



The Deputy Director General of Forests (C),
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office, (IRO) - Ranchi
2nd floor, Headquarter, Jharkhand State Housing Board Harmu Chowk,
Harmu Housing Colony, Argora, Jharkhand - 834002.

Ref No. - JMB/ENV/6&7/36/ 713 /2024
November 27th, 2024

Ref.: Environmental Clearance letter no. - J-11015/373/2010-IA .II (M) dated- 3rd March 2014.

SUB: Half Yearly Compliance Status Report of Environment Clearance conditions issued by MoEFCC, New Delhi to 6 & 7 Pits Colliery, Tata Steel Limited, Dhanbad for the period April-24 to September-24.


Dear Sir,

We are enclosing herewith compliance report for the period **April-24 to September-24** for the EC granted vide letter no.- J-11015/373/2010-IA.II(M) dated- 3rd March 2014 issued by Ministry of Environment, Forest and Climate Change, New Delhi.

We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,


Head (Planning)
Jharia Division, Tata Steel Ltd.

Encl: As above.

Copy to: Member Secretary, CPCB, Eastern Zonal Office, Southend Conclave, 502, 5th Floor
1582, Rajdanga Main Road, Kolkata -700107.

Copy to: Member Secretary, JSPCB, T.A. Division Building (Ground Floor), H.E.C, Dhurwa,
Ranchi - 834004.

Copy to: Regional Officer, JSPCB, HIG -1 Sardar Patel Nagar, Housing Colony, Hirapur,
Dhanbad

TATA STEEL LIMITED

Jharia Collieries Jamadoba 828 112 Dhanbad India
Tel 91 326 2320263/2320265/2320267 Fax 91 326 2320268
Regd. Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001
Tel 91 22 66658282 Fax 91 22 66657724
Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

Proposal No	IA/JH/CMIN/8775/2010
Compliance ID	111457498
Compliance Number(For Tracking)	EC/M/COMPLIANCE/111457498/2024
Reporting Year	2024
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	29-11-2024
RO/SRO Name	ARTATRANA MISHRA
RO/SRO Email	jhk109@ifs.nic.in
State	JHARKHAND
RO/SRO Office Address	Integrated Regional Offices, Ranchi

Note:- SMS and E-Mail has been sent to ARTATRANA MISHRA, JHARKHAND with Notification to Project Proponent.

Half Yearly Compliance Report 2024 01 Dec(01 Apr - 30 Sep) Acknowledgement						
Proposal Name			Expansion of 6 & 7 Pits colliery (from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, tehsil Jharia, dist. Dhanbad, Jharkhand			
Name of Entity / Corporate Office			Tata Steel Ltd.			
Village(s)			N/A			
District			DHANBAD			
Proposal No.		IA/JH/CMIN/8775/2010		Category		Coal Mining
Plot / Survey / Khasra No.		N/A		Sub-District		N/A
State		JHARKHAND		Entity's PAN		*****2803M
MoEF File No.		J-11015/373/2010-IA.II (M)		Entity name as per PAN		UTSAV KASHYAP
Compliance Reporting Details						
Reporting Year		2024				
Remarks (if any)		Half Yearly Compliance Submission for the period of April 2024 to September 2024.				
Reporting Period		01 Dec(01 Apr - 30 Sep)				
Details of Production and Project Area						
Name of Entity / Corporate Office		Tata Steel Ltd.				
	Project Area as per EC Granted		Actual Project Area in Possession			
Private		32.744		32.744		
Revenue Land		42.027		42.027		
Forest		0		0		
Others		93.349		93.349		
Total		168.12		168.12		
Production Capacity						
Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Coal	Million Tons per Annum (MTPA)	N/A	0.6	0	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Human Health Environment	Adequate measures be taken so as to prevent and control of manifestation of health problems due to coal mining activities.
PPs Submission: Complied The production from the colliery has discontinued from January 2021. The control measures implemented are as follows- i. Water spraying is carried out in underground workings. ii. Water sprinkling arrangements are present at all coal transfer points in underground. iii. Plantation within the mine lease area iv. Trucks carrying sand are properly covered as well as optimally loaded. v. Underground workings of the mine are well ventilated and meet the required standards prescribed by DGMS.		Date: 28/11/2024
2	AIR QUALITY MONITORING AND PRESERVATION	Transportation of coal shall be by mechanically covered trucks.
PPs Submission: Complied The production from the colliery has discontinued from January 2021. Also, no coal transportation took place by trucks. All coal were transported to the washery via underground conveyor belt system.		Date: 28/11/2024
3	GREENBELT	Adequate green belt shall be provided around coal handling and other areas.
PPs Submission: Complied Green belt has been developed around the CHP of washery and mass plantation activities are taking place every year in the leasehold area. Green belt development plan attached as Annexure-1.		Date: 28/11/2024
4	AIR QUALITY MONITORING AND PRESERVATION	No dumping of fly ash in low lying areas and in mine voids are permitted.
PPs Submission: Complied It is not applicable as there is no generation of fly-ash due to closure of our power plant since April-2015.		Date: 13/11/2024
5	WASTE MANAGEMENT	Utmost care be taken to prevent spillage of sand during transportation of sand.
PPs Submission: Complied The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre/body condition, emission check at every entry point. Quality checks are done on trucks to ensure its health.		Date: 13/11/2024
6	MISCELLANEOUS	No use of fly ash with sand will take place for stowing in underground mines.
PPs Submission: Complied Office Memorandum F.No. 22-13/2019-IA.III dated 28th August-19 by MOEFCC is being followed.		Date: 13/11/2024
7	WATER QUALITY MONITORING AND	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern,

	PRESERVATION	water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.
PPs Submission: Complied Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done.		Date: 13/11/2024
8	Statutory compliance	The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.
PPs Submission: Complied The production from the colliery has discontinued from January 2021. The EC capacity is for 0.6 MTPA raw coal while the raw coal production for 6 and 7 Pits Colliery was well below the limit.		Date: 28/11/2024
9	Corporate Environmental Responsibility	Corporate Environment Responsibility: a) The Company shall have a well laid down Environment Policy approved by the Board of Directors. b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
PPs Submission: Complied The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non-compliance noticed is corrected at divisional level. If any issue is beyond our control, it is brought to the notice of higher management. Moreover, 6 and 7 Pits Colliery is IMS (Integrated Management System: Quality Management System, Environment Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of interested parties with respect to environment protection.		Date: 28/11/2024
10	Statutory compliance	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.
PPs Submission: Complied It will be strictly followed.		Date: 13/11/2024
11	MINING PLAN	Mining shall be carried out as per statuette at a safe distance from the river/nallah flowing adjacent to the lease boundary.
PPs Submission: Complied The Damodar River flows at an approx. aerial distance of 2.5 kms from the lease boundary. Since this is an underground mine, no impact on the surface water bodies is expected. Though, regular monitoring on upstream and downstream of Damodar river is performed by own as well as NABL accredited laboratory. Monitoring report for the April 24-September 24 period has been attached as Annexure-II.		Date: 28/11/2024

12	GREENBELT	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.
PPs Submission: Complied Impact on land by subsidence has been found to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad. Though, high root density trees of native species are covered under annual plantation program.		Date: 13/11/2024
13	MISCELLANEOUS	Coal Extraction shall also be optimised in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.
PPs Submission: Complied It is strictly followed.		Date: 13/11/2024
14	Statutory compliance	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement with the landowners.
PPs Submission: Complied Regular monitoring of subsidence is being done by CIMFR, Dhanbad and it is well within under statutory limit.		Date: 13/11/2024
15	GREENBELT	3-tier plantation should be developed 2 km stretch of road from the mine using native species.
PPs Submission: Complied Plantation along the stretches of road has been done with native species and it is a continuous process under our green belt development programme		Date: 13/11/2024
16	WATER QUALITY MONITORING AND PRESERVATION	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
PPs Submission: Complied Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. Details of the same are as follows: S. No. Location Length Width Height Gradient 1. Office Area 850 m 2.5 m 1 m 1 in 75 2. Magazine Area 800 m 2.5 m 1 m 1 in 200 3. PH area 550 m 2.5 m 1 m 1 in 97 4. Jitpur Area 550 m 3.0 m 1 m 1 in 60 5. Brick field area 850 m 1.5 m 1 m 1 in 70		Date: 13/11/2024
17	AIR QUALITY MONITORING AND PRESERVATION	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.
PPs Submission: Complied The production from the colliery has discontinued from January 2021. Water spraying arrangement is present in the underground mines at all transfer points. Water spraying via tankers is done on sand transportation routes. Major approach roads have been black-topped and maintained regularly.		Date: 28/11/2024
18	MISCELLANEOUS	Coal transportation to washery shall be through a network of underground belt conveyor system and hence there is no surface transportation of coal. Transportation of men from surface to underground and back shall be via shaft. The material transport shall

		be through the shaft and by means of haulage in the underground.
PPs Submission: Complied The production from the colliery has discontinued from January 2021. However, the transportation of coal was through the underground belt conveyor system.		Date: 28/11/2024
19	GREENBELT	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc., by planting native species in consultation with the local DFO/Agriculture Department.
PPs Submission: Complied Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road-side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program every year.		Date: 13/11/2024
20	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
PPs Submission: Complied The monitoring of groundwater level and quality is done four times a year. The groundwater quality report and groundwater level are provided in Annexure-II.		Date: 28/11/2024
21	WATER QUALITY MONITORING AND PRESERVATION	Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided.
PPs Submission: Complied 6 and 7 Pits Colliery is an underground mine. No acid mine drainage occur.		Date: 13/11/2024
22	WATER QUALITY MONITORING AND PRESERVATION	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.
PPs Submission: Complied There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory.		Date: 13/11/2024
23	WATER QUALITY MONITORING AND PRESERVATION	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
PPs Submission: Complied The water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. Further, there are a number of ponds existing on the surface of the mining lease which act as natural		Date: 13/11/2024

		reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal. The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.	
24	Human Health Environment	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS.	
PPs Submission: Complied The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where 20 percentage of the workers identified from workforce engaged in active mining operations are subjected to full medical check up including hearing impairment check up, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records have been submitted in previous compliance reports.			Date: 13/11/2024
25	LAND RECLAMATION	The mining in the existing mines should be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analysed and monitored for compliance of conditions, bearing with movement of wildlife and until such time they are closed/phased out.	
PPs Submission: Complied It is not applicable in our case.			Date: 13/11/2024
26	Corporate Environmental Responsibility	Project specific CSR for an amount of Rs5/Tonne of coal production, as adjusted as per the annual inflation, should be provided for the CSR activities undertaken and the progress made thereon shall be uploaded annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	
PPs Submission: Complied The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY24 is Rs. 5.07 crores. CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6 and 7 Pits Colliery are adjacent to each other and fall under same leasehold area i.e. Jamadoba group of collieries. The core zone and buffer zone of all above units overlap to each other and in many cases, the villages are same where CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 50 plus villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units. The progress report is uploaded every year on the company website. Internal social audits are carried out regularly to assess the impact of CSR activities.			Date: 13/11/2024
27	MINING PLAN	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	
PPs Submission: Complied Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to Office of Coal controller. Final mine closure along with details of corpus fund will be			Date: 13/11/2024

submitted to MoEFCC 5 years in advance.		
28	PUBLIC HEARING	The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.
PPs Submission: Complied The commitment made by project proponent has been taken up and are being addressed gradually. Roads have been maintained in the colliery and along sand transportation routes. Subsidence studies are done every year. All the ash dumps have been reclaimed. Village ponds are cleaned as per requirement. Laying of drinking water pipeline network has been extended to more villages. A network of more than 22000 metres of pipeline connection has been established along with 33 water tanks (capacity of 4500 litres). Health camps are regularly organized by TSRDS. Training to SHEs, women, youth and children are provided in various fields.		Date: 13/11/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V 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 uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.
PPs Submission: Complied The environmental statement for financial year 2023-24 has been submitted to JSPCB vide letter no. JMB/ENV/ESSA/05/566/2024 on 27th September 2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEFCC by email at ro.ranchi-mefgov.in.		Date: 13/11/2024
2	Statutory compliance	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
PPs Submission: Complied It will be complied with.		Date: 13/11/2024
3	MISCELLANEOUS	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
PPs Submission: Complied The points mentioned in the EC letter will be strictly followed. Board and Pillar method is being used for mining.		Date: 13/11/2024
4	MISCELLANEOUS	No change in the calendar plan of production for quantum of mineral coal shall be made.
PPs Submission: Complied It will be strictly followed.		Date: 13/11/2024
5	AIR QUALITY	Four ambient air quality monitoring stations shall be established in

