक संस्था केजीवीके व आइडब्ल्यूएमपी गोविंदपुर प्रोजेक्ट द्वारा छोटा कादल व रूतडीह में वाटरशेड समिति गठित की गयी. इसमें गोवर्धन मंडल अध्यक्ष, लक्ष्मी धर महतो सचिव व लखन दुडू कोषाध्यक्ष मनोनीत



किया गया. वहीं रूतडीह गांव में माझीराम सरदार अध्यक्ष, जगबंधु महतो सचिव व कालीचरण कोपाध्यक्ष बनाया गया. समिति चयन में आरके त्रिपार्ठी, राजीव कुमार, गेंदा टुड्, रतन कुमार, मोनिका व विजय पाल आदि उपस्थित थे.

डॉक्टर्स डे चिकित्सक सम्मानित होंगे आज

आदित्यपुर ■ डॉक्टर्स डे पर रविवार को आइएमए जमशेदपुर की ओर से एमजीएम अस्पताल में रक्तदान शिविर लगाया जायेगा. शाम में डॉ फतेह बहादुर सिंह, डॉ केके अय्यर, डॉ उमेश लुकतुके को सम्मानित किया जायेगा. इस अवसर पर कोल्हान आयुक्त अविनाश कुमार होंगे. इसकी जानकारी सचिव डॉ मृत्युजंय सिंह ने दी.

m उषा माटिन लिमिटेड

(उषा एलॉयज एवं स्टील्स डिवीजन) पॉचवा चरण, आदित्यपुर औद्योगिक क्षेत्र, गम्हरिया, जिलाः सरायकेला—खरसावाँ

आम सूचना

सर्वसाधारण को सूचित किया जाता है कि मेसर्स उषा मार्टिन लिमिटेड (उषा एलॉयज एवं स्टील्स डिवीजन) आदित्यपुर औद्योगिक क्षेत्र, पाँचवां चरण, गींव तथा तहरितल गम्हरिया, जिलाः रारायकेला खरराावीं के लौह एवं स्टील इकाई के विस्तार एवं कोक ओवेन प्लॉट (0.5 MTPA), आयरन ओर वाशिंग प्लॉट (2.7 MIPA) एवं पेलेटाइजेशन प्लॉट (1.2 MIPA) को स्थापित करने हेतु, पर्यावरण एवं वन मंत्रालय, भारत सरकार नई दिल्ली के पत्रांक संख्या–F.No.J-11011/611/2010-IA II(I), दिनांक 25.10.2011 द्वारा पर्यावरणीय रवीकृति निर्गत किया गया है. जिन्हें भी पर्यावरणीय स्वीकृति संबंधित जानकारी प्राप्त करनी हो इसकी प्रतिलिपि झारखण्ड राज्य प्रदूषण नियंत्रण पर्षद के क्षेत्रीय कार्यालय एवं पर्यावरण एवं वन मंत्रालय, भारत सरकार के वेबसाईट http://envfor.nic.in पर उपलब्ध है।

> **डॉ**0 विजय शर्मा (संयुक्त कार्यकारी निदेशक)

क्र इंग्डिया लिमिटेड

01 झारखण्ड, इण्डिया

526 दिनांक 30/06/2012 नेविदाएँ आमंत्रित करता है.

कार्य का नाम

ऑफ मक/डेबरी/स्लैग/ स्कल जेंम एसएमएस - 2



बेक आफ

हेमंता वसु सारणी, कोलकाता-700 001, टेलीफोन 233 1396 (सी), 233 1321 (ओ) फैक्स 0651 233 1396, झारखंड क्षेत्र, संलूजा बिल्डिंग, पीपी कंपाउंड, रांची-834001

विक्री सुचना

जबकि युनाइटेड बैंक ऑफ इंडिया के प्राधिकृत अधिकारी ने सिक्योरिटी इंटरेस्ट (इंफोर्समेंट) नियम 2002 के साथ पठित सिक्योरिटाइजेशन एंड रिकसट्रक्शन ऑफ फायनाशियल असेट्स एंड इंफोर्समेंट ऑफ सिक्योरिटी इंटेरेस्ट अधिनियम, 2002 के अंतर्गत शक्तियों का प्रयोग करते हुए तथा नीचे उल्लेखित ऋणकर्ताओं / जमानतदारों के सुरक्षित आस्तियों के कब्जे के अनुसार अधोहस्ताक्षरों के द्वारा युनाइटेड बैंक ऑफ इंडिया के सुरक्षित ऋण की क्सूली के लिए, नीचे दिये गये विवरण के अनुसार संपत्तियोँ की खरीद के लिए प्रस्ताव आमंत्रित किये जाते हैं :-

