



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/JCPP/38/ 709/2024
November 27th, 2024

Ref.: Environmental Clearance letter no. - J-11015/203/2011-IA.II(M) dated- 3rd March 2014.

SUB: Half Yearly Compliance Status Report of Environment Clearance conditions issued by MoEFCC, New Delhi to Jamadoba Coal washery, 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-11015/203/2011-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/7813/2012
Compliance ID	111559719
Compliance Number(For Tracking)	EC/M/COMPLIANCE/111559719/2024
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 Jamadoba Coal washery (1 MTPA to 2 MTPA in 7 ha Area and 24° 31' 30" to 24° 32' 30" N & 87° 25' 00" to 87° 30' 00" E) of M/s Tata Steel Ltd. Tehsil Jharia, dist. Dhanbad, Jharkhand		
Name of Entity / Corporate Office	Tata Steel Ltd.		
Village(s)	N/A		
District	DHANBAD		
Proposal No.	IA/JH/CMIN/7813/2012	Category	Coal Mining
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	JHARKHAND	Entity's PAN	*****2803M
MoEF File No.	J-11015/203/2011-IA.II(M)	Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year 2024

Remarks (if any) Half Yearly Compliance submission for April 2024-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	0	0
Revenue Land	0	0
Forest	0	0
Others	7	7
Total	7	7

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Raw Coal	Million Tons per Annum (MTPA)	N/A	2	0.729	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Risk Mitigation and Disaster Management	Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
PPs Submission: Complied Not applicable as this is coal beneficiation plant.		Date: 15/11/2024
2	Statutory compliance	The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal, middling and coal rejects along with quantum of raw coal obtained and washed and dispatched every month and the same shall be uploaded on the company website every month.
PPs Submission: Complied Proper records are being maintained and the details are uploaded on the company website.		Date: 15/11/2024
3	MISCELLANEOUS	All internal roads shall be concreted or black topped and the approach roads used for the project shall be blacked topped. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.
PPs Submission: Complied All the internal roads have been concreted while the approach roads are black topped. There is a facility for parking of trucks within the unit.		Date: 15/11/2024
4	Statutory compliance	Roads used for coal transportation to the linked DRI/TPP shall be developed with 3-tier avenue plantation using a mix of native species. The trucks used for coal transportation shall be high capacity trucks. Drivers of trucks for coal transportation shall be engaged based on past records of road safety and compliance of safety regulations and shall be suitably sensitized about road safety and maintenance of vehicles to keep vehicular emissions to be within prescribed limits.
PPs Submission: Complied There is no linked DRI/TPP. - Raw coal is received via underground coal conveyor belt network from captive collieries. - Clean coal is dispatched via rail from the Rail-yard situated on the washery premises. The clean coal is kept in storage bins and directly transferred to the rail wagons through covered coal-conveying system. - As for the trucks moving for transportation of tailings and rejects are properly covered with tarpaulin. All the given provisions related to road safety and driver competence are being strictly complied with.		Date: 15/11/2024
5	Statutory compliance	The roads (internal/approach and roads used for the project) shall be regularly cleaned with mechanical sweepers and with water sprinklers. A 3-tier avenue plantation shall be developed along the major approach roads, internal roads and nearby roads used by the

		company.
PPs Submission: Complied Fixed Water sprinklers have already been installed in the washery premises. Plantation along the road-side is done wherever feasible. A three-tier green belt development is in progress		Date: 15/11/2024
6	GREENBELT	Green belt shall be developed along the areas such as the washery unit, crushing unit, and stockyards and at transfer points and in between mine operations and habitations.
PPs Submission: Complied Greenery has been developed in many areas around the washery premises. Saplings have been planted along the boundary of washery for greenbelt development.		Date: 15/11/2024
7	AIR QUALITY MONITORING AND PRESERVATION	Hoppers of the coal crushing unit at the crushing shed and washery unit shall be fitted with high efficiency bag filters/Dust extractors and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of belt conveyor systems which shall be closed and from transportation roads.
PPs Submission: Complied Dry-fog dust suppression system has been already installed to suppress the dust generated at CHP and transfer points of belt conveyor systems. Fixed-type water sprinklers are also installed on the internal roads of the washery. These are always operated effectively to check the fugitive emissions. Fugitive dust emission monitoring is done on regularly. The values are within the stipulated norms.		Date: 15/11/2024
8	WASTE MANAGEMENT	The proponent shall ensure that coal such as stones, shale and other wastes of an ash content of 77% or more only shall be dumped into the mine voids. Coal rejects with an ash content of 76% or less shall be fully utilized for power generation in linked TPP.
PPs Submission: Complied It is being followed.		Date: 15/11/2024
9	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality including levels of heavy metals such as Hg, Cd, Cr, Se, etc shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity and quality of ground water as per IS: 10500 shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons. Proper records of the data thus collected shall be maintained 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 regularly as per the requirements. The groundwater quality report and groundwater level are provided in Annexure II. The monitoring of heavy metals such as Hg, Cd, Cr, Se, etc in the groundwater is done on quarterly basis by NABL accredited third party and the report has been provided in Annexure II.		Date: 29/11/2024
10	WATER QUALITY MONITORING AND PRESERVATION	As the entire mine water is proposed to be used for the mine-cum-washery operations, measures shall be taken for recharging ground water in and around the mine in the study area. A Plan for water conservation and recharge measures of ground water along with budgetary provisions be prepared and implemented in consultation with the Central/State Ground Water Board to mitigate the adverse impact of mining which may lead to depletion of ground water in the area. The Company shall put up artificial groundwater recharge

		measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall be met from rainwater use only. 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 Some of 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 several 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 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.		Date: 15/11/2024
11	WATER QUALITY MONITORING AND PRESERVATION	ETP shall also be provided for treatment of effluents from workshop, CHP and an STP shall be provided in the colony and the treated effluents shall be used for green belt development. Outflow of rainfall, if any, from the mine shall meet prescribed norms and the water quality of such discharge including levels of heavy metals such as Hg, Cd, Cr., Se, etc shall be monitored at the exit points and records maintained thereof and also uploaded on the company website. Online monitoring equipment shall be installed by the proponent to ensure that the water quality parameters of mine water discharge are well within the General Discharge Standards under EP, Rules, 1986.
PPs Submission: Complied No effluent is discharged outside of the washery. There is no separate workshop in the washery premises. A central workshop exists in Jamadoba Colliery with Effluent Treatment Plant facility having Oil and Grease Trap. One Sewage Treatment Plant (STP) of 50 KLD and one STP of 10 KLD has been installed in one of the colonies of Jamadoba and Jamadoba canteen. Their treated water is used for gardening and other purpose.		Date: 15/11/2024
12	Human Health Environment	Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through a recognised agency found in the district, and the results reported to this Ministry and to DGMS.
PPs Submission: Complied Not applicable as this is coal beneficiation plant. Though PME is done for washery workers periodically at our Occupational Health centre. Records of the same has been furnished earlier.		Date: 15/11/2024
13	Statutory compliance	For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its concerned Regional Office in the region.
PPs Submission: Complied Complied. The land use study has been completed by Indian School of Mines (IIT-ISM) Dhanbad and the report is submitted vide letter no. JMB/ENV/BAC/38/467/2021 dated: 27.06.2021 to Regional Office, MoEFCC at Ranchi		Date: 15/11/2024
14	Statutory compliance	Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State

		Government whichever is higher.
PPs Submission: Complied Not applicable		Date: 15/11/2024
15	MINING PLAN	<p>A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration and for development of grasslands.</p>
PPs Submission: Complied Not applicable		Date: 15/11/2024
16	Corporate Environmental Responsibility	<p>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.</p>
PPs Submission: Complied The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. Attached as an annexure. 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, Jamadoba Coal Washery 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: 29/11/2024
17	MISCELLANEOUS	<p>No use of fly ash with sand will take place for stowing in underground mines.</p>
PPs Submission: Complied This will be strictly followed for our captive underground mines.		Date: 15/11/2024
18	Corporate Environmental Responsibility	<p>The proponent shall expedite and implement the pilot plant to convert mine water into drinking/domestic water to supply the same to the population of Dhanbad and surrounding areas and shall continue to carry out this activity.</p>
PPs Submission: Complied Mine water is already being converted into potable water by Tata Steel in our 4 nos. Water Treatments Plants (located at Jamadoba, Digwadih, Bhelatand and Malkera having cumulative capacity of around 8000 KL/D). The treated water is then supplied to our colonies and leasehold villages. This will continue in future too.		Date: 15/11/2024
19	Corporate Environmental	<p>Tanks/ponds shall be regularly cleaned and maintained. Plantation</p>

	Responsibility	activities shall be intensified in the mine areas.
PPs Submission: Complied Tanks/ ponds are regularly cleaned and maintained by TSRDS. Plantation activities are undertaken every year in the barren mine leasehold areas. Further, TSRDS engages with the villagers for plantation in the village lands.		Date: 15/11/2024
20	GREENBELT	Adequate green belt shall be provided around coal handling and other areas.
PPs Submission: Complied Greenery has been developed in many areas around the washery premises. Since the expansion job has been completed, remaining area is also being developed. Attached as Annexure.		Date: 29/11/2024
21	Corporate Environmental Responsibility	The proponent shall connect all the villages in the leasehold area with water pipeline connection.
PPs Submission: Complied All the villages in the leasehold areas are being supplied safe drinking water through pipeline connection. A network of more than 22000 metres of pipeline connection has been established along with 33 water tanks (capacity of 4500 litres).		Date: 15/11/2024
22	LAND RECLAMATION	Action plan be developed and implemented for abandoned tailing ponds and for their restoration to the original land use.
PPs Submission: Complied Action plan for cut-off of tailing ponds from tailing management system is in place. Abandoned tailing ponds have been reclaimed by backfilling. Technical reclamation has taken place in two large ponds. Biological reclamation is going on by planting native species.		Date: 15/11/2024
23	WASTE MANAGEMENT	Fly ash generated from the captive power plant of the washery be utilized for house construction, roads and such uses, strictly complying to the timeline in the EIA Notification, 2006 and maintaining proper records.
PPs Submission: Complied This is not applicable as we have ceased the operation of our captive Jamadoba power plant since April-2015.		Date: 15/11/2024
24	WASTE MANAGEMENT	Transportation of fly ash to be done properly by mechanically covered trucks.
PPs Submission: Complied This is not applicable as there is no fly ash being generated since April-2015.		Date: 15/11/2024
25	Corporate Environmental Responsibility	The proponent shall expedite the activities undertaken by TSRDS in over 30 villages in the leasehold area over 15000 households covering a population of about 1.4 lakh.
PPs Submission: Complied CSR activities of TSRDS are managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 30 villages. The list of activities are developed in consultation with the village representatives and implemented in a time-bound manner.		Date: 29/11/2024
26	Corporate Environmental Responsibility	The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per the annual inflation.
27	Corporate Environmental Responsibility	Cost for additional environmental protection measures shall be not less than Rs. 503.00 lakhs. The status of implementation including