	MONITORING AND PRESERVATION	the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOx monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
PPs Submission: Complied The Air quality monitoring in the core zone as well as buffer zone is done regularly by NABL recognized lab as well as by our inhouse lab. Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by NABL). The results are enclosed as Annexure-II C		Date: 28/11/2024
6	AIR QUALITY MONITORING AND PRESERVATION	Data on ambient air quality (PM10, PM 2.5, SO2 and NOx) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report.
PPs Submission: Complied Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from October-22 to March-23 is attached as Annexure-II. Additionally, third party monitoring is done through a JSPCBC and NABL recognized Laboratory on ambient air quality (PM10, PM 2.5, SO2, NOx, CO, NH3, O3) and heavy metals (As, Ni, Cd and Cr) and results are enclosed as Annexure-II.		Date: 28/11/2024
7	Noise Monitoring & Prevention	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
PPs Submission: Complied Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas.		Date: 13/11/2024
8	WATER QUALITY MONITORING AND PRESERVATION	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
PPs Submission: Complied No industrial wastewater is generated in 6 and 7 Pits Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided.		Date: 13/11/2024
9	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
PPs Submission: Complied Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded.		Date: 13/11/2024
10	Statutory compliance	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution

		monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.
PPs Submission: Complied We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB approved and NABL accredited laboratory. We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.		Date: 13/11/2024
11	AIR QUALITY MONITORING AND PRESERVATION	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
PPs Submission: Complied Persons working in dusty area have been provided with dust masks and have been given awareness training on safety and health aspects. Regular PME (Periodic Medical Examinations) are being done.		Date: 13/11/2024
12	Human Health Environment	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.
PPs Submission: Complied The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where 20 percentage of the workers identified from workforce engaged in active mining operations are subjected to full medical check-up including hearing impairment check-up, etc. These results are regularly submitted to DGMS as per mines rules. We are doing similar medical examination for our contractor workers in Tata central hospital.		Date: 13/11/2024
13	MISCELLANEOUS	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
PPs Submission: Complied We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.		Date: 13/11/2024
14	Corporate Environmental Responsibility	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Dhanbad.
PPs Submission: Complied The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023-24 is Rs. 360.26 Lakhs		Date: 13/11/2024
15	Statutory compliance	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in .

PPs Submission: Complied It has been complied with. Attached as Annexure-III.		Date: 28/11/2024
16	Statutory compliance	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.
PPs Submission: Complied Complied.		Date: 28/11/2024
17	Statutory compliance	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
PPs Submission: Complied It has been complied with.		Date: 13/11/2024
18	Statutory compliance	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.
PPs Submission: Complied The clearance letter has been uploaded on the companies website. The compliance status (as Half-yearly compliance report) is being uploaded in companies website once in every six months. The display of information near the mines office has also been done.		Date: 13/11/2024
19	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.
PPs Submission: Complied It is being complied.		Date: 13/11/2024
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		
<p>Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.</p>		

HALF YEARLY COMPLIANCE REPORT

(PERIOD: APRIL'24 – SEPT'24)

6&7 PITS COLLIERY

(CAPACITY: EXPANSION FROM 0.28 TO 0.6 MTPA RAW COAL)
TEHSIL: JHARIA, DIST: DHANBAD, JHARKHAND



TATA STEEL LIMITED, JHARIA DIVISION

**P.O.- JAMADOBA, DIST. - DHANBAD,
STATE- JHARKHAND, PIN CODE – 828112**

**ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-11015/373/2010-IA.II
(M) DATED- 03.03.2014 ISSUED BY GOVT. OF INDIA, MINISTRY OF ENVIRONMENT,
FOREST AND CLIMATE CHANGE, NEW DELHI.**

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

S. No.	Condition	Compliance Status
Specific Condition		
(i)	Adequate measures be taken so as to prevent and control of manifestation of health problems due to coal mining activities.	The production from the colliery has discontinued from January 2021. The control measures implemented are as follows- i. Water spraying is carried out in underground workings. ii. Water sprinkling arrangements are present at all coal transfer points in underground. iii. Plantation within the mine lease area iv. Trucks carrying sand are properly covered as well as optimally loaded. v. Underground workings of the mine are well ventilated and meet the required standards prescribed by DGMS.
(ii)	Adequate green belt shall be provided around coal handling and other areas.	Green belt has been developed around the CHP of washery and mass plantation activities are taking place every year in the leasehold area. Green belt development plan attached as Annexure-1 .
(iii)	Transportation of coal shall be by mechanically covered trucks.	The production from the colliery has discontinued from January 2021. Also, no coal transportation took place by trucks. All coal were transported to the washery via underground conveyor belt system.
(iv)	No dumping of fly ash in low lying areas and in mine voids are permitted.	It is not applicable as there is no generation of fly-ash due to closure of our power plant since April'2015.
(v)	Utmost care be taken to prevent spillage of sand during transportation of sand.	The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre/body condition, emission check at every entry point. Quality checks are done on trucks to ensure its health.
(vi)	No use of fly ash with sand will take place for stowing in underground mines.	Office Memorandum F.No. 22-13/2019-IA.III dated 28 th Aug'19 by MOEFCC is being followed.

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

(vii)	The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.	The production from the colliery has discontinued from January 2021. The EC capacity is for 0.6 MTPA raw coal while the raw coal production for 6&7 Pits Colliery was well below the limit.
(viii)	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done.
(ix)	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.	It will be strictly followed.
(x)	Mining shall be carried out as per statuette at a safe distance from the river/nallah flowing adjacent to the lease boundary.	The Damodar River flows at an approx. aerial distance of 2.5 kms from the lease boundary. Since this is an underground mine, no impact on the surface water bodies is expected. Though, regular monitoring on upstream and downstream of Damodar river is performed by own as well as NABL accredited laboratory. Monitoring report for the the Apr'24-Sept'24 period has been attached as Annexure-II .
(xi)	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Impact on land by subsidence has been found to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad. Though, high root density trees of native species are covered under annual plantation program.
(xii)	Coal Extraction shall also be optimised in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.	It is strictly followed.
(xiii)	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall	Regular monitoring of subsidence is being done by CIMFR, Dhanbad and it is well within under statutory limit.

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

	be adequately compensated with mutual agreement with the landowners.																																					
(xiv)	3-tier plantation should be developed 2 km stretch of road from the mine using native species.	Plantation along the stretches of road has been done with native species and it is a continuous process under our green belt development programme																																				
(xv)	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	<div>Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. Details of the same are as follows:</div> <table><tr><th>S. No</th><th>Location</th><th>Length</th><th>Width</th><th>Height</th><th>Gradient</th></tr><tr><td>1.</td><td>Office Area</td><td>850 m</td><td>2.5 m</td><td>1 m</td><td>1 in 75</td></tr><tr><td>2.</td><td>Magazine Area</td><td>800 m</td><td>2.5 m</td><td>1 m</td><td>1 in 200</td></tr><tr><td>3.</td><td>PH area</td><td>550 m</td><td>2.5 m</td><td>1 m</td><td>1 in 97</td></tr><tr><td>4.</td><td>Jitpur Area</td><td>550 m</td><td>3.0 m</td><td>1 m</td><td>1 in 60</td></tr><tr><td>5.</td><td>Brick field area</td><td>850 m</td><td>1.5 m</td><td>1 m</td><td>1 in 70</td></tr></table>	S. No	Location	Length	Width	Height	Gradient	1.	Office Area	850 m	2.5 m	1 m	1 in 75	2.	Magazine Area	800 m	2.5 m	1 m	1 in 200	3.	PH area	550 m	2.5 m	1 m	1 in 97	4.	Jitpur Area	550 m	3.0 m	1 m	1 in 60	5.	Brick field area	850 m	1.5 m	1 m	1 in 70
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1.	Office Area	850 m	2.5 m	1 m	1 in 75																																	
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5.	Brick field area	850 m	1.5 m	1 m	1 in 70																																	
(xvi)	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.	<div>The production from the colliery has discontinued from January 2021.</div> <div>Water spraying arrangement is present in the underground mines at all transfer points.</div> <div>Water spraying via tankers is done on sand transportation routes. Major approach roads have been black-topped and maintained regularly.</div>																																				
(xvii)	Coal transportation to washery shall be through a network of underground belt conveyor system and hence there is no surface transportation of coal. Transportation of men from surface to underground and back shall be via shaft. The material transport shall be through the shaft and by means of haulage in the underground.	<div>The production from the colliery has discontinued from January 2021.</div> <div>However, the transportation of coal was through the underground belt conveyor system.</div>																																				

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

(xviii)	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc., by planting native species in consultation with the local DFO/Agriculture Department.	Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road-side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program every year.
(xix)	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.	The monitoring of groundwater level and quality is done four times a year. The groundwater quality report & groundwater level are provided in Annexure-II .
(xx)	Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided.	6&7 Pits Colliery is an underground mine. No acid mine drainage occur.
(xxi)	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.	There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory.
(xxii)	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	<ul style="list-style-type: none"> • The water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. • Further, there are a number of ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

		<p>by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal.</p> <ul style="list-style-type: none"> •The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.
(xxiii)	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS.	The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where 20 % of the workers identified from workforce engaged in active mining operations are subjected to full medical check up including hearing impairment check up, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records have been submitted in previous compliance reports.
(xxiv)	The mining in the existing mines should be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analysed and monitored for compliance of conditions, bearing with movement of wildlife and until such time they are closed/phased out.	It is not applicable in our case.
(xxv)	Project specific CSR for an amount of Rs5/Tonne of coal production, as adjusted as per the annual inflation, should be provided for the CSR activities undertaken and the progress made thereon shall be uploaded annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY24 is Rs. 21.81 crores. CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6&7 Pits Colliery are adjacent to each other and fall under same leasehold area i.e. Jamadoba group of collieries. The core zone and buffer zone of all above units overlap to each other and in many cases, the villages are same where CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

		over 50+ villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units. The progress report is uploaded every year on the company website. Internal social audits are carried out regularly to assess the impact of CSR activities.
(xxvi)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to Office of Coal controller. Final mine closure along with details of corpus fund will be submitted to MoEF&CC 5 years in advance.
(xxvii)	The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.	<p>The commitment made by project proponent has been taken up and are being addressed gradually. Roads have been maintained in the colliery and along sand transportation routes. Subsidence studies are done every year. All the ash dumps have been reclaimed. Village ponds are cleaned as per requirement.</p> <p>Laying of drinking water pipeline network has been extended to more villages. A network of more than 22000 metres of pipeline connection has been established along with 33 water tanks (capacity of 4500 litres). Health camps are regularly organized by TSRDS. Training to SHEs, women, youth and children are provided in various fields.</p>
(xxviii)	<p>Corporate Environment Responsibility:</p> <p>a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.</p> <p>b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.</p> <p>c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the</p>	<p>The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned.</p> <p>The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non-compliance noticed is corrected at divisional level. If any issue is beyond our control, it is brought to the notice of higher management.</p> <p>Moreover, 6&7 Pits Colliery is IMS (Integrated Management System: Quality</p>

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	Management System, Environment Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of interested parties with respect to environment protection.
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General Conditions:		
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	The points mentioned in the EC letter will be strictly followed. Board and Pillar method is being used for mining.
(ii)	No change in the calendar plan of production for quantum of mineral coal shall be made.	It will be strictly followed.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOx monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.	The Air quality monitoring in the core zone as well as buffer zone is done regularly by NABL recognized lab as well as by our inhouse lab. Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognised by NABL). The results are enclosed as Annexure-II
(iv)	Data on ambient air quality (PM10, PM 2.5, SO2 and NOx) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report.	Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from Oct'23 to Mar'24 is attached as Annexure-II . Additionally, third party monitoring is done through a JSPCBC and NABL recognised Laboratory on ambient air quality (PM10, PM 2.5, SO2, NOx, CO, NH3, O3) and heavy metals (As, Ni, Cd and Cr) and results are enclosed as Annexure-II .

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

(v)	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas.
(vi)	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	No industrial wastewater is generated in 6&7 Pits Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided.
(vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded.
(viii)	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB approved & NABL accredited laboratory. We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.
(ix)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Persons working in dusty area have been provided with dust masks & have been given awareness training on safety & health aspects. Regular PME (Periodic Medical Examinations) are being done.
(x)	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.	The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where 20 % of the workers identified from workforce engaged in active mining operations are subjected to full medical check-up including hearing impairment check-up, etc. These results are regularly

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

		submitted to DGMS as per mines rules. We are doing similar medical examination for our contractor workers in Tata central hospital.
(xi)	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.
(xii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Dhanbad.	The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023-24 is Rs. 360.26 Lakh
(xiii)	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in .	It has been complied with. Attached as Annexure-III .
(xiv)	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	It has been complied with. Attached as Annexure-III .
(xv)	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	It has been complied with.

