

The Deputy Director General of Forest (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/DIG/37/ 7/1 /2024 November 27th, 2024

Ref.: Environmental Clearance letter No.-J-11015/372/2010-IA.II(M)dated-30th September 2013.

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

Dear Sir,

We are enclosing herewith compliance report for the period April-24 to September-24 for the EC granted vide letter no.- J-11015/372/2010-IAII(M) dated- 30th September 2013 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 (Planking) Jharia Division, Tata Steel Ltd.

Encl: As above.

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

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

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

TATA STEEL LIMITED

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

Your (Half Yearly Compliance Repor	t) has been Submitted with following details
Proposal No	IA/JH/CMIN/19215/2010
Compliance ID	111482628
Compliance Number(For Tracking)	EC/M/COMPLIANCE/111482628/2024
Reporting Year	2024
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	29-11-2024
RO/SRO Name	ARTATRANA MISHRA
RO/SRO Email	jhk109@ifs.nic.in
State	JHARKHAND
RO/SRO Office Address	Integrated Regional Offices, Ranchi
Note:- SMS and E-Mail has been sent to ARTATRANA N	MISHRA, JHARKHAND with Notification to Project Proponent.



पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय Ministry of Environment, Forest and Climate Change









View Half Yearly Compliance Report at Project Proponent **Proposal Details Proposal No** IA/JH/CMIN/19215/2010 Category **Coal Mining** Name of Project Digwadih Colliery of M/s Tata Steel Ltd. for (Expansion from 0.38 MTPA to 0.6 MTPA in ML area 314.57 ha), dist. Dhanbad, Jharkhand Plot / Survey/ Khasra No. Village(s) Sub-District(s) State JHARKHAND District DHANBAD **MoEF File No** J-11015/372/2010-IA.II (M) Name of the Entity/ **Corporate Office** Tata Steel Ltd. **Entity's PAN** ****2803M **Entity Name as per PAN** UTSAV KASHYAP Entity details mentioned above is correct? Agree **Covering Letter**

Covering Letter

Compliance Reporting Details

Reporting Year 2024 Reporting Period 01 Dec(01 Apr - 30 Sep)

Remark(if any)

Half Yearly Compliance Submission for April 2024 to September 2024.

Details of Production and Project Area

Date of Commencement of Project/Activity

01-01-1918

	Project Area as per EC Granted(ha.)	Actual Project Area in Possession(ha.)
Private	148.798	148.798
Revenue Land	13.652	13.652
Forest	0	0
Others	152.12	152.12
Total	314.57	314.57

Land Documents

NA

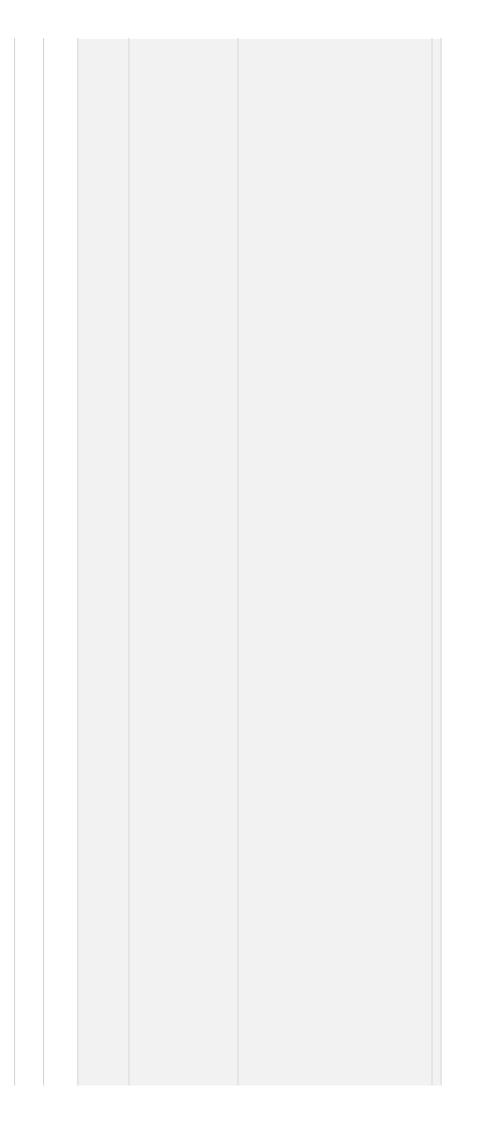
Sr.No.	Name of the Product	Units	As per EC Granted	As per CTO Granted	CTO ID	Valid Up To	Production during last financial year
1	Raw Coal	Million Tons per Annum (MTPA)	0.6			null	0

Conditions

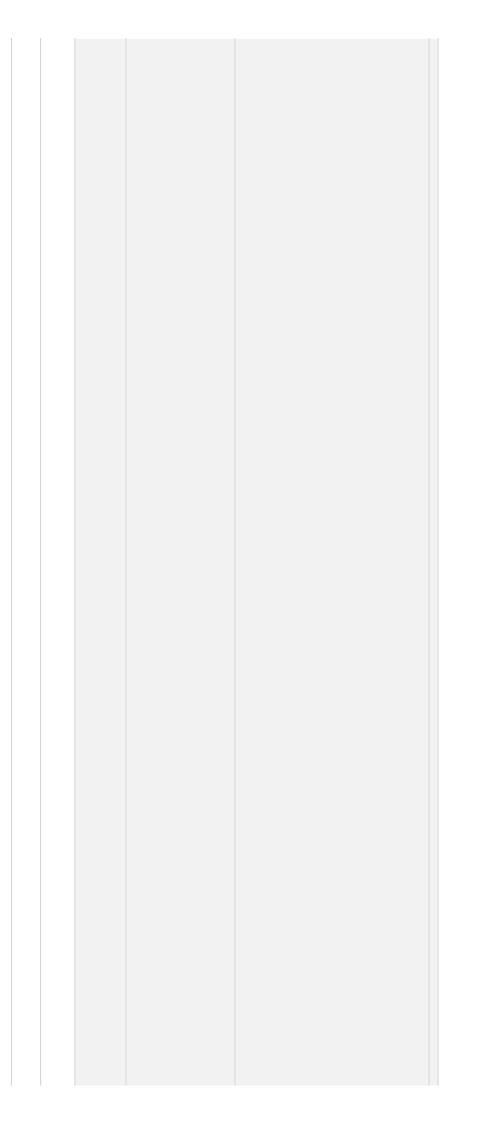
Specific Conditions

Sr.N	o. Condition	Condition Details	Status of Compliance, Remarks /
	Heading		Reason and Supporting
			Documents

1	Statutory compliance	The maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted.	PPs Submission	The production from the colliery has stopped since February 2021. The EC capacity is for 0.6 MTPA raw coal while the raw coal production for Digwadih Colliery was well below the limit. Complied 28-11-2024 Attachment:NA
2	Statutory compliance	The impact on the Damodar river due to mining activity which is at a distance of 2 km be studied through a reputed 3rd Party and submitted to the SPCB and the regional office of the MoEF for monitoring.	PPs Submission	The underground coal mines operated by Tata Steel Ltd are adjacent to the Damodar River. Other coal mines of BCCL and SAIL are also in close proximity to the river basin. Major source of pollution of Damodar River is the flow of industrial effluents and untreated sewage water into the river. A number of OB dumps lie close to the river banks causing the flow of sediments into the river. As per the hydrology study conducted by Indian School



of Mines, Dhanbad, the impact of the underground mines of Tata Steel Ltd is minimal. This is due to the following reasons The mining activity does not require any diversion of river/streams or natural drain. As land profile does not change appreciably in case of underground mines with backfilling of mined out areas, there is no change in surface drainage till date and unlikely to occur in future. Surface water quality also does not undergo any change, as there is no discharge to surface drainage in dry season. In Monsoon, the excess mine water discharged gets mixed with storm water. Large settling tanks are available for storage and sedimentation of mine water before its discharge to conform to the



norms. The industrial wastewater generated during vehicle washing from the central workshop catering to all the mines is treated in oil and grease trap followed by recycling of water. The two coal washeries of Tata Steel are operating on Zero Liquid discharge (ZLD) principle. Sewage water generated from our townships is treated in STP. For Sijua group, one STP of 200 KLD and another STP of 50 KLD has been installed in Bhelatand Colonies, 10 KLD has been installed at Sijua canteen and Bhelatand canteen individually. For Jamadoba group, 10 KLD STP/ETP installed in washery, Canteen, Garage and Hospital individually, other than that 60 KLD and 30 KLD installed at Digwadih Colony, 50 KLD installed at Railway Colony. Complied

				14-11-2024 Attachment:NA
3	Statutory compliance	Details of underground transportation of coal from mine to coal yard/ rail yard be submitted to the MoEF for record.	PPs Submission	The production from the colliery has stopped since February 2021.Coal from the mine was sent to the captive Jamadoba coal washery for beneficiation purpose through a network of underground conveyor belts. The detailed diagram of transportation network had already been submitted in earlier compliance reports. Complied 28-11-2024 Attachment:NA
4	WASTE MANAGEMENT	Adequate care be taken to prevent sand spillages from the trucks/tippers.	PPs Submission	The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre /body

				condition, emission check at every entry point. Quality checks are done on trucks to ensure its health. Complied 14-11-2024 Attachment:NA
5	WASTE MANAGEMENT	The test results of the study of leaching of heavy metals from bottom-ash be submitted to SPCB and the regional office of the MoEF for monitoring.	PPs Submission	A study conducted in 2013, by Indian School of Mines, Dhanbad to assess the leachability characteristics of fly ash and bottom ash samples taken from us, has determined that the concentration of heavy metals in the leachates were invariably well below the permissible limits for discharge of effluents as per the Indian standards IS 2490 (1993). The test results have already been submitted in December- 2013 and also re-submitted in April-2018. Complied 14-11-2024 Attachment:NA

6	Corporate Environmental Responsibility	The CSR activities shall be need based and detailed CSR plan be prepared for implementation.	PPs Submission	The CSR plan for each financial year is prepared by TSRDS (Tata Steel Rural Development Society) only after proper discussions to assess the needs have been held with the elected/ senior members of the communities where our CSR activities are to be undertaken Complied 14-11-2024 Attachment:N/
7	Corporate Environmental Responsibility	The detailed breakup of funds during 2012-13 be submitted to the MoEF for record. A social audit to be got done annually by a reputed institute and uploaded on the company's website.	PPs Submission	The detailed breakup has already been submitted to MOEF. The Corporate Sustainability Reports viz. Integrated Reports are made annually for the company which is certified by an assurance agency. It also includes the Social Audit of the company. All the reports are uploaded on the Tata Steel website. Further, an internal Social audit is also conducted once in five years

				Complied 14-11-2024 Attachment:NA
8	WASTE MANAGEMENT	There should be no OB dumps at the end of the mining.	PPs Submission	Since this is an underground mine, it is not applicable. Complied 14-11-2024 Attachment:NA
9	MISCELLANEOUS	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	PPs Submission	Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done. Complied 14-11-2024 Attachment:NA
10	Statutory compliance	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.	PPs Submission	It will be strictly followed. Complied 14-11-2024 Attachment:NA
11	Statutory compliance	Mining shall be carried out as per statuette at a safe distance from	PPs Submission	Since this is an underground

		the river/nallah flowing adjacent to the lease boundary.		project, there is hardly any impact on the river/ nallah. The closest jore is at a distance of about 2kms from the mine office area. Therefore, no impact on the course of flow in the jore is anticipated. Complied 14-11-2024 Attachment:NA
12	GREENBELT	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	PPs Submission	Impact on land by subsidence has been found to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad. Complied 14-11-2024 Attachment:NA
13	Statutory compliance	Coal extraction shall also be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.	PPs Submission	It will be strictly followed. Complied 14-11-2024 Attachment:NA

14	Statutory compliance	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement with the landowners.	PPs Submission	Regular monitoring of subsidence is being done by CIMFR, Dhanbad. Complied 14-11-2024 Attachment:NA
15	GREENBELT	3-tier plantation should be developed 2 km stretch of road from the mine using native species.	PPs Submission	Plantation along stretches of road has been done. 3- tier plantation is not feasible due to presence of private land around the periphery of colliery. However, plantation has been done on vacant plots and areas Complied 14-11-2024 Attachment:NA
16	WATER QUALITY MONITORING AND PRESERVATION	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	PPs Submission	Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. The details of size of garland drain mapped in surface plan has been submitted earlier in April- 2018. Complied 14-11-2024 Attachment:NA

17	AIR QUALITY MONITORING AND PRESERVATION	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The smoke/dust emission varies from source to source (fuel wood, coal, flyash from TPPs, silica from natural dust, etc). Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM10 and PM2.5) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.	PPs Submission	The locations of monitoring stations for our colliery have already been finalized in consultation with JSPCB, Dhanbad. The mineralogical composition study has been carried out by an independent laboratory (recognized by JSPCB and NABL) and the results are provided in Annexure-II. Complied 28-11-2024 Attachment: <u>Click</u> to View
18	AIR QUALITY MONITORING AND PRESERVATION	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.	PPs Submission	Water spraying arrangement is present in the underground mines at all transfer points. Water spraying via tankers is done on sand transportation routes. Major approach roads have been black- topped and maintained regularly. Complied 14-11-2024 Attachment:NA
19	AIR QUALITY MONITORING AND PRESERVATION	Transportation of coal from the mine to railway siding should be by 20T mechanically covered trucks.	PPs Submission	Not applicable due to transportation of coal via underground belt conveyor network

				system directly to washery. Complied 14-11-2024 Attachment:NA
20	GREENBELT	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc, by planting native species in consultation with the local DFO/Agriculture Department.	PPS Submission	Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road- side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program and around 12452 Nos of saplings were planted in the FY24. Complied

				14-11-2024 Attachment:NA
21	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post- monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the MoEF&CC and to the CPCB quarterly within one month of monitoring.	PPs Submission	The regular monitoring of groundwater level and quality is done as per the requirement. The groundwater quality report and groundwater level reports are provided in Annexure II. Complied 28-11-2024 Attachment: <u>Click</u> to View
22	WATER QUALITY MONITORING AND PRESERVATION	Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided.	PPs Submission	Not applicable. Complied 14-11-2024 Attachment:NA
23	WATER QUALITY MONITORING AND PRESERVATION	Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.	PPs Submission	There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory. Complied 14-11-2024 Attachment:NA
24	WATER QUALITY MONITORING AND PRESERVATION	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	PPs Submission	Most of the water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of

				mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. Further, there are a number of ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro- geological report, the variation in the ground water level is only seasonal. The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided. Complied 14-11-2024 Attachment:NA
25	Human Health Environment	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining	PPs Submission	The periodic health checkup of the workers is done regularly by

		operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.		our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) Centre approved by DGMS where 20 percentage of the workers identified from workforce engaged in active mining operations are subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records have been submitted in previous compliance reports. Complied 14-11-2024 Attachment:NA
26	Statutory compliance	The mining in the existing mines would be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analyzed and monitored for compliance of conditions, having bearing with movement of wild life until such time they are closed/ phased out.	PPs Submission	It is not applicable in our case. Complied 14-11-2024 Attachment:NA

fall under same	Responsibility	production should be provided for the activities under CSR undertaken for the neighboring villages shall be for not less than Rs 10 per tonne of coal and the progress made thereon shall be uploaded by the company annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	 expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY23 was Rs. 11.84 crores. For FY24 the expenditure is Rs. 21.81 crores. CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6 and 7 Pits Colliery are adjacent to each other and fall under same
			is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6 and 7 Pits Colliery are adjacent to

CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 50 plus villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units. The progress report is uploaded every year on the company website. Internal social audits are carried out regularly to assess the impact of CSR activities. Complied 28-11-2024 Attachment:NA

28	Statutory compliance	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	PPs Submission	Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to Office of Coal controller. Final mine closure along with details of corpus fund will be submitted to MoEF and CC 5 years in advance. Complied 14-11-2024 Attachment:NA
29	Corporate Environmental Responsibility	Corporate Environment Responsibility: a)The Company shall have a well laid down Environment Policy approved by the Board of Directors. b)The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. c)The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-	PPs Submission	The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non- compliance noticed is

compliances/violations of	corrected at
environmental norms to the	divisional level.
Board of Directors of the	If any issue is
company and/or shareholders or	beyond our
stakeholders at large.	control, it is
	brought to the
	notice of
	higher
	management.
	Moreover,
	Digwadih
	Colliery is IMS
	(Integrated
	Management
	System: Quality
	Management
	System,
	Environment
	Management
	System and
	OHSAS)
	certified unit
	addressing all
	environment
	aspects,
	impacts and
	needs and
	expectation of
	interested
	parties with
	respect to
	environment
	protection.
	Complied
	14-11-2024
	Attachment:NA
	Attachment.NA

General Conditions

Sr.No.	Condition Heading	Condition Details	Status of Complianc Supporting Docume	e,Remarks / Reason and ents
1	MISCELLANEOUS	No change in technology and scope of working shall be made without prior approval of the MoEF.	PPs Submission	It is being strictly followed. Board and Pillar method is being used for mining. Complied 14-11-2024 Attachment:NA

2	MISCELLANEOUS	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	PPs Submission	It will be strictly followed. Complied 14-11-2024 Attachment:NA
3	AIR QUALITY MONITORING AND PRESERVATION	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in RSPM etc. shall be carried out at least once in six months.	PPs Submission	The Air quality monitoring stations are: (i)Jamadoba Group Office (Core Zone) (ii)New Village Colony, Jamadoba (Buffer Zone) (iii)Digwadih 12 No. Colony (Buffer Zone) (iv)6 and 7 Pits Kalimandir area (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by JSPCB and NABL) on quarterly basis. The results are enclosed as Annexure II. Complied 28-11-2024 Attachment: <u>Click to</u> <u>View</u>
4	AIR QUALITY MONITORING AND PRESERVATION	Data on ambient air quality (PM10, PM2.5, SO2 and NOx and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the SPCB and the CPCB once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.	PPs Submission	Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from April-24 to September-24 is attached as Annexure II. Additionally, third party monitoring is being done through a JSPCB and NABL recognized Laboratory for PM10, PM 2.5, SO2, NOx, CO, NH3, O3 and heavy metals (As, Ni, Cd and Cr). The results are

				enclosed as Annexure II. Complied 28-11-2024 Attachment: <u>Click to</u> <u>View</u>
5	Noise Monitoring & Prevention	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	PPs Submission	Regular noise survey is being conducted in the underground work environment. Workers are provided with ear- plugs/ muffs in high noise areas. Complied 14-11-2024 Attachment:NA
6	WATER QUALITY MONITORING AND PRESERVATION	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	PPs Submission	No industrial wastewater is generated in Digwadih Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided. Complied 14-11-2024 Attachment:NA
7	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	PPs Submission	Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded. Complied

				14-11-2024 Attachment:NA
8	Statutory compliance	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.	PPs Submission	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB and NABL accredited laboratory We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring. Complied 14-11-2024 Attachment:NA
9	Statutory compliance	Monitoring of outlet points should be carried out and records of same should be maintained and submitted to the Regional Office of the MOEF as part of the Compliance Report.	PPs Submission	There is one mine- water outlet point in the colliery which is regularly monitored by the Environmental Laboratory. The analysis results have been provided as Annexure II. Complied 28-11-2024 Attachment: <u>Click to</u> <u>View</u>
10	Human Health Environment	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust	PPs Submission	Persons working in dusty area have been provided with dust masks and have been given awareness training on safety and health aspects. Regular PME (Periodic Medical Examinations) are being done. Complied

		and to take corrective measures, if needed.		14-11-2024 Attachment:NA
11	MISCELLANEOUS	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	PPs Submission	We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division. Environment policy has been attached as Annexure III. Complied 28-11-2024 Attachment:NA
12	Corporate Environmental Responsibility	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.	PPs Submission	The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023- 2024 is Rs. 321.33 lakhs. Complied 14-11-2024 Attachment:NA
13	MISCELLANEOUS	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State	PPs Submission	It has been complied with. Attached as Annexure-IV. Complied 28-11-2024 Attachment: <u>Click to</u> <u>View</u>

		Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in.		
14	14Statutory complianceA copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the 	PPs Submission	It has been complied with. Attached as Annexure. Complied 28-11-2024 Attachment: <u>Click to</u> <u>View</u>	
		processing the proposal. A copy of the clearance letter shall also be displayed on the		
15	Statutory compliance	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	PPs Submission	It has been complied with. Complied 14-11-2024 Attachment:NA
16	company's we compliance st stipulated EC shall also be of the project au their website at least once months so as same in the p domain. The data of enviro quality param water, noise a critical polluta PM10, PM2.5, NOx (ambient any) and critic parameters sh displayed at t	be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as	PPs Submission	The clearance letter has been uploaded on the companies website. The compliance status (as Half-yearly compliance report) is being uploaded in companies website. The display of information near the mines office has been done. Complied 14-11-2024 Attachment:NA
		PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises		

		and mines office and in corporate office and on the company's website.			
17	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	PPs Submissi	on	It is being complied Complied 14-11-2024 Attachment:NA
18	Statutory compliance	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.	PPs Submissi	on	It will be complied with. Complied 14-11-2024 Attachment:NA
19	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent tot the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.	PPs Submission	The environmental statement for financial year 2023-24 has been submitted to JSPCB vide letter no. JMB/ENV/ESSA/05/565/2024 on 27th September 2024 and it is also uploaded on the company website. The soft copy of Environment Statement is also sent to MOEF by email at ro.ranchi- mefgov.in. Complied 14-11-2024 Attachment:NA	

Last Site Visit Report (if available) NA Last Site Visit Report Date (if available) Additional Attachment (if any) NA

Additional Remarks (if any)

I <u>'Tata Steel Ltd.</u>' hereby give undertaking that the data and information given in the filed compliance and enclosures are true to be best of my knowledge and belief and I am aware that if any part of the data and information found to be false or misleading at any stage, the clearance given to the project will be revoked at our risk and cost. In addition to above, I hereby give undertaking that no activity such as change in project layout, construction, expansion, etc. has been taken up without due approval.

Cover Letter From RO/SRO

Cover Letter From RO/SRO

Back

HALF YEARLY COMPLIANCE REPORT (PERIOD: APRIL'24 – SEPTEMBER'24)

DIGWADIH COLLIERY

(CAPACITY: EXPANSION FROM 0.38 TO 0.6 MTPA RAW COAL) TEHSIL: JHARIA, DIST: DHANBAD, JHARKHAND



TATA STEEL LIMITED, JHARIA DIVISION

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

ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-11015/372/2010-IA.II(M) DATED- 30.09.2013 ISSUED BY GOVT. OF INDIA, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI.

S. No.	Condition	Compliance Status		
Specific Condition				
(i)	The maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted.	The production from the colliery has stopped since February 2021. The EC capacity is for 0.6 MTPA raw coal while the raw coal production for Digwadih Colliery was well below the limit.		
(ii)	The impact on the Damodar river due to mining activity which is at a distance of 2 km be studied through a reputed 3 rd Party and submitted to the SPCB and the regional office of the MoEF for monitoring.	 The underground coal mines operated by Tata Steel Ltd are adjacent to the Damodar River. Other coal mines of BCCL & SAIL are also in close proximity to the river basin. Major source of pollution of Damodar River is the flow of industrial effluents and untreated sewage water into the river. A number of OB dumps lie close to the river banks causing the flow of sediments into the river. As per the hydrology study conducted by Indian School of Mines, Dhanbad, the impact of the underground mines of Tata Steel Ltd is minimal. This is due to the following reasons The mining activity does not require any diversion of river/streams or natural drain. As land profile does not change appreciably in case of underground mines with backfilling of mined out areas, there is no change in surface drainage till date and unlikely to occur in future. Surface water quality also does not undergo any change, as there is no discharge to surface drainage in dry season. In Monsoon, the excess mine water discharged gets mixed with storm water. Large settling tanks are available for storage and sedimentation of mine water before its discharge to conform to the norms. The industrial wastewater generated during vehicle washing from the central workshop catering to all the mines is treated in oil and grease trap followed by recycling of water. 		

		 The two coal washeries of Tata Steel are operating on Zero Liquid discharge (ZLD) principle. Sewage water generated from our townships is treated in STP. For Sijua group, one STP of 200 KLD and another STP of 50 KLD has been installed in Bhelatand Colony, 10 KLD has been installed in Bhelatand Colony, 10 KLD has been installed at Sijua canteen and Bhelatand canteen individually. For Jamadoba group, 10 KLD STP/ETP installed in washery, Canteen, Garage and Hospital individually, other than that 60 KLD and 30 KLD installed at Digwadih Colony & 50 KLD installed at Railway Colony.
(iii)	Details of underground transportation of coal from mine to coal yard/ rail yard be submitted to the MoEF for record.	The production from the colliery has stopped since February 2021.Coal from the mine was sent to the captive Jamadoba coal washery for beneficiation purpose through a network of underground conveyor belts. The detailed diagram of transportation network had already been submitted in earlier compliance reports.
(iv)	Adequate care be taken to prevent sand spillages from the trucks/tippers.	The trucks that are being used for the transportation of sand are properly covered using tarpaulin sheets. Larger trucks have been engaged for reducing no of cycles. To ensure the compliance, every vehicle is checked as per vehicle checklist on PUC, Tyre /body condition, emission check at every entry point. Quality checks are done on trucks to ensure its health.
(v)	The test results of the study of leaching of heavy metals from bottom-ash be submitted to SPCB and the regional office of the MoEF for monitoring.	A study conducted in 2013, by Indian School of Mines, Dhanbad to assess the leachability characteristics of fly ash and bottom ash samples taken from us, has determined that the concentration of heavy metals in the leachates were invariably well below the permissible limits for discharge of effluents as per the Indian standards IS 2490 (1993). The test results have already been submitted in

		December'13 and also re-submitted in April'18.
(vi)	The CSR activities shall be need based and detailed CSR plan be prepared for implementation.	The CSR plan for each financial year is prepared by TSRDS (Tata Steel Rural Development Society) only after proper discussions to assess the needs have been held with the elected/ senior members of the communities where our CSR activities are to be undertaken.
(vii)	The detailed breakup of funds during 2012-13 be submitted to the MoEF for record. A social audit to be got done annually by a reputed institute and uploaded on the company's website.	The detailed breakup has already been submitted to MOEF. The Corporate Sustainability Reports viz. Integrated Reports are made annually for the company which is certified by an assurance agency. It also includes the Social Audit of the company. All the reports are uploaded on the Tata Steel website. Further, an internal Social audit is also conducted once in five years
(viii)	There should be no OB dumps at the end of the mining.	Since this is an underground mine, it is not applicable.
(ix)	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.	Regular monitoring of subsidence is done by Central Institute for Mining and Fuel Research, Dhanbad. According to the subsidence reports, the impact of subsidence is negligible since the underground mine workings are now at great depth and proper filling of voids through sand stowing is being done.
(x)	If subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement of the landowners.	It will be strictly followed.
(xi)	Mining shall be carried out as per statuette at a safe distance from the	Since this is an underground project, there is hardly any impact on the river/ nallah. The

	river/nallah flowing adjacent to the lease boundary.	closest jore is at a distance of about 2kms from the mine office area. Therefore, no impact on the course of flow in the jore is anticipated.
(xii)	High root density tree species shall be	Impact on land by subsidence has been found
	selected and planted over areas likely to be affected by subsidence.	to be negligible as per the subsidence monitoring reports prepared by CIMFR, Dhanbad.
(xiii)	Coal extraction shall also be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No depillaring & coal extraction should be carried out below habitation, H.T. Lines & beneath road, water bodies.	It will be strictly followed.
(xiv)	Subsidence shall be monitored closely and if subsidence is found exceeding the permitted limits, then the landowners shall be adequately compensated with mutual agreement with the landowners.	Regular monitoring of subsidence is being done by CIMFR, Dhanbad.
(xv)	3-tier plantation should be developed 2 km stretch of road from the mine using native species.	Plantation along stretches of road has been done. 3-tier plantation is not feasible due to presence of private land around the periphery of colliery. However, plantation has been done on vacant plots and areas.
(xvi)	Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	Garland drains of adequate size and gradient already exist around the colliery area to channelize the surface runoff. The details of size of garland drain mapped in surface plan has been submitted earlier in April'18.
(xvii)	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The smoke/dust emission varies from source to source (fuel wood, coal, flyash from	The locations of monitoring stations for our colliery have already been finalized in consultation with JSPCB, Dhanbad. The mineralogical composition study has been carried out by an independent laboratory

	TPPs, silica from natural dust, etc). Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM10 and PM2.5) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.	(recognized by JSPCB and NABL) and the results are provided in Annexure-II .
(xix)	Water sprinkling system shall be provided to check fugitive emissions from loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.	Water spraying arrangement is present in the underground mines at all transfer points. Water spraying via tankers is done on sand transportation routes. Major approach roads have been black-topped and maintained regularly.
(xx)	Transportation of coal from the mine to railway siding should be by 20T mechanically covered trucks.	Not applicable due to transportation of coal via underground belt conveyor network system directly to washery.
(xxi)	A progressive afforestation plan shall be prepared and implemented over the mine lease area acquired and shall include areas under green belt development, areas along roads, infrastructure, along ML boundary and township etc, by planting native species in consultation with the local DFO/Agriculture Department.	Tree plantation activities are carried out every year on the barren/ degraded areas, areas along road-side, infrastructure, etc of the colliery leasehold. Apart from these, fruit plants are distributed to employees and also to villagers, schools, institutions, etc. The environment department is responsible for implementing the afforestation plan which is prepared along with the mine management. High root density trees of native species are planted under annual plantation program and around 25093 Nos of saplings were planted in the FY23 & 12452 Nos. in FY24.
(xxii)	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post- monsoon (November) and winter (January) seasons and for quality in May.	The regular monitoring of groundwater level and quality is done as per the requirement. The groundwater quality report & groundwater level reports are provided in Annexure-II.