		costs incurred shall be regularly reported to this Ministry and its respective Regional Office in the region as part of the compliance report and also uploaded on the company website.
PPs Submission: Complied The regular expenditure incurred for environment protection and management are submitted to MoEF and CC and SPCB in Annual Environment Statement and the status is uploaded on company website as a part of compliance report of AES.		Date: 15/11/2024
28	GREENBELT	The slope of the embankment towards the river shall be at least 1:3 for stability and shall be stabilized with plantation using native species selected from the study area
PPs Submission: Complied The washery is about 1.5 kms away from the Damodar River. Hence it is not applicable.		Date: 15/11/2024
29	GREENBELT	Top soil shall be stored in the earmarked area and used within a year of its generation for green belt development and for plantation/reclamation.
PPs Submission: Complied There are no topsoil dumps hence it is not applicable.		Date: 15/11/2024
30	MINING PLAN	No external OB dump shall be created for the expansion project. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its respective Regional Office on yearly basis.
PPs Submission: Complied Not applicable as this is a washery project.		Date: 15/11/2024
31	MINING PLAN	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.
PPs Submission: Complied There are no soil or OB dumps in the washery premises. Only the by-products are stored in the stockyards located in the washery premises which are sold off within a week.		Date: 15/11/2024
32	Risk Mitigation and Disaster Management	Garland drains (size, gradient and length) 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 site. 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 washery area to channelize the surface runoff. The runoff is diverted to the tailing ponds and clear water is utilized in the washery.		Date: 15/11/2024
33	Risk Mitigation and Disaster Management	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
PPs Submission: Complied Not applicable as we do not have any opencast mines.		Date:

		15/11/2024
34	AIR QUALITY MONITORING AND PRESERVATION	Crushers at the CHP shall be operated with high efficiency bag filters/water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.
PPs Submission: Complied The following measures have been implemented: i) Dry-fog system at all transfer points of CHP ii) Enclosures around crushers. iii) Belts have been covered on top and both sides. These arrangements will protect the coal mass moving on belt from blowing wind. In this way, the dust getting air borne is being minimized. iv) Fixed water sprinklers on the haulage roads. v) In addition, movable water sprinklers are also being deployed on the roads for dust suppression. vi) Dust Extraction System vii) Strengthening of tailing management system viii) Concretization of working complex		Date: 15/11/2024
35	MISCELLANEOUS	Drills shall be wet operated only.
PPs Submission: Complied Not applicable as this is coal beneficiation plant		Date: 15/11/2024
36	WATER QUALITY MONITORING AND PRESERVATION	The Washery shall be a zero-discharge and no wastewater shall be discharged from the washery into the drains/natural watercourses. No groundwater shall be used for washery operations. Recycled water shall be used for development and maintenance of green belt and in the plant operations.
PPs Submission: Complied Washery is already operating on a zero-discharge principle. No wastewater is discharged into the drains/ natural water systems. Only mine water is utilized for the washery operations as make up water requirement. The recycled water is again used for plant operations and green-belt development.		Date: 15/11/2024
37	Risk Mitigation and Disaster Management	The raw coal, washed coal and middling and coal wastes (rejects) shall be stacked properly at earmarked site(s) within sheds/stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored minerals do not catch fire. The storage period shall be not more than 2-3 days.
PPs Submission: Complied The material is being stacked properly at stockyards located within the washery. We have a well-established system for disposal of rejects/ tailings to consumers so that storage period is not more than 2-3 days.		Date: 15/11/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	MINING PLAN	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.		Date: 15/11/2024
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 has been complied with.		Date: 15/11/2024
3	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 on 27th September 2024 vide letter no. JMB/ENV/ESSA/05/569/2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEF by email at ro.ranchi-mefgov.in.		Date: 15/11/2024
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: 15/11/2024
5	AIR QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied The Air quality monitoring stations are: (i) Jamadoba Group Office (Core Zone) (ii) New Village Colony, Jamadoba (Buffer Zone) (iii) Digwadih 12 No. Colony (Buffer Zone) (iv) 6 and 7 Pits Kalimandir area (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognised by NABL and JSPCB). The results are enclosed as Annexure II.		Date: 29/11/2024
6	Statutory compliance	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 Oct-2022 to March-2023 is attached as Annexure II. Additionally, the third party monitoring is being done through a JSPCB and NABL accredited Laboratory for ambient air quality (PM10, PM 2.5, SO2, NOx, CO, NH3, O3) and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure II.		Date: 29/11/2024
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: 15/11/2024
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 waste-water is discharged outside the washery premises. 100 percentage water is recirculated back for re-use in the washery. There is a central workshop and garage in Jamadoba Effluent Treatment Plant which includes oil and grease trap has been provided.		Date: 15/11/2024
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. Coal transportation through trucks is done only from BCCL mines till washery and it is ensured that only optimally loaded trucks with proper tarpaulin cover are allowed into the washery premises.		Date: 15/11/2024
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 recognized 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 and NABL recognized laboratory. We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.		Date: 15/11/2024
11	Human Health Environment	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: 15/11/2024
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 occupational health surveillance programme 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 annually 20 percentage of the workers identified from workforce engaged in active mining operations are subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per		Date: 15/11/2024

