



**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/KOCP/24/ 706/2024  
November 27<sup>th</sup>, 2024

Ref.: Environmental Clearance letter no. - J-11015/252/2005-IA. II (M) dated June 22, 2006

**SUB: Half Yearly Compliance Status Report of Environment Clearance conditions  
issued by MoEFCC, New Delhi to Kalimela Open Cast Project, 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-11015/252/2005-IA. II(M), Dated-22<sup>nd</sup> June 2006 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, 5<sup>th</sup> 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](http://www.tatasteel.com)

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

<b>Proposal No</b>	IA/JH/CMIN/8145/2005
<b>Compliance ID</b>	72281563
<b>Compliance Number(For Tracking)</b>	EC/M/COMPLIANCE/72281563/2024
<b>Reporting Year</b>	2024
<b>Reporting Period</b>	01 Dec(01 Apr - 30 Sep)
<b>Submission Date</b>	29-11-2024
<b>RO/SRO Name</b>	ARTATRANA MISHRA
<b>RO/SRO Email</b>	jhk109@ifs.nic.in
<b>State</b>	JHARKHAND
<b>RO/SRO Office Address</b>	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**

<b>Proposal Name</b>		Kalimela OCP Expn.	
<b>Name of Entity / Corporate Office</b>		Tata Steel Ltd.	
<b>Village(s)</b>		N/A	
<b>District</b>		DHANBAD	
<b>Proposal No.</b>	IA/JH/CMIN/8145/2005	<b>Category</b>	Coal Mining
<b>Plot / Survey / Khasra No.</b>	N/A	<b>Sub-District</b>	N/A
<b>State</b>	JHARKHAND	<b>Entity's PAN</b>	*****2803M
<b>MoEF File No.</b>	J-11015/252/2005-IA.II(M)	<b>Entity name as per PAN</b>	UTSAV KASHYAP

**Compliance Reporting Details**

<b>Reporting Year</b>	2024
<b>Remarks (if any)</b>	Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006 for October 2023 to March 2024.
<b>Reporting Period</b>	01 Dec(01 Apr - 30 Sep)

**Details of Production and Project Area**

<b>Name of Entity / Corporate Office</b>	Tata Steel Ltd.	
	<b>Project Area as per EC Granted</b>	<b>Actual Project Area in Possession</b>
Private	0	0
Revenue Land	14.37	14.37
Forest	0	0
Others	23.67	23.67
Total	38.04	38.04

**Production Capacity**

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Coal	Million Tons per Annum (MTPA)	N/A	0.3	0	

## Conditions

### Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	All the conditions stipulated by SPCB in their NOC no N-35 dated 31.01.2005 are to be implemented effectively.
<b>PPs Submission:</b> Complied NOC conditions are being complied with. The open cast operations have ceased, and no raw coal production is taking place. Currently the backfilling of the mine void by the OB has been completed and biological reclamation work is in progress.		Date: 16/11/2024
2	MISCELLANEOUS	The bund/embankment shall be designed taking into account highest flood level, based on past data, in the Damodar River/ Dungri Jore so as to guard against mine inundation.
<b>PPs Submission:</b> Complied The embankment exists along Dungri Jore. The HFL (Highest flood line) of Damodar river is way below the surface level of open cast mine hence bunds across the river is not necessary.		Date: 16/11/2024
3	GREENBELT	Topsoil should be stacked properly with proper slope at earmarked sites and should not be kept active and shall be used for reclamation and development of green belt.
<b>PPs Submission:</b> Complied No further top soil will be generated as coal mining activity has been ceased. The back filling has been completed and the top soil is being used for biological reclamation of backfilled and OB area.		Date: 16/11/2024
4	Statutory compliance	OB should be stacked at earmarked external OB dumpsite(s) within ML area and shall be a maximum height of 60m only and consist of benches of 10m each. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin at the end of 3rd year in the decoaled area. Monitoring and management of existing reclaimed dumpsites should continue until the vegetation becomes self-sustaining. Compliance Status should be submitted to the MOEF and its regional office at Bhubaneswar on yearly basis.
<b>PPs Submission:</b> Complied OB was stacked within ML area at an area of 12 ha approx. About 24.08 lakh cum of OB generated has been stacked with an approximate height reached of 50 mts. The other conditions are being followed as well. This OB has been used for backfilling the mine pit as part of our mine closure plan. Now the backfilling work has been completed and biological reclamation work is in progress.		Date: 16/11/2024
5	MISCELLANEOUS	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity should 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 should also provide adequate retention period to allow proper settling of slit material.
<b>PPs Submission:</b> Complied Catch drain and siltation ponds have been constructed to arrest the debris, silt and sediment flows from OB dumps. Collected water had been used for watering mine area, roads and plantation. Total length of catch drains was 2200 mts. Garland drains (about 1790 mts) had been completely constructed around the mine site to ensure runoff water during rainy season is properly drained off. Since mine area has not going to expand, no additional garland drains are required as of now.		Date: 16/11/2024
6	MISCELLANEOUS	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data
<b>PPs Submission:</b> Complied Retention wall (or Toe wall) of about 2200 mts. exists around the dump area to check run-off and siltation.		Date: 16/11/2024
7	MISCELLANEOUS	The effluents from the coal washery shall be treated to prescribed norms before discharge from the lease.
<b>PPs Submission:</b> Complied There is no separate coal washery for OCP Kalimela. We have a central coal washery for Jamadoba group of mines, about 1.5 kms away, which has a closed water circuit system to maintain zero discharge.		Date: 16/11/2024
8	AIR QUALITY MONITORING AND PRESERVATION	Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
<b>PPs Submission:</b> Complied There is no separate CHP for OCP Kalimela. The existing CHP for Jamadoba group of mines already has adequate measures in place such as water sprinkling system (fixed and movable) and dry fog system.		Date: 16/11/2024
9	AIR QUALITY MONITORING AND PRESERVATION	Drills should be wet operated.
<b>PPs Submission:</b> Complied It is not applicable now as mining has ceased.		Date: 16/11/2024
10	AIR QUALITY MONITORING AND PRESERVATION	Controlled blasting should be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibration and to arrest the fly rocks and boulders should be implemented.
<b>PPs Submission:</b> Complied It is not applicable now as mining has ceased.		Date: 16/11/2024
11	GREENBELT	Area brought under afforestation includes reclaimed external OB dump (12.89 ha), backfilled area (25.15 ha), along ML boundary, along roads (0.45 ha) and in undisturbed area (1.14 ha) within the lease area by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