(xxiii) (xxiv)	Data thus collected shall be submitted to the MoEF&CC and to the CPCB quarterly within one month of monitoring. Acid Water Treatment Plant, volume of water to be treated and disposal of brine should be provided. Mine discharge water outside the ML shall be monitored, particularly for TDS and treated to conform to prescribed levels before discharge into the natural environment.	Not applicable. There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory.
(xxv)	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource, in case water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	Most of the water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. Further, there are a number of ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal. The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.
(xxvi)	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.	The periodic health checkup of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) Centre approved by DGMS where 20 % of the workers identified from workforce engaged in active mining operations are subjected to full medical checkup including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules. Some sample reports and as well as past records

		have been submitted in previous compliance
		reports.
(xxvii)	The mining in the existing mines would be phased out after expiry of the current mining lease and after reclamation of mined over area. The operating mines may be analyzed and monitored for compliance of conditions, having	It is not applicable in our case.
(xxviii)	compliance of conditions, having bearing with movement of wild life until such time they are closed/ phased out. Project specific CSR for an amount of Rs 5/Tonne of coal production should be provided for the activities under CSR undertaken for the neighboring villages shall be for not less than Rs 10 per tonne of coal and the progress made thereon shall be uploaded by the company annually on the company website. Monitoring of the impacts of activities under CSR shall be carried out periodically.	The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY23 was Rs. 11.84 crores. For FY24 the expenditure is Rs. 21.81 crores CSR data submitted is for Jharia Division which comprises all 5 collieries and 2 washeries. Jamadoba Washery, Digwadih Colliery and 6&7 Pits Colliery are adjacent to each other and fall under same leasehold area i.e. Jamadoba group of collieries. The core zone and buffer zone of all above units overlap to each other and in many cases, the villages are same where CSR work is going on. Therefore, we have a central budget for CSR which is managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 50+ villages and municipal wards. Hence, separate CSR expenditure for individual unit cannot be estimated. For calculation/ statutory reporting purpose, the consolidated CSR expenditure can be divided into unit-wise based on size of leasehold area of individual units.
		The progress report is uploaded every year on the company website. Internal social audits

		are carried out regularly to assess the impact
		of CSR activities.
(xxix)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Mine Closure Plan has been approved by Ministry of Coal, New Delhi. Details on deposition of closure cost in escrow account along with expenditure incurred for progressive closure is regularly submitted to Office of Coal controller. Final mine closure along with details of corpus fund will be submitted to MoEF&CC 5 years in advance.
(xxx)	 Corporate Environment Responsibility: a)The Company shall have a well laid down Environment Policy approved by the Board of Directors. b)The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions. 	The Company already has an Environment Policy approved by the Managing Director and it addresses all the issues mentioned. The status of adherence to the policy and compliance to Environmental laws and regulations is regularly discussed at higher levels. Any non-compliance noticed is corrected at divisional level. If any issue is beyond our control, it is brought to the notice of higher management.
	 c)The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non- compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large. 	Moreover, Digwadih Colliery is IMS (Integrated Management System: Quality Management System, Environment Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of interested parties with respect to environment protection.

B.

GENERAL CONDITIONS

(i)	No change in technology and scope of working shall be made without prior approval of the MoEF.	It is being strictly followed. Board and Pillar method is being used for mining.
(ii)	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	It will be strictly followed.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in RSPM etc. shall be carried out at least once in six months.	The Air quality monitoring stations are: (i)Jamadoba Group Office (Core Zone) (ii)New Village Colony, Jamadoba (Buffer Zone) (iii)Digwadih 12 No. Colony (Buffer Zone) (iv)6&7 Pits Kalimandir area (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by JSPCB & NABL) on quarterly basis. The results are enclosed as Annexure- II.
(iv)	Data on ambient air quality (PM10, PM2.5, SO2 and NOx and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the SPCB and the CPCB once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.	Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from Oct'23 to Mar'24 is attached as Additionally, third party monitoring is being done through a JSPCB and NABL recognized Laboratory for PM10, PM 2.5, SO2, NOx, CO, NH3, O3 and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure-II.
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas.

(vi)	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	No industrial wastewater is generated in Digwadih Colliery premises. There is a central workshop and garage in Jamadoba where Effluent Treatment Plant having oil and grease trap facility has been provided.
(vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation. Coal transportation is done through underground belt network. Only sand transportation is done through trucks which are covered with tarpaulins as well as optimally loaded.
(viii)	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognised under EP Rules, 1986.	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB & NABL accredited laboratory We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.
(ix)	Monitoring of outlet points should be carried out and records of same should be maintained and submitted to the Regional Office of the MOEF as part of the Compliance Report.	There is one mine-water outlet point in the colliery which is regularly monitored by the Environmental Laboratory. The analysis results have been provided as Annexure-II.
(x)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust	Persons working in dusty area have been provided with dust masks & have been given awareness training on safety & health aspects. Regular PME (Periodic Medical Examinations) are being done.

	and to take corrective measures, if needed.	
(xi)	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	We have a separate Environmental Management Cell with qualified personnel . The reporting of Environmental Cell is directly to General Manager of the Division. Environment policy has been attached as Annexure-III.
(xii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneswar.	The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The annual environmental expenditure for the financial year 2023-2024 is Rs. 321.33 lakhs.
(xiii)	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in.	It has been complied with. Attached as Annexure-IV.
(xiv)	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	It has been complied with. Attached as Annexure-IV.
(xv)	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control	It has been complied with.

	Board. The EC letter shall also be	
	displayed at the Regional Office,	
	District Industry Centre and Collector's	
	Office/Tehsildar's Office for 30 days.	
(xvi)	The clearance letter shall be uploaded	The clearance letter has been uploaded on the
	on the company's website. The	company's website. The compliance status (as
	compliance status of the stipulated EC	Half-yearly compliance report) is being
	conditions shall also be uploaded by the	uploaded in company's website. The display of
	project authorities on their website and	information near the mine's office has been
	updated at least once every six months	done.
		done.
	so as to bring the same in the public	
	domain. The monitoring data of	
	environmental quality parameters (air,	
	water, noise and soil) and critical	
	pollutants such as PM10, PM2.5, SO2	
	and NOx (ambient and stack if any) and	
	critical sectoral parameters shall also	
	be displayed at the entrance of the	
	project premises and mines office and	
	in corporate office and on the	
	company's website.	
(xvii)	The project proponent shall submit six	It is being complied
	monthly reports on the status of	
	compliance of the stipulated	
	environmental clearance conditions	
	(both in hard copy and in e-mail) to the	
	respective Regional Office of the	
	MOEF, the respective Zonal offices of	
	CPCB and the SPCB.	
(xviii)	The Regional Office of this Ministry	It will be complied with.
()	located at Bhopal shall monitor	· · · · · · · · · · · · · · · · · · ·
	compliance of the stipulated	
	conditions. The Project authorities	
	shall extend full cooperation to the	
	office(s) of the Regional Office by	
	furnishing the requisite data/	
	information/monitoring reports.	
(viv)	The environmental statement for each	The environmental statement for financial war
(xix)		The environmental statement for financial year 2023-24 has been submitted to JSPCB vide
	financial year ending 31st March in Form V is mondated to be submitted by	
	Form-V is mandated to be submitted by	letter no. JMB/ENV/ESSA/05/565/2024 on
	the music of much on early to table	27th Sentember 2024 or 1:4 is store 1 1 -1
	the project proponent tot the concerned State Pollution Control Board as	27 th September 2024 and it is also uploaded on the company website. The soft copy of

prescribed under the Environment	Environment Statement is also sent to MOEF
(Protection) Rules, 1986, as amended	by email at ro.ranchi-mef@gov.in.
subsequently, shall also be uploaded on	
the company's website along with the	
status of compliance of EC conditions	
and shall be sent to the respective	
Regional Offices of the MOEF by E-	
mail.	

Annexure-I Greenbelt Development Report

Glimpses of already existing green belt and plantation activities done in this monsoon season in and around Digwadih colliery premises to enhance the green cover have been depicted in the pictures below:



Picture: Plantation done in this monsoon season in and around Digwadih Colliery premises



Picture: Developed Green belt in and around Digwadih Colliery premises



Picture: Developed Green belt in and around Digwadih Colliery premises

Annexure- II

TATA STEEL LIMITED TATA STEEL LIMITED JHARIA DIVISION

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

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

Re: AIR QUALITY REPORT

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

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ²	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.04.24	Clear	245.2	92.6	18.1	22.7

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42°15.3" N/ 86°24'11" E	03.04.24	Clear	85.1	45.7	16.8	19.4
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	04.04.24	Clear	87.9	47.4	17.0	20,3
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	09.04.24	Clear	73.5	32.6	18.1	21.7
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	08.04.24	Clear	70.2	29.8	15.9	18.6

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emahet .

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

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 v	vide notification G.S.R.
	742(E) dated-25.09.2000	

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	10.05.24	Clear	237.9	89.3	17.8	19.4

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 μg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	16.05.24	Clear	78.4	37.2	19.3	21.5
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	13.05.24	Clear	80.6	40.1	18.2	22.1
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	14.05.24	Clear	70.1	30.3	15.9	17.8
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	15.05.24	Clear	72.9	32.6	14.7	17.2

Note: PM 10 - Less than 10-micron Particulate Matter

PM2.5 - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emchato.

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

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 qualit	ty standards for coal mines notified vide i	notification G.S.R.
7	42(E) dated-25.09.2000	

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	04.06.24	Clear	241.7	87.1	18.7	21.9

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	07.06.24	Clear	94.2	51.8	20.8	22.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	05.06.24	Clear	86.2	45.9	17.2	20.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	06.06.24	Clear	82.4	43.6	16.8	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	10.06.24	Clear	90.8	48.5	15.2	18.6

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emphato.

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

TATA STEEL LIMITED JHARIA DIVISION

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

Ref: JMB /ENV /LAB /02 / 465 / 24 Date: 01/08/2024

Re: AIR QUALITY REPORT

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

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	03.07.24	Cloudy	186.7	67.2	15.9	18.4

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hoarly Limit-80 μg/m ³	NOx 24 Hourly Limit-80 µg/m ³
I	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 10 - Less than 10-micron Particulate Matter PM2.5 - Less than 2.5-micron Particulate Matter

> - Microgram μg

This is for your information and necessary action please.

Area Manager (Environment)

Ponahat.

Lab. Assistant (Environment)

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 / 5-2/ / 24 Date: 02 / 09 / 2024

Re: AIR QUALITY REPORT

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

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	16.08.24	Clear	201.9	70.8	16.8	19.7

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

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

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emahate.

Lab. Assistant (Environment)

Area Manager (Environment)

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/02/58//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 not	ification G.S.R.
742(E) dated-25.09.2000	

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

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

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	06.09.24	Clear	90.6	52.7	17.4	20.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	03.09.24	Clear	72.6	38.1	18.7	21.0
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	04.09.24	Clear	70.4	35.2	16.9	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	07.09.24	Cloudy	65.4	28.9	14.8	16.2

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emphat.

Lab. Assistant (Environment)

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/ 2 28 /24 Dated: 0 2/ 0 \$7 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	Marianian Finitar	Dete	4 41.3 43.6 42.5	Night	22.00-06.	00 Hrs)		
5.N0	Monitoring Station	Date	CPCI	CPCB Standard- 55		CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	25.04.24	43.7	45.5	44.6	35.4	37.7	36.6
2	New Village Colony, Jamadoba	25.04.24	41.3	43.6	42.5	33.6	35.4	34.5
3	6&7 Pits Kalimandir Colony	25.04.24	43.2	45.4	44.3	35.5	37.8	36.7
4	Digwadih 10 No. Colony	25.04.24	44.5	46.7	45.6	36.2	38.5	37.4

0.11	Martin La Rivel	D	Day (0	Day (06.00 - 22.00 Hrs.)			ay (06.00 - 22.00 Hrs.) Night (22.00-06.00		00 Hrs)
S.No	Monitoring Station	Date	CPCI	3 Standa	rd- 75	CPCI	3 Standa	rd- 70	
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.	
1	2 Pit Main Gate Security Post	25.04.24	57.4	60.7	59.1	49.3	51.5	50.4	
2	2 Pit Top Kalimandir, Jamadoba	25.04.24	53.1	56.4	54.8	45.6	47.9	46.8	
3	Weigh Bridge, Digwadih	25.04.24	48.6	51.3	50.0	40.4	42.7	41.6	
4	Canteen Complex, Digwadih	25.04.24	49.2	50.6	49.9	41.7	43.5	42.6	
5	Head Office Complex, Digwadih	25.04.24	48.6	50.4	49.5	40.2	42.6	41.4	
6	Check Post Security Gate, 6&7 Pits	25.04.24	49.3	51.7	50.5	41.1	43.4	42.3	
7	Canteen Complex, 6&7 Pits	25.04.24	48.5	49.2	48.9	40.3	41.5	40.9	
8	Fan house- Nitrogen Plant, 6&7 Pits	25.04.24	72.3	73.5	72.9	64.2	65.4	64.8	
9	Joota Gate, JCPP	25.04.24	67.7	70.9	69.3	59.5	62.2	60.9	
10	Main Gate Stores, JCPP	25.04.24	54.2	57.5	55.9	46.5	48.7	47.6	
11	Railway Siding Yard, JCPP	25.04.24	50.4	52.7	51.6	42.3	44.5	43.4	

Analysis: All the values are within permissible limit.

This is for your information please.

Behro

Lab. Assistant (Environment)

Sr. 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/ 3 07 /24 Dated: 03 /26/ 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:

0.24	Manda - Conting	Dete	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	CPCB Standard- 55		CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	09.05.24	44.2	46.5	45.4	36.4	38.7	37.6
2	New Village Colony, Jamadoba	09.05.24	42.7	44.5	43.6	34.5	36.8	35.7
3	6&7 Pits Kalimandir Colony	09.05.24	44.5	46.7	45.6	36.7	38.5	37.6
4	Digwadih 10 No. Colony	09.05.24	42.3	44.8	43.6	34.2	36.5	35.4

	Martin to Oct	Dete	Day (0	Day (06.00 - 22.00 Hrs.)		Night ((22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
l	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	09.05.24	56.6	59.3	58.0	48.4	51.1	49.8
2	2 Pit Top Kalimandir, Jamadoba	09.05.24	52.3	54.5	53.4	44.5	46.7	45.6
3	Weigh Bridge, Digwadih	09.05.24	48.2	50.5	49.4	40.3	42.5	41.4
4	Canteen Complex, Digwadih	09.05.24	48.5	50.7	49.6	40.7	42.9	41.8
5	Head Office Complex, Digwadih	09.05.24	46.1	48.3	47.2	38.3	40.6	39.5
6	Check Post Security Gate, 6&7 Pits	09.05.24	48.3	51.2	49.8	40.5	42.7	41.6
7	Canteen Complex, 6&7 Pits	09.05.24	47.2	48.6	47.9	39.4	41.5	40.5
8	Fan house- Nitrogen Plant, 6&7 Pits	09.05.24	72.2	73.6	72.9	64.4	65.5	65.0
9	Joota Gate, JCPP	09.05.24	68.4	71.7	70.1	60.2	63.4	61.8
10	Main Gate Stores, JCPP	09.05.24	53.5	56.8	55.2	45.7	48.5	47.1
11	Railway Siding Yard, JCPP	09.05.24	51.2	53.4	52.3	43.5	45.8	44.7

Analysis: All the values are within permissible limit.

This is for your information please.

Bohto

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

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:

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

	Martin Inc. Contan	5	Day (0	Day (06.00 - 22.00 Hrs.)			Night (22.00-06.00 H	
S.No	Monitoring Station	on Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	28.06.24	54.4	57.7	56.1	46.1	49.5	47.8
2	2 Pit Top Kalimandir, Jamadoba	28.06.24	52.7	55.5	54.1	44.3	47.6	46.0
3	Weigh Bridge, Digwadih	28.06.24	49.5	52.8	51.2	41.7	44.5	43.1
4	Canteen Complex, Digwadih	28.06.24	48.8	50.6	49.7	40.4	42.7	41.6
5	Head Office Complex, Digwadih	28.06.24	45.3	47.5	46.4	37.6	39.9	38.8
6	Check Post Security Gate, 6&7 Pits	28.06.24	49.5	52.7	51.1	41.2	44.7	43.0
7	Canteen Complex, 6&7 Pits	28.06.24	47.6	49.4	48.5	39.5	41.3	40.4
8	Fan house- Nitrogen Plant, 6&7 Pits	28.06.24	72.3	73.7	73.0	64.3	65.5	64.9
9	Joota Gate, JCPP	28.06.24	66.7	69.5	68.1	58.6	61.8	60.2
10	Main Gate Stores, JCPP	28.06.24	52.4	55.6	54.0	44.2	47.5	45.9
11	Railway Siding Yard, JCPP	28.06.24	51.5	53.8	52.7	43.7	45.4	44.6

Analysis: All the values are within permissible limit.