mines rules. Contractual workers health examination is also done by PME centre.		
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: 15/11/2024
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 Bhubaneswar.
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. 1098.32 lakhs.		Date: 15/11/2024
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 an Annexure.		Date: 29/11/2024
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: 29/11/2024
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: 15/11/2024
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 company website. The compliance status (as Half-yearly compliance report) is being uploaded in company website. The display of information near the washeries office has been provided.		Date: 15/11/2024
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 has been complied with.		Date: 15/11/2024
<p style="text-align: center;">Visit Remarks</p>		
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 – SEPTEMBER'24)

JAMADOBA COAL WASHERY

**(CAPACITY: EXPANSION FROM 1 TO 2 MTPA RAW COAL
THROUGHPUT)**

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-
11015/203/2011-IA.II(M) DATED- 03.03.2014 ISSUED BY GOVT. OF INDIA,
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW
DELHI.**

Compliance status of Expansion of Jamadoba Coal washery (1 MTPA to 2 MTPA in 7 ha Area) of M/s Tata Steel Ltd. Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/203/2011-IA.II (M) dated March 3, 2014

S. No.	Condition	Compliance Status
Specific Condition		
(i)	Adequate green belt shall be provided around coal handling and other areas.	Greenery has been developed in many areas around the washery premises. Since the expansion job has been completed, remaining area is also being developed. Attached as Annexure I.
(ii)	Action plan be developed and implemented for abandoned tailing ponds and for their restoration to the original land use.	Action plan for cut-off of tailing ponds from tailing management system is in place. Abandoned tailing ponds have been reclaimed by backfilling. Technical reclamation have taken place in two large ponds. Biological reclamation is going on by planting native species.
(iii)	Fly ash generated from the captive power plant of the washery be utilized for house construction, roads and such uses, strictly complying to the timeline in the EIA Notification, 2006 and maintaining proper records.	This is not applicable as we have ceased the operation of our captive Jamadoba power plant since April'15.
(iv)	No use of fly ash with sand will take place for stowing in underground mines.	This will be strictly followed for our captive underground mines.
(v)	Transportation of fly ash to be done properly by mechanically covered trucks.	This is not applicable as there is no fly ash being generated since April'15.
(vi)	The proponent shall connect all the villages in the leasehold area with water pipeline connection.	All the villages in the leasehold areas are being supplied safe drinking water through pipeline connection. A network of more than 22000 metres of pipeline connection has been established along with 33 water tanks (capacity of 4500 litres).
(vii)	The proponent shall expedite and implement the pilot plant to convert mine water into drinking/domestic water to supply the same to the population of Dhanbad and surrounding areas and shall continue to carry out this activity.	Mine water is already being converted into potable water by Tata Steel in our 4 nos. Water Treatments Plants (located at Jamadoba, Digwadiah, Bhelatand and Malkera having cumulative capacity of around 8000 KL/D). The treated water is then supplied to our colonies and leasehold villages. This will continue in future too.

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(viii)	Tanks/ponds shall be regularly cleaned and maintained. Plantation activities shall be intensified in the mine areas.	Tanks/ ponds are regularly cleaned and maintained by TSRDS. Plantation activities are undertaken every year in the barren mine leasehold areas. Further, TSRDS engages with the villagers for plantation in the village lands.
(ix)	The proponent shall expedite the activities undertaken by TSRDS in over 30 villages in the leasehold area over 15000 households covering a population of about 1.4 lakh.	CSR activities of TSRDS are managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 30 villages. The list of activities are developed in consultation with the village representatives and implemented in a time-bound manner.
(x)	The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per the annual inflation.	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.
(xi)	Cost for additional environmental protection measures shall be not less than Rs. 503.00 lakhs. The status of implementation including costs incurred shall be regularly reported to this Ministry and its respective Regional Office in the region as part of the compliance report and also uploaded on the company website.	The regular expenditure incurred for environment protection and management are submitted to MoEF&CC & SPCB in Annual Environment Statement and the status is uploaded on company website as a part of compliance report of AES.
(xii)	The slope of the embankment towards the river shall be at least 1:3 for stability and shall be stabilized with plantation using native species selected from the study area.	The washery is about 1.5 kms away from the Damodar River. Hence it is not applicable.
(xiii)	Top soil shall be stored in the earmarked area and used within a year of its generation for green belt development and for plantation/reclamation.	There are no topsoil dumps hence it is not applicable.