<b>PPs Submission:</b> Complied The backfilling work has been completed and the biological reclamation work is in progress.		Date: 16/11/2024
12	LAND RECLAMATION	A progressive closure plan shall be implemented by reclamation of quarry area of 25.15 ha which shall be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. The balance 1.10 ha of decoaled area shall be converted into a water reservoir, the upper benches of which shall be gently sloped and stabilized and reclaimed with plantation.
<b>PPs Submission:</b> Complied The reclamation work is in progress as per the progressive mine closure Plan. The mine closure plan of KOCF is under mining plan of Jamadoba Colliery (including MCP of Kalimela) has been approved by MOC, Delhi.		Date: 16/11/2024
13	MISCELLANEOUS	Conservation Plan for endangered species, if any, found in and around the project area shall be formulated, if required, in consultation with the State Forest and Wildlife Departments.
<b>PPs Submission:</b> Complied Not Applicable.		Date: 16/11/2024
14	WATER QUALITY MONITORING AND PRESERVATION	The company shall obtain prior approval of CGWA/ CGWB Regional Office for use of groundwater if any, for mining operations.
<b>PPs Submission:</b> Complied Not Applicable.		Date: 16/11/2024
15	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board quarterly within one month of monitoring.
<b>PPs Submission:</b> Complied Now there will be no impact on ground water as mining has ceased. However, quality of groundwater is regularly analysed as required and attached in Annexure-II		Date: 16/11/2024
16	WATER QUALITY MONITORING AND PRESERVATION	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
<b>PPs Submission:</b> Complied Now there will be no impact on ground water as mining has ceased. However, quality of groundwater is regularly analysed as required and attached in Annexure-II		Date: 29/11/2024
17	WATER QUALITY MONITORING AND PRESERVATION	ETP should also be provided for workshop, coal washery and CHP wastewater.
<b>PPs Submission:</b> Complied		Date:

It is not applicable. Though ETP for Central Workshop has been commissioned having facility of Oil and Grease Trap.		16/11/2024
18	Statutory compliance	R&R shall not be less than the norms laid down by the State Government and shall be completed within a specified time-frame.
<b>PPs Submission:</b> Complied It is not applicable.		Date: 16/11/2024
19	Statutory compliance	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval.
<b>PPs Submission:</b> Complied It has been approved by MOC, Delhi and submitted to MoEF and CC.		Date: 16/11/2024
20	Statutory compliance	Consent to operate shall be obtained before starting mining operations.
<b>PPs Submission:</b> Complied Consent to operate was obtained from JSPCB vide letter ref. No. SPCB/HO/RNC/CTO-13226858/2022/959 dated-04.07.2022, which was valid up to 30.09.2023, for backfilling and reclamation. The activities were completed, and biological reclamation is ongoing with trees plantation. Hence, the CTO was surrendered on 20.07.2023 vide letter no. JMB/ENV/SPCB/08/519/2023. Letter attached as an Annexure.		Date: 29/11/2024
<b>General Conditions</b>		
Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions should be kept under control and regularly monitored. Vehicle used for transporting the mineral should be covered with tarpaulins and optimally loaded.
<b>PPs Submission:</b> Complied No mineral is being transported now. The vehicles carrying OB are only allowed to ply after securing full compliance on vehicle check list. Check list ensures the optimum load, good condition, emissions under limit.		Date: 16/11/2024
2	Statutory compliance	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and forest.
<b>PPs Submission:</b> Complied All mining excavation activities are terminated. Reclamation work is in progress		Date: 16/11/2024
3	Statutory compliance	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
<b>PPs Submission:</b> Complied All mining excavation activities are terminated. Reclamation work is in progress.		Date: 16/11/2024
4	AIR QUALITY MONITORING AND PRESERVATION	Four Ambient Air quality monitoring station should be established in the core zones as well as in the buffer zone SPM, RSPM, SO2 and NOX monitoring location of the stations should be decided based on the metrological data & topographical features & environmentally &