This is for your information please.

and

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

Ref : JMB/ ENV/ LAB/ 05/ 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:

C. 31.	Marilania Station	Data	Day (0	6.00 - 22.0	00 Hrs.)	Night	(22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	CPCB Standard- 55		CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	26.07.24	42.3	44.7	43.5	34.5	36.7	35.6
2	New Village Colony, Jamadoba	26.07.24	43.1	45.4	44.3	35.3	37.7	36.5
3	6&7 Pits Kalimandir Colony	26.07.24	42.5	44.8	43.7	34.7	36.5	35.6
4	Digwadih 10 No. Colony	26.07.24	41.8	43.3	42.6	33.4	35.6	34.5

	March Const	Du	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.00 H		00 Hrs)
S.No	Monitoring Station	Date	CPCB Standard- 75		CPCB Standard- 70			
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	26.07.24	52.8	55.6	54.2	44.6	46.5	45.6
2	2 Pit Top Kalimandir, Jamadoba	26.07.24	53.5	56.3	54.9	45.2	47.4	46.3
3	Weigh Bridge, Digwadih	26.07.24	48.4	50.7	49.6	40.6	42.9	41.8
4	Canteen Complex, Digwadih	26.07.24	46.6	48.4	47.5	38.4	40.7	39.6
5	Head Office Complex, Digwadih	26.07.24	46.3	49.7	48.0	38.1	40.3	39.2
6	Check Post Security Gate, 6&7 Pits	26.07.24	48.7	51.5	50.1	40.5	45.1	42.8
7	Canteen Complex, 6&7 Pits	26.07.24	46.5	48.6	47.6	38.3	40.5	39.4
8	Fan house- Nitrogen Plant, 6&7 Pits	26.07.24	72.2	73.5	72.9	64.4	65.6	65.0
9	Joota Gate, JCPP	26.07.24	64.7	67.3	66.0	56.2	59.5	57.9
10	Main Gate Stores, JCPP	26.07.24	55.1	58.4	56.8	47.4	49.9	48.7
11	Railway Siding Yard, JCPP	26.07.24	52.4	55.7	54.1	44.1	47.3	45.7

Analysis: All the values are within permissible limit.

This is for your information please.

BLID

Lab. Assistant (Environment)

lanager (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:

C Me	Manitanian Station	Dete	Day (0	Day (06.00 - 22.00 Hrs.)			Night (22.00-06.00 Hrs		
S.No	Monitoring Station	Date	CPCI	CPCB Standard- 55		CPCB Standard- 45			
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.	
1	Digwadih 12 No. Colony	27.08.24	42.7	44.9	43.8	34.3	36.5	35.4	
2	New Village Colony, Jamadoba	27.08.24	43.5	45.6	44.6	35.6	37.8	36.7	
3	6&7 Pits Kalimandir Colony	27.08.24	43.2	45.5	44.4	35.4	37.6	36.5	
4	Digwadih 10 No. Colony	27.08.24	42.4	44.7	43.6	34.5	36.8	35.7	

	Martin In Cost	Dut	Day (0	Day (06.00 - 22.00 Hrs.)		Night	(22.00-06.	00 Hrs)
S.No	Monitoring Station Industrial Area (Core Zone) 2 Pit Main Gate Security Post 2 Pit Top Kalimandir, Jamadoba Weigh Bridge, Digwadih Canteen Complex, Digwadih Head Office Complex, Digwadih Check Post Security Gate, 6&7 Pits Canteen Complex, 6&7 Pits Fan house- Nitrogen Plant, 6&7 Pits Joota Gate, JCPP	Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)	1.2	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.

BAT

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

Ref : JMB/ ENV/ LAB/ 05/ 589/24 Dated: 01//0/2024

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

S.No	Manitanian Station	Day (06.00 - 22.00 Hrs.) Night (22.00-		Day (06.00 - 22.00 Hrs.)		(22.00-06.	00 Hrs)	
5.NO	Monitoring Station	Date	CPCI	B Standa	rd- 75	CPC	B Standa	rd- 70
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	22.09.24	52.7	55.9	54.3	44.5	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	22.09.24	53.3	56.7	55.0	45.1	48.4	46.8
3	Weigh Bridge, Digwadih	22.09.24	49.5	51.9	50.7	41.4	43.6	42.5
4	Canteen Complex, Digwadih	22.09.24	46.6	48.7	47.7	38.3	40.5	39.4
5	Head Office Complex, Digwadih	22.09.24	47.3	50.6	49.0	39.5	42.7	41.1
6	Check Post Security Gate, 6&7 Pits	22.09.24	49.7	52.9	51.3	41.5	44.8	43.2
7	Canteen Complex, 6&7 Pits	22.09.24	46.1	48.4	47.3	38.4	40.6	39.5
8	Fan house- Nitrogen Plant, 6&7 Pits	22.09.24	72.4	73.7	73.1	64.3	65.7	65.0
9	Joota Gate, JCPP	22.09.24	60.1	63.4	61.8	52.6	55.7	54.2
10	Main Gate Stores, JCPP	22.09.24	52.7	55.6	54.2	44.4	47.3	45.9
11	Railway Siding Yard, JCPP	22.09.24	50.3	53.5	51.9	42.5	45.7	44.1

Analysis: All the values are within permissible limit.

This is for your information please.

W Och

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

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	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. ND	(Final Discharge Point)	Date	Time	< 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.

Emphato.

Lab.Assistant (Environment)

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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 / -257 / 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)	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
- 3. 190	(Mine's Water)	Date	Time	< 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			N	o Dischar	ge		
3	2 Incline Jamadoba Colliery	25.04,24	10:25 AM			N	o Dischar	ge		
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.

Emohato . Lab.Assistant (Environment)

Area Manager (Environment)

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:

a	Location	Sampling	Sampling	Тетр	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40®C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	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		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.

Emahato.

Lab.Assistant (Environment)

Area Manager (Environment)

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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	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			

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

This is for your information and necessary action please.

Area Manager (Environment)

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Lab.Assistant (Environment)

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 / 3-26 / 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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 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			N	o Discharg	e		
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			N	o Discharg	e		
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

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

This is for your information and necessary action please.

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Lab.Assistant (Environment)

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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	Sampling	Sampling	Temp	pН	TSS	TDS	BOD	COD	Oil & Grease
3. 010	(Final Discharge Point)	Date	Time	< 40 ⁶ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	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	a 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.

Ponchate

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

S.No	Date	Location	Time	Depth in meter	рН	Electrical Conductivity µS/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 Chhattand	01:30 PM	2.30	7.3	1412
14	10.05.24	Jorapokhar Babu Basa	12:05 PM	12.00	7.1	1240

JAMADOBA GROUP

Emphato.

Lab.Assistant (Environment)

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 / 3 93 / 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:

	Location	Sampling	Sampling	Temp	рН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 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.

Emphate.

Lab.Assistant (Environment)

Area Manager (Environment)

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 / 39/ / 2024 Dated - 03 / 67 / 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:

-	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 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			N	o Discharg	e		
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			N	o Discharg	e		à
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						

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

This is for your information and necessary action please.

Ponchat Lab.Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

Ref. No. - JMB / ENV / LAB / 03 / 3 92 / 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:

Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
STP, Jmb. Canteen- Inlet	28.06.24	01:10 PM	27	8.0	123	1028	34.8	320	2.9
STP, Jmb. Canteen- Outlet	28.06.24	01:15 PM	26	7.5	41	836	5.9	68	0.3
STP, JCPP Canteen- Inlet	28.06.24	12:50 PM	27	8.3	157	1027	32.1	260	3.1
STP, JCPP Canteen- Outlet	28.06.24	12:55 PM	26	8.0	35	832	4.8	84	0.5
STP, Railway Colony- Inlet	28.06.24	10:30 AM	27	8.4	164	1137	35.8	336	2.9
STP, Railway Colony-Outlet	28.06.24	10:35 AM	26	8.1	54	987	6.2	76	1.3
STP, Digwadih 12 No. Officer's colony-Inlet	28.06.24	11:05 AM	<i>a</i> 26	8.3	131	996	33.7	332	3.4
STP, Digwadih 12 No. Officer's colony- Outlet	28.06.24	11:10 AM	25	7,8	46	892	5.2	96	1.8
STP,Digwadih 12 No. Supervisor flat – Inlet	28.06.24	11:25 AM	27	8.2	146	1219	36.8	284	3.4
STP,Digwadih 12 No. Supervisor flat -Outlet	28.06.24	11:30 AM	26	7.9	52	1124	8.9	117	1.5
	(Final Discharge Point) STP, Jmb. Canteen- Inlet STP, Jmb. Canteen- Outlet STP, JCPP Canteen- Inlet STP, JCPP Canteen- Outlet STP, Railway Colony- Inlet STP, Railway Colony-Outlet STP, Digwadih 12 No. Officer's colony- Outlet STP, Digwadih 12 No. Supervisor flat – Inlet STP, Digwadih 12 No.	(Final Discharge Point)DateSTP, Jmb. Canteen- Inlet28.06.24STP, Jmb. Canteen- Outlet28.06.24STP, JCPP Canteen- Inlet28.06.24STP, JCPP Canteen- Outlet28.06.24STP, Railway Colony- Inlet28.06.24STP, Railway Colony- Inlet28.06.24STP, Digwadih 12 No. Officer's colony-Inlet28.06.24STP, Digwadih 12 No. Officer's colony-Outlet28.06.24STP, Digwadih 12 No. Supervisor flat – Inlet28.06.24	(Final Discharge Point)DateTimeSTP, Jmb. Canteen- Inlet28.06.2401:10 PMSTP, Jmb. Canteen- Outlet28.06.2401:15 PMSTP, JCPP Canteen- Inlet28.06.2412:50 PMSTP, JCPP Canteen- Outlet28.06.2412:55 PMSTP, Railway Colony- Inlet28.06.2410:30 AMSTP, Railway Colony- Inlet28.06.2410:35 AMSTP, Digwadih 12 No.28.06.2411:05 AMSTP, Digwadih 12 No.28.06.2411:10 AMSTP, Digwadih 12 No.28.06.2411:25 AMSTP, Digwadih 12 No.28.06.2411:25 AMSTP,Digwadih 12 No.28.06.2411:25 AMSTP,Digwadih 12 No.28.06.2411:25 AM	Location (Final Discharge Point)Sampling DateSampling TimeSampling TimeSTP, Jmb. Canteen- Inlet28.06.2401:10 PM27STP, Jmb. Canteen- Outlet28.06.2401:15 PM26STP, JCPP Canteen- Inlet28.06.2412:50 PM27STP, JCPP Canteen- Outlet28.06.2412:55 PM26STP, JCPP Canteen- Outlet28.06.2410:30 AM27STP, Railway Colony- Inlet28.06.2410:35 AM26STP, Digwadih 12 No. Officer's colony-Outlet28.06.2411:05 AM26STP, Digwadih 12 No. Supervisor flat – Inlet28.06.2411:25 AM27STP, Digwadih 12 No. STP, Digwadih 12 No.28.06.2411:25 AM27STP, Digwadih 12 No. Supervisor flat – Inlet28.06.2411:30 AM27	Location (Final Discharge Point) Sampling Date Sampling Time Sampling (40°C Solution STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 STP, Jmb. Canteen- Outlet 28.06.24 01:15 PM 26 7.5 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 27 8.3 STP, JCPP Canteen- Inlet 28.06.24 12:55 PM 26 8.0 STP, JCPP Canteen- Outlet 28.06.24 10:30 AM 27 8.4 STP, Railway Colony- Inlet 28.06.24 10:35 AM 26 8.1 STP, Digwadih 12 No. Officer's colony-Outlet 28.06.24 11:05 AM 26 8.3 STP, Digwadih 12 No. Officer's colony-Outlet 28.06.24 11:10 AM 25 7.8 STP, Digwadih 12 No. Supervisor flat – Inlet 28.06.24 11:25 AM 27 8.2 STP, Digwadih 12 No. 28.06.24 11:25 AM 27 8.2	Location (Final Discharge Point) Sampling Date Sampling Time Sampling $40^{\circ}C$ N N STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 123 STP, Jmb. Canteen- Outlet 28.06.24 01:15 PM 26 7.5 41 STP, Jmb. Canteen- Outlet 28.06.24 12:50 PM 27 8.3 157 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 26 8.0 35 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 STP, Digwadih 12 No. 28.06.24 10:35 AM 26 8.1 54 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 STP, Digwadih 12 No. 28.06.24 11:25 AM 27 8.2 146 STP,Digwadih 12 No. 28.06.24 11:30 AM	Location (Final Discharge Point) Sampling Date Sampling Time No. No. 100 mg/l 2100 mg/l STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 123 1028 STP, Jmb. Canteen- Outlet 28.06.24 01:10 PM 26 7.5 41 836 STP, Jmb. Canteen- Outlet 28.06.24 12:50 PM 26 8.3 157 1027 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 26 8.0 35 832 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 832 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 1137 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 892 STP,Digwadih 12 No. 28.0	Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Sampling $< 40^{9}C$ Sampling $< 30^{10}$ Sampling mg/l Sampling $< 40^{9}C$ Sampling $< 40^{9}C$ Sampling < 5.5 - 9.0 Sampling mg/l Sampling $< 30^{10}$ STP, Jmb. Canteen- Inlet 28.06.24 01:15 PM 26 7.5 41 836 5.9 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 832 4.8 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 1137 35.8 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 33.7 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 892	Location (Final Discharge Point)Sampling DateSampling TimeSampling TimeSampling TimeSampling TimeSampling $< 40^{9}$ CSampling $< 5.5 - 9.0$ Interpret MarkSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Sampling Mg/lSampling Sampling Mg/lSampling Mg/lSampling Mg/lSampling Sampling Sampling Mg/lSampling Sampling Sampling Labor SamplingSampling Sampling Labor Labor Labor SamplingSampling Labor <b< td=""></b<>

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

This is for your information and necessary action please.

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Lab.Assistant (Environment)

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 - 0/ / 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:

	Location	Sampling	Sampling	Тетр	pН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40 ⁰ 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	P ₁		

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

This is for your information and necessary action please.

Area Manager (Environment)

Enchate .

Lab.Assistant (Environment)

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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 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	1974		No	Discharge	e		
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	Discharg	c		

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

This is for your information and necessary action please.

f Im wh 12.08.44 Area Manager (Environment)

Lab.Assistant (Environment)

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 / **4 54** / 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 < 40°C	рН 5.5 - 9.0	TSS 100 mg/l	TDS 2100 mg/l	BOD 30 mg/l	COD 250 mg/l	Oil & Grease 10 mg/l
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.

Lab.Assistant (Environment)

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 < 40°C	рН 5.5 - 9.0	TSS 100 mg/l	TDS 2100 mg/l	BOD 30 mg/l	COD 250 mg/l	Oil & Grease 10 mg/l
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						

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

This is for your information and necessary action please.

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Lab.Assistant (Environment)

Area Manager (Environment)

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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/1	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	27.08.24	09:20 AM			No	Discharg			
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	Discharg	ð	_	
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	Discharg	e		

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

This is for your information and necessary action please.

Emphate.