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(xiv)	No external OB dump shall be created for the expansion project. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its respective Regional Office on yearly basis.	Not applicable as this is a washery project.
(xv)	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.	There are no soil or OB dumps in the washery premises. Only the by-products are stored in the stockyards located in the washery premises which are sold off within a week.
(xvi)	Garland drains (size, gradient and length) 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 site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	Garland drains of adequate size and gradient already exist around the washery area to channelize the surface runoff. The runoff is diverted to the tailing ponds and clear water is utilized in the washery.
(xvii)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Not applicable as we do not have any opencast mines.
(xviii)	Crushers at the CHP shall be operated with high efficiency bag filters/water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.	The following measures have been implemented: i) Dry-fog system at all transfer points of CHP ii) Enclosures around crushers. iii) Belts have been covered on top and both sides. These arrangements will protect the coal mass moving on belt from blowing wind. In this way, the dust getting air borne is being minimized. iv) Fixed water sprinklers on the haulage roads.

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		<p>v) In addition, movable water sprinklers are also being deployed on the roads for dust suppression.</p> <p>vi) Dust Extraction System</p> <p>vii) Strengthening of tailing management system</p> <p>viii) Concretization of working complex</p>
(xix)	Drills shall be wet operated only.	Not applicable as this is coal beneficiation plant
(xx)	Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Not applicable as this is coal beneficiation plant.
(xxi)	The Washery shall be a zero-discharge and no wastewater shall be discharged from the washery into the drains/natural watercourses. No groundwater shall be used for washery operations. Recycled water shall be used for development and maintenance of green belt and in the plant operations.	Washery is already operating on a zero-discharge principle. No wastewater is discharged into the drains/ natural water systems. Only mine water is utilized for the washery operations as make up water requirement. The recycled water is again used for plant operations and green-belt development.
(xxii)	The raw coal, washed coal and middling and coal wastes (rejects) shall be stacked properly at earmarked site(s) within sheds/stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored minerals do not catch fire. The storage period shall be not more than 2-3 days.	The material is being stacked properly at stockyards located within the washery. We have a well-established system for disposal of rejects/ tailings to consumers so that storage period is not more than 2-3 days.
(xxiii)	The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal, middling and coal rejects along with quantum of raw coal obtained and washed and dispatched every month and the same shall be uploaded on the company website every month.	Proper records are being maintained and the details are uploaded on the company website.
(xxiv)	All internal roads shall be concreted or black topped and the approach roads used for the project shall be blacked topped. Facilities for parking of trucks	All the internal roads have been concreted while the approach roads are black topped. There is a facility for parking of trucks within the unit.

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	carrying raw coal from the linked coalmines shall be created within the Unit.	
(xxv)	Roads used for coal transportation to the linked DRI/TPP shall be developed with 3-tier avenue plantation using a mix of native species. The trucks used for coal transportation shall be high capacity trucks. Drivers of trucks for coal transportation shall be engaged based on past records of road safety and compliance of safety regulations and shall be suitably sensitized about road safety and maintenance of vehicles to keep vehicular emissions to be within prescribed limits.	<p>There is no linked DRI/TPP.</p> <ul style="list-style-type: none"> - Raw coal is received via underground coal conveyor belt network from captive collieries. - Clean coal is dispatched via rail from the Rail-yard situated on the washery premises. The clean coal is kept in storage bins and directly transferred to the rail wagons through covered coal-conveying system. - As for the trucks moving for transportation of tailings and rejects are properly covered with tarpaulin. All the given provisions related to road safety and driver competence are being strictly complied with.
(xxvi)	The roads (internal/approach and roads used for the project) shall be regularly cleaned with mechanical sweepers and with water sprinklers. A 3-tier avenue plantation shall be developed along the major approach roads, internal roads and nearby roads used by the company.	Fixed Water sprinklers have already been installed in the washery premises. Plantation along the road-side is done wherever feasible. A three-tier green belt development is in progress
(xxvii)	Green belt shall be developed along the areas such as the washery unit, crushing unit, and stockyards and at transfer points and in between mine operations and habitations.	Greenery has been developed in many areas around the washery premises. Saplings have been planted along the boundary of washery for greenbelt development.
(xxviii)	Hoppers of the coal crushing unit at the crushing shed and washery unit shall be fitted with high efficiency bag filters/Dust extractors and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of belt conveyor systems which shall be closed and from transportation roads.	<p>Dry-fog dust suppression system has been already installed to suppress the dust generated at CHP and transfer points of belt conveyor systems. Fixed-type water sprinklers are also installed on the internal roads of the washery. These are always operated effectively to check the fugitive emissions.</p> <p>Fugitive dust emission monitoring is done on regularly. The values are within the stipulated norms.</p>