संपत्तियों का विवरण

खाता का नाम / ऋणकर्ता/

संपत्तियों का विवरण

सुरक्षित राशि (रु विशामी जानि (रू वा) कियांन नेकिय



JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004 Phone.:2400852, 2400851, Fax:0651- 2400850 www.jspcb.org

FORM 2

[See rule 6(2)]

FORM FOR GRANT OR RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. No. of authorization and date of issue: JSPCB/HO/RNC/HWM-18227614/2025/36 10/05/2025

2. Reference of appication(No. and date): 18227614 07/01/2024

3. Tata Steel Limited, Gamharia, Main Plant-1 of T V Narendran is hereby granted an authorisation based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilisation, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Main Plant-1, Adityapur Industrial area (Phase-5), Gamharia, Dist - Saraikela-Kharsawan, Jharkhand

Details of Authorisation

	T		
Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity(ton/annum)
1	Schedule I (Wastes or residues containing oil(Cat 5.2))	Recovery and Reuse Authorized recyclers	35 KL/Annum
2	Schedule I (Discarded asbestos (Cat 15.2))	Recovery and Reuse Authorized recyclers	5 MT/Annum
3	Schedule I (Process wastes, residues and sludges (Discarded Paint) (Cat 21.1))	Recovery and Reuse Authorized recyclers	10 Kl/annum
4	Schedule I (Spent solvents (Cat 21.2))	Recovery and Reuse Authorized recyclers	10 Kl/annum
5	Schedule I ("Empty barrels/containers/liners contaminated with hazardous chemicals /wastes" (33.1))	Recovery and Reuse Authorized recyclers	25 MT/annum
6	Schedule I (Contaminated cotton rags or other cleaning materials(Cat 33.2))	Incineration-Captive	45 MT/Annum
7	Schedule I (Exhaust Air or Gas cleaning residue (Cat 35.1))	Recovery and Reuse Authorized recyclers	25000 MT/Annum
8	Schedule I (Chromium sludge from cooling water (Cat 35.5)	Common Landfill-TSDF	20 MT/ Annum
9	Schedule I (Spent ion exchange resin containing toxic metals (35.2))	Common Landfill-TSDF	2 MT/Annum
10	Schedule II (Used Glass Wool or insulation Material (Class C))	Common Landfill-TSDF	10 T/annum
11	Schedule II (Waste Chemicals(Class C)	Incineraton By authorized Agency	01 MT/annum
12	Schedule II (Insulated copper wire scrap or copper with pvc sheathing(S.NO. 7)	Incineraton By authorized Agency	10 MT/ Month
13	Schedule I (Used Spent oil (Cat 5.1))	Recovery and Reuse Authorized recyclers	70 KI /Annum

⁽¹⁾ The authorisation shall be valid for a period of Valid till 30.03.2025 years

⁽²⁾ The authorisation is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

A General conditions of authorisation:

- 1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
- 3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
- 5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- 6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
- 7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
- 8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- 12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
- 13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B Specific conditions:

- (1) That, the renewal of authorization shall be made as laid down in the rules.
- (2) That, the occupier shall submit annual return in form IV as per the time line mention in the HoWM Rules, 2016 with details of manifest.
- (3) That, the occupier shall ensure the disposal of Hazardous Waste within time line through authorized recycler/ actual users and shall ensure that the Hazardous Waste should be entered in the passbook of recycler/ actual users.
- (4) That, the occupier shall maintain record of Hazardous Waste generated, utilized and disposed as per form 3 of the Hazardous and other waste (Management & Handling) Rules, 2016 and shall produce to concerned SPCB officers at the time of inspection.
- (5) That, the occupier shall complied all directions given by standard operating procedure.
- (6) That, the occupier shall install and maintain the display board as per the provisions of HoWM Rules, 2016 and shall submit the photographs to ensure the compliance of the order of Hon'ble Supreme Court passed in 2003.

Memo No:JSPCB/HO/RNC/HWM-

18227614/2025/36 Date: 10/05/2025 (Rajeev Lochan Bakshi) Member Secretary

Copy To:

Chief Inspector of Factory, Ranchi / Director of Mines, Government of Jharkhand, Ranchi/ Director of Industry, Government of Jharkhand, Ranchi/ Secretary, Jharkhand State Electricity Board, Plant Plaza Road, P.O. Dhurwa, Dist- Ranchi /Dy Commissioner, SERAIKELA KHARSAWAN/ D.F.O., SERAIKELA KHARSAWAN/ District Mining Officer, SERAIKELA KHARSAWAN / The Regional Officer, Regional Office-Cum-Laboratory, JSPCB, Jamshedpur for information and necessary action. He is directed to submit the compliance status report of the same.