Compliance status of Environmental Clearance of Expansion of 6 and 7 Pits Colliery from 0.28 MTPA to 0.6 MTPA in an ML area 168.12 ha) of M/s Tata Steel Ltd., Village Jamadoba, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/373/2010-IA.II (M) dated March 3, 2014

(xvi)	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	The clearance letter has been uploaded on the company's website. The compliance status (as Half-yearly compliance report) is being uploaded in company's website once in every six months. The display of information near the mine's office has also been done.
(xvii)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	It is being complied.
(xviii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.	It will be complied with.
(xix)	The environmental statement for each financial year ending 31st March in Form-V 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 uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.	The environmental statement for financial year 2023-24 has been submitted to JSPCB vide letter no. JMB/ENV/ESSA/05/566/2024 on 27th September 2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEFCC by email at ro.ranchi-mef@gov.in.

Annexure - I Greenbelt Development Report

Green belt developed in the past around 6&7 pits colliery is shown below. The green belt has been developed around the approach road to 6&7 pits colliery, around the office area and around Tata Steel colonies nearby. Plantation activities have been taken up in this monsoon season to enhance the green cover in areas nearby colliery.



Picture: Green belt in and around 6&7 pits colliery premises.



Picture: Already developed green belt in Patia area



Pictures: Plantation of around 4000 forestry plants in Patia area during this monsoon season.



Picture: Plantation done in this monsoon inside the creche area of 6&7 pits colliery.

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
Internal Communication Form
TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Jamadoba Colliery
Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 258 / 24
Date: 08/05 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **APRIL'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.04.24	Clear	245.2	92.6	18.1	22.7

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	03.04.24	Clear	85.1	45.7	16.8	19.4
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	04.04.24	Clear	87.9	47.4	17.0	20.3
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	09.04.24	Clear	73.5	32.6	18.1	21.7
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	08.04.24	Clear	70.2	29.8	15.9	18.6

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Jamadoba Colliery
Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 330 / 24

Date: 03/06 /2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **MAY'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	10.05.24	Clear	237.9	89.3	17.8	19.4

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	16.05.24	Clear	78.4	37.2	19.3	21.5
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	13.05.24	Clear	80.6	40.1	18.2	22.1
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	14.05.24	Clear	70.1	30.3	15.9	17.8
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	15.05.24	Clear	72.9	32.6	14.7	17.2

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Jamadoba Colliery
Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 397 / 24
Date: 03/07/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	04.06.24	Clear	241.7	87.1	18.7	21.9

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	07.06.24	Clear	94.2	51.8	20.8	22.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	05.06.24	Clear	86.2	45.9	17.2	20.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	06.06.24	Clear	82.4	43.6	16.8	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	10.06.24	Clear	90.8	48.5	15.2	18.6

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / **465** / 24

Date: **01/08** / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **JULY'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	03.07.24	Cloudy	186.7	67.2	15.9	18.4

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	05.07.24	Clear	86.5	44.3	18.2	21.6
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	04.07.24	Cloudy	65.9	30.2	14.8	16.2
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	08.07.24	Cloudy	68.2	31.0	17.5	20.3
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	09.07.24	Clear	72.4	33.1	16.8	19.5

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Jamadoba Colliery
Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 521 / 24

Date: 02/09 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **AUGUST'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	16.08.24	Clear	201.9	70.8	16.8	19.7

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

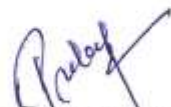
S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	12.08.24	Clear	74.2	36.2	16.5	18.3
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	13.08.24	Cloudy	57.1	24.0	15.4	17.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	20.08.24	Cloudy	69.4	32.1	12.7	14.1
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	19.08.24	Cloudy	64.2	29.5	14.6	16.7

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.



Lab. Assistant (Environment)



Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Sr.Manager, Jamadoba Colliery
Sr.Manager, Digwadih Colliery
Sr.Manager, 6 & 7 Pits Colliery
Head, Jamadoba Coal Washery
CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 581 / 24
Date: 01 / 10 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **JAMADOBA GROUP** in the month of **SEPTEMBER'2024**. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 µg/m ³	NO _x 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.09.24	Cloudy	195.6	68.4	15.7	17.2

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM ₁₀ 24 Hourly Limit-100 µg/m ³	PM _{2.5} 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NO _x 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	06.09.24	Clear	90.6	52.7	17.4	20.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	03.09.24	Clear	72.6	38.1	18.7	21.0
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	04.09.24	Clear	70.4	35.2	16.9	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	07.09.24	Cloudy	65.4	28.9	14.8	16.2

Note: PM₁₀ - Less than 10-micron Particulate Matter
PM_{2.5} - Less than 2.5-micron Particulate Matter
µg - Microgram

This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 228 /24

Dated: 02/05/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **APRIL'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	25.04.24	43.7	45.5	44.6	35.4	37.7	36.6
2	New Village Colony, Jamadoba	25.04.24	41.3	43.6	42.5	33.6	35.4	34.5
3	6&7 Pits Kalimandir Colony	25.04.24	43.2	45.4	44.3	35.5	37.8	36.7
4	Digwadih 10 No. Colony	25.04.24	44.5	46.7	45.6	36.2	38.5	37.4

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	25.04.24	57.4	60.7	59.1	49.3	51.5	50.4
2	2 Pit Top Kalimandir, Jamadoba	25.04.24	53.1	56.4	54.8	45.6	47.9	46.8
3	Weigh Bridge, Digwadih	25.04.24	48.6	51.3	50.0	40.4	42.7	41.6
4	Canteen Complex, Digwadih	25.04.24	49.2	50.6	49.9	41.7	43.5	42.6
5	Head Office Complex, Digwadih	25.04.24	48.6	50.4	49.5	40.2	42.6	41.4
6	Check Post Security Gate, 6&7 Pits	25.04.24	49.3	51.7	50.5	41.1	43.4	42.3
7	Canteen Complex, 6&7 Pits	25.04.24	48.5	49.2	48.9	40.3	41.5	40.9
8	Fan house- Nitrogen Plant, 6&7 Pits	25.04.24	72.3	73.5	72.9	64.2	65.4	64.8
9	Joota Gate, JCPP	25.04.24	67.7	70.9	69.3	59.5	62.2	60.9
10	Main Gate Stores, JCPP	25.04.24	54.2	57.5	55.9	46.5	48.7	47.6
11	Railway Siding Yard, JCPP	25.04.24	50.4	52.7	51.6	42.3	44.5	43.4

Analysis: All the values are within permissible limit.

This is for your information please.



Lab. Assistant (Environment)



Sr. Manager (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 307 /24

Dated: 03/06/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **MAY'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	09.05.24	44.2	46.5	45.4	36.4	38.7	37.6
2	New Village Colony, Jamadoba	09.05.24	42.7	44.5	43.6	34.5	36.8	35.7
3	6&7 Pits Kalimandir Colony	09.05.24	44.5	46.7	45.6	36.7	38.5	37.6
4	Digwadih 10 No. Colony	09.05.24	42.3	44.8	43.6	34.2	36.5	35.4

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	09.05.24	56.6	59.3	58.0	48.4	51.1	49.8
2	2 Pit Top Kalimandir, Jamadoba	09.05.24	52.3	54.5	53.4	44.5	46.7	45.6
3	Weigh Bridge, Digwadih	09.05.24	48.2	50.5	49.4	40.3	42.5	41.4
4	Canteen Complex, Digwadih	09.05.24	48.5	50.7	49.6	40.7	42.9	41.8
5	Head Office Complex, Digwadih	09.05.24	46.1	48.3	47.2	38.3	40.6	39.5
6	Check Post Security Gate, 6&7 Pits	09.05.24	48.3	51.2	49.8	40.5	42.7	41.6
7	Canteen Complex, 6&7 Pits	09.05.24	47.2	48.6	47.9	39.4	41.5	40.5
8	Fan house- Nitrogen Plant, 6&7 Pits	09.05.24	72.2	73.6	72.9	64.4	65.5	65.0
9	Joota Gate, JCPP	09.05.24	68.4	71.7	70.1	60.2	63.4	61.8
10	Main Gate Stores, JCPP	09.05.24	53.5	56.8	55.2	45.7	48.5	47.1
11	Railway Siding Yard, JCPP	09.05.24	51.2	53.4	52.3	43.5	45.8	44.7

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Area Manager (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 372/24

Dated: 01 / 07 / 2024

Re: Ambient Noise Level Report

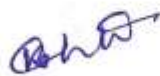
We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	28.06.24	42.7	44.5	43.6	34.5	36.3	35.4
2	New Village Colony, Jamadoba	28.06.24	41.5	43.8	42.7	33.2	35.4	34.3
3	6&7 Pits Kalimandir Colony	28.06.24	43.2	45.5	44.4	35.4	37.6	36.5
4	Digwadih 10 No. Colony	28.06.24	42.6	44.9	43.8	34.7	36.5	35.6

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	28.06.24	54.4	57.7	56.1	46.1	49.5	47.8
2	2 Pit Top Kalimandir, Jamadoba	28.06.24	52.7	55.5	54.1	44.3	47.6	46.0
3	Weigh Bridge, Digwadih	28.06.24	49.5	52.8	51.2	41.7	44.5	43.1
4	Canteen Complex, Digwadih	28.06.24	48.8	50.6	49.7	40.4	42.7	41.6
5	Head Office Complex, Digwadih	28.06.24	45.3	47.5	46.4	37.6	39.9	38.8
6	Check Post Security Gate, 6&7 Pits	28.06.24	49.5	52.7	51.1	41.2	44.7	43.0
7	Canteen Complex, 6&7 Pits	28.06.24	47.6	49.4	48.5	39.5	41.3	40.4
8	Fan house- Nitrogen Plant, 6&7 Pits	28.06.24	72.3	73.7	73.0	64.3	65.5	64.9
9	Joota Gate, JCPP	28.06.24	66.7	69.5	68.1	58.6	61.8	60.2
10	Main Gate Stores, JCPP	28.06.24	52.4	55.6	54.0	44.2	47.5	45.9
11	Railway Siding Yard, JCPP	28.06.24	51.5	53.8	52.7	43.7	45.4	44.6

Analysis: All the values are within permissible limit.

This is for your information please.



Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH



Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 444 /24

Dated: 01/08/2024

Re: Ambient Noise Level Report


We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **JULY'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	26.07.24	42.3	44.7	43.5	34.5	36.7	35.6
2	New Village Colony, Jamadoba	26.07.24	43.1	45.4	44.3	35.3	37.7	36.5
3	6&7 Pits Kalimandir Colony	26.07.24	42.5	44.8	43.7	34.7	36.5	35.6
4	Digwadih 10 No. Colony	26.07.24	41.8	43.3	42.6	33.4	35.6	34.5

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	26.07.24	52.8	55.6	54.2	44.6	46.5	45.6
2	2 Pit Top Kalimandir, Jamadoba	26.07.24	53.5	56.3	54.9	45.2	47.4	46.3
3	Weigh Bridge, Digwadih	26.07.24	48.4	50.7	49.6	40.6	42.9	41.8
4	Canteen Complex, Digwadih	26.07.24	46.6	48.4	47.5	38.4	40.7	39.6
5	Head Office Complex, Digwadih	26.07.24	46.3	49.7	48.0	38.1	40.3	39.2
6	Check Post Security Gate, 6&7 Pits	26.07.24	48.7	51.5	50.1	40.5	45.1	42.8
7	Canteen Complex, 6&7 Pits	26.07.24	46.5	48.6	47.6	38.3	40.5	39.4
8	Fan house- Nitrogen Plant, 6&7 Pits	26.07.24	72.2	73.5	72.9	64.4	65.6	65.0
9	Joota Gate, JCPP	26.07.24	64.7	67.3	66.0	56.2	59.5	57.9
10	Main Gate Stores, JCPP	26.07.24	55.1	58.4	56.8	47.4	49.9	48.7
11	Railway Siding Yard, JCPP	26.07.24	52.4	55.7	54.1	44.1	47.3	45.7

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH


Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 507/24

Dated: 02/09/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **AUGUST'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	27.08.24	42.7	44.9	43.8	34.3	36.5	35.4
2	New Village Colony, Jamadoba	27.08.24	43.5	45.6	44.6	35.6	37.8	36.7
3	6&7 Pits Kalimandir Colony	27.08.24	43.2	45.5	44.4	35.4	37.6	36.5
4	Digwadih 10 No. Colony	27.08.24	42.4	44.7	43.6	34.5	36.8	35.7