Lab.Assistant (Environment)

Area Manager (Environment)

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 / 5-26 / 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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S, No	(Final Discharge Point)	Date	Time	< 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.

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Lab.Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

S.No	Date	Location	Time	Depth in meter	рН	Electrical Conductivity µS/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

JAMADOBA GROUP

Prahato Lab.Assistant (Environment)

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Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B - 3922 DATED- 30.08.2012

BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

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:

Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
ETP, TCH- Inlet	22.09.24	12:20 PM	27	8.2	168	736	29.8	284	1.2
ETP, TCH- Outlet	22.09.24	12:25 PM	26	7.9	25	632	5.3	72	0.5
ETP, Garage- Inlet	22.09.24	01:30 PM	27	8.3	143	935	30.2	310	4.2
ETP, Garage- Outlet	22.09.24	01:35 PM	26	8.0	23	834	7.6	106	1.4
Final Settling Pond JCPP	22.09.24	10:05 AM				Dry Pond			
	ETP, TCH- Inlet ETP, TCH- Outlet ETP, Garage- Inlet ETP, Garage- Outlet	(Final Discharge Point)DateETP, TCH- Inlet22.09.24ETP, TCH- Outlet22.09.24ETP, Garage- Inlet22.09.24ETP, Garage- Outlet22.09.24	(Final Discharge Point)DateTimeETP, TCH- Inlet22.09.2412:20 PMETP, TCH- Outlet22.09.2412:25 PMETP, Garage- Inlet22.09.2401:30 PMETP, Garage- Outlet22.09.2401:35 PM	Location (Final Discharge Point)Sampling DateSampling TimeAmpling TimeETP, TCH- Inlet22.09.2412:20 PM27ETP, TCH- Outlet22.09.2412:25 PM26ETP, Garage- Inlet22.09.2401:30 PM27ETP, Garage- Outlet22.09.2401:35 PM26	Location (Final Discharge Point) Sampling Date Sampling Time Sampling 40°C Sampling 5.5 - 9.0 ETP, TCH- Inlet 22.09.24 12:20 PM 27 8.2 ETP, TCH- Outlet 22.09.24 12:25 PM 26 7.9 ETP, Garage- Inlet 22.09.24 01:30 PM 27 8.3 ETP, Garage- Outlet 22.09.24 01:35 PM 26 8.0	Location (Final Discharge Point) Sampling Date Sampling Time Impling (Marcharge Impline (Marcharge Impline (Marcharge <thimpl< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Impling (Final Discharge Point) Sampling (Final Discharge Point) Sampling Date Sampling Time Final Discharge F</td><td>Location (Final Discharge Point) Sampling Date Sampling Time Item PPI Item <t< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine</td></t<></td></thimpl<>	Location (Final Discharge Point) Sampling Date Sampling Time Impling (Final Discharge Point) Sampling (Final Discharge Point) Sampling Date Sampling Time Final Discharge F	Location (Final Discharge Point) Sampling Date Sampling Time Item PPI Item Item <t< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine</td></t<>	Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine

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

This is for your information and necessary action please.

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Lab.Assistant (Environment)

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Area Manager (Environment)

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 / S75/ 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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ 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	2		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

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

Emahato . Lab.Assistant (Environment)

Area Manager (Environment)

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 / S75/ 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:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ 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	2		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

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

Emahato . Lab.Assistant (Environment)

Area Manager (Environment)

D S	ISO/II	ADITI R&D SH Testing Labora NABL ACCREDI (A Constituent Board of Quality EC 17025:2017, ISO 9001:2015,ISO (0	atory TED / Council of In	ndia)	Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist Dha Jharkhand - 828107 Email ID: sindriaditi@gma Website: aditimdservices. Phone: 0326-2952377 (O) Fax: 0326-2952377 Mobile: 09471358492, 094	com),
Re	f. No.:	- ARDS/24-25/ AAQ/2		Date:	16.05.2024	
		TEST REPORT OF A	MBIENT A	IR QUALITY	TC	
٠	Na	TATA S JAMAD	OBA GROU	Contraction Contraction Contraction		
•	Wo		573/932 Dt.	9 XA		
	Da	te of Sample Collection : 09.05.20				
•		st Procedure : As per IS	24 to 15.05. -5182	2024		
•		st Procedure : As per IS	-5182 RESULTS			
•		st Procedure : As per IS <u>TEST</u> LOCATION – OFFICERS	-5182 <u>RESULTS</u> COLONY, 12			
•	Tes	st Procedure : As per IS <u>TEST</u> LOCATION – OFFICERS Avg. Ambient Temperature	-5182 RESULTS		y 28%	
•	Tes SI No.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars	-5182 RESULTS COLONY, 12 40°C Value	NO. DIGWADIH Avg. Humidit NAAQ - CPCE	STANDARD	
•	Tes SI No. 1.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ	STANDARD	
	Tes SI No. 1. 2.	LOCATION – OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ	STANDARD gj/m ³	
	Tes SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	-5182 <u>RESULTS</u> COLONY, 12 40°C Value 75.86 43.60 17.38	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ	g/m ³	
	SI No. 1. 2. 3. 4.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ	sTANDARD gg/m ³ g/m ² g/m ³	
	Tes SI No. 1. 2. 3. 4. 5.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 80 µ 180 µ	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	13.0
	Tes SI No. 1. 2. 3. 4. 5. 6.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	3.0
	Tes SI No. 1. 2. 3. 4. 5. 6. 7.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m ³ Particulate Matter (PM2.5), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 4 mg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	28.0
	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ m ³	34.0
•	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₆), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 4 mg 1 µg 6 ng	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ (m ³ (m ³	30
	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ (m ³ (m ³ (m ³) (m ³)	

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

A R D			ng Labora BL ACCREDI ard of Quality	atory TED / Council of In	dia)	Plot No I-B-17 (F Sindri, Industrial A/ P.O Domgarh, Di Jharkhand - 82810 Email ID: sindriadit Website: aditirndse Phone: 0326-295237 Fax: 0326-295237 Mobile: 094713584	rea, st Dhanbad 7 ti@gmail.com ervices.com 377 (O), 7
	Ref. No.:	- ARDS/24-25/ AAQ/3			Date	: 16.05.2024	
		TEST RE	PORT OF A		RQUALITY		0
	• Wo • Da • Da	ork Order Ref. NO. te of Sample Collectio te of Testing st Procedure	TATA S JAMAD DIST : 4700092 n : 09.05.20 : 11.05.20 : As per IS	OBA GROUI OBA GROUI DHANBAD (573/932 Dt. 24 to 10.05. 24 to 15.05.	P PLANT, JHARKHAND) 20.07.2021 2024		2
		LOCATION -	CENTRAL W	ORKSHOP A	REA , JAMADOB	A	
		Avg. Ambient Ten	nperature	40 ⁰ C	Avg. Humidi	ty 28%	1
	SI No.	Particulars		Value	NAAQ - CPCI	B STANDARD	
	1.	Particulate Matter (PM		88.46	100	µg/m³	
	2.	Particulate Matter (PM;	2.5), µg/m³	52.64	60 µ	ıg/m³ •	
	3.	SO ₂ µg/m ³		22.82	80 μ	ag/m ³	

1		Avg. Ambient Temperature	40°C	Avg. Humidity 28%
Par	0.	Particulars	Value	NAAQ - CPCB STANDARD
Par	61. B	Particulate Matter (PM10), µg/m3	88.46	100 µg/m ³
Par	1	Particulate Matter (PM _{2.5}), µg/m ³	52.64	60 µg/m ³ .
SO2	6 IL 8	SO ₂ , µg/m ³	22.82	80 µg/m ³
NO		NO ₂ , µg/m ³	32.64	80 µg/m ³
Ozo	10	Ozone, µg/m ³	17.48	180 µg/m ³
NH3		NH ₃ , µg/m ³	17.60	400 µg/m ³
CO,	8	CO, mg/m ³	0.93	4 mg/m ³
Þb,		Pb, µg/m ³	BDL	1 µg/m ³
As,	1 53	As, ng/m ³	BDL	6 ng/m ³
Ni, I		Ni, ng/m ³	BDL	20 ng/m ³
Ben	Q S	Benzene, µg/m3	BDL	5 µg/m ³
Ben		Benzoapyrene ng/m ³	BDL	1 ng/m ¹
Ben				

-8-12 004

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

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2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

ISO/II	ADITI R&D SE Testing Labora NABL ACCREDIT (A Constituent Board of Quality EC 17025:2017, ISO 9001:2015,ISO (C	atory TED Council of In	dia)	tot No I-B-17 (P) indri, Industrial Area, O Domgarh, Dist Dhanba harkhand - 828107 mail ID: sindriaditi@gmail.co Vebsite: aditimdservices.com hone: 0326-2952377 (O), ax: 0326-2952377 Iobile: 09471358492, 094315
Ref. No.:	- ARDS/24-25/ AAQ/4		Date:	16.05.2024
	TEST REPORT OF A	MBIENT A	IR QUALITY	
• Na	TATA S JAMAD	OBA GROU		
• Da • Da	te of Sample Collection : 09.05.20	24 To 15.05.2	2024	
		RESULTS		
	LOCATION - TATA			
	Avg. Ambient Temperature	40°C	Avg. Humidity	
SI No.	Particulars	Value	NAAQ - CPCB	STANDARD
1.	Particulars Particulate Matter (PM ₁₀), µg/m ³	Value 70.08	NAAQ - CPCB 100 µ	STANDARD
1. 2.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	Value 70.08 40.57	ΝΑΑQ - CPCB 100 μ 60 μg	STANDARD g/m ³
1. 2. 3.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	Value 70.08 40.57 16.18	NAAQ - CPCB 100 µ 60 µg 80 µg	STANDARD g/m ³ g/m ³
1. 2. 3. 4.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	Value 70.08 40.57 16.18 25.80	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg	STANDARD g/m ³ 1/m ³ 1/m ³
1. 2. 3. 4. 5.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	Value 70.08 40.57 16.18 25.80 16.32	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ	STANDARD g/m ³ i/m ³ i/m ³ g/m ³
1. 2. 3. 4. 5. 6.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ NH ₃ , µg/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ	STANDARD g/m ³ µ/m ³ µ/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 4 mg	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7. 8.	ParticularsParticulate Matter (PM10), μg/m3Particulate Matter (PM25), μg/m3SO2, μg/m3NO2, μg/m3Ozone, μg/m3NH3, μg/m3CO, mg/m3Pb, μg/m3	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL	NAAQ - CPCB 100 µg 60 µg 80 µg 80 µg 180 µg 400 µ 4 mg 1 µg/	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7. 8. 9.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 1 µg/ 6 ng/	STANDARD g/m ³ µ/m ³ µ/m ³ g/m ² g/m ² g/m ³ m ³ m ³
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ Ozone, µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 4 mg 1 µg/ 6 ng/ 20 ng	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³ g/m ³ m ³ m ³
1. 2. 3. 4. 5. 6. 7. 8. 9.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 1 µg/ 6 ng/	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³ m ³ m ³ m ³

- 2. The test results reported in this report are valid at the time of and under the stated condition of measurment.
- 3. This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.

s) ISO/	ADITI R&D SI Testing Labor NABL ACCRED (A Constituent Board of Quality IEC 17025:2017, ISO 9001:2015,ISO (0	atory ITED y Council of In	ndia)	Plot No I-8-17 (P Sindri, Industrial Ar P.O Domgarh, Dis Jharkhand - 82810 Email ID: sindriadit Website: aditimdse Phone: 0326-2952 Fax: 0326-2952377 Mobile: 094713584	rea, st Dhanbad 7 ti@gmail.com ervices.com 977 (O), 7
Ref. No.:	- ARDS/24-25/AAQ/1		Date	16.05.2024	
	TEST REPORT OF A	MBIENT A	IR QUALITY		
• Da	DIST ork Order Ref. NO.: : 4700092 ate of Sample Collection : 09.05.20	573/932 Dt. 24 To 10.05.2	JHARKHAND) 20.07.2021		
• Te	st Procedure : As per IS	24 To 15.05.2 -5182	2024		
• Te	st Procedure : As per IS	-5182 RESULTS			
• Te	st Procedure : As per IS TEST LOCATION - 6 & 7	-5182 RESULTS PITS COLLIE	RY OFFICE	•	
	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature	-5182 RESULTS PITS COLLIE 40 ⁰ C	RY OFFICE Avg. Humidit	•	
SI No.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars	-5182 RESULTS PITS COLLIE 40°C Value	RY OFFICE Avg. Humidit NAAQ - CPCE	STANDARD	
SI No. 1.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38	RY OFFICE Avg. Humidit NAAQ - CPCE 100 ;	s STANDARD	
SI No. 1. 2.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ	g/m ³	
SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	-5182 <u>RESULTS</u> PITS COLLIE 40°C Value 89.38 52.81 23.15	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ	g/m ³ g/m ³	
SI No. 1. 2. 3. 4.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ	g/m ³ g/m ³ g/m ³	
SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ	g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	
SI No. 1. 2. 3. 4. 5. 6.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ	3 STANDARD ug/m ³ g/m ³ g/m ³ ug/m ³ ug/m ³ ug/m ³	
SI No. 1. 2. 3. 4. 5.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 180 µ 180 µ 400 µ	3 STANDARD ug/m ³ g/m ³ g/m ³ ug/m ³ ug/m ³ ug/m ³ ug/m ³ ug/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	3 STANDARD 19/m ³ g/m ³ g/m ³ 19/m ³ 19/m ³ 19/m ³ 1/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 4 mg 1 µg 6 ng	3 STANDARD 19/m ³ g/m ³ g/m ³ 19/m ³ 19/m ³ 19/m ³ 1/m ³ 1/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	3 STANDARD ag/m ³ g/m ³ g/m ³ ag/m ³ ag	

NOTE: BDL - Below Detection Limit

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

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ISO/	NA	ing Laboratory BL ACCREDITED pard of Quality Coun	cil of India)		Sindri, P.O D Jharkh Ernail I Websit Phone: Fax: 03	 b I-B-17 (P) Industrial Area, Industrial Area,	com m
Ref. No.:	- ARDS/24-25/MINER./	1		C	ate: 14.0	5.2024	
	TEST REPOR	T OF MINERALO	GICAL C	OMPOS	TION		
	<u>c</u>	OF PARTICULATE	MATTE	R			
• w	ame of the industry ork Order Ref. NO. ate of Sample Collectio ate of Testing	: M/S TATA ST TATA STEEL JAMADOBA DIST DHAN : 4700092573/93 on : 10.05.2024 : 11.05.2024 To	GROUP P BAD (JHA 2 Dt. 20.0) PLANT, ARKHANI 07.2021)		
• D							
• 0		TEST RESU	LTS				
• Di	Particulars	TEST RESU		ralogical (Compositi	ion (%)	
	Particulars	TEST RESU		alogical (FeO	Compositi Al ₂ O ₃	ion (%) CaO	
	Particulars Central Workshop /		Miner		And some services of	and and a	