(Rajeev Lochan Bakshi) Member Secretary



JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004 Phone.:2400852, 2400851, Fax:0651- 2400850 www.jspcb.org

FORM 2

[See rule 6(2)]

FORM FOR GRANT OR RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. No. of authorization and date of issue: JSPCB/HO/RNC/HWM-18229301/2025/35 10/05/2025

2. Reference of appication(No. and date): 18229301 07/01/2024

3. Tata Steel Limited, Gamharia of T V Narendran is hereby granted an authorisation based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilisation, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Main Plant-2, Adityapur Industrial Area (Phase - 5), Gamharia, District: Seraikela- kharsawan, Jharkhand

Details of Authorisation

ſ	1	Г	
Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity(ton/annum)
1	Schedule I (Organic residues (Cat 1.4)	Recovery and Reuse Authorized recyclers	1000 KL/Annum
2	Schedule I (Used Spent oil (5.1))	Recovery and Reuse Authorized recyclers	50 Kl/annum
3	Schedule I (Wastes or residues containing oil(Cat 5.2))	Recovery and Reuse Authorized recyclers	30 Kl/annum
4	Schedule I (Tar storage tank residue (Cat 13.5))	Recovery and Reuse Authorized recyclers	50 Kl/annum
5	Schedule I (Discarded asbestos (15.2))	Recovery and Reuse Authorized recyclers	10 MT/ Annum
6	Schedule I (Process wastes, residues and sludges (Discarded Paint) (Cat 21.1)	Recovery and Reuse Authorized recyclers	5 MT/Annum
7	Schedule I (Spent solvents (21.2))	Recovery and Reuse Authorized recyclers	05 T/annum
8	Schedule I ("Empty barrels/containers/liners contaminated with hazardous chemicals /wastes" (Cat 33.1))	Recovery and Reuse Authorized recyclers	20 MT/ Annum
9	Schedule I (Contaminated cotton rags or other cleaning materials (Cat 33.2))	Incineration-Captive	15 MT/Annum
10	Schedule I (Spent ion exchange resin containing toxic metals (Cat 35.2))	Common Landfill-TSDF	10 MT/ Annum
11	Schedule I (Chemical sludge from waste water treatment (Cat 35.3))	Recovery and Reuse Authorized recyclers	300 MT/Annum
12	Schedule I (Chromium sludge from cooling water(35.5))	Common Landfill-TSDF	20 MT/ Annum
13	Schedule II (Used Glass Wool or insulation Material (Class C)	Common Landfill-TSDF	50 MT/Annum
14	Schedule II (Waste Chemicals (Class C)	Incineraton By authorized Agency	50 MT/Annum
15	Schedule IV (Insulated copper wire scrap or copper with pvc sheathing(S No. 7))	Incineraton By authorized Agency	10 MT/Annum

- (1) The authorisation shall be valid for a period of 5 years (till 31.07.2025) years
- (2) The authorisation is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

A General conditions of authorisation:

- 1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- 2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
- 3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
- 5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- 6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
- 7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
- 8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- 9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- 11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- 12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
- 13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B Specific conditions:

- (1) That, the occupier shall comply the provisions of the Environment Protection Act and Rules.
- (2) That, the authorization shall be produced at the time of inspection.
- (3) That, the occupier authorized shall not rent/sell or otherwise transport the H/W without obtaining prior permission of the Board.
- (4) That, any un-authorization change shall constitute a breach the authorization.
- (5) That, it is the duty of authorized person to take prior permission of the Board to close down the facility.
- (6) That, the renewal of authorization shall be made as laid down in the rules.
- (7) That, any other condition for compliance as per the guidelines issued by the MoEF for CPCB.
- (8) That, the occupier shall submit annual return for the financial year before 30th June, every year.
- (9) That, the occupier shall comply all the conditions.
- (10) That, the occupier shall submit quarterly and annual information on hazardous wastes consumed its source, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the concerned SPCB.
- (11) That, the occupier shall comply all directions given in standard operating procedure.
- (12) The previous auth. issued vide dated 30.3.2019 is revised up to this extent.

Memo No:JSPCB/HO/RNC/HWM-18229301/2025/35

Date: 10/05/2025

(Rajeev Lochan Bakshi) Member Secretary

Copy To:

Dy Commissioner, Jamshedpur / The Regional Officer, Regional Office-Cum-Laboratory, JSPCB, Jamshedpur for information and necessary action. He is directed to submit the compliance status report of the same.

(Rajeev Lochan Bakshi) Member Secretary