		ecologically sensitive targets in consultation with SPCB.
<b>PPs Submission:</b> Complied The operations have now ceased. The ambient air monitoring is done at 4 locations and the reports are attached as Annexure -II		Date: 29/11/2024
5	AIR QUALITY MONITORING AND PRESERVATION	Fugitive dust emissions (SPM & RSPM) from all the sources should be controlled regularly monitored & data recorded properly. Water spraying arrangement on haul roads, wagon loading, and dump trucks (loading & unloading) points should be provided & properly maintained.
<b>PPs Submission:</b> Complied Presently no coal excavation and coal transportation jobs are going on. However, water sprinkling on roads is being done regularly.		Date: 16/11/2024
6	AIR QUALITY MONITORING AND PRESERVATION	Data on ambient air quality (SPM, RSPM, SOx & NOx) should be regularly submitted to the Ministry including its regional office at Bhubaneswar and to the SPCB & CPCB once in six months.
<b>PPs Submission:</b> Complied The ambient air monitoring is done at 4 locations and the reports are submitted to SPCB, CPCB and MoEFCC on half yearly basis Annexure - II		Date: 29/11/2024
7	Noise Monitoring & Prevention	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations of HEMM etc. All should be provided with Ear Plug/Muff.
<b>PPs Submission:</b> Complied It is not applicable now.		Date: 16/11/2024
8	WATER QUALITY MONITORING AND PRESERVATION	Industrial waste water (Workshop and Waste water from the mine) should 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 discharged. Oil and Grease trap should be installed before discharge of Work shop effluent.
<b>PPs Submission:</b> Complied There is no generation of wastewater.		Date: 16/11/2024
9	MISCELLANEOUS	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the SPCB.
<b>PPs Submission:</b> Complied We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis are also done at regular intervals by a NABL and JSPCB recognised laboratory.		Date: 16/11/2024
10	Human Health Environment	Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspect. Occupational Health Surveillance programme of the worker should be under taken periodically to observe any contraction due to exposure to dust and to take corrective measures if needed.
<b>PPs Submission:</b> Complied		Date:



It is not applicable now.		16/11/2024
11	MISCELLANEOUS	A separate Environmental Management cell with suitable qualified personnel should be set up under the control of a senior executive, who will report directly to the Head of the Company.
<b>PPs Submission:</b> Complied We have a separate Environmental Management Cell with four qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.		Date: 16/11/2024
12	Corporate Environmental Responsibility	Funds earmarked for environmental protection measures should be kept in separate A/C and should not be diverted for other purposes. Year wise expenditure should be reported to this ministry and its regional office at Bhubaneswar.
<b>PPs Submission:</b> Complied The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements.		Date: 16/11/2024
13	MISCELLANEOUS	The regional office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities shall extend full co-operation to the officer of regional office by furnishing the requisite Data/ information/ monitoring report.
<b>PPs Submission:</b> Complied Being complied. All data is being furnished in the compliance report and during inspection.		Date: 16/11/2024
<p style="text-align: center;"><b>Visit Remarks</b></p>		
<b>Last Site Visit Report Date:</b>		N/A
<b>Additional Remarks:</b>		
<p><b>Note:</b> 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)**

**OCP KALIMELA PROJECT  
UNDER JAMADOBA COLLIERY**



**TATA STEEL LIMITED, JHARIA DIVISION**

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

**ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-11015/252/2005-  
IA.II(M) DATED- 22<sup>ND</sup> JUNE 2006 ISSUED BY GOVT. OF INDIA, MINISTRY OF  
ENVIRONMENT & FOREST, NEW DELHI.**

**Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006**

S. No.	Condition	Compliance Status
<b>Specific Condition:</b>		
(i)	All the conditions stipulated by SPCB in their NOC no N-35 dated 31.01.2005 are to be implemented effectively.	<p>NOC conditions are being complied with. The open cast operations have ceased, and no raw coal production is taking place.</p> <p>Currently the backfilling of the mine void by the OB has been completed and biological reclamation work is in progress.</p>
(ii)	The bund/embankment shall be designed taking into account highest flood level, based on past data, in the Damodar River/ Dungri Jore so as to guard against mine inundation.	The embankment exists along Dungri Jore. The HFL (Highest flood line) of Damodar river is way below the surface level of open cast mine hence bunds across the river is not necessary.
(iii)	Topsoil should be stacked properly with proper slope at earmarked sites and should not be kept active and shall be used for reclamation and development of green belt.	<p>No further top soil will be generated as coal mining activity has been ceased.</p> <p>The back filling has been completed and the top soil is being used for biological reclamation of backfilled and OB area.</p>
(iv)	OB should be stacked at earmarked external OB dumpsite(s) within ML area and shall be a maximum height of 60m only and consist of benches of 10m each. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin at the end of 3rd year in the decoaled area. Monitoring and management of existing reclaimed dumpsites should continue until the vegetation becomes self-sustaining. Compliance Status should be submitted to the MOEF and its regional office at Bhubaneswar on yearly basis.	<p>OB was stacked within ML area at an area of 12 ha approx. About 24.08 lakh cum of OB generated has been stacked with an approximate height reached of 50 mts. The other conditions are being followed as well.</p> <p>This OB has been used for backfilling the mine pit as part of our mine closure plan. Now the backfilling work has been completed and biological reclamation work is in progress.</p>
(v)	<p>Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.</p> <p>Garland drains (size, gradient and length) and sump capacity should 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 should also provide adequate retention period to allow proper settling of slit material.</p>	<p>Catch drain and siltation ponds have been constructed to arrest the debris, silt and sediment flows from OB dumps. Collected water had been used for watering mine area, roads &amp; plantation. Total length of catch drains was 2200 mts.</p> <p>Garland drains (about 1790 mts) had been completely constructed around the mine site to ensure runoff water during rainy season is properly drained off. Since mine area has not going to expand, no additional garland drains are required as of now.</p>

**Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006**

(vi)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data	Retention wall (or Toe wall) of about 2200 mts. exists around the dump area to check run-off and siltation.
(vii)	The effluents from the coal washery shall be treated to prescribed norms before discharge from the lease.	There is no separate coal washery for OCP Kalimela. We have a central coal washery for Jamadoba group of mines, about 1.5 kms away, which has a closed water circuit system to maintain zero discharge.
(viii)	Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.	There is no separate CHP for OCP Kalimela. The existing CHP for Jamadoba group of mines already has adequate measures in place such as water sprinkling system (fixed and movable) and dry fog system.
(ix)	Drills should be wet operated.	It is not applicable now as mining has ceased.
(x)	Controlled blasting should be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibration and to arrest the fly rocks and boulders should be implemented.	It is not applicable now as mining has ceased.
(xi)	Area brought under afforestation includes reclaimed external OB dump (12.89 ha), backfilled area (25.15 ha), along ML boundary, along roads (0.45 ha) and in undisturbed area (1.14 ha) within the lease area by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	The backfilling work has been completed and the biological reclamation work is in progress.
(xii)	A progressive closure plan shall be implemented by reclamation of quarry area of 25.15 ha which shall be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. The balance 1.10 ha of decoaled area shall be converted into a water reservoir, the upper benches of which shall be gently sloped and stabilized and reclaimed with plantation.	<p>The reclamation work is in progress as per the progressive mine closure Plan.</p> <p>The mine closure plan of KOCP is under mining plan of Jamadoba Colliery (including MCP of Kalimela) has been approved by MOC, Delhi.</p>
(xiii)	Conservation Plan for endangered species, if any, found in and around the project area shall be formulated, if required, in consultation with the State Forest and Wildlife Departments.	Not Applicable.

**Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006**

(xiv)	The company shall obtain prior approval of CGWA/ CGWB Regional Office for use of groundwater if any, for mining operations.	Not Applicable.
(xv)	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board quarterly within one month of monitoring.	Now there will be no impact on ground water as mining has ceased. However, quality of groundwater is regularly analysed as required and attached in <b>Annexure I</b> .
(xvi)	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	Now there will be no impact on ground water as mining has ceased. However, quality of groundwater is regularly analysed as required and attached in <b>Annexure-I</b>
(xvii)	ETP should also be provided for workshop, coal washery and CHP wastewater.	It is not applicable. Though ETP for Central Workshop has been commissioned having facility of Oil & Grease Trap.
(xviii)	R&R shall not be less than the norms laid down by the State Government and shall be completed within a specified time-frame.	It is not applicable.
(xix)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval.	It has been approved by MOC, Delhi and submitted to MoEF&CC.
(xx)	Consent to operate shall be obtained before starting mining operations.	Consent to operate was obtained from JSPCB vide letter ref. No. SPCB/HO/RNC/CTO-13226858/2022/959 dated-04.07.2022, which was valid up to 30.09.2023, for backfilling and reclamation. The activities were completed, and biological reclamation is ongoing with trees plantation. Hence, the CTO was surrendered on 20.07.2023 vide letter no. JMB/ENV/SPCB/08/519/2023. Letter attached as an Annexure- II.
<b>General Conditions:</b>		
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and forest.	All mining excavation activities are terminated. Reclamation work is in progress

**Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006**

(i)	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	All mining excavation activities are terminated. Reclamation work is in progress.
(ii)	Four Ambient Air quality monitoring station should be established in the core zones as well as in the buffer zone SPM, RSPM, SO <sub>2</sub> and NO <sub>x</sub> monitoring location of the stations should be decided based on the metrological data & topographical features & environmentally & ecologically sensitive targets in consultation with SPCB.	The operations have now ceased. The ambient air monitoring is done at 4 locations and the reports are attached as <b>Annexure- I</b> .
(iii)	Fugitive dust emissions (SPM & RSPM) from all the sources should be controlled regularly monitored & data recorded properly. Water spraying arrangement on haul roads, wagon loading, and dump trucks (loading & unloading) points should be provided & properly maintained.	Presently no coal excavation and coal transportation jobs are going on. However, water sprinkling on roads is being done regularly.
(iv)	Data on ambient air quality (SPM, RSPM, SO <sub>x</sub> & NO <sub>x</sub> ) should be regularly submitted to the Ministry including its regional office at Bhubaneswar and to the SPCB & CPCB once in six months.	The ambient air monitoring is done at 4 locations and the reports are submitted to SPCB, CPCB & MoEFCC on half yearly basis ( <b>Annexure- I</b> ).
(v)	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations of HEMM etc. All should be provided with Ear Plug/Muff.	It is not applicable now.
(vi)	Industrial waste water (Workshop and Waste water from the mine) should 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 discharged. Oil and Grease trap should be installed before discharge of Work shop effluent.	There is no generation of wastewater.
(vii)	Vehicular emissions should be kept under control and regularly monitored. Vehicle used for transporting the mineral should be covered with tarpaulins and optimally loaded.	No mineral is being transported now. The vehicles carrying OB are only allowed to ply after securing full compliance on vehicle check list. Check list ensures the optimum load, good condition, emissions under limit.
(viii)	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the SPCB.	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis are also done at regular intervals by a NABL and JSPCB recognised laboratory

**Compliance status of Environmental Clearance of Kalimela Open Cast Mining Project (0.34 MTPA) of M/s Tata Steel Ltd., Village Dungri, Tehsil Jharia, dist. Dhanbad, Jharkhand vide MoEFCC Letter no J-11015/252/2005-IA.II (M) dated June 22, 2006**

(ix)	Personnel working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspect. Occupational Health Surveillance programme of the worker should be under taken periodically to observe any contraction due to exposure to dust and to take corrective measures if needed.	It is not applicable now.
(x)	A separate Environmental Management cell with suitable qualified personnel should 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 four qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.
(xi)	Funds earmarked for environmental protection measures should be kept in separate A/C and should not be diverted for other purposes. Year wise expenditure should 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.
(xii)	The regional office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities shall extend full co-operation to the officer of regional office by furnishing the requisite Data/ information/ monitoring report.	Being complied. All data is being furnished in the compliance report and during inspection.