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

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S July		CCREDITED	ncil of India)	Continue	Plot No I-B-17 (P) sindri, Industrial Area, P.O Domgarh, Dist Dhanbac harkhand - 828107 mail ID: sindriaditi@gmail.com Vebsite: aditirndservices.com Phone: 0326-2952377 (O); ax: 0326-2952377 Nobile: 09471358492, 094315
Ref.	No.: - ARDS/24-25/SW/1			Date:	17.05.2024
	TEST REPO	RT OF SU	RFACE W	VATER	
:		1. Damo	GROUP PI NBAD (JHA 573/932 Dt odar River L	LANT, RKHAND) . 20.07.2021	
	Date of Sample Collection: Date of Testing : Test :		24 To 16.0	5.2024 DO, BOD, C	I, F, SO₄
		TEST RES	ULT		
SI. No.	PARAMETERS OF TEST	VA Damodar River Up Stream	LUE Damodar River Dn Stream	Limit as per IS 229 Class - C	5 Method
	рН	7.8	8.0	6.5 -8.5	IS-3025 (P-11): 1983
1.	Contractor and provide a	410	432	1500	IS-3025 (P-16): 1984
1. 2.	Total Dissolved Solids, mg/l	410			T Detected as a selected of the Selected as the Selected as a selecte
	Total Dissolved Solids, mg/l Turbidity, NTU	2.0	2.4		IS-3025 (P-10):1984
2.			2.4 4.0	- 4.0 (Min)	IS-3025 (P-10):1984 IS-3025 (P-38):1989
2. 3.	Turbidity, NTU	2.0			IS-3025 (P-38):1989 IS-3025 (P-44):1994
2. 3. 4.	Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen	2.0 4.2	4.0	4.0 (Min)	IS-3025 (P-38):1989 IS-3025 (P-44):1994
2. 3. 4. 5.	Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	2.0 4.2 1.6	4.0 2.0	4.0 (Min) 3.0	IS-3025 (P-38):1989 IS-3025 (P-44):1994

Sr. Chemist, Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

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			Annexure-
Test NA (A Constituent B	ing La BLACC oard of C	SERVICES boratory REDITED Quality Council of India) ISO (OHSAS) 45001:2018 Certified	Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbad Jharkhand - 828107 Emall ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608
Ref. No.: - ARDS/24-25/MWD/1		Dat	e: 16.05.2024
TEST REPO	ORT O	F MINE WATER DISCHARC	<u>SE</u>
Name of the industry	:	M/S TATA STEEL, JAMADOB TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST DHANBAD (JHARKHA	
 Work Order Ref. NO.: Sample Code 	:	 4700092573/932 Dt. 20.07.2021 1. 2 Pit Jamadoba Collier 2. 3 Pit Jamadoba Collier 3. 6 & 7 Pits Colliery 4. Digwadih Colliery 	y
Date of Sample Collec	tion:	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.
	I	ESTRESULT	

SI.	PARAMETERS OF		VALU	E		Limit as	Test
No.	TEST	2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery	per IS-2296 Class B (For Bathing)	Method .
1.	pH,	8.2	7.8	8.3	8.0	6.5-8.5	IS-3025 (P-11) 1983
2	Total Dissolved Solids, mg/I	865	860	980	907		IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/I	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

Sr. Chemist

Aditi R&D Services

SULL RED SERVICE

Technical Manager Aditi R&D Services, Sindri

Statements :

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RAD R	DS	Tes N onstituent	ting Labo ABL ACCRE Board of Qua	DITED lity Counci	l of India)		Jharkhand - 8 Email ID: sind Website: aditin Phone: 0326-2 Fax: 0328-295	ial Áréa, h, Dist Dhanbad 28107 ríaditi@gmail.com mdservices.com 2952377 (O),
	Ref. No.: - ARDS/24-	25/STP/1				Da	ate: 16.05.2024	8
		T	EST REPO	ORT OF	SEWAG	E		e
	 Name of the i Work Order F Sample Cod 	Ref. NO.:	ד ג נ : 4	M/S TATA STE ATA STE AMADOB DIST DH/ 700092573 . STP Out	EL LIMI A GROU ANBAD (/932 Dt.	TED P PLAN JHARKH 20.07.202	Г, AND) 21	
	 Date of Sam Date of Test Test 	<u>.</u>	4 5 ction: 0 : 1 : p a	. STP Out 9.05.2024 0.05.2024 H, TDS, T nd Fecal (let- Jmb. let- JCPF To 10.0 To 15.0 SS, BOD Coliform.	Canteen 9 Canteen 95.2024 95.2024 95.2024 , COD, O		
		14 10	TES	TRESULT		-		
й. о.	PARAMETERS OF TEST	STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	VALUE STP Outlet Digwadi h 12 No. Supervis or flat	STP Outlet Jmb. Cantee n	STP Outlet- JCPP Cantee n	As per MoEF&CC Notification dated 13 th Oct. 2017 for. Sewage Treatment Plant	Test Method
B.	pH,	8.5	8.3	7.9	7.4	8.0	6.5-9.0	IS-3025(P- 11):1983
E	Total Dissolved Solids, mg/I	1170	892	1415	1020	1105	•	IS-3025(P- 16):1984
Q	Total Suspended Solids, mg/l	54	46	48	39	40	100	IS-3025(P- 17):1984
	Bio chemical Oxygen Demand, mg/l	6.6	8.4	9.0	2.4	4.8	30	IS-3025(P- 44):1994
4	Chemical Oxygen Demand, mg/l	88	95	117	44	73	250	IS-3025(P- 58):2006
i.		3.6	2.8	9	0.4	B.D.L		IS-3025(P- 39):2021
	Oil & Grease, mg/l		the second s				-1000	
k.		759	654	600	636	542	<1000 MPN/100ml	IS - 1622

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R D	(A Constituent Boa	g Labora ACCREDI rd of Quality	tory TED Council of	i India)	Piot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377
	ISO/IEC 17025:2017, ISO 9001 Ref. No.: - ARDS/24-25/ETP/1	:2015,150 (0	HSAS) 450		Mobile: 09471358492, 09431512
		DEDODI			
	IESI	REPORT	OF EFI	LUENT	
	 Name of the industry 	TA JAI	TA STEEL	EEL, JAMADO L LIMITED GROUP PLAN IBAD (JHARKH	т,
	Work Order Ref. NO.:	: 470	0092573/93	32 Dt. 20.07.20	21
	Sample Code	: 1. E	T.P. Out	et T.C.H.	
		2. E	T.P. Out	et Garage	
	 Date of Sample Collection Date of Testing Test 	: 10. : pH,	05.2024 T	o 10.05.2024 o 15.05.2024 S, BOD, COD, C	DIL & GREASE.
SI.	PARAMETERS OF TEST	VAL	UE	General	Test
No.		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage	Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Method .
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	(NOITI	REDSE	Tect	nical Manager

Aditi R&D Services



Aditi R&D Services, Sindri

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A A A A A A A A A A A A A A A A A A A		NABL A	Laborate ACCREDITE of Quality C	ory D council of In	ndia)	Sind P.O. Jhar Ema Web Phot	khand - 828 il ID: sindri site: aditim ne: 0326-29 0326-2952	Il Àrea, Dist Dhanbad 8107 aditi@gmail.com dservices.com 852377 (O),
Ref.	No.: - ARDS/24-25	/DW/1 TEST RE	PORT OF	DRINKING	WATER	Date: 16	.05.2024	e.
	 Name of the in Work Order Re 		JAMADO	EEL LIMI BA GROU HANBAD (TED P PLANT, JHARKHA	ND)		
8	Sample Code		1. Ca 2. Ca 3. Ca 4. Ca	inteen- Ja inteen- Ja inteen- Dig inteen- 6& 5.2024 To	madoba C madoba W gwadih Co 7 Pits Col	olliery /ashery olliery liery		
	 Test Colour, Odour, 1 Dissolved, Solid 	s Calcium	Copper. M	anganése.	Sulphate, N	litrate, Flu	ioride, Pl	nenolic
	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine	s, Calcium, rcury, Cadmi	Copper, M ium, Arsenio ity, Aluminiu	anganese, c, Cyanide, m & Boron. <u>RESULT</u>	Lead, Zir	Itrate, Flu nc, Total	Coliform,	nenolic
SI. No	Colour, Odour, 1 Dissolved Solid Compound, Me	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba	Copper, M ium, Arsenic ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih	Sulphate, N Lead, Zir Canteen- 6&7 Pits	nc, Total	Coliform,	Total
SI.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen-	Copper, M ium, Arsenio ity, Aluminiu <u>TEST R</u> VAL Canteen-	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen	Sulphate, N Lead, Zir	Is as p 10500 10500	er IS 2012 Permi	Total
SI. No	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery	Copper, M ium, Arsenio ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery	Itrate, Fluinc, Total IS as p 10500: Desirab Ie 5.00 Agreeabl e	er IS 2012 Permi ssible 15.0 Agree , able	Total Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018
SI. No 1.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	Itrate, Flu nc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e	er IS 2012 Permi ssible 15.0 Agree able Agree able	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017
SI. No 1. 2.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 2.0	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL	Itrate, Fit nc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0	er IS 2012 Permi ssible 15.0 Agree able 5.0	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 7):2017
SI. No 1. 2. 3. 4. 5.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 2.0 8.2	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0 6.5-8.5	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax.	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983
SI. No 1. 2. 3. 4.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0 6.5-8.5 200	er IS 2012 Permi ssible 15.0 Agree - able Agree able 5.0 No. Relax. 600	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 21):2009
SI. No 1. 2. 3. 4. 5.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS:3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 32):1988
SI. No 1. 2. 3. 4. 5. 6.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 32):1988 IS 3025 (P- 32):1988
SI. No 1. 2. 3. 4. 5. 6. 7.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 22):1988 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984
SI. No 1. 2. 3. 4. 5. 6. 7. 8.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as	s, Calcium, rcury, Cadmi rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8 NIL	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88 NIL	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7 NIL	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL	Itrate, Fit hc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 500 575	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 21):2009 IS 3025 (P- 21):2009 IS 3025 (P- 26):2021 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984 IS 3025 (P- 16):1984
SI. No 1. 2. 3. 4. 5. 6. 7. 8. 9.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8 NIL 580	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88 NIL 584	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7 NIL 605	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL 310	Itrate, Fit hc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 21):2009 IS 3025 (P- 21):2009 IS 3025 (P- 26):2021 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984 IS 3025 (P- 16):1984

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D S	(A Constitu ISO/IEC 17025:2017, IS	Testing L NABL AC ent Board o	CREDITED	ry uncil of Inc AS) 45001:	lia)	S P J E V P F	harkhand - mail ID: sir Vebsite: ad hone: 0326 ax: 0326-2	strial Àrèa, arh, Dist Dhanba 828107 ndriaditi@gmail.co itimdservices.con 8-2952377 (O),
			- 2	2 -				160
SI.	PARAMETERS OF		VAL	JE			per IS	Test
No.	TEST	Canteen- Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desira ble	0:1991 Permis sible	Method
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P- 59):2006
13.	Sulphate as SO ₄ , mg/l	50.14	57.6	59.7	37.9	200	400	IS 3025 (P- 24):1986
14.	Nitrate as NO ₃ , mg/l	4.6	6.2	4.2	3.7	45	No. Relax	IS 3025 (P- 34):1988
15.	Fluoride as F, mg/l	0.40	0.32	0.28	0.35	1.0	1.5	IS 3025 (P- 60):2008
16.	Phenolic Compound as (C6H5OH) 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	Absen t	Absent	IS 3025 (P- 49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P- 52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P- 39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	499.2	489.6	518.4	196.8	200	600	IS 3025 (P- 23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P- 55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P- 57):2005

NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services

Technical Manager Aditi R&D Services, Sindri



Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

	R D S	(A Cons 17025:201	NABL tituent Boa 7, ISO 9001	g Labor ACCRED	ratory DITED ty Counc	cil of Inc	fia)		Sindri, Ind P.O Dom Jharkhand Email ID: Website: 0 Phone: 03 Fax: 0326	I-B-17 (P) Justrial Area, Ingarh, Dist Dhar J - 828107 sindriaditi@gmail aditimdservices.c 326-2952377 (O), 3-2952377 3471358492, 094	l com
	 Name Work Samp Date 	e of the inc Order Ref ble Code	TEST dustry f. NO.	JAMAI DIST : 470009 : 1. 2. 3. 4. 5. 6. n : 10	ATA STE STEEL DOBA G DHANB 2573/93 Purnad Digwad Kendua Upper I Kalimel 6&7 Pit 0.05.202	EL, JAN LIMITEI ROUP AD (JH 2 Dt. 1 ih (Jor. ih 10 N idih Bas Dungari a Kalim s (Ayod 4	MADOBA D PLANT, ARKHAN 20.07.202 apokhar) o F & J sti handir Ihya Nag	ri)	e: 17.05.2		3
	• Test			: Co Iro So FI Ar Ho Al	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro	Compour Lead, Zind	dity, pH, orine, T anganes nd, Merc c, Total (otal Diss se, Sulph cury, Cad Coliform,	olved ate, Nitrate, mium,	
SI. No	Test PARAME-TERS OF TEST	O KO		: Co In So FI An He Al <u>TES</u> VALUE	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalen uminium T RESU	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro LT	ste, Turbid . Free chl opper, M Compour Lead, Zinn nium, Minn on.	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 1050	otal Diss se, Sulph: cury, Cad Coliform, Alkalinity per IS 0:1991	olved ate, Nitrate, mium,	Ĭ
	PARAME-TERS	Purnadih (Jorapok har)	Digwadih 10 No F&J	: Co Ind So FI An He Al TES	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro	ete, Turbid . Free chl opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya	dity, pH, orine, To anganes nd, Merc c, Total eral Oil, IS as	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS	olved ate, Nitrate, mium, /, Test	Y
No	PARAME-TERS OF TEST Colour, (Hazen Unit)	Purnadih (Jorapok har) 2	Digwadih	: Cd Ird Sc FI An He Al <u>TES</u> VALUE Kenduadi h Basti	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavaleni uminium T RESU Upper Dunga	our, Tas ide, Res cium, Cd henolic yanide, I t Chrom & Bord LT Kalim ela Kalim	ete, Turbie . Free chil opper, M Compour Lead, Zind nium, Mindon 6&7 Pits (Ayodh	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir-	otal Disse se, Sulpha cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi-	olved ate, Nitrate, mium, /, Test	
1.	PARAME-TERS OF TEST Colour, (Hazen Unit) Temperature ⁸ C	Purnadih (Jorapok har) 2 29	Digwadih 10 No F&J 2 30	: Cd Ird Sd FI An He Al TES VALUE Kenduadi h Basti	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29	ete, Turbid . Free chil opper, M Compour Lead, Zinn nium, Minn nium, Minn, Minnn, Minn, Mi	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir- able	otal Disse se, Sulpha coliform, Alkalinity per IS 0:1991 Permi- ssible	olved ate, Nitrate, mium, /, Test Method • IS 3025 (P-	Y
10 1. 2. 3.	Colour, (Hazen Unit) Temperature ⁸ C Electrical Conductivity, µmhos/cm	Purnadih (Jorapok har) 2 29 1140	Digwadih 10 No F&J 2 30 1107	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavaleni uminium T RESU Upper Dunga ri 1 28 880	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Borc LT Kalim ela Kalim andir 1 29 950	ete, Turbie . Free chil opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya Nagri) 2 29 860	dity, pH, orine, T- anganes nd, Merci c, Total (eral Oil, IS as 10500 Desir- able 5 -	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, /, /, /, Test Method ! S 3025 (P- 4):2021	
No 1. 2. 3.	PARAME-TERS OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l	Purnadih (Jorapok har) 2 29 1140 740	Digwadih 10 No F&J 2 30 1107 720	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780 508	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620	ete, Turbid . Free chil opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya Nagri) 2 29 860 560	dity, pH, orine, T- anganes nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - - 500	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3.	Colour, (Hazen Unit) Temperature ⁹ C Electrical Conductivity, µmhos/cm Total Dissolved	Purnadih (Jorapok har) 2 29 1140	Digwadih 10 No F&J 2 30 1107 720 7.5	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavaleni uminium T RESU Upper Dunga ri 1 28 880	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Borc LT Kalim ela Kalim andir 1 29 950	ete, Turbie . Free chil opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya Nagri) 2 29 860	dity, pH, orine, T- anganess nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - 500 6.5-	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	Y
No 1. 2. 3. 4. 5.	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature [®] C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580	Digwadih 10 No F&J 2 30 1107 720 7.5 472	: Co Iro So Fi An He Al TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304	ste, Turbid . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392	dity, pH, orine, T, anganes and, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - 500 6.5- 8.5 200	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3. 4. 5. 6. 7,	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁸ C Electrical Conductivity, μmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4	Digwadih 10 No F&J 2 30 1107 720 7.5 472 161.6	: C4 Ird S6 FI A4 H6 A1 <u>TES</u> VALUE Kenduadi h Basti 1 30 780 508 7.7 356 57.6	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336 60.8	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304 56	ste, Turbic . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392 70.4	dity, pH, orine, T- anganess nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - - 500 6.5- 8.5	otal Disse se, Sulpha cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - - 2000 No Relax	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3. 4. 5. 6. 7. 8.	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l Magnesium as Mg, mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4 48.96	Digwadih 10 No F&J 2 30 1107 720 7.5 472	: Co Iro So Fi An He Al TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304	ste, Turbid . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392	dity, pH, orine, T, anganes and, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - 500 6.5- 8.5 200	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l Magnesium as	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4	Digwadih 10 No F&J 2 30 1107 720 7.5 472 161.6	: C4 Ird S6 FI A4 H6 A1 TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356 57.6	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336 60.8	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304 56	ste, Turbic . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392 70.4	dity, pH, orine, T4 anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600 200	olved ate, Nitrate, mium, /, / / / / / / / / / / / / / / / / /	