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	27.08.24	52.4	55.7	54.1	44.6	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	27.08.24	53.1	56.5	54.8	45.2	48.4	46.8
3	Weigh Bridge, Digwadih	27.08.24	49.3	51.7	50.5	40.5	42.9	41.7
4	Canteen Complex, Digwadih	27.08.24	46.7	48.9	47.8	38.4	40.7	39.6
5	Head Office Complex, Digwadih	27.08.24	47.5	50.3	48.9	39.7	42.6	41.2
6	Check Post Security Gate, 6&7 Pits	27.08.24	49.4	52.7	51.1	41.5	44.7	43.1
7	Canteen Complex, 6&7 Pits	27.08.24	46.3	48.5	47.4	38.1	40.4	39.3
8	Fan house- Nitrogen Plant, 6&7 Pits	27.08.24	72.3	73.6	73.0	64.4	65.8	65.1
9	Joota Gate, JCPP	27.08.24	61.5	64.2	62.9	53.2	56.5	54.9
10	Main Gate Stores, JCPP	27.08.24	53.3	56.6	55.0	45.6	48.7	47.2
11	Railway Siding Yard, JCPP	27.08.24	50.6	53.8	52.2	42.3	45.5	43.9

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Area Manager (Environment)

Copy to: Specialist (OH), TCH

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Colliery
Head, Jamadoba Coal Washery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 584/24

Dated: 01/10/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **SEPTEMBER'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	22.09.24	42.4	44.7	43.6	34.2	36.5	35.4
2	New Village Colony, Jamadoba	22.09.24	43.3	45.5	44.4	35.4	37.7	36.6
3	6&7 Pits Kalimandir Colony	22.09.24	43.7	45.9	44.8	35.6	37.9	36.8
4	Digwadih 10 No. Colony	22.09.24	42.8	44.6	43.7	34.5	36.8	35.7

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	22.09.24	52.7	55.9	54.3	44.5	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	22.09.24	53.3	56.7	55.0	45.1	48.4	46.8
3	Weigh Bridge, Digwadih	22.09.24	49.5	51.9	50.7	41.4	43.6	42.5
4	Canteen Complex, Digwadih	22.09.24	46.6	48.7	47.7	38.3	40.5	39.4
5	Head Office Complex, Digwadih	22.09.24	47.3	50.6	49.0	39.5	42.7	41.1
6	Check Post Security Gate, 6&7 Pits	22.09.24	49.7	52.9	51.3	41.5	44.8	43.2
7	Canteen Complex, 6&7 Pits	22.09.24	46.1	48.4	47.3	38.4	40.6	39.5
8	Fan house- Nitrogen Plant, 6&7 Pits	22.09.24	72.4	73.7	73.1	64.3	65.7	65.0
9	Joota Gate, JCPP	22.09.24	60.1	63.4	61.8	52.6	55.7	54.2
10	Main Gate Stores, JCPP	22.09.24	52.7	55.6	54.2	44.4	47.3	45.9
11	Railway Siding Yard, JCPP	22.09.24	50.3	53.5	51.9	42.5	45.7	44.1

Analysis: All the values are within permissible limit.

This is for your information please.


Lab. Assistant (Environment)


Area Manager (Environment)

Copy to: Specialist (OH). TCH

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 253 / 2024

Dated - 08/05/2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **APRIL'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	25.04.24	12:50 PM	26	8.2	132	978	26.5	260	1.6
2	ETP, TCH- Outlet	25.04.24	12:55 PM	25	7.7	26	732	5.4	72	0.5
3	ETP, Garage- Inlet	25.04.24	01:50 PM	27	8.0	158	910	28.9	236	3.6
4	ETP, Garage- Outlet	25.04.24	01:55 PM	26	7.8	23	742	7.3	84	1.4
5	Final Settling Pond JCPP	25.04.24	10:05 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.

P. Mahato

Lab.Assistant (Environment)

P. Mahato

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager, Jamadoba Colliery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / -25 / 2024
Dated - 08/05/2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **APRIL'2024**. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	25.04.24	09:35 AM	31	7.6	36	740	2.5	64	1.4
2	3 Pit Jamadoba Colliery	25.04.24	09:50 AM	No Discharge						
3	2 Incline Jamadoba Colliery	25.04.24	10:25 AM	No Discharge						
4	6 & 7 Pits Colliery	25.04.24	12:35 PM	32	7.5	14	784	2.1	74	0
5	Digwadih Colliery	25.04.24	11:20 AM	32	7.6	23	1024	2.6	54	0

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 252 / 2024

Dated - 08/05 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of **APRIL'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	25.04.24	01:30 PM	27	7.8	106	982	33.1	326	2.8
2	STP, Jmb. Canteen- Outlet	25.04.24	01:35 PM	26	7.4	24	722	6.2	74	0.7
3	STP, JCPP Canteen- Inlet	25.04.24	01:10 PM	27	7.9	122	879	32.9	284	2.3
4	STP, JCPP Canteen- Outlet	25.04.24	01:15 PM	26	7.2	34	687	6.9	54	0.4
5	STP, Railway Colony- Inlet	25.04.24	10:45 AM	27	8.1	144	1036	36.2	310	3.4
6	STP, Railway Colony-Outlet	25.04.24	10:50 AM	26	7.5	28	725	6.4	94	0.8
7	STP, Digwadih 12 No. Officer's colony-Inlet	25.04.24	11:40 AM	26	8.2	136	1024	30.5	320	2.8
8	STP, Digwadih 12 No. Officer's colony- Outlet	25.04.24	11:45 AM	25	7.4	37	684	5.7	86	1.2
9	STP, Digwadih 12 No. Supervisor flat - Inlet	25.04.24	12:05 PM	27	7.8	137	974	34.8	326	3.1
10	STP, Digwadih 12 No. Supervisor flat -Outlet	25.04.24	12:10 PM	26	7.6	18	736	5.2	64	0.9

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 328 / 2024
Dated - 03/06/2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **MAY'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	09.05.24	11:00 AM	27	8.5	98	798	23.5	210	1.2
2	ETP, TCH- Outlet	09.05.24	11:05 AM	26	8.3	46	716	6.9	66	0.3
3	ETP, Garage- Inlet	09.05.24	01:30 PM	26	8.4	106	890	33.1	310	4.2
4	ETP, Garage- Outlet	09.05.24	01:35 PM	25	8.0	49	814	7.8	112	1.8
5	Final Settling Pond JCPP	09.05.24	12:05 PM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager, Jamadoba Colliery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 326 / 2024
Dated - 03/06/2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	09.05.24	12:55 PM	No Discharge						
2	3 Pit Jamadoba Colliery	09.05.24	12:20 PM	31	7.8	36	862	2.1	66	0
3	2 Incline Jamadoba Colliery	09.05.24	11:50 AM	No Discharge						
4	6 & 7 Pits Colliery	09.05.24	10:45 AM	32	7.2	21	927	2.5	80	0.4
5	Digwadih Colliery	09.05.24	10:20 AM	30	8.0	17	958	2.4	58	0

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

P. Mahato

Lab. Assistant (Environment)

P. Mahato

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 327 / 2024

Dated - 03/06/2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	09.05.24	01:10 PM	26	7.5	84	893	31.9	316	2.5
2	STP, Jmb. Canteen- Outlet	09.05.24	01:15 PM	25	7.3	22	819	7.3	82	0.8
3	STP, JCPP Canteen- Inlet	09.05.24	12:35 PM	26	8.2	118	1058	33.4	290	2.7
4	STP, JCPP Canteen- Outlet	09.05.24	12:40 PM	25	7.8	19	922	5.2	72	0.9
5	STP, Railway Colony- Inlet	09.05.24	11:25 AM	27	8.3	129	1122	35.7	320	3.6
6	STP, Railway Colony-Outlet	09.05.24	11:30 AM	26	8.0	25	1048	7.8	73	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	09.05.24	09:40 AM	27	8.4	158	987	34.9	317	3.2
8	STP, Digwadih 12 No. Officer's colony- Outlet	09.05.24	09:45 AM	26	7.9	24	747	6.8	64	1.6
9	STP, Digwadih 12 No. Supervisor flat - Inlet	09.05.24	10:00 AM	26	8.1	148	1428	35.2	348	3.9
10	STP, Digwadih 12 No. Supervisor flat -Outlet	09.05.24	10:05 AM	25	7.8	46	1216	8.4	110	2.1

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of MAY'2024

JAMADOBA GROUP

S.No	Date	Location	Time	Depth in meter	pH	Electrical Conductivity $\mu\text{S/m}$
1	10.05.24	Purnadih (Jorapokhar)	11:45 AM	6.38	7.3	1226
2	10.05.24	Bhowra 13 No	12:20 PM	3.85	7.1	1017
3	10.05.24	Mohalbani Basti	02:30 PM	8.24	7.2	1085
4	10.05.24	Digwadih 10 No F & J	01:10 PM	5.10	7.3	1560
5	10.05.24	Kalimela Shivmandir	11:00 AM	11.00	7.2	846
6	10.05.24	Kalimela Kalimandir	11:15 AM	11.15	7.0	1395
7	10.05.24	Lower Dungari	10:35 AM	10.35	7.1	840
8	10.05.24	Upper Dungari	10:10 AM	10.10	7.5	878
9	10.05.24	Pattia Basti	09:30 AM	9.30	7.3	987
10	10.05.24	Kenduadih Basti	09:50 AM	9.50	7.4	1028
11	10.05.24	Jorapokhar Kushtand	11:25 AM	11.25	7.6	1583
12	10.05.24	6&7 Pits (Ayodhya Nagri)	02:00 PM	2.00	7.2	984
13	10.05.24	Jorapokhar Basti Chhattan	01:30 PM	2.30	7.3	1412
14	10.05.24	Jorapokhar Babu Basa	12:05 PM	12.00	7.1	1240



Lab.Assistant (Environment)



Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 393 / 2024

Dated - 03/07/2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	28.06.24	12:25 PM	27	8.1	126	983	26.5	246	1.5
2	ETP, TCH- Outlet	28.06.24	12:30 PM	26	7.8	42	859	4.6	68	0.6
3	ETP, Garage- Inlet	28.06.24	01:25 PM	26	8.3	164	996	30.7	324	4.6
4	ETP, Garage- Outlet	28.06.24	01:30 PM	25	7.6	38	768	7.4	102	1.6
5	Final Settling Pond JCPP	28.06.24	10:15 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager, Jamadoba Colliery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 391 / 2024
Dated - 03/07/2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	28.06.24	09:30 AM	No Discharge						
2	3 Pit Jamadoba Colliery	28.06.24	09:45 AM	31	7.6	29	784	2.3	72	0
3	2 Incline Jamadoba Colliery	28.06.24	10:05 AM	No Discharge						
4	6 & 7 Pits Colliery	28.06.24	12:10 PM	30	7.7	17	932	2.9	54	0
5	Digwadih Colliery	28.06.24	11:45 AM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager Jamadoba Colliery
Head, Jamadoba Coal Preparation Plant
Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 392 / 2024

Dated - 03/07/2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	28.06.24	01:10 PM	27	8.0	123	1028	34.8	320	2.9
2	STP, Jmb. Canteen- Outlet	28.06.24	01:15 PM	26	7.5	41	836	5.9	68	0.3
3	STP, JCPP Canteen- Inlet	28.06.24	12:50 PM	27	8.3	157	1027	32.1	260	3.1
4	STP, JCPP Canteen- Outlet	28.06.24	12:55 PM	26	8.0	35	832	4.8	84	0.5
5	STP, Railway Colony- Inlet	28.06.24	10:30 AM	27	8.4	164	1137	35.8	336	2.9
6	STP, Railway Colony-Outlet	28.06.24	10:35 AM	26	8.1	54	987	6.2	76	1.3
7	STP, Digwadih 12 No. Officer's colony-Inlet	28.06.24	11:05 AM	26	8.3	131	996	33.7	332	3.4
8	STP, Digwadih 12 No. Officer's colony- Outlet	28.06.24	11:10 AM	25	7.8	46	892	5.2	96	1.8
9	STP, Digwadih 12 No. Supervisor flat - Inlet	28.06.24	11:25 AM	27	8.2	146	1219	36.8	284	3.4
10	STP, Digwadih 12 No. Supervisor flat -Outlet	28.06.24	11:30 AM	26	7.9	52	1124	8.9	117	1.5

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Sr. Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 455 / 2024
Dated - 01/08 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JULY'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	26.07.24	12:20 PM	28	8.4	148	836	28.3	256	1.7
2	ETP, TCH- Outlet	26.07.24	12:25 PM	27	8.2	25	707	4.9	76	0.2
3	ETP, Garage- Inlet	26.07.24	01:20 PM	28	8.5	137	816	29.1	316	4.5
4	ETP, Garage- Outlet	26.07.24	01:25 PM	27	8.2	16	774	6.7	97	1.8
5	Final Settling Pond JCPP	26.07.24	10:05 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.