## 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 <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - 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 <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - 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 <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - 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 <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - 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 <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - Less than 2.5-micron Particulate Matter  
µg - Microgram

This is for your information and necessary action please.

  
**Lab. Assistant (Environment)**

  
**Area Manager (Environment)**

**TATA STEEL LIMITED**  
JHARIA DIVISION

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

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

**Re: AIR QUALITY REPORT**

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

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m <sup>3</sup>	RSPM 24 Hourly Limit-300 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-120 µg/m <sup>3</sup>
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 <sub>10</sub> 24 Hourly Limit-100 µg/m <sup>3</sup>	PM <sub>2.5</sub> 24 Hourly Limit- 60 µg/m <sup>3</sup>	SO <sub>2</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>	NO <sub>x</sub> 24 Hourly Limit-80 µg/m <sup>3</sup>
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:** PM<sub>10</sub> - Less than 10-micron Particulate Matter  
PM<sub>2.5</sub> - Less than 2.5-micron Particulate Matter  
µg - Microgram

This is for your information and necessary action please.

  
**Lab. Assistant (Environment)**

  
**Area Manager (Environment)**

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

Annexure- II

**TATA STEEL LIMITED**  
JHARIA DIVISION

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

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

Dated: 02/05/2024

**Re: Ambient Noise Level Report**

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

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

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

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		
	<b>Residential Area (Buffer Zone)</b>		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		
	<b>Industrial Area (Core Zone)</b>		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**

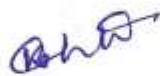
We wish to inform you that Ambient Noise Level Monitoring was carried out in **JAMADOBA GROUP** in the month of **JUNE'2024**. The results are as given below:

S.No	Monitoring Station	Date	Day (06.00 – 22.00 Hrs.)			Night (22.00-06.00 Hrs)		
			CPCB Standard- 55			CPCB Standard- 45		
	<b>Residential Area (Buffer Zone)</b>		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		
	<b>Industrial Area (Core Zone)</b>		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		
	<b>Residential Area (Buffer Zone)</b>		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		
	<b>Industrial Area (Core Zone)</b>		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		
	<b>Residential Area (Buffer Zone)</b>		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		
	<b>Industrial Area (Core Zone)</b>		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		
	<b>Residential Area (Buffer Zone)</b>		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		
	<b>Industrial Area (Core Zone)</b>		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.

*P. Mahato.*

Lab. Assistant (Environment)

*P. Mahato.*

Area Manager (Environment)

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

Annexure- II

**TATA STEEL LIMITED**  
JHARIA DIVISION

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

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

**Sub: STP WATER ANALYSIS REPORT.**

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

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

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

This is for your information and necessary action please.



Lab.Assistant (Environment)



Area Manager (Environment)



**TATA STEEL LIMITED**  
JHARIA DIVISION

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

**JAMADOBA GROUP**

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

*P. Mahato*

Lab.Assistant (Environment)

*P. Mahato*

Area Manager (Environment)

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

Annexure- II

**TATA STEEL LIMITED**  
JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant  
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

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Website: aditimdservices.com  
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Fax: 0326-2952377  
Mobile: 09471358492, 09431512608

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

Date: 16.05.2024

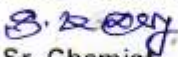
### TEST REPORT OF AMBIENT AIR QUALITY

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

### TEST RESULTS

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

NOTE: BDL - Below Detection Limit

  
Sr. Chemist  
Aditi R&D Services



  
Technical Manager  
Aditi R&D Services, Sindri

#### Statements :

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Fax: 0326-2952377  
Mobile: 09471358492, 09431512608

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

Date: 16.05.2024

## TEST REPORT OF AMBIENT AIR QUALITY

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

## TEST RESULTS

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

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			
<b>TEST REPORT OF AMBIENT AIR QUALITY</b>					
• 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			
<b>TEST RESULTS</b>					
<b>LOCATION – TATA CENTRAL HOSPITAL</b>					
SI No.	Avg. Ambient Temperature	40°C	Avg. Humidity	28%	
	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	70.08	100 µg/m <sup>3</sup>		
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	40.57	60 µg/m <sup>3</sup>		
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	16.18	80 µg/m <sup>3</sup>		
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	25.80	80 µg/m <sup>3</sup>		
5.	Ozone, µg/m <sup>3</sup>	16.32	180 µg/m <sup>3</sup>		
6.	NH <sub>3</sub> , µg/m <sup>3</sup>	17.57	400 µg/m <sup>3</sup>		
7.	CO, mg/m <sup>3</sup>	0.88	4 mg/m <sup>3</sup>		
8.	Pb, µg/m <sup>3</sup>	BDL	1 µg/m <sup>3</sup>		
9.	As, ng/m <sup>3</sup>	BDL	6 ng/m <sup>3</sup>		
10.	Ni, ng/m <sup>3</sup>	BDL	20 ng/m <sup>3</sup>		
11.	Benzene, µg/m <sup>3</sup>	BDL	5 µg/m <sup>3</sup>		
12.	Benzoapyrene ng/m <sup>3</sup>	BDL	1 ng/m <sup>3</sup>		
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/1