Statements :

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2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

2

Annexure- II



ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India) ISO/IEC 17025:2017, ISO 9001:2015,ISO (OHSAS) 45001:2018 Certified Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O.- Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608

SI. No	PARAMETERS OF TEST			VALUE					per IS 0:1991	Test Method
10		Purnadih (Jorapok har)	Digwadih 10 No F&J	Kenduadih Basti	Upper Dungari	Kalim ela Kalim andir	6&7 Pits (Ayo dhya Nagr i)	Desir - able	Permis -sible	2
11	Sulphate as SO ₄ , mg/l	52.8	63.6	65.2	62.8	59.98	49.9 8	200	400	IS 3025(P- 24):1986
12.	Nitrate as NO ₃ , mg/l	9.6	9.2	9.7	8.3	11.9	9.0	45	No. Relax	IS 3025(P- 34):1988
13.	Alkalinity as CaCO ₃ , mg/l,	456	427.2	345.6	441.6	374.4	432	200	600	IS 3025(P- 23):1983
14.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L.	BD.L	BDL	0.01	No. Relax	IS 3025(P- 47):1994
15.	Zinc as Zn, mg/l,	0.28	0.18	0.20	0.22	0.32	0.24	5	15	IS 3025(P- 42):1992
16.	Iron a Fe, mg/l	0.2	0.24	0.29	0.28	0.26	0.14	1.0	No. Relax	IS 3025(P- 53):2003
17.	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.05	1.5	IS3025 (P- 42):1992
18.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.001	No. Relax	IS 3025(P- 48):1994
19.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.003	No. Relax	 IS 3025(P- 41):1992
20.	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	B.D.	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.	B.D.	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.	B.D.	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.	B.D.	0.05	No. Relax	IS 3025(P- 52):2003

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

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2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

S	ADITI R				Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbi
JA		ing Labora			Iharkhand - 828107
D)		the second s		1	Email ID: sindriaditi@gmail.co Website: aditimdservices.com
ISO/	(A Constituent Bo IEC 17025:2017, ISO 900			ia)	Phone: 0326-2952377 (O) Mobile: 09471358492, 09431
	- ARDS/24-25/AAQ/1				e: 14.08.2024
	TEST RE	PORT OF A	MBIENT AI	R QUALITY	
	-				
● Na	nme of the industry	TATA S	TA STEEL, J TEEL LIMIT OBA GROUI DHANBAD (ED	
• w	ork Order Ref. NO.:	: 4700126	557/932 Date	:- 29/05/2024	
• Da	te of Sample Collectio	on : 07/08/202	4 To 08/08/20	24	
	te of Testing		24 To 13/08/2		
• •	le of resultd	: 10/08/20	24 10 13/00/2		
	st Procedure	: As per IS			
	st Procedure	: As per IS	-5182 RESULTS		
	st Procedure	: AsperIS <u>TEST</u> ION – 6&71	-5182 RESULTS		ity 75%
	st Procedure	: AsperIS <u>TEST</u> ION – 6&71	-5182 RESULTS PITS COLLIE	RY OFFICE Avg. Humid	ity 75%
• Te	st Procedure LOCAT Avg. Ambient Te	: As per IS <u>TEST</u> ION - 6 & 7 I mperature	-5182 RESULTS PITS COLLIE 32ºC	RY OFFICE Avg. Humid NAAQ - CPC	
• Te	LOCAT Avg. Ambient Te Particulars	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32ºC Value	RY OFFICE Avg. Humid NAAQ - CPC 100	BSTANDARD
• Te SI No. 1.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32ºC Value 76.72	RY OFFICE Avg. Humid NAAQ - CPC 100 60	EB STANDARD μg/m ³
• Te SI No. 1. 2.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80	CB STANDARD μg/m ³ μg/m ^{3**}
• Te SI No. 1. 2. 3.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80	EB STANDARD μg/m ³ μg/m ³ μg/m ³
• Te SI No. 1. 2. 3. 4.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 4 n	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 41 1	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7. 8.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77 BDL	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 4 n 1 µ 6 r	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77 BDL BDL	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 400 4 n 1 µ 6 r 20	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ ng/m ³ ng/m ³

Technical Manager Aditi R&D Services, Sindri

Sax 10

Statements :

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Sr. Chemist

Aditi R&D Services

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

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DS		& D SE ing Labora BL ACCREDIT	tory	ES	Plot No I-8-1 Sindri, Industria P.O Domgarh, Jharkhand - 82 Email ID: sindri	I Area, Dist - Dhanbao 8107 aditi@gmail.cor
ISO/	(A Constituent Bo IEC 17025:2017, ISO 900	and the second se		and the second se	Website aditim Phone 0326-29 Mobile: 094713	952377 (O)
Ref. No.:	- ARDS/24-25/ AAQ/2			Dat	e: 14.08.202	24
	TEST RE	PORT OF A	MBIENT AI	R QUALITY		
• Na	nme of the industry	TATA S	TA STEEL, J TEEL LIMITI OBA GROUI DHANBAD (J	ED		
• W	ork Order Ref. NO.:	: 4700126	557/932 Date	:- 29/05/2024		
• Da	te of Sample Collectio	on : 08.08.202	4 to 09.08.2	024		
	te of Testing		24 to 13.08.2			
	st Procedure	: As per IS				
	139		RESULTS			
		TEST	RESULTS	NO. DIGWADIH		
		TEST	RESULTS	NO. DIGWADIH Avg. Humid		5%
SI No.	LOCATION	TEST	RESULTS COLONY, 12	Avg. Humi		- 20 D C C C
SI No. 1.	LOCATION Avg. Ambient Te	TEST	RESULTS COLONY, 12 32 ⁰ C	Avg. Humid NAAQ - CP	dity 7	- 20 D C C C
	LOCATION Avg. Ambient Te Particulars	<u>TEST</u>	RESULTS COLONY, 12 32ºC Value	Avg. Humid NAAQ - CP 100	dity 7 CB STANDA	- 20 D C C C
1.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32 ⁰ C Value 70.35	Avg. Humid NAAQ - CP 100 60	dity 7 CB STANDA 0 µg/m³	
1. 2.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28	Avg. Humid NAAQ - CP 100 60 80	dity 7 CB STANDA Dµg/m ³ Pµg/m ³	- 20 D C C C
1. 2. 3. 4. 5.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14	Avg. Humid NAAQ - CP 100 60 80 80	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13	Avg. Humid NAAQ - CP 100 60 80 80 80	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65	Avg. Humid NAAQ - CP 100 60 80 80 180 40	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10	Avg. Humid NAAQ - CP 100 60 80 80 180 400 40 4	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6. 7.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40	Avg. Humid NAAQ - CP 100 60 80 80 180 400 4	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6. 7. 8.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40 BDL	Avg. Humid NAAQ - CP0 100 60 80 80 180 400 40 40 40 6	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ mg/m ³ µg/m ³	
1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	<u>TEST</u> - OFFICERS mperature I ₁₀), μg/m ³	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40 BDL BDL	Avg. Humid NAAQ - CP 100 60 80 80 180 400 41 1 6 20	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ mg/m ³ µg/m ³ ng/m ³	

Sr. Chemist Aditi R&D Services



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Technical Manager Aditi R&D Services, Sindri

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R D S			ing Labora	tory ED		Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanba Jharkhand - 828107 Email ID: sindriadit@gmail.co Website: aditirndservices.com
	ISO/I	EC 17025:2017, ISO 90				Phone: 0326-2952377 (O) Mobile: 09471358492, 09431
Re	ef. No.: -	ARDS/24-25/ AAQ/3			Da	te: 14.08.2024
		TEST RE	PORT OF A	MBIENT AI	R QUALITY	
•	Nar	me of the industry	TATA S JAMAD	TEEL LIMITI OBA GROUI	19755-0000-20	
:	Dat	ork Order Ref. NO. te of Sample Collectio te of Testing	: 4700126 on : 08.08.202	557/932 Date	:- 29/05/2024 024	
•	Tes	st Procedure	: As per IS	-5182 RESULTS		
Ē						
ļ		LOCATION -			REA , JAMADO	
	CI No.	Avg. Ambient Te		32ºC	Avg. Hum	idity 75%
	SI No.	Avg. Ambient Te Particulars	mperature	32ºC Value	Avg. Hum NAAQ - CF	idity 75% PCB STANDARD
	1.	Avg. Ambient Te Particulars Particulate Matter (PM	mperature M10), μg/m ³	32ºC Value 76.48	Avg. Hum NAAQ - CF 10	idity 75% PCB STANDARD 00 μg/m ³
	1. 2.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	mperature M10), μg/m ³	32°C Value 76.48 50.14	Avg. Hum NAAQ - CF 10 6	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³
	1. 2. 3.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90	Avg. Hum NAAQ - CF 10 6 8	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³
	1. 2. 3. 4.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25	Avg. Hum NAAQ - CF 10 6 8 8	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³
	1. 2. 3.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25 16.38	Avg. Hum NAAQ - CF 10 6 8 8 8	idity 75% PCB STANDARD 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³
	1. 2. 3. 4. 5.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25	Avg. Hum NAAQ - CF 10 6 8 8 8 11 12 40	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³

12. Benzoapyrene ng/m³ NOTE: BDL - Below Detection Limit

Benzene, µg/m3

As, ng/m³

Ni, ng/m³

Sr. Chemist

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11.

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BDL

BDL

BDL

BDL

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6 ng/m³

20 ng/m³

5 µg/m³

1 ng/m³

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S		ng Laborat	tory ED		Jharkhand Email ID si Website ad	istrial Area, garh, Dist - Dhanbad - 828107 indriaditi@gmail.com ditirndservices.com
ISO/I	EC 17025:2017, ISO 9001	Contract of the second second second		and the second se		26-2952377 (O) 171358492, 0943151260
Ref. No.:	ARDS/24-25/ AAQ/4			Da	nte: 14.08.	2024
	TEST REF	PORT OF A	MBIENT AI	R QUALITY		
Wa	me of the industry ork Order Ref. NO.: te of Sample Collectior	TATA ST JAMADO DIST D : 47001265	DBA GROUN HANBAD (57/932 Date	P PLANT, JHARKHAND :- 29/05/2024)	
	te of Testing st Procedure LOCATI	: As per IS-	ESULTS			ſ
	st Procedure	: As per IS- TEST R ION – TATA	5182 RESULTS		idity	75%
	st Procedure	: As per IS- TEST R ION – TATA	5182 ESULTS CENTRAL H	IOSPITAL	1016555	1100 C C C C C C C C C C C C C C C C C C
Te	st Procedure LOCATI Avg. Ambient Tem	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL F 32ºC	HOSPITAL Avg. Hum NAAQ - CF	1016555	1100 C C C C C C C C C C C C C C C C C C
Te: SI No.	LOCATI Avg. Ambient Terr Particulars	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32 ⁰ C Value	HOSPITAL Avg. Hum NAAQ - CF 10	CB STAN	1100 C C C C C C C C C C C C C C C C C C
Tes SI No. 1.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM1	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL F 32°C Value 64.06	HOSPITAL Avg. Hum NAAQ - CF 10 6	PCB STAN 00 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
Te: SI No. 1. 2.	LOCATI Avg. Ambient Terr Particulars Particulate Matter (PM ₁ Particulate Matter (PM ₂	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32°C Value 64.06 36.38	HOSPITAL Avg. Hum NAAQ - CF 10 6 8	РСВ STAN 00 µg/m ³ 0 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁) Particulate Matter (PM ₂) SO ₂ , µg/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL F 32°C Value 64.06 36.38 15.92	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8	PCB STAN 00 μg/m ³ 0 μg/m ³ 0 μg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3. 4.	LOCATI Avg. Ambient Terr Particulars Particulate Matter (PM ₁ Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8	РСВ STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3. 4. 5.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM1 Particulate Matter (PM2 SO2, µg/m3 NO2, µg/m3 Ozone, µg/m3	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL F 32°C Value 64.06 36.38 15.92 23.07 14.36	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8 18 40	PCB STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 10 µg/m ³ 10 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3. 4. 5. 6.	LOCATI Avg. Ambient Terr Particulars Particulate Matter (PM ₁) Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8 18 40 40	РСВ STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 30 µg/m ³ 00 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3. 4. 5. 6. 7.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL F 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8 18 40 40 4	PCB STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 80 µg/m ³ 00 µg/m ³ 10 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
SI No. 1. 2. 3. 4. 5. 6. 7. 8.	LOCATI Avg. Ambient Terr Particulars Particulate Matter (PM ₁) Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76 BDL	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8 8 8 18 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	PCB STAN 00 µg/m ³ 00 µg/m ³ 00 µg/m ³ 00 µg/m ³ 00 µg/m ³ 10 µg/m ³ 11 µg/m ³	1100 C C C C C C C C C C C C C C C C C C
Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	: As per IS- TEST R ION – TATA Inperature	5182 ESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76 BDL BDL	HOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8 18 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	PCB STAN 20 µg/m ³ 20 µg/m ³ 20 µg/m ³ 20 µg/m ³ 20 µg/m ³ 20 µg/m ³ 20 µg/m ³ 1 mg/m ³ 1 µg/m ³ 5 ng/m ³	1100 C C C C C C C C C C C C C C C C C C