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(xxix)	The proponent shall ensure that coal such as stones, shale and other wastes of an ash content of 77% or more only shall be dumped into the mine voids. Coal rejects with an ash content of 76% or less shall be fully utilized for power generation in linked TPP.	It is being followed.
(xxx)	Regular monitoring of groundwater level and quality including levels of heavy metals such as Hg, Cd, Cr, Se, etc shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity and quality of ground water as per IS: 10500 shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons. Proper records of the data thus collected shall be maintained submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.	<p>The monitoring of groundwater level and quality is done regularly as per the requirements. The groundwater quality report & groundwater level are provided in Annexure-II.</p> <p>The monitoring of heavy metals such as Hg, Cd, Cr, Se, etc in the groundwater is done on quarterly basis by NABL accredited third party and the report has been provided in Annexure-II.</p>
(xxxi)	As the entire mine water is proposed to be used for the mine-cum-washery operations, measures shall be taken for recharging ground water in and around the mine in the study area. A Plan for water conservation and recharge measures of ground water along with budgetary provisions be prepared and implemented in consultation with the Central/State Ground Water Board to mitigate the adverse impact of mining which may lead to depletion of ground water in the area. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall	<p>Some of 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.</p> <p>Further, there are several 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 by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal.</p> <p>The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.</p>

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	be met from rainwater use only. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	
(xxxii)	ETP shall also be provided for treatment of effluents from workshop, CHP and an STP shall be provided in the colony and the treated effluents shall be used for green belt development. Outflow of rainfall, if any, from the mine shall meet prescribed norms and the water quality of such discharge including levels of heavy metals such as Hg, Cd, Cr., Se, etc shall be monitored at the exit points and records maintained thereof and also uploaded on the company website. Online monitoring equipment shall be installed by the proponent to ensure that the water quality parameters of mine water discharge are well within the General Discharge Standards under EP, Rules, 1986.	No effluent is discharged outside of the washery. There is no separate workshop in the washery premises. A central workshop exists in Jamadoba Colliery with Effluent Treatment Plant facility having Oil and Grease Trap. One Sewage Treatment Plant (STP) of 50 KLD and one STP of 10 KLD has been installed in one of the colonies of Jamadoba and Jamadoba canteen. Their treated water is used for gardening and other purpose.
(xxxiii)	Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through a recognised agency found in the district, and the results reported to this Ministry and to DGMS.	Not applicable as this is coal beneficiation plant. Though PME is done for washery workers periodically at our Occupational Health centre. Records of the same has been furnished earlier.
(xxxiv)	For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted	Complied. The land use study has been completed by Indian School of Mines (IIT-ISM) Dhanbad and the report is submitted vide letter no. JMB/ENV/BAC/38/467/2021 dated: 27.06.2021 to Regional Office, MoEFCC at Ranchi

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	to MOEF and its concerned Regional Office in the region.	
(xxxv)	Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.	Not applicable
(xxxvi)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration and for development of grasslands.	Not applicable.
(xxxvii)	<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 environmental clearance conditions shall be furnished.</p> <p>d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-</p>	<p>The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. Attached as an annexure-III.</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, Jamadoba Coal Washery 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.</p>

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	compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	
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B.	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.
(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.	<p>The Air quality monitoring stations are:</p> <p>(i) Jamadoba Group Office (Core Zone)</p> <p>(ii) New Village Colony, Jamadoba (Buffer Zone)</p> <p>(iii) Digwadih 12 No. Colony (Buffer Zone)</p> <p>(iv) 6&7 Pits Kalimandir area (Buffer Zone)</p> <p>Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognised by NABL and JSPCB). The results are enclosed as Annexure-II.</p>
(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, the third party monitoring is being done through a JSPCB & NABL accredited Laboratory for ambient air quality (PM10, PM 2.5, SO2, NOx, CO, NH3, O3) and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure-II .
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA	Regular noise survey is being conducted in the underground work environment. Workers are

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	in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	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 waste-water is discharged outside the washery premises. 100% water is recirculated back for re-use in the washery. There is a central workshop and garage in Jamadoba Effluent Treatment Plant which includes oil and grease trap 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. Coal transportation through trucks is done only from BCCL mines till washery and it is ensured that only optimally loaded trucks with proper tarpaulin cover are allowed into the washery premises.
(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 recognized 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 & NABL recognized 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	The occupational health surveillance programme 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 annually 20% of the workers identified from workforce engaged in active mining operations are

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	issues of the outsourced manpower should be addressed by the company while outsourcing.	subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules. Contractual workers health examination is also done by PME centre.
(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 Bhubaneswar.	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 2022-23 is Rs. 1263.35 lakhs.
(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 an Annexure-IV .
(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 an Annexure-V .
(xv)	A copy of the clearance letter shall be displayed on the website of the	It has been complied with.