P. Mahanta

Lab.Assistant (Environment)

f. Umesh
12.08.24

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager, Jamadoba Colliery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 453 / 2024
Dated - 01 / 08 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **JULY'2024**. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	26.07.24	09:20 AM	30	7.4	29	790	2.9	67	0.8
2	3 Pit Jamadoba Colliery	26.07.24	09:35 AM	30	7.5	28	816	2.6	58	0
3	2 Incline Jamadoba Colliery	26.07.24	09:50 AM	No Discharge						
4	6 & 7 Pits Colliery	26.07.24	12:05 PM	32	7.8	21	926	3.1	68	0
5	Digwadih Colliery	26.07.24	10:50 AM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab. Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Sr. Manager Jamadoba Colliery
Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 454 / 2024

Dated - 01 / 08 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	26.07.24	01:05 PM	28	7.8	117	936	35.1	332	2.4
2	STP, Jmb. Canteen- Outlet	26.07.24	01:10 PM	27	7.2	23	814	5.4	76	0.5
3	STP, JCPP Canteen- Inlet	26.07.24	12:45 PM	27	8.2	154	934	31.7	294	2.8
4	STP, JCPP Canteen- Outlet	26.07.24	12:50 PM	26	7.9	27	846	6.4	54	0.3
5	STP, Railway Colony- Inlet	26.07.24	10:20 AM	28	8.1	179	1145	34.9	342	2.1
6	STP, Railway Colony-Outlet	26.07.24	10:25 AM	27	7.8	22	958	5.8	84	1.5
7	STP, Digwadih 12 No. Officer's colony-Inlet	26.07.24	11:40 AM	27	8.0	191	1025	31.2	310	2.3
8	STP, Digwadih 12 No. Officer's colony- Outlet	26.07.24	11:45 AM	26	7.7	18	986	4.7	68	1.0
9	STP, Digwadih 12 No. Supervisor flat - Inlet	26.07.24	11:20 AM	27	8.3	119	1226	35.3	346	3.5
10	STP, Digwadih 12 No. Supervisor flat -Outlet	26.07.24	11:25 AM	26	7.8	63	919	7.1	99	1.6

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

P. Mahesh

Lab.Assistant (Environment)

f. Umesh
12.08.24

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Sr. Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 527 / 2024

Dated - 02/09 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **AUGUST'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	27.08.24	10:45 AM	28	8.3	129	725	27.4	264	1.6
2	ETP, TCH- Outlet	27.08.24	10:50 AM	27	8.0	38	624	5.1	84	0.4
3	ETP, Garage- Inlet	27.08.24	01:20 PM	27	8.4	152	967	28.1	254	4.1
4	ETP, Garage- Outlet	27.08.24	01:25 PM	26	8.1	28	846	8.4	116	1.2
5	Final Settling Pond JCPP	27.08.24	09:50 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Sr. Manager, Jamadoba Colliery
Sr. Manager, Digwadih Colliery
Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 525 / 2024
Dated - 02/09/2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	27.08.24	09:20 AM	No Discharge						
2	3 Pit Jamadoba Colliery	27.08.24	09:35 AM	31	7.7	24	742	2.4	68	0
3	2 Incline Jamadoba Colliery	27.08.24	10:05 AM	No Discharge						
4	6 & 7 Pits Colliery	27.08.24	11:10 AM	30	7.5	32	872	2.7	72	0
5	Digwadih Colliery	27.08.24	12:15 PM	No Discharge						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.

P. Mahato.

Lab. Assistant (Environment)

P. Mahato.

Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Sr. Manager Jamadoba Colliery
Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 526 / 2024
Dated - 02/09 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **AUGUST'2024**. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	27.08.24	01:05 PM	27	7.6	110	879	32.9	290	2.8
2	STP, Jmb. Canteen- Outlet	27.08.24	01:10 PM	26	7.3	20	592	7.2	48	0.9
3	STP, JCPP Canteen- Inlet	27.08.24	12:40 PM	27	8.0	137	910	33.7	316	3.6
4	STP, JCPP Canteen- Outlet	27.08.24	12:45 PM	26	7.5	29	676	6.1	76	0.8
5	STP, Railway Colony- Inlet	27.08.24	10:25 AM	28	8.2	158	1039	36.1	315	2.3
6	STP, Railway Colony-Outlet	27.08.24	10:30 AM	26	7.9	34	932	7.5	69	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	27.08.24	11:30 AM	27	7.9	117	1064	30.1	260	2.5
8	STP, Digwadih 12 No. Officer's colony- Outlet	27.08.24	11:35 AM	26	7.4	47	954	4.9	46	0.6
9	STP, Digwadih 12 No. Supervisor flat - Inlet	27.08.24	11:50 AM	28	7.8	168	987	34.6	327	2.9
10	STP, Digwadih 12 No. Supervisor flat -Outlet	27.08.24	11:55 AM	27	7.5	30	796	5.7	94	0.7

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)

TATA STEEL LIMITED
JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of AUGUST'2024

JAMADOBA GROUP

S.No	Date	Location	Time	Depth in meter	pH	Electrical Conductivity $\mu\text{S/m}$
1	27.08.24	Purnadih (Jorapokhar)	04:10 PM	3.92	7.2	1232
2	27.08.24	Bhowra 13 No	03:45 PM	1.04	7.0	1022
3	27.08.24	Mohalbani Basti	12:30 PM	1.16	7.4	1036
4	27.08.24	Digwadih 10 No F & J	02:35 PM	1.37	7.2	1816
5	27.08.24	Kalimela Shivmandir	06:15 PM	0.84	7.0	898
6	27.08.24	Kalimela Kalimandir	06:00 PM	2.04	7.2	1350
7	27.08.24	Lower Dungari	05:45 PM	1.82	7.5	610
8	27.08.24	Upper Dungari	05:25 PM	0.95	7.3	746
9	27.08.24	Pattia Basti	05:10 PM	2.98	7.2	872
10	27.08.24	Kenduadih Basti	04:50 PM	0.93	7.0	946
11	27.08.24	Jorapokhar Kushtand	03:20 PM	2.16	7.3	1530
12	27.08.24	6&7 Pits (Ayodhya Nagri)	02:15 PM	1.45	7.4	1161
13	27.08.24	Jorapokhar Basti Chhattand	02:55 PM	0.59	7.2	1397
14	27.08.24	Jorapokhar Babu Basa	04:25 PM	1.02	7.3	1020



Lab.Assistant (Environment)



Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant
Area Manager Jamadoba Colliery
C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 577 / 2024
Dated - 01 / 10 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	22.09.24	12:20 PM	27	8.2	168	736	29.8	284	1.2
2	ETP, TCH- Outlet	22.09.24	12:25 PM	26	7.9	25	632	5.3	72	0.5
3	ETP, Garage- Inlet	22.09.24	01:30 PM	27	8.3	143	935	30.2	310	4.2
4	ETP, Garage- Outlet	22.09.24	01:35 PM	26	8.0	23	834	7.6	106	1.4
5	Final Settling Pond JCPP	22.09.24	10:05 AM	Dry Pond						

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 575 / 2024
Dated - 01/10 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **SEPTEMBER'2024**. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	22.09.24	09:35 AM	30	7.5	18	754	2.6	52	0
2	3 Pit Jamadoba Colliery	22.09.24	09:50 AM	32	7.6	22	810	2.8	76	0.6
3	2 Incline Jamadoba Colliery	22.09.24	10:25 AM	No Discharge						
4	6 & 7 Pits Colliery	22.09.24	12:05 PM	30	7.4	24	867	2.1	84	0.5
5	Digwadih Colliery	22.09.24	11:55 AM	30	7.9	20	1064	2.5	54	0.8

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED
JHARIA DIVISION

Area Manager, Jamadoba Colliery
Area Manager, Digwadih Colliery
Area Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 575 / 2024
Dated - 01/10 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in **JAMADOBA GROUP** in the month of **SEPTEMBER'2024**. The results are as given below:

S. No	Location (Final Discharge Point) (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	22.09.24	09:35 AM	30	7.5	18	754	2.6	52	0
2	3 Pit Jamadoba Colliery	22.09.24	09:50 AM	32	7.6	22	810	2.8	76	0.6
3	2 Incline Jamadoba Colliery	22.09.24	10:25 AM	No Discharge						
4	6 & 7 Pits Colliery	22.09.24	12:05 PM	30	7.4	24	867	2.1	84	0.5
5	Digwadih Colliery	22.09.24	11:55 AM	30	7.9	20	1064	2.5	54	0.8

All the parameters are within the limit, and you are requested to maintain the same.
This is for your information and necessary action please.


Lab.Assistant (Environment)


Area Manager (Environment)



ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India)

ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

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Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/2

Date: 16.05.2024

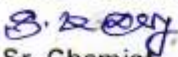
TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Date of Sample Collection : 09.05.2024 to 10.05.2024
- Date of Testing : 11.05.2024 to 15.05.2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – OFFICERS COLONY, 12 NO. DIGWADIH				
	Avg. Ambient Temperature	40°C	Avg. Humidity	28%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	75.86	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	43.60	60 µg/m ³	
3.	SO ₂ , µg/m ³	17.38	80 µg/m ³	
4.	NO ₂ , µg/m ³	26.54	80 µg/m ³	
5.	Ozone, µg/m ³	17.66	180 µg/m ³	
6.	NH ₃ , µg/m ³	14.90	400 µg/m ³	
7.	CO, mg/m ³	0.60	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

Statements :

- The test report refers only to the particular item(s) submitted for testing.
- The test results reported in this report are valid at the time of and under the stated condition of measurement.
- This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.



ADITI R&D SERVICES

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ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

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Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/3

Date: 16.05.2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700092573/932 Dt. 20.07.2021
- Date of Sample Collection : 09.05.2024 to 10.05.2024
- Date of Testing : 11.05.2024 to 15.05.2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – CENTRAL WORKSHOP AREA , JAMADOBA				
	Avg. Ambient Temperature	40°C	Avg. Humidity	28%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	88.46	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	52.64	60 µg/m ³	
3.	SO ₂ , µg/m ³	22.82	80 µg/m ³	
4.	NO ₂ , µg/m ³	32.64	80 µg/m ³	
5.	Ozone, µg/m ³	17.48	180 µg/m ³	
6.	NH ₃ , µg/m ³	17.60	400 µg/m ³	
7.	CO, mg/m ³	0.93	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

Statements :

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ADITI R&D SERVICES

Testing Laboratory

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Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/ AAQ/4

Date: 16.05.2024

TEST REPORT OF AMBIENT AIR QUALITY

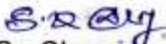
- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Date of Sample Collection : 09.05.2024 To 10.05.2024
- Date of Testing : 11.05.2024 To 15.05.2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION – TATA CENTRAL HOSPITAL

SI No.	Avg. Ambient Temperature	40°C	Avg. Humidity	28%
	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	70.08	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	40.57	60 µg/m ³	
3.	SO ₂ , µg/m ³	16.18	80 µg/m ³	
4.	NO ₂ , µg/m ³	25.80	80 µg/m ³	
5.	Ozone, µg/m ³	16.32	180 µg/m ³	
6.	NH ₃ , µg/m ³	17.57	400 µg/m ³	
7.	CO, mg/m ³	0.88	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit


Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

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ADITI R&D SERVICES

Testing Laboratory

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Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/24-25/AAQ/1

Date: 16.05.2024

TEST REPORT OF AMBIENT AIR QUALITY

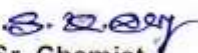
- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Date of Sample Collection : 09.05.2024 To 10.05.2024
- Date of Testing : 11.05.2024 To 15.05.2024
- Test Procedure : As per IS-5182

TEST RESULTS

LOCATION - 6 & 7 PITS COLLIERY OFFICE

SI No.	Avg. Ambient Temperature	40°C	Avg. Humidity	28%
	Particulars	Value	NAAQ - CPCB STANDARD	
1.	Particulate Matter (PM ₁₀), µg/m ³	89.38	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	52.81	60 µg/m ³	
3.	SO ₂ , µg/m ³	23.15	80 µg/m ³	
4.	NO ₂ , µg/m ³	28.46	80 µg/m ³	
5.	Ozone, µg/m ³	17.83	180 µg/m ³	
6.	NH ₃ , µg/m ³	14.88	400 µg/m ³	
7.	CO, mg/m ³	0.82	4 mg/m ³	
8.	Pb, µg/m ³	BDL	1 µg/m ³	
9.	As, ng/m ³	BDL	6 ng/m ³	
10.	Ni, ng/m ³	BDL	20 ng/m ³	
11.	Benzene, µg/m ³	BDL	5 µg/m ³	
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³	