Date: 16.05.2024

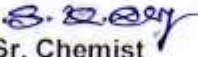
## TEST REPORT OF AMBIENT AIR QUALITY

- 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 <sub>10</sub> ), µg/m <sup>3</sup>	89.38	100 µg/m <sup>3</sup>	
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	52.81	60 µg/m <sup>3</sup>	
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	23.15	80 µg/m <sup>3</sup>	
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	28.46	80 µg/m <sup>3</sup>	
5.	Ozone, µg/m <sup>3</sup>	17.83	180 µg/m <sup>3</sup>	
6.	NH <sub>3</sub> , µg/m <sup>3</sup>	14.88	400 µg/m <sup>3</sup>	
7.	CO, mg/m <sup>3</sup>	0.82	4 mg/m <sup>3</sup>	
8.	Pb, µg/m <sup>3</sup>	BDL	1 µg/m <sup>3</sup>	
9.	As, ng/m <sup>3</sup>	BDL	6 ng/m <sup>3</sup>	
10.	Ni, ng/m <sup>3</sup>	BDL	20 ng/m <sup>3</sup>	
11.	Benzene, µg/m <sup>3</sup>	BDL	5 µg/m <sup>3</sup>	
12.	Benzoapyrene ng/m <sup>3</sup>	BDL	1 ng/m <sup>3</sup>	

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

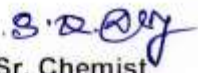
Date: 14.05.2024

## 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 <sub>2</sub>	FeO	Al <sub>2</sub> O <sub>3</sub>	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, SO<sub>4</sub>

## 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 <sub>4</sub> , mg/l	57.3	60.1	400	IS-3025 (P-24):1986

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



Technical Manager  
Aditi R&D Services, Sindri

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## TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

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

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



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

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Fax: 0326-2952377  
Mobile: 09471358492, 09431512608

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






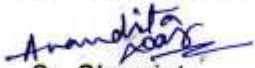


*Barji*  
Technical Manager  
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/24-25/STP/1		Date: 16.05.2024						
<b>TEST REPORT OF SEWAGE</b>								
• 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.						
<b>TEST RESULT</b>								
Sl. No.	PARAMETERS OF TEST	VALUE					As per MoEF&CC Notification dated 13 <sup>th</sup> 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			
<b>TEST REPORT OF EFFLUENT</b>					
• 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.			
<b>TEST RESULT</b>					
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					
 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: 16.05.2024

### TEST REPORT OF DRINKING WATER

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

### TEST RESULT

Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen-Digwadih Colliery	Canteen-6&7 Pits Colliery	Desirable	Permissible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-7):2017
4.	Turbidity, NTU	NIL	2.0	NIL	NIL	1.0	5.0	IS 3025 (P-10):1984
5.	pH	8.4	8.2	8.2	8.1	6.5-8.5	No. Relax.	IS-3025 (P-11):1983
6.	Total Hardness as CaCO <sub>3</sub> , 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 <sub>2</sub> 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 <sub>3</sub> , mg/l	67.2	60.8	72	44.8	75	200	IS 3025 (P-40):1991
11.	Copper as Cu, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.05	1.5	IS 3025 (P-42):1992

Continued on Page 2



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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen 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 <sub>4</sub> , mg/l	50.14	57.6	59.7	37.9	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO <sub>3</sub> , 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 <sub>6</sub> H <sub>5</sub> 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 <sub>3</sub> , mg/l,	499.2	489.6	518.4	196.8	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):2005

NOTE: BDL - Below Detection Limit

*Anandita*  
Sr. Chemist  
Aditi R&D Services

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



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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 <sub>3</sub> , 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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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	Kalimola Kalimandir	6&7 Pits (Ayo dhya Nagri)	Desirable	Permissible	
11	Sulphate as SO <sub>4</sub> , 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 <sub>3</sub> , 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 <sub>3</sub> , 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

**Statements :**


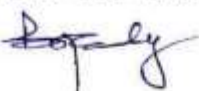


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Ref. No.: - ARDS/24-25/AAQ/1		Date: 14.08.2024			
<b><u>TEST REPORT OF AMBIENT AIR QUALITY</u></b>					
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)			
•	Work Order Ref. NO.:	: 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			
<b><u>TEST RESULTS</u></b>					
<b>LOCATION – 6 &amp; 7 PITS COLLIERY OFFICE</b>					
	Avg. Ambient Temperature	32°C	Avg. Humidity	75%	
SI No.	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	76.72	100 µg/m <sup>3</sup>		
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	44.61	60 µg/m <sup>3</sup>		
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	17.13	80 µg/m <sup>3</sup>		
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	25.66	80 µg/m <sup>3</sup>		
5.	Ozone, µg/m <sup>3</sup>	15.24	180 µg/m <sup>3</sup>		
6.	NH <sub>3</sub> , µg/m <sup>3</sup>	14.10	400 µg/m <sup>3</sup>		
7.	CO, mg/m <sup>3</sup>	0.77	4 mg/m <sup>3</sup>		
8.	Pb, µg/m <sup>3</sup>	BDL	1 µg/m <sup>3</sup>		
9.	As, ng/m <sup>3</sup>	BDL	6 ng/m <sup>3</sup>		
10.	Ni, ng/m <sup>3</sup>	BDL	20 ng/m <sup>3</sup>		
11.	Benzene, µg/m <sup>3</sup>	BDL	5 µg/m <sup>3</sup>		
12.	Benzoapyrene ng/m <sup>3</sup>	BDL	1 ng/m <sup>3</sup>		
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	
<b><u>TEST REPORT OF AMBIENT AIR QUALITY</u></b>					
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			
<b><u>TEST RESULTS</u></b>					
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 <sub>10</sub> ), µg/m <sup>3</sup>	70.35	100 µg/m <sup>3</sup>		
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	39.28	60 µg/m <sup>3</sup>		
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	18.14	80 µg/m <sup>3</sup>		
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	29.13	80 µg/m <sup>3</sup>		
5.	Ozone, µg/m <sup>3</sup>	16.65	180 µg/m <sup>3</sup>		
6.	NH <sub>3</sub> , µg/m <sup>3</sup>	14.10	400 µg/m <sup>3</sup>		
7.	CO, mg/m <sup>3</sup>	0.40	4 mg/m <sup>3</sup>		
8.	Pb, µg/m <sup>3</sup>	BDL	1 µg/m <sup>3</sup>		
9.	As, ng/m <sup>3</sup>	BDL	6 ng/m <sup>3</sup>		
10.	Ni, ng/m <sup>3</sup>	BDL	20 ng/m <sup>3</sup>		
11.	Benzene, µg/m <sup>3</sup>	BDL	5 µg/m <sup>3</sup>		
12.	Benzoapyrene ng/m <sup>3</sup>	BDL	1 ng/m <sup>3</sup>		
NOTE: BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
<b>Statements :</b> 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.					