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	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.	
(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. The display of information near the washery's office has been provided.
(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 has been complied with.
(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	The environmental statement for financial year 2022-23 has been submitted to JSPCB on 29th September 2023 vide letter no. JMB/ENV/ESSA/05/734/2023 and it is also uploaded on the company website. The soft

Compliance status of Expansion of Jamadoba Coal washery (1 MTPA to 2 MTPA in 7 ha Area) of M/s Tata Steel Ltd. Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/203/2011-IA.II (M) dated March 3, 2014

	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.	copy of Environment Statement is also sent to MOEF by email at ro.ranchi-mef@gov.in.
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ANNEXURE-I

Statement showing measures taken for increasing tree and forest cover

Plantation activities are carried out in the barren land of the colliery leasehold area to increase the green cover as well as in the washery premises. Care is taken to plant only the native species so that native ecosystem is preserved. Following are the details of mass plantation in our leasehold area of Jharia Division for greenery development.

Year	No. of trees planted
FY14	10195
FY15	15800
FY16	10000
FY17	10900
FY18	8500
FY19	10000
FY20	50235
FY21	3000
FY22	10005
FY23	25117
FY24	12452
FY25	12263

Glimpses of plantation activities for FY25:





Annexure- I Greenbelt Development Report

Green belt developed around JCPP is given in the pictures below. Plantation in this monsoon has been done in JCPP to enhance the green belt. The plantations are done in areas in front of MCC building, and near the boundary wall of JCPP to enhance the green cover around the operational areas of washery. Since the washery is in construction phase, three tier plantation has been done in some patches around the boundary wall of the washery premises. Once the washery starts to operate, further plantation will be taken up.



Picture: Existing Green Belt around JCPP

Photographs of some recent plantation activities in this monsoon season are shown below:



Picture: Plantation in area in front of MCC building(JCPP) during this monsoon season.



Picture: Plantation around some patches of the boundary wall of washery (JCPP) during this monsoon season.

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)

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 / 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)

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/02/52/24

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.

P. Mahanta

Lab. Assistant (Environment)

Prady

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)

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)

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/ 372/24

Dated: 01 / 07 / 2024

Re: Ambient Noise Level Report

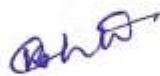
We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below:

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)



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/ 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.


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 / 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.



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

Date: 16.05.2024

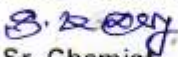
TEST REPORT OF AMBIENT AIR QUALITY

- 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

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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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

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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
	Particulars	Value	28%
1.	Particulate Matter (PM ₁₀), µg/m ³	70.08	NAAQ - CPCB STANDARD 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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Mobile: 09471358492, 09431512608

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

Date: 16.05.2024

TEST REPORT OF AMBIENT AIR QUALITY

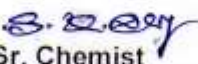
- Name of the industry : M/S TATA STEEL, JAMADOBA,
TATA STEEL LIMITED
JAMADOBA GROUP PLANT,
DIST. - DHANBAD (JHARKHAND)
- Work Order Ref. NO.: : 4700092573/932 Dt. 20.07.2021
- Date of Sample Collection : 09.05.2024 To 10.05.2024
- Date of Testing : 11.05.2024 To 15.05.2024
- Test Procedure : As per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

TEST RESULTS

LOCATION - 6 & 7 PITS COLLIERY OFFICE

	Avg. Ambient Temperature	40°C	Avg. Humidity	28%
Sl No.	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

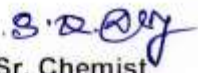
Date: 14.05.2024

TEST REPORT OF MINERALOGICAL COMPOSITION OF PARTICULATE MATTER

- 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 : 10.05.2024
- Date of Testing : 11.05.2024 To 13.05.2024

TEST RESULTS

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

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: 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

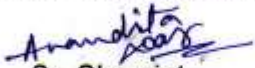
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Ref. No.: - ARDS/24-25/STP/1		Date: 16.05.2024						
TEST REPORT OF SEWAGE								
• Name of the industry		: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)						
• Work Order Ref. NO.:		: 4700092573/932 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


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Aditi R&D Services




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- Digwadiah 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-Digwadiah 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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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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- 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	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. Singh
Technical Manager
Aditi R&D Services, Sindri



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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