NOTE: BDL - Below Detection Limit


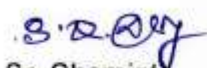



Sr. Chemist
Aditi R&D Services




Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/MINER./1		Date: 14.05.2024																						
<u>TEST REPORT OF MINERALOGICAL COMPOSITION</u> <u>OF PARTICULATE MATTER</u>																								
<ul style="list-style-type: none">Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)Work Order Ref. NO. : 4700092573/932 Dt. 20.07.2021Date of Sample Collection : 10.05.2024Date of Testing : 11.05.2024 To 13.05.2024																								
<u>TEST RESULTS</u>																								
<table border="1"><thead><tr><th rowspan="2">Sl No.</th><th rowspan="2">Particulars</th><th colspan="4">Mineralogical Composition (%)</th></tr><tr><th>SiO₂</th><th>FeO</th><th>Al₂O₃</th><th>CaO</th></tr></thead><tbody><tr><td>1.</td><td>Central Workshop Area, Jamadoba</td><td>1.88</td><td>0.10</td><td>1.36</td><td>2.5</td></tr><tr><td>2.</td><td>Officer's Colony, 12 No Digwadih</td><td>2.08</td><td>0.12</td><td>1.39</td><td>2.63</td></tr></tbody></table>			Sl No.	Particulars	Mineralogical Composition (%)				SiO ₂	FeO	Al ₂ O ₃	CaO	1.	Central Workshop Area, Jamadoba	1.88	0.10	1.36	2.5	2.	Officer's Colony, 12 No Digwadih	2.08	0.12	1.39	2.63
Sl No.	Particulars	Mineralogical Composition (%)																						
		SiO ₂	FeO	Al ₂ O ₃	CaO																			
1.	Central Workshop Area, Jamadoba	1.88	0.10	1.36	2.5																			
2.	Officer's Colony, 12 No Digwadih	2.08	0.12	1.39	2.63																			
 Sr. Chemist Aditi R&D Services		 Technical Manager Aditi R&D Services, Sindri																						
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Ref. No.: - ARDS/24-25/SW/1

Date: 17.05.2024

TEST REPORT OF SURFACE WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Sample Code : 1. Damodar River Up Stream
2. Damodar River Down Stream
- Date of Sample Collection: 10.05.2024
- Date of Testing : 11.05.2024 To 16.05.2024
- Test : pH, TDS, Turbidity, DO, BOD, Cl, F, SO₄

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE		Limit as per IS 2296 Class - C	Test Method
		Damodar River Up Stream	Damodar River Dn Stream		
1.	pH	7.8	8.0	6.5 -8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	410	432	1500	IS-3025 (P-16): 1984
3.	Turbidity, NTU	2.0	2.4	-	IS-3025 (P-10):1984
4.	Dissolved Oxygen, mg/l	4.2	4.0	4.0 (Min)	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.6	2.0	3.0	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	36.8	38.8	600 (Max.)	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.59	0.62	1.5	IS-3025 (P-60):2008
8.	Sulphate as SO ₄ , mg/l	57.3	60.1	400	IS-3025 (P-24):1986

S. D. Sanyal
Sr. Chemist,
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT							
ARDS/24-25/NOISE/1 Date:11.05.2024		M/S TATA STEEL, JAMADOBA,							
Date of Monitoring		TATA STEEL LIMITED, JAMADOBA GROUP PLANT,							
		DIST. - DHANBAD (JHARKHAND)							
09.05.2024 To 10.05.2024		Avg. Ambient Temperature (°C)		Average Humidity (%)		Weather Condition		Status of the plant	
Work Order 4700092573/932 Dt. 20.07.2021		40		28		Clear		Running	
MONITORING RESULTS									
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules , 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time	Night Time
LOCATION		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Industrial Area	Industrial Area
JAMADOBA GROUP									
1.	Central Workshop Area	68.4	53.4	65.52	59.6	42.4	56.67	75	70
2.	6 & 7 Pits Colliery Office	67.6	51.2	64.69	56.6	40.2	53.69		
								Residential Area	Residential Area
3.	Officer Colony 12 No. Digwadih	54.2	46.8	51.92	46.2	42.4	44.7	65	55
								Silence Zone	Silence Zone
4.	Tata Central Hospital	49.4	44.2	47.54	38.4	30.6	36.06	50	40

S. K. Ray
Sr. Chemist
Aditi R&D Services



Aditi R&D Services
Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/MWD/1

Date: 16.05.2024

TEST REPORT OF MINE WATER DISCHARGE

- Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Sample Code :
 - 2 Pit Jamadoba Colliery
 - 3 Pit Jamadoba Colliery
 - 6 & 7 Pits Colliery
 - Digwadih Colliery
- Date of Sample Collection: 09.05.2024 To 10.05.2024
- Date of Testing : 11.05.2024 To 15.05.2024
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE				Limit as per IS-2296 Class B (For Bathing)	Test Method
		2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery		
1.	pH,	8.2	7.8	8.3	8.0	6.5-8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	865	860	980	907	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	38	40	42	35	-	IS-3025 (P-17): 1984
4.	Bio chemical Oxygen Demand, mg/l	1.8	2.0	2.6	2.8	3	IS-3025 (P-44): 1994
5.	Chemical Oxygen Demand, mg/l	66	66	80	80	-	IS-3025 (P-58): 2006
6.	Oil & Grease, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	-	IS-3025 (P-39): 2021



Anandit
Sr. Chemist
Aditi R&D Services



Barji
Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/STP/1		Date: 16.05.2024						
TEST REPORT OF SEWAGE								
• Name of the industry		: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
• Work Order Ref. NO.:		: 4700092573/932 Dt. 20.07.2021						
• Sample Code		: 1. STP Outlet- Railway Colony 2. STP Outlet -Digwadih 12 No Officers Colony 3. STP Outlet -Digwadih 12 No. Supervisor flat 4. STP Outlet- Jmb. Canteen 5. STP Outlet- JCPP Canteen						
• Date of Sample Collection:		: 09.05.2024 To 10.05.2024						
• Date of Testing		: 10.05.2024 To 15.05.2024						
• Test		: pH, TDS, TSS, BOD, COD, OIL & GREASE, and Fecal Coliform.						
TEST RESULT								
Sl. No.	PARAMETERS OF TEST	VALUE					As per MoEF&CC Notification dated 13 th Oct. 2017 for, Sewage Treatment Plant	Test Method
		STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	STP Outlet Digwadih 12 No. Supervisor flat	STP Outlet Jmb. Canteen	STP Outlet- JCPP Canteen		
1.	pH,	8.5	8.3	7.9	7.4	8.0	6.5-9.0	IS-3025(P-11):1983
2.	Total Dissolved Solids, mg/l	1170	892	1415	1020	1105	-	IS-3025(P-16):1984
3.	Total Suspended Solids, mg/l	54	46	48	39	40	100	IS-3025(P-17):1984
4.	Bio chemical Oxygen Demand, mg/l	6.6	8.4	9.0	2.4	4.8	30	IS-3025(P-44):1994
5.	Chemical Oxygen Demand, mg/l	88	95	117	44	73	250	IS-3025(P-58):2006
6.	Oil & Grease, mg/l	3.6	2.8	9	0.4	B.D.L	-	IS-3025(P-39):2021
7.	Fecal Coliform (FC) (MPN/100ml)	759	654	600	636	542	<1000 MPN/100ml	IS - 1622
Sr. Chemist Aditi R&D Services					Technical Manager Aditi R&D Services, Sindri			
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Ref. No.: - ARDS/24-25/ETP/1

Date: 16.05.2024

TEST REPORT OF EFFLUENT

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Sample Code : 1. E.T.P. Outlet T.C.H.
2. E.T.P. Outlet Garage
- Date of Sample Collection: 09.05.2024 To 10.05.2024
- Date of Testing : 10.05.2024 To 15.05.2024
- Test : pH, TDS, TSS, BOD, COD, OIL & GREASE.

TEST RESULT

Sl. No.	PARAMETERS OF TEST	VALUE		General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage		
1.	pH,	8.6	8.4	5.5-9.0	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	859	990	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	43	48	100	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	3.0	7.8	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	66	102	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	B.D.L	3.1	10	IS-3025 (P-39):2021

Note : BDL - Below Detection Limit

Anandita
Sr. Chemist
Aditi R&D Services



[Signature]
Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/DW/1

Date: 16.05.2024

TEST REPORT OF DRINKING WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Sample Code : 1. Canteen- Jamadoba Colliery
2. Canteen- Jamadoba Washery
3. Canteen- Digwadih Colliery
4. Canteen- 6&7 Pits Colliery
- Date of Sample Collection: 09.05.2024 To 10.05.2024
- Date of Testing : 10.05.2024 To 15.05.2024
- Test :
Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Total Chromium, Mineral Oil, Alkalinity, Aluminium & Boron.

TEST RESULT

Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen-Digwadih Colliery	Canteen-6&7 Pits Colliery	Desirable	Permissible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-7):2017
4.	Turbidity, NTU	NIL	2.0	NIL	NIL	1.0	5.0	IS 3025 (P-10):1984
5.	pH	8.4	8.2	8.2	8.1	6.5-8.5	No. Relax.	IS-3025 (P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	308	300	304	220	200	600	IS 3025 (P-21):2009
7.	Chloride as Cl, mg/l	71.8	67.88	73.7	27.2	250	1000	IS 3025 (P-32):1988
8.	Res. Free chlorine as Cl ₂ mg/l	NIL	NIL	NIL	NIL	0.20	1.0	IS 3025 (P-26):2021
9.	Total Dissolved Solids, mg/l	580	584	605	310	500	2000	IS 3025 (P-16):1984
10.	Calcium as CaCO ₃ , mg/l	67.2	60.8	72	44.8	75	200	IS 3025 (P-40):1991
11.	Copper as Cu, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.05	1.5	IS 3025 (P-42):1992

Continued on Page 2



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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadiah Colliery	Canteen - 6&7 Pits Colliery	Desirable	Permissible	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO ₄ , mg/l	50.14	57.6	59.7	37.9	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO ₃ , mg/l	4.6	6.2	4.2	3.7	45	No. Relax	IS 3025 (P-34):1988
15.	Fluoride as F, mg/l	0.40	0.32	0.28	0.35	1.0	1.5	IS 3025 (P-60):2008
16.	Phenolic Compound as (C ₆ H ₅ OH) mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	0.002	IS 3025 (P-43):1992
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P-48):1994
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P-41):1992
19.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-37):1988
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-27):1986
21.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-47):1994
22.	Zinc as Zn, mg/l,	0.18	0.22	0.20	0.12	5	15	IS 3025 (P-42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	Absent	Absent	IS 3025 (P-49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P-39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	499.2	489.6	518.4	196.8	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):2005

NOTE: BDL - Below Detection Limit

Anandita
Sr. Chemist
Aditi R&D Services

S. S. S.
Technical Manager
Aditi R&D Services, Sindri



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ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India)

ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

Plot No. - I-B-17 (P)
Sindri, Industrial Area,
P.O. - Domgarh, Dist. - Dhanbad
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Email ID: sindriaditi@gmail.com
Website: aditimdsservices.com
Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/23-24/GW/1

Date: 17.05.2024

TEST REPORT OF GROUND WATER

- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO. : 4700092573/932 Dt. 20.07.2021
- Sample Code :
 1. Purnadih (Jorapokhar)
 2. Digwadih 10 No F & J
 3. Kenduadih Basti
 4. Upper Dungari
 5. Kalimela Kalimandir
 6. 6&7 Pits (Ayodhya Nagri)
- Date of Sample Collection : 10.05.2024
- Date of Testing : 11.05.2024 To 16.05.2024
- Test : Colour, Odour, Taste, Turbidity, pH, Total Hardness,
Iron, Chloride, Res. Free chlorine, Total Dissolved
Solids, Calcium, Copper, Manganese, Sulphate, Nitrate,
Fluoride, Phenolic Compound, Mercury, Cadmium,
Arsenic, Cyanide, Lead, Zinc, Total Coliform,
Hexavalent Chromium, Mineral Oil, Alkalinity,
Aluminium & Boron.