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Ref. No.: - ARDS/24-25/ AAQ/3				Date: 14.08.2024	
<b><u>TEST REPORT OF AMBIENT AIR QUALITY</u></b>					
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			
<b><u>TEST RESULTS</u></b>					
LOCATION – CENTRAL WORKSHOP AREA , JAMADOBA					
Avg. Ambient Temperature		32°C	Avg. Humidity		75%
Sl No.	Particulars	Value	NAAQ - CPCB STANDARD		
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	76.48	100 µg/m <sup>3</sup>		
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	50.14	60 µg/m <sup>3</sup>		
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	14.90	80 µg/m <sup>3</sup>		
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	23.25	80 µg/m <sup>3</sup>		
5.	Ozone, µg/m <sup>3</sup>	16.38	180 µg/m <sup>3</sup>		
6.	NH <sub>3</sub> , µg/m <sup>3</sup>	14.76	400 µg/m <sup>3</sup>		
7.	CO, mg/m <sup>3</sup>	0.81	4 mg/m <sup>3</sup>		
8.	Pb, µg/m <sup>3</sup>	BDL	1 µg/m <sup>3</sup>		
9.	As, ng/m <sup>3</sup>	BDL	6 ng/m <sup>3</sup>		
10.	Ni, ng/m <sup>3</sup>	BDL	20 ng/m <sup>3</sup>		
11.	Benzene, µg/m <sup>3</sup>	BDL	5 µg/m <sup>3</sup>		
12.	Benzoapyrene ng/m <sup>3</sup>	BDL	1 ng/m <sup>3</sup>		
NOTE: BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
<b>Statements :</b>					
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	<h2 style="margin:0;">ADITI R&amp;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 <b>ARDS/24-25/NOISE/1</b> Date: 14.08.2024		NAME AND ADDRESS OF THE CLIENT <b>M/S TATA STEEL, JAMADOBA,</b> <b>TATA STEEL LIMITED, JAMADOBA GROUP PLANT,</b> <b>DIST. - DHANBAD (JHARKHAND)</b>						
Date of Monitoring <b>07.08.2024 To 09.08.2024</b>		Avg. Ambient Temperature (°C) <b>32</b>	Average Humidity (%) <b>75</b>	Weather Condition <b>Clear</b>	Status of the plant <b>Running</b>				
Work Order 4700126557/932 Date:- 29/05/2024									
<b>MONITORING RESULTS</b>									
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
<b>LOCATION</b>									
<b>JAMADOBA GROUP</b>									
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		
								<b>Residential Area</b>	<b>Residential Area</b>
3.	Officer Colony 12 No. Digwadih	63.9	50.6	61.09	51.2	40.8	48.57	65	55
								<b>Silence Zone</b>	<b>Silence Zone</b>
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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Ref. No.: - ARDS/24-25/MINER./1		Date: 14.08.2024			
<b><u>TEST REPORT OF MINERALOGICAL COMPOSITION</u></b> <b><u>OF PARTICULATE MATTER</u></b>					
•	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			
<b><u>TEST RESULTS</u></b>					
Sl No.	Particulars	Mineralogical Composition (%)			
		SiO <sub>2</sub>	FeO	Al <sub>2</sub> O <sub>3</sub>	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			
<b><u>TEST REPORT OF SURFACE WATER</u></b>					
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 <sub>4</sub>			
<b><u>TEST RESULT</u></b>					
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 <sub>4</sub> , mg/l	250	215	400	IS-3025 (P-24):1986
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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Ref. No.: - ARDS/24-25/MWD/1				Date: 17.08.2024			
<b><u>TEST REPORT OF MINE WATER DISCHARGE</u></b>							
• 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.					
<b><u>TEST RESULT</u></b>							
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
 <b>Sr. Chemist</b> <b>Aditi R&amp;D Services</b>				 <b>Technical Manager</b> <b>Aditi R&amp;D Services, Sindri</b>			
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Ref. No.: - ARDS/24-25/STP/1		Date: 17.08.2024						
<b>TEST REPORT OF SEWAGE</b>								
• 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.						
<b>TEST RESULT</b>								
Sl. No.	PARAMETERS OF TEST	VALUE					As per MoEF&CC Notification dated 13 <sup>th</sup> 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
 <b>Sr. Chemist</b> <b>Aditi R&amp;D Services</b>					 <b>Technical Manager</b> <b>Aditi R&amp;D Services, Sindri</b>			
<b>Statements :</b> 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.								