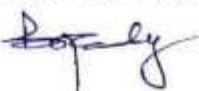


JAT
Technical Manager
Aditi R&D Services, Sindri





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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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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																																																																											
<table border="1"><thead><tr><th colspan="2">Avg. Ambient Temperature</th><th>32°C</th><th>Avg. Humidity</th><th>75%</th></tr><tr><th>Sl No.</th><th>Particulars</th><th>Value</th><th colspan="2">NAAQ - CPCB STANDARD</th></tr></thead><tbody><tr><td>1.</td><td>Particulate Matter (PM₁₀), µg/m³</td><td>64.06</td><td colspan="2">100 µg/m³</td></tr><tr><td>2.</td><td>Particulate Matter (PM_{2.5}), µg/m³</td><td>36.38</td><td colspan="2">60 µg/m³</td></tr><tr><td>3.</td><td>SO₂, µg/m³</td><td>15.92</td><td colspan="2">80 µg/m³</td></tr><tr><td>4.</td><td>NO₂, µg/m³</td><td>23.07</td><td colspan="2">80 µg/m³</td></tr><tr><td>5.</td><td>Ozone, µg/m³</td><td>14.36</td><td colspan="2">180 µg/m³</td></tr><tr><td>6.</td><td>NH₃, µg/m³</td><td>13.98</td><td colspan="2">400 µg/m³</td></tr><tr><td>7.</td><td>CO, mg/m³</td><td>0.76</td><td colspan="2">4 mg/m³</td></tr><tr><td>8.</td><td>Pb, µg/m³</td><td>BDL</td><td colspan="2">1 µg/m³</td></tr><tr><td>9.</td><td>As, ng/m³</td><td>BDL</td><td colspan="2">6 ng/m³</td></tr><tr><td>10.</td><td>Ni, ng/m³</td><td>BDL</td><td colspan="2">20 ng/m³</td></tr><tr><td>11.</td><td>Benzene, µg/m³</td><td>BDL</td><td colspan="2">5 µg/m³</td></tr><tr><td>12.</td><td>Benzoapyrene ng/m³</td><td>BDL</td><td colspan="2">1 ng/m³</td></tr></tbody></table>						Avg. Ambient Temperature		32°C	Avg. Humidity	75%	Sl No.	Particulars	Value	NAAQ - CPCB STANDARD		1.	Particulate Matter (PM ₁₀), µg/m ³	64.06	100 µg/m ³		2.	Particulate Matter (PM _{2.5}), µg/m ³	36.38	60 µg/m ³		3.	SO ₂ , µg/m ³	15.92	80 µg/m ³		4.	NO ₂ , µg/m ³	23.07	80 µg/m ³		5.	Ozone, µg/m ³	14.36	180 µg/m ³		6.	NH ₃ , µg/m ³	13.98	400 µg/m ³		7.	CO, mg/m ³	0.76	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	
Avg. Ambient Temperature		32°C	Avg. Humidity	75%																																																																							
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD																																																																								
1.	Particulate Matter (PM ₁₀), µg/m ³	64.06	100 µg/m ³																																																																								
2.	Particulate Matter (PM _{2.5}), µg/m ³	36.38	60 µg/m ³																																																																								
3.	SO ₂ , µg/m ³	15.92	80 µg/m ³																																																																								
4.	NO ₂ , µg/m ³	23.07	80 µg/m ³																																																																								
5.	Ozone, µg/m ³	14.36	180 µg/m ³																																																																								
6.	NH ₃ , µg/m ³	13.98	400 µg/m ³																																																																								
7.	CO, mg/m ³	0.76	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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	<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>		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						
	<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





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		ADITI R&D SERVICES <i>Testing Laboratory</i> 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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		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/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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	Ref. No.: - ARDS/24-25/DW/1						Date: 17.08.2024	
	<h3 style="margin:0;">TEST REPORT OF DRINKING WATER</h3>							
• 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. Canteen- Jamadoba Colliery 2. Canteen- Jamadoba Washery 3. Canteen- Digwadih Colliery 4. Canteen- 6&7 Pits Colliery						
• Date of Sample Collection: 07.08.2024 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, Total Chromium, Mineral Oil, Alkalinity, Aluminium & Boron.						
<h3 style="margin:0;">TEST RESULT</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)

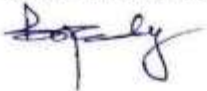
Annexure- II

	<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	Desira ble	Permis sible	
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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	<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>		Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditindservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608						
	Ref. No.: - ARDS/23-24/GW/1		Date: 17.08.2024						
	<h3 style="margin:0;">TEST REPORT OF GROUND WATER</h3>								
• 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. 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 style="margin:0;">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 :									
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.									

	<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
		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 :

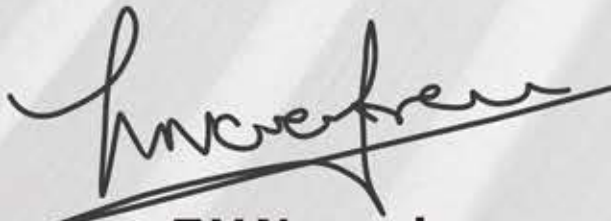
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ENVIRONMENTAL POLICY

Tata Steel's environmental responsibilities are driven by our commitment to preserve the environment and are integral to the way we do business.

1. We are committed to deal proactively with Climate Change issue by efficient use of natural resources & energy; reducing and preventing pollution; promoting waste avoidance and recycling measures; and product stewardship.
 - We shall identify, assess and manage our environment impact.
 - We shall regularly monitor, review and report publicly our environmental performance.
 - We shall develop & rehabilitate abandoned sites through afforestation and landscaping and shall protect and preserve the biodiversity in the areas of our operations.
 - We shall enhance awareness, skill and competence of our employees and contractors so as to enable them to demonstrate their involvement, responsibility and accountability for sound environmental performance.
2. We are committed to continual improvement in our environmental performance.
 - We shall set objective-targets, develop, implement and maintain management standards and systems, and go beyond compliance of the relevant industry standards, legal and other requirements.
3. We will truly succeed when we sustain our environmental achievement and are valued by the communities in which we work.

Date : November 1, 2017


T V Narendran
CEO & Managing Director

FROM THE PRESS

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)

FROM THE PRESS

Publication

DAINIK BHASKAR, DHANBAD Date 11-3-14



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

ANNEXURE-V

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