TEST RESULT

Sl. No	PARAMETERS OF TEST	VALUE						IS as per IS 10500:1991		Test Method
		Purnadih (Jorapokhar)	Digwadih 10 No F&J	Kenduadih Basti	Upper Dungari	Kalimela Kalimandir	6&7 Pits (Ayodhya Nagri)	Desirable	Permissible	
1.	Colour, (Hazen Unit)	2	2	1	1	1	2	5	15	IS 3025 (P-4):2021
2.	Temperature °C	29	30	30	28	29	29	-	-	-
3.	Electrical Conductivity, µmhos/cm	1140	1107	780	880	950	860	-	-	-
4.	Total Dissolved Solids, mg/l	740	720	508	570	620	560	500	2000	IS 3025(P-16):1984
5.	pH	7.7	7.5	7.7	7.5	7.1	7.9	6.5-8.5	No Relax	IS-3025(P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	580	472	356	336	304	392	200	600	IS 3025(P-21):2009
7.	Calcium as Ca, mg/l	150.4	161.6	57.6	60.8	56	70.4	75	200	IS 3025(P-40):1991
8.	Magnesium as Mg, mg/l	48.96	16.30	50.88	44.2	39.4	51.8	30	100	IS 3025(P-46):1994
9.	Chloride as Cl, mg/l	133.8	139.60	64	67.88	147.4	62.1	250	1000	IS 3025(P-32):1988
10.	Fluoride as F, mg/l	0.49	0.30	0.56	0.62	0.60	0.45	1.0	1.5	IS 3025(P-60):2008

Continued on Page -2



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- 2 -

Sl. No	PARAMETERS OF TEST	VALUE						IS as per IS 10500:1991		Test Method
		Purnadih (Jorapokhar)	Digwadih 10 No F&J	Kenduadih Basti	Upper Dungari	Kalimela Kalimandir	6&7 Pits (Ayo dhya Nagri)	Desirable	Permissible	
11	Sulphate as SO ₄ , mg/l	52.8	63.6	65.2	62.8	59.98	49.98	200	400	IS 3025(P-24):1986
12	Nitrate as NO ₃ , mg/l	9.6	9.2	9.7	8.3	11.9	9.0	45	No. Relax	IS 3025(P-34):1988
13	Alkalinity as CaCO ₃ , mg/l	456	427.2	345.6	441.6	374.4	432	200	600	IS 3025(P-23):1983
14	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BD.L	BDL	0.01	No. Relax	IS 3025(P-47):1994
15	Zinc as Zn, mg/l	0.28	0.18	0.20	0.22	0.32	0.24	5	15	IS 3025(P-42):1992
16	Iron a Fe, mg/l	0.2	0.24	0.29	0.28	0.26	0.14	1.0	No. Relax	IS 3025(P-53):2003
17	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.05	1.5	IS3025 (P-42):1992
18	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.001	No. Relax	IS 3025(P-48):1994
19	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.003	No. Relax	IS 3025(P-41):1992
20	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	B.D. L	0.02	No. Relax	IS 3025(P-37):1992
21	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D. L	B.D. L	0.01	No. Relax	IS 3025(P-37):1988
22	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D. L	B.D. L	0.05	No. Relax	IS 3025(P-27):1986
23	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D. L	B.D. L	0.05	No. Relax	IS 3025(P-52):2003

NOTE: BDL - Below Detection Limit





Anandita
Sr. Chemist
Aditi R&D Services








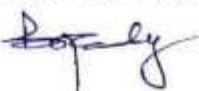


JATGE
Technical Manager
Aditi R&D Services, Sindri





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Ref. No.: - ARDS/24-25/AAQ/1		Date: 14.08.2024			
<u>TEST REPORT OF AMBIENT AIR QUALITY</u>					
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
•	Work Order Ref. NO.:	: 4700126557/932 Date:- 29/05/2024			
•	Date of Sample Collection	: 07/08/2024 To 08/08/2024			
•	Date of Testing	: 10/08/2024 To 13/08/2024			
•	Test Procedure	: As per IS-5182			
<u>TEST RESULTS</u>					
LOCATION – 6 & 7 PITS COLLIERY OFFICE					
	Avg. Ambient Temperature	32°C	Avg. Humidity	75%	
SI No.	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM ₁₀), µg/m ³	76.72	100 µg/m ³		
2.	Particulate Matter (PM _{2.5}), µg/m ³	44.61	60 µg/m ³		
3.	SO ₂ , µg/m ³	17.13	80 µg/m ³		
4.	NO ₂ , µg/m ³	25.66	80 µg/m ³		
5.	Ozone, µg/m ³	15.24	180 µg/m ³		
6.	NH ₃ , µg/m ³	14.10	400 µg/m ³		
7.	CO, mg/m ³	0.77	4 mg/m ³		
8.	Pb, µg/m ³	BDL	1 µg/m ³		
9.	As, ng/m ³	BDL	6 ng/m ³		
10.	Ni, ng/m ³	BDL	20 ng/m ³		
11.	Benzene, µg/m ³	BDL	5 µg/m ³		
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³		
NOTE: BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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Ref. No.: - ARDS/24-25/ AAQ/2		Date: 14.08.2024			
<u>TEST REPORT OF AMBIENT AIR QUALITY</u>					
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
•	Work Order Ref. NO.:	: 4700126557/932 Date:- 29/05/2024			
•	Date of Sample Collection	: 08.08.2024 to 09.08.2024			
•	Date of Testing	: 10.08.2024 to 13.08.2024			
•	Test Procedure	: As per IS-5182			
<u>TEST RESULTS</u>					
LOCATION – OFFICERS COLONY, 12 NO. DIGWADIH					
	Avg. Ambient Temperature	32°C	Avg. Humidity	75%	
SI No.	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM ₁₀), µg/m ³	70.35	100 µg/m ³		
2.	Particulate Matter (PM _{2.5}), µg/m ³	39.28	60 µg/m ³		
3.	SO ₂ , µg/m ³	18.14	80 µg/m ³		
4.	NO ₂ , µg/m ³	29.13	80 µg/m ³		
5.	Ozone, µg/m ³	16.65	180 µg/m ³		
6.	NH ₃ , µg/m ³	14.10	400 µg/m ³		
7.	CO, mg/m ³	0.40	4 mg/m ³		
8.	Pb, µg/m ³	BDL	1 µg/m ³		
9.	As, ng/m ³	BDL	6 ng/m ³		
10.	Ni, ng/m ³	BDL	20 ng/m ³		
11.	Benzene, µg/m ³	BDL	5 µg/m ³		
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³		
NOTE: BDL - Below Detection Limit					
					
Sr. Chemist Aditi R&D Services		Technical Manager Aditi R&D Services, Sindri			
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		(A Constituent Board of Quality Council of India)			
		ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified			
Ref. No.: - ARDS/24-25/ AAQ/3		Date: 14.08.2024			
<u>TEST REPORT OF AMBIENT AIR QUALITY</u>					
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
•	Work Order Ref. NO.	: 4700126557/932 Date:- 29/05/2024			
•	Date of Sample Collection	: 08.08.2024 to 09.08.2024			
•	Date of Testing	: 10.08.2024 to 13.08.2024			
•	Test Procedure	: As per IS-5182			
<u>TEST RESULTS</u>					
LOCATION – CENTRAL WORKSHOP AREA , JAMADOBA					
	Avg. Ambient Temperature	32°C	Avg. Humidity	75%	
SI No.	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM ₁₀), µg/m ³	76.48	100 µg/m ³		
2.	Particulate Matter (PM _{2.5}), µg/m ³	50.14	60 µg/m ³		
3.	SO ₂ , µg/m ³	14.90	80 µg/m ³		
4.	NO ₂ , µg/m ³	23.25	80 µg/m ³		
5.	Ozone, µg/m ³	16.38	180 µg/m ³		
6.	NH ₃ , µg/m ³	14.76	400 µg/m ³		
7.	CO, mg/m ³	0.81	4 mg/m ³		
8.	Pb, µg/m ³	BDL	1 µg/m ³		
9.	As, ng/m ³	BDL	6 ng/m ³		
10.	Ni, ng/m ³	BDL	20 ng/m ³		
11.	Benzene, µg/m ³	BDL	5 µg/m ³		
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³		
NOTE: BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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LOCATION – TATA CENTRAL HOSPITAL																																																																											
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	<h3 style="margin:0;">TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING</h3>								
	Ref. No. & Date ARDS/24-25/NOISE/1 Date: 14.08.2024		NAME AND ADDRESS OF THE CLIENT M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED, JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
Date of Monitoring 07.08.2024 To 09.08.2024		Avg. Ambient Temperature (°C) 32	Average Humidity (%) 75	Weather Condition Clear	Status of the plant Running				
Work Order 4700126557/932 Date:- 29/05/2024									
MONITORING RESULTS									
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules, 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time Industrial Area	Night Time Industrial Area
LOCATION									
JAMADOBA GROUP									
1.	Central Workshop Area	70.4	60.8	67.84	58.4	47.3	55.71	75	70
2.	6 & 7 Pits Colliery Office	68.7	55.2	65.88	56.8	46.5	54.18		
								Residential Area	Residential Area
3.	Officer Colony 12 No. Digwadih	63.9	50.6	61.09	51.2	40.8	48.57	65	55
								Silence Zone	Silence Zone
4.	Tata Central Hospital	50.5	46.7	49.00	39.6	36.4	38.29	50	40



Sr. Chemist
Aditi R&D Services

















Technical Manager
Aditi R&D Services, Sindri





Statements :