		<b>ADITI R&amp;D SERVICES</b> <b>Testing Laboratory</b> <b>NABL ACCREDITED</b> (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: aditirnds.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608	
Ref. No.: - ARDS/24-25/ETP/1				Date: 17.08.2024	
<b><u>TEST REPORT OF EFFLUENT</u></b>					
<ul style="list-style-type: none"><li>Name of the industry : M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST. - DHANBAD (JHARKHAND)</li><li>Work Order Ref. NO.: : 4700126557/932 Date:- 29/05/2024</li><li>Sample Code : 1. E.T.P. Outlet T.C.H. 2. E.T.P. Outlet Garage</li><li>Date of Sample Collection: 07.08.2024 To 08.08.2024</li><li>Date of Testing : 10.08.2024 To 16.08.2024</li><li>Test : pH, TDS, TSS, BOD, COD, OIL &amp; GREASE.</li></ul>					
<b><u>TEST RESULT</u></b>					
Sl. No.	PARAMETERS OF TEST	VALUE		General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage		
1.	pH,	8.4	8.3	5.5-9.0	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	589.0	842.0	-	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	22.0	30.0	100	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	3.0	18.0	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	12.2	139.8	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	0.4	1.2	10	IS-3025 (P-39):2021
Note : BDL - Below Detection Limit					
 Sr. Chemist Aditi R&D Services				 Technical Manager Aditi R&D Services, Sindri	
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	<h2 style="margin:0;">ADITI R&amp;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: sindriadi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608
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Ref. No.: - ARDS/24-25/DW/1

Date: 17.08.2024

**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.: : 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.

**TEST RESULT**

Sl. No	PARAMETERS OF TEST	VALUE				IS as per IS 10500:2012		Test Method
		Canteen-Jamadoba Colliery	Canteen-Jamadoba Washery	Canteen-Digwadih Colliery	Canteen-6&7 Pits Colliery	Desirable	Permissible	
1.	Colour, (Hazen Unit)	1	1	1	1	5.00	15.0	IS 3025 (P-4):2021
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-5):2018
3.	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	IS 3025 (P-7):2017
4.	Turbidity, NTU	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 <sub>3</sub> , 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 <sub>2</sub> 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 <sub>3</sub> , 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&amp;D SERVICES</h2> <h3 style="margin:0;">Testing Laboratory</h3> <p style="margin:0;">NABL ACCREDITED</p> <p style="margin:0;">(A Constituent Board of Quality Council of India)</p> <p style="margin:0;">ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified</p>	<p>Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608</p>
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- 2 -

Sl. No.	PARAMETERS OF TEST	VALUE				IS as per IS 10500:1991		Test Method
		Canteen-Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desirable	Permissible	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO <sub>4</sub> , mg/l	86.0	68.0	85.0	27.6	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO <sub>3</sub> , 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 <sub>6</sub> H <sub>5</sub> 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 <sub>3</sub> , 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&amp;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 : <div style="margin-left: 20px;">                     1. Jorapokhar Kustand                      2. Bhowra 13 No.                      3. Mohalbani Basti                      4. Lower Dungari                      5. Jamadoba 3 No.                 </div>									
• Date of Sample Collection : 08.08.2024 to 09.08.2024									
• Date of Testing : 10.08.2024 To 16.08.2024									
• Test : <div style="margin-left: 20px;">                     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 &amp; Boron.                 </div>									
<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 <sub>3</sub> , 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									
									
<b>Statements :</b> <ol style="list-style-type: none"> <li>The test report refers only to the particular item(s) submitted for testing.</li> <li>The test results reported in this report are valid at the time of and under the stated condition of measurement.</li> <li>This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory.</li> </ol>									

	<h2 style="margin:0;">ADITI R&amp;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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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 <sub>4</sub> , mg/l	85.0	125.0	180.0	65	60	200	400	IS 3025(P-24):1986
12	Nitrate as NO <sub>3</sub> , mg/l	4.8	5.2	5.4	4.9	5.2	45	No. Relax	IS 3025(P-34):1988
13	Alkalinity as CaCO <sub>3</sub> , 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

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Rajeev Sinha  
Section Head, Dhanbad  
Jharkhand State Pollution Control Board,  
T.A. Building, HEC Complex, Dhurwa, Ranchi-834004

Ref No.: JMB/ENV/SPCB/08/519/2023  
20<sup>th</sup> July 2023

**Sub: Regarding surrender of CTO of Kalimela Opencast of Tata Steel Limited, Jharia**  
**Ref: JSPCB/HO/RNC/CTO-13226858/2022/959 dt. 04.07.2022**

Dear Sir,  
This is in reference to existing CTO number JSPCB/HO/RNC/CTO-13226858/2022/959 dt. 04.07.2022 valid till 30.09.2023 for Backfilling and reclamation work only in Kalimela Opencast project of Tata Steel Limited, Jharia Division.

In this context we would like to inform you that the permitted activities of existing CTO i.e. backfilling and reclamation work only has been completed and there is no any activities of physical reclamation (machine movement) ongoing or planned in future. The biological reclamation of the site has been initiated and is part of gradual improvement. Currently, we are neither emitting any air pollutant nor any effluent/water discharge from the unit. In future we'll ensure to continue the same.

Hence, we are keen to not renew the existing CTO and surrender the same.

All the condition of the existing CTO is being complied and copy of the CTO compliance status has been attached for reference. Also, we are complying with the conditions of existing EC and will continue the same.

Based on this, consider our request to surrender the CTO for mentioned unit.

Thanking you,  
Yours sincerely,

General Manager  
Jharia Division, Tata Steel Ltd.

Encl: As above  
CC: Regional Officer, JSPCB, Dhanbad (Jharkhand)

*Received  
21/8/2023*



**TATA STEEL LIMITED**

Jharia Collieries Jamadoba 828 112 Dhanbad India  
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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