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		ADITI R&D SERVICES Testing Laboratory NABL ACCREDITED (A Constituent Board of Quality Council of India) ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified		Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608	
Ref. No.: - ARDS/24-25/MINER./1		Date: 14.08.2024			
<u>TEST REPORT OF MINERALOGICAL COMPOSITION</u> <u>OF PARTICULATE MATTER</u>					
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
•	Work Order Ref. NO.	: 4700126557/932 Date:- 29/05/2024			
•	Date of Sample Collection	: 09.08.2024			
•	Date of Testing	: 12.08.2024 To 14.08.2024			
<u>TEST RESULTS</u>					
Sl No.	Particulars	Mineralogical Composition (%)			
		SiO ₂	FeO	Al ₂ O ₃	CaO
1.	6 & 7 pits colliery office	1.98	0.14	1.38	2.68
2.	Tata Central Hospital	2.16	0.18	1.34	2.84
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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Ref. No.: - ARDS/24-25/SW/1		Date: 17.08.2024			
<u>TEST REPORT OF SURFACE WATER</u>					
Name of the industry		: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
Work Order Ref. NO.:		: 4700126557/932 Date:- 29/05/2024			
Sample Code		: 1. Damodar River Up Stream 2. Damodar River Down Stream			
Date of Sample Collection:		: 09.08.2024			
Date of Testing		: 10.08.2024 To 16.08.2024			
Test		: pH, TDS, Turbidity, DO, BOD, Cl, F, SO ₄			
<u>TEST RESULT</u>					
Sl. No.	PARAMETERS OF TEST	VALUE		Limit as per IS 2296 Class - C	Test Method
		Damodar River Up Stream	Damodar River Dn Stream		
1.	pH	7.6	7.6	6.5 -8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	397	431	1500	IS-3025 (P-16): 1984
3.	Turbidity, NTU	5	5	-	IS-3025 (P-10):1984
4.	Dissolved Oxygen, mg/l	4.8	4.9	4.0 (Min)	IS-3025 (P-38):1989
5.	Bio chemical Oxygen Demand, mg/l	1.5	3.0	3.0	IS-3025 (P-44):1994
6.	Chloride as Cl, mg/l	26	22.0	600 (Max.)	IS-3025 (P-32):1988
7.	Fluoride as F, mg/l	0.5	0.5	1.5	IS-3025 (P-60):2008
8.	Sulphate as SO ₄ , mg/l	250	215	400	IS-3025 (P-24):1986
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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Ref. No.: - ARDS/24-25/MWD/1				Date: 17.08.2024			
<u>TEST REPORT OF MINE WATER DISCHARGE</u>							
• Name of the industry :		M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)					
• Work Order Ref. NO.:		4700126557/932 Date:- 29/05/2024					
• Sample Code :		1. 2 Pit Jamadoba Colliery 2. 3 Pit Jamadoba Colliery 3. 6 & 7 Pits Colliery 4. Digwadih Colliery					
• Date of Sample Collection:		07.08.2024 To 08.08.2024					
• Date of Testing :		10.08.2024 To 16.08.2024					
• Test :		pH, TDS, TSS, BOD, COD, OIL & GREASE.					
<u>TEST RESULT</u>							
Sl. No.	PARAMETERS OF TEST	VALUE				Limit as per IS-2296 Class B (For Bathing)	Test Method
		2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery		
1.	pH,	8.2	8.3	7.9	8.2	6.5-8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	790	770	649	698	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	30.0	28	24	26	-	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	2.3	3.0	2.8	3.0	3	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	122	49	91	79	-	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	0.8	0.3	0.2	0.2	-	IS-3025 (P-39):2021
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri			
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Ref. No.: - ARDS/24-25/STP/1		Date: 17.08.2024						
TEST REPORT OF SEWAGE								
• Name of the industry :		M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
• Work Order Ref. NO.:		4700126557/932 Date:- 29/05/2024						
• Sample Code :		1. STP Outlet- Railway Colony 2. STP Outlet -Digwadih 12 No Officers Colony 3. STP Outlet -Digwadih 12 No. Supervisor flat 4. STP Outlet- Jmb. Canteen 5. STP Outlet- JCPP Canteen						
• Date of Sample Collection:		07.08.2024 To 09.08.2024						
• Date of Testing :		10.08.2024 To 16.08.2024						
• Test :		pH, TDS, TSS, BOD, COD, OIL & GREASE, and Fecal Coliform.						
TEST RESULT								
Sl. No.	PARAMETERS OF TEST	VALUE					As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant	Test Method
		STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	STP Outlet Digwadih 12 No. Supervisor or flat	STP Outlet Jmb. Canteen	STP Outlet- JCPP Canteen		
1.	pH,	7.9	7.5	7.4	7.3	7.5	6.5-9.0	IS-3025(P-11):1983
2.	Total Dissolved Solids, mg/l	939.0	952	791	592	547	-	IS-3025(P-16):1984
3.	Total Suspended Solids, mg/l	40.0	28.0	30.0	35.0	38.0	100	IS-3025(P-17):1984
4.	Bio chemical Oxygen Demand, mg/l	9.0	4.2	3.5	8.0	7.0	30	IS-3025(P-44):1994
5.	Chemical Oxygen Demand, mg/l	54.7	36.5	24.3	48.6	42.6	250	IS-3025(P-58):2006
6.	Oil & Grease, mg/l	1.0	0.8	0.6	0.8	0.9	-	IS-3025(P-39):2021
7.	Fecal Coliform (FC) (MPN/100ml)	580	460	450	560	470	<1000 MPN/100ml	IS - 1622
 Sr. Chemist Aditi R&D Services							 Technical Manager Aditi R&D Services, Sindri	
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Ref. No.: - ARDS/24-25/ETP/1		Date: 17.08.2024			
<u>TEST REPORT OF EFFLUENT</u>					
• Name of the industry :		M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
• Work Order Ref. NO.:		4700126557/932 Date:- 29/05/2024			
• Sample Code :		1. E.T.P. Outlet T.C.H. 2. E.T.P. Outlet Garage			
• Date of Sample Collection:		07.08.2024 To 08.08.2024			
• Date of Testing :		10.08.2024 To 16.08.2024			
• Test :		pH, TDS, TSS, BOD, COD, OIL & GREASE.			
<u>TEST RESULT</u>					
Sl. No.	PARAMETERS OF TEST	VALUE		General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage		
1.	pH,	8.4	8.3	5.5-9.0	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	589.0	842.0	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	22.0	30.0	100	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	3.0	18.0	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	12.2	139.8	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	0.4	1.2	10	IS-3025 (P-39):2021
Note : BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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	<h2 style="margin:0;">ADITI R&D SERVICES</h2> <h3 style="margin:0;">Testing Laboratory</h3> <p style="margin:0;">NABL ACCREDITED</p> <p style="margin:0;">(A Constituent Board of Quality Council of India)</p> <p style="margin:0;">ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified</p>	<p>Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriadi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608</p>						
<p>Ref. No.: - ARDS/24-25/DW/1</p>		<p>Date: 17.08.2024</p>						
<h3><u>TEST REPORT OF DRINKING WATER</u></h3>								
<p>• Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)</p> <p>• Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024</p> <p>• Sample Code : 1. Canteen- Jamadoba Colliery 2. Canteen- Jamadoba Washery 3. Canteen- Digwadih Colliery 4. Canteen- 6&7 Pits Colliery</p> <p>• Date of Sample Collection: 07.08.2024 To 09.08.2024</p> <p>• Date of Testing : 10.08.2024 To 16.08.2024</p> <p>• Test : Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Total Chromium, Mineral Oil, Alkalinity, Aluminium & Boron.</p>								
<h3><u>TEST RESULT</u></h3>								
Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen Digwadih Colliery	Canteen- 6&7 Pits Colliery	Desirable	Permissible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-7):2017
4.	Turbidity, NTU	1	1	1	1	1.0	5.0	IS 3025 (P-10):1984
5.	pH	7.7	7.6	7.6	7.5	6.5-8.5	No. Relax.	IS-3025 (P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	400	450	445	180	200	600	IS 3025 (P-21):2009
7.	Chloride as Cl, mg/l	82.5	74.8	85	25	250	1000	IS 3025 (P-32):1988
8.	Res. Free chlorine as Cl ₂ mg/l	N.T.	N.T.	N.T.	N.T.	0.20	1.0	IS 3025 (P-26):2021
9.	Total Dissolved Solids, mg/l	770	760	750	246	500	2000	IS 3025 (P-16):1984
10.	Calcium as CaCO ₃ , mg/l	80	105	85	55	75	200	IS 3025 (P-40):1991
11.	Copper as Cu, mg/l	BDL	BDL	BDL	BDL	0.05	1.5	IS 3025 (P-42):1992

Continued on Page 2

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Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report
(Period- April'24 to September'24)

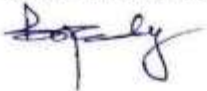
Annexure- II

	<h2 style="margin:0;">ADITI R&D SERVICES</h2> <h3 style="margin:0;">Testing Laboratory</h3> <p style="margin:0;">NABL ACCREDITED</p> <p style="margin:0;">(A Constituent Board of Quality Council of India)</p> <p style="margin:0;">ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified</p>	<p>Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608</p>
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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desirable	Permissible	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO ₄ , mg/l	86.0	68.0	85.0	27.6	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO ₃ , mg/l	5.2	5.8	5.4	4.6	45	No. Relax	IS 3025 (P-34):1988
15.	Fluoride as F, mg/l	0.6	0.6	0.3	0.4	1.0	1.5	IS 3025 (P-60):2008
16.	Phenolic Compound as (C ₆ H ₅ OH) mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	0.002	IS 3025 (P-43):1992
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P-48):1994
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P-41):1992
19.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-37):1988
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-27):1986
21.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-47):1994
22.	Zinc as Zn, mg/l,	2.8	2.2	1.8	2.0	5	15	IS 3025 (P-42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	Absent	Absent	IS 3025 (P-49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P-39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	494.5	500.0	473	107.5	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):2005

NOTE: BDL - Below Detection Limit




Sr. Chemist
 Aditi R&D Services




Technical Manager
 Aditi R&D Services, Sindri

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Ref. No.: - ARDS/23-24/GW/1		Date: 17.08.2024							
<h3>TEST REPORT OF GROUND WATER</h3>									
<ul style="list-style-type: none"> • Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND) • Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024 • Sample Code : <ul style="list-style-type: none"> 1. Jorapokhar Kustand 2. Bhowra 13 No. 3. Mohalbani Basti 4. Lower Dungari 5. Jamadoba 3 No. • Date of Sample Collection : 08.08.2024 to 09.08.2024 • Date of Testing : 10.08.2024 To 16.08.2024 • Test : Colour, Odour, Taste, Turbidity, pH, Total Hardness, Iron, Chloride, Res. Free chlorine, Total Dissolved Solids, Calcium, Copper, Manganese, Sulphate, Nitrate, Fluoride, Phenolic Compound, Mercury, Cadmium, Arsenic, Cyanide, Lead, Zinc, Total Coliform, Chromium, Mineral Oil, Alkalinity, Aluminium & Boron. 									
<h3>TEST RESULT</h3>									
Sl. No	PARAMETERS OF TEST	VALUE					IS as per IS 10500:1991		Test Method
		Jorapokhar Kustand	Bhowra 13 No.	Mohalbani Basti	Lower Dungari	Jamadoba 3 No.	Desirable	Permissible	
1.	Colour, (Hazen Unit)	2	4	4	3	2	5	15	IS 3025 (P-4):2021
2.	Temperature °C	27	27	27	27	27	-	-	-
3.	Electrical Conductivity, µmhos/cm	1530	1340	1000	570	960	-	-	-
4.	Total Dissolved Solids, mg/l	858	745	555	320	537	500	2000	IS 3025(P-16):1984
5.	pH	7.4	7.5	7.5	7.6	7.8	6.5-8.5	No Relax	IS-3025(P-11):1983
6.	Total Hardness as CaCO ₃ , mg/l	552	550	572	229	452	200	600	IS 3025(P-21):2009
7.	Calcium as Ca, mg/l	112	140	120	40	112	75	200	IS 3025(P-40):1991
8.	Magnesium as Mg, mg/l	67.9	50.0	68	32.1	43	30	100	IS 3025(P-46):1994
9.	Chloride as Cl, mg/l	150	120	287.4	38	86	250	1000	IS 3025(P-32):1988
10.	Fluoride as F, mg/l	0.8	0.8	0.8	0.4	0.3	1.0	1.5	IS 3025(P-60):2008
Continued on Page -2									
									
Statements : <ol style="list-style-type: none"> The test report refers only to the particular item(s) submitted for testing. The test results reported in this report are valid at the time of and under the stated condition of measurement. This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory. 									

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- 2 -

Sl. No	PARAMETERS OF TEST	VALUE					IS as per IS 10500:1991		Test Method
		Jorapokhar Kustand	Bhowra 13 No.	Mohalban i Basti	Lower Dungari	Jamadoba 3 No.	Desir - able	Permis -sible	
11	Sulphate as SO ₄ , mg/l	85.0	125.0	180.0	65	60	200	400	IS 3025(P-24):1986
12	Nitrate as NO ₃ , mg/l	4.8	5.2	5.4	4.9	5.2	45	No. Relax	IS 3025(P-34):1988
13	Alkalinity as CaCO ₃ , mg/l,	182.75	331.75	548.3	139.75	190.4	200	600	IS 3025(P-23):1983
14	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025(P-47):1994
15	Zinc as Zn, mg/l,	2.2	2.0	2.3	2.5	2.4	5	15	IS 3025(P-42):1992
16	Iron a Fe, mg/l	0.6	0.8	0.7	0.5	0.8	1.0	No. Relax	IS 3025(P-53):2003
17	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	1.5	IS3025 (P-42):1992
18	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025(P-48):1994
19	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025(P-41):1992
20	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.02	No. Relax	IS 3025(P-37):1992
21	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025(P-37):1988
22	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025(P-27):1986
23	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025(P-52):2003

NOTE: BDL - Below Detection Limit


Sr. Chemist
 Aditi R&D Services




Technical Manager
 Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.
2. The test results reported in this report are valid at the time of and under the stated condition of measurement.
3. This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory.

Publication **PRABHAT KHAZAR, DHANBAD** Date 11-3-14**सूचना**

जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या - J-11015/203/2011-IA.II(M) के जरिए जामाडोबा कोल वाशरी (1.0 मिलियन टन प्रतिवर्ष से 2.0 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <http://envfor.nic.in> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)

FROM THE PRESS

Publication **HINDUSTANI, DHANBAD** Date **11-3-14**



सूचना

जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या - J-11015/203/2011-IA.II(M) के जरिए जामाडोबा कोल वाशरी (1.0 मिलियन टन प्रतिवर्ष से 2.0 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <http://envfor.nic.in> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)



TATA STEEL

सूचना

जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या - J-11015/373/2010-IA.II(M) के जरिए 6 एवं 7 पिट्स कोलियरी (0.28 मिलियन टन प्रतिवर्ष से 0.6 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <http://envfor.nic.in> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)

FROM THE PRESS

Publication **DAINIK JAGRAN, DHANBAD** Date **11-3-14**



सूचना

जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या - J-11015/373/2010-IA.II(M) के जरिए 6 एवं 7 पिट्स कोलियरी (0.28 मिलियन टन प्रतिवर्ष से 0.6 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <http://envfor.nic.in> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)

CORPORATE COMMUNICATIONS
JHARIA DIVISION

Municipal Commissioner,
Dhanbad.

Ref No.: JMB/ENV/DIG/37/ 805 /2018

September 17 , 2018

Sub: Submission of copy of Environmental Clearance granted to units of M/s Tata Steel Limited

Dear Sir,

Please find enclosed the letter of Environmental Clearance (EC) granted by MoEFCC to various units of Tata Steel Limited, Jharia Division, Dhanbad as per the following details-

1. Digwadih Colliery (for expansion from 0.38 MTPA to 0.6 MTPA in ML area 314.57 ha), dist. Dhanbad, Jharkhand.
2. 6 & 7 Pits Colliery (for expansion from 0.28 MTPA to 0.6 MTPA in ML area 168.12 ha), dist. Dhanbad, Jharkhand.
3. Jamadoba Coal Washery (for expansion from 1 MTPA to 2 MTPA in 7 Ha area), dist. Dhanbad, Jharkhand.

The copy of EC letter and its compliance is also uploaded in website (<http://www.tatasteel.com/sustainability/environment-compliance-reports/>) for your kind perusal.

Thanking You,

Yours faithfully,



Head, Planning
Jharia Division