NOTE: BDL - Below Detection Limi

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

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	(A C ISO/IEC 17025	Constitu	NAB ent Boa		REDI	TED Count	cil of l		Jharkhand Email ID s Website at Phone 032	garh, Dist - Dhar - 828107 indriaditi@gmail ditirndservices.c 26-2952377 (O) 471358492, 094
	TEST	REPO	RT OF	NOIS	E (A	MBIE	NT)	LEVEL MC	NITORING	
	Ref. No	. & Date	,	1			NAME	AND ADDRES	SS OF THE CLI	ENT
AR	DS/24-25/NOISI	E/1Date	: 14.08	.2024			M/S	TATA STEE	L, JAMADOB	A,
	Date of N	Ionitori	ng		ТА	TA ST			MADOBA GR) (JHARKHAN	
	07.08.2024 1	Го 09.08	3.2024	-	Ar Tem	Avg. nbient peratu (°C)		Average Humidity (%)	Weather Condition	Status of the plant
	Work Order 4 Date:- 2	7001265				32		75	Clear	Running
		1.4		MO	NITO	RING	RESU	ILTS		
SI. No	Place of Monitoring	(Day Ti 6 AM to Avg. d	10 PM)			(10 PM	t Time to 6 AM) dB(A)	for Industr CPCB No (Regulatio (Amendme notified vio Dt. 2	Ambient standa rial Area as per bise Pollution on and Control) nt) Rules , 200 de S.O. 1046(E 2.11.2020 n dB(A) Leq
			_	_					Day Time	Night Time
JAN	LOCATION MADOBA GROUP	MAX	MIN	AVG. d		MAX	MIN	AVERAGE dB(A) Leq	Industrial Area	Industria Area
1.	Central Workshop Area	70.4	60.8	67.8	34	58.4	47.3	55.71	75	70
2.	6 & 7 Pits Colliery Office	68.7	55.2	65.8	38	56.8	46.5	54.18		6.63
						_			Residential Area	Residentia Area
3.	Officer Colony 12 No. Digwadih	63.9	50.6	61.0)9	51.2	40.8	48.57	65	55
									Silence Zone	Silence Zone
4.	Tata Central Hospital	50.5	46.7	49.0	00	39.6	36.4	38.29	50	40
,	Sr. Chemis				(LI P.I. DOMO	ARH C		Jack Technical Ma R&D Service	

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	Test NA (A Constituent B	&D SERVICES ing Laboratory BL ACCREDITED oard of Quality Council of India) 01:2015,ISO (OHSAS) 45001:2018 Certified	Piot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608
Ref.	No.: - ARDS/24-25/MINER./	1 C)ate: 14.08.2024
	TEST REPOR	T OF MINERALOGICAL COMPOSI	TION
	2	OF PARTICULATE MATTER	
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT,	
		DIST DHANBAD (JHARKHANI	D)
•	Work Order Ref. NO.	: 4700126557/932 Date:- 29/05/2024	
	Date of Sample Collection	on : 09.08.2024	
•	Date of Testing	: 12.08.2024 To 14.08.2024	
		TEST RESULTS	

SI No.	Particulars	articulars Mineralogic				
		SiO ₂	FeO	Al ₂ O ₃	CaO	
1.	6 & 7 pits colliery office	1.98	0.14	1.38	2.68	
2.	Tata Central Hospital	2.16	0.18	1.34	2.84	

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DS	ADITI R&D Testing La NABL ACC (A Constituent Board of (ISO/IEC 17025:2017, ISO 9001:2015,	aboratory REDITED Quality Coun	cil of India)	P.O Jhan Ema Web Phon	No I-8-17 (P) 1. Industrial Area, Doingarh, Dist - Dhanbad (hand - 828107 I ID: sindriaditi/@gmail.con site: aditimdservices.com e: 0326-2952377 (O) fe: 09471358492, 0943151
Ref.	No.: - ARDS/24-25/SW/1			Date: 1	7.08.2024
	TEST REPOR	RT OF SU	RFACE W	ATER	
:	T, J,	ATA STEEI AMADOBA IST DHAN 4700126 1. Damo	GROUP PL NBAD (JHA 557/932 Dat odar River L	ANT, RKHAND) e:- 29/05/2024 Jp Stream	
•		09.08.20 10 08.20 pH, TDS <u>TEST RES</u>	024 024 To 16.08 5, Turbidity, <u>ULT</u>	DO, BOD, CI,	
SI. No.	Date of Testing : Test :	09.08.20 10 08.20 pH, TDS <u>TEST RES</u>	024 024 To 16.00 5, Turbidity,	8.2024	F, SO₄ Test Method
0.000	Date of Testing : Test :	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn	B.2024 DO, BOD, CI, Limit as per IS 2296	Test Method
No.	Date of Testing : Test : PARAMETERS OF TEST	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream	B.2024 DO, BOD, CI, Limit as per IS 2296 Class - C	Test Method IS-3025 (P-11): 1983
No. 1.	Date of Testing : Test : PARAMETERS OF TEST pH	09.08.20 10 08.20 pH, TDS TEST RES VAI Damodar River Up Stream 7.6	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984
No. 1. 2.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397	024 D24 To 16.03 S, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984
No. 1. 2. 3.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Turbidity, NTU	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5	024 D24 To 16.03 S, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 -	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984 IS-3025 (P-38):1989
No. 1. 2. 3. 4.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5 4.8	024 024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5 4.9	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 - 4.0 (Min)	Test
No. 1. 2. 3. 4. 5.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5 4.8 1.5	024 024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5 4.9 3.0	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 - 4.0 (Min) 3.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984 IS-3025 (P-38):1989 IS-3025 (P-44):1994

Sr. Chemist

Aditi R&D Services



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Technical Manager Aditi R&D Services, Sindri

Statements :

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- 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.

1	D S		ting Labo BL ACCRED loard of Quali	ratory NTED ty Council o	f India)	P J E V P	fot No I-8-17 (P) indri, Industrial Area, O Domgarh, Dist Dhanbad harkhand - 828107 mail ID: sindriaditi@gmail.com Vebsite: aditirndservices.com hone: 0326-2952377 (O) Iobile: 09471358492, 094315126
	Ref. No.: - ARDS/	24-25/MWD/1	l.			Date	: 17.08.2024
	1	TEST REP	ORT OF N	INE WA	TER DIS	CHARG	E
	Name of the second s	ne industry	T J	NS TATA S ATA STEE AMADOBA DIST DHA	A GROUP	D PLANT,	
	 Work Orde 	r Ref. NO.:	: 4	700126557/	932 Date:-	29/05/202	4
	Sample C	ode	: 1 2 3	. 3 Pit	Jamadob Jamadob Pits Colli	a Colliery	
	 Date of Sa Date of Te Test 	ample Collee esting	: 1 : p	7.08.2024 0.08.2024 H, TDS, TS	To 16.08. SS, BOD, 0	2024	& GREASE.
SI.	PARAMETERS OF		VALU	E		Limitas	Test
No.	TEST	2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery	per IS-2296 Class B (For Bathing)	Method
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	122	49	91	79	•	IS-3025 (P- 58):2006

Oil & Grease, mg/l

Sr. Chemist Aditi R&D Services



0.2

0.2

IS-3025 (P-39):2021

Technical Manager Aditi R&D Services, Sindri

Statements :

6.

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0.8

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

0.3

1	D S	Test NA Instituent B	&DS ting Labor BL ACCRED loard of Quali 001:2015,ISO	natory DITED Ity Council o	of India)		Plot No I-B-17 Sindri, Industrial P.O Domgarh, D. Jharkhand - 8281 Email ID sindriad Website: aditirnde Phone: 0326-295 Mobile: 09471358	Area, Dist - Dhanbad D7 diti@gmail.com services.com 2377 (O)
	Ref. No.: - ARDS/24-	25/STP/1				Da	te: 17.08.2024	
		I	EST REPO	RTOF	SEWAG	E		
	 Name of the i Work Order R 		T J C	M/S TATA S ATA STEL AMADOB DIST DHA 700126557	EL LIMITI A GROUI ANBAD (.	ED P PLANT JHARKH	, AND)	
	 Sample Cod Date of Sam Date of Test Test 	ple Colle	2 3 4 5 5 5 5 5 5 7 7 8 8 8 8 8 8 8 8 8 8 8 8	. STP Out . STP Out . STP Out 7.08.2024 0.08.2024 H, TDS, T and Fecal (let -Digw let -Digw let- Jmb. let- JCPF To 09.0 To 16.0 SS, BOD Coliform.	adih 12 M adih 12 M Canteen Canteer 8.2024 8.2024 , COD, O	lo Officers C lo. Superviso	or flat
~	DADAMETERS OF		TES	T RESULT		_		
SI. No.	PARAMETERS OF TEST	STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	VALUE STP Outlet Digwadi h 12 No. Supervis or flat	STP Outlet Jmb. Cantee n	STP Outlet- JCPP Cantee n	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant	Test Method
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	54.7	36.5	24.3	48.6	42.6	250	IS-3025(P- 58):2006

Sr. Chemist Aditi R&D Services

Oil & Grease, mg/l

Fecal Coliform (FC)

(MPN/100ml)



0.6

450

0.8

560

0.9

470

.

<1000

MPN/100ml

IS-3025(P-

39):2021

IS - 1622

Technical Manager Aditi R&D Services, Sindri

Statements :

6.

7.

1. The test report refers only to the particular item(s) submitted for testing.

1.0

580

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

0.8

460

AD HEA	ADITI R&	D SE	RVIC	CES	Plot No I-B-17 (P) Sindri, Industrial Area,
RD	S · Testin	g Labora	torv		P.O Domgarh, Dist - Dhanbad
-	161	ACCREDIT			Jharkhand - 828107 Email ID: sindriaditi@gmail.com
	(A Constituent Boar	d of Quality	Council of I	ndia)	Website: aditimdservices.com Phone: 0326-2952377 (O)
	ISO/IEC 17025:2017, ISO 9001:	2015,ISO (O	HSAS) 4500	1:2018 Certified	Mobile: 09471358492, 094315126
F	Ref. No.: - ARDS/24-25/ETP/1			D	ate: 17.08.2024
	TEST	REPORT	OF EF	FLUENT	
	Name of the industry	TA JAI	TA STEEL	EEL, JAMADO LIMITED GROUP PLANT IBAD (JHARKH	Γ.
	Work Order Ref. NO.:	: 470	0126557/93	32 Date:- 29/05/2	2024
	Sample Code	: 1.E	T.P. Outl	et T.C.H.	
		2. E	T.P. Outl	et Garage	
		2012-01 No.22207			
	 Date of Sample Collection Date of Testing Test 	: 10. : pH	08.2024 T , TDS, TSS	o 08.08.2024 o 16.08.2024 s, BOD, COD, C	DIL & GREASE.
	Date of TestingTest	: 10. : pH, <u>TEST</u>	08.2024 T , TDS, TSS <u>RESULT</u>	o 16.08.2024 5, BOD, COD, C	
	Date of Testing	: 10. : pH	08.2024 T , TDS, TSS <u>RESULT</u>	General Standard for discharge of Environmental Pollutants, Inland Surface water by the	DIL & GREASE.
o.	Date of TestingTest	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet	08.2024 T , TDS, TSS <u>RESULT</u> .UE E.T.P. Outlet	General Standard for discharge of Environmental Pollutants, Inland Surface	Test Method
lo. 1.	Date of Testing Test PARAMETERS OF TEST	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H.	08.2024 T , TDS, TSS <u>RESULT</u> UE E.T.P. Outlet Garage	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
lo. 1. 2.	Date of Testing Test PARAMETERS OF TEST pH,	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0	Test Method
ši. lo. 1. 2. 3.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984
lo. 1. 2. 3.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand,	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0 22.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0 30.0	o 16.08.2024 5, BOD, COD, C General Standard for discharge of Environmental Pollutants , Inland Surface water by the MoEF&C 5.5-9.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025(P-17) : 1984
lo. 1. 2. 3. 4.	Date of Testing Test PARAMETERS OF TEST PH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand, mg/l	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0 22.0 3.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0 30.0 18.0	o 16.08.2024 , BOD, COD, C General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0 - 100 30	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-17) : 1984 IS-3025 (P-44):1994

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3. This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory.

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DS)	Characterization and Company	Laborat	ory		P.O Jhark Email Webs	hand - 828 ID sindria ite aditimo	Dist - Dhanb 107 diti@gmail.c services.cor
	ISO/IEC 17025:20		And the second second second		State Construction of the		e: 0326-295 e: 0947135	52377 (O) 8492, 09431
Ret	f. No.: - ARDS/24-2					Date: 17	7.08.2024	1
		TEST R	EPORT OF	DRINKING	WATER			
	 Name of the i 	ndustry	JAMADO	A STEEL, EEL LIMIT BA GROU HANBAD	ED PLANT,			
	Work Order R		: 4700126	557/932 D	ate:- 29/05	/2024		
	Sample Code		2. C	anteen- Ja anteen- Ja anteen- Di anteen- 68	madoba V gwadih Co	Vashery olliery		
	Date of Samp	le Collection		8.2024 To		0.01.01.1. 		
	 Date of Testin Test 			8.2024 To	16.08.20	24		
					Leau, LI	ic, iotai		, iotai
SI.	Chromium, Mine	eral Oil, Alkalin	iity, Aluminiu <u>TEST R</u> VAL	m & Boron. RESULT UE		IS as p	per IS	Test
SI. No	Chromium, Mine		ity, Aluminiu <u>TEST F</u>	m & Boron. RESULT UE Canteen Digwadih	Canteen- 6&7 Pits		per IS	Test
No 1.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	Marka Boron. RESULT UE Canteen Digwadih Colliery 1	Canteen- 6&7 Pits Colliery 1	IS as p 10500: Desirab Ie 5.00	er IS 2012 Permi ssible 15.0	Test Metho IS 302 (P-4):20
No	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	ESULT UE Canteen Digwadih Colliery	Canteen- 6&7 Pits Colliery	IS as p 10500: Desirab Ie	er IS 2012 Permi ssible	Test Metho IS 302 (P-4):20 IS 3025
No 1.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	Marka Boron. RESULT UE Canteen Digwadih Colliery 1	Canteen- 6&7 Pits Colliery 1	IS as p 10500: Desirab Ie 5.00 Agreeabl	per IS 2012 Permi ssible 15.0 Agree	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025
No 1. 2.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour	Canteen- Jamadoba Colliery 1 Agreeable	TEST F VAL Canteen- Jamadoba Washery 1 Agreeable	RESULT UE Canteen Digwadih Colliery 1 Agreeable	Canteen- 6&7 Pits Colliery 1 Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl	Permi ssible 15.0 Agree able Agree	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025
No 1. 2. 3.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste	Canteen- Jamadoba Colliery 1 Agreeable Agreeable	TEST F VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	Marken Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e	Permi ssible 15.0 Agree able Agree able 5.0 No.	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):198 IS-3025
No 1. 2. 3. 4.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness	Canteen- Jamadoba Colliery 1 Agreeable Agreeable	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0	Permi ssible 15.0 Agree able Agree able 5.0	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS-3025 11):194 IS 3025
No 1. 2. 3. 4. 5.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl,	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5	Permi ssible 15.0 Agree able 5.0 No. Relax.	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS-3025 11):194 IS 3025 21):200 IS 3025
No 1. 2. 3. 4. 5. 6.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/i	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200	Permi ssible 15.0 Agree able 5.0 No. Relax. 600	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 32):194
No 1. 2. 3. 4. 5. 6. 7.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5	Aluminiu TEST F VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025
No 1. 2. 3. 4. 5. 6. 7. 8.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770 80	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760 105	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246 55	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 75	Per IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025 16):194 IS 3025 16):194 IS 3025 16):194
No 1. 2. 3. 4. 5. 6. 7. 8. 9.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770	Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500	Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):198 IS 3025 21):200 IS 3025 32):198 IS 3025 26):202 IS 3025 16):198 IS 3025 16):198 IS 3025 16):198 IS 3025 16):198 IS 3025
No 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770 80	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760 105	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246 55	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 75	Per IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200 1.5	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025 16):194 IS 3025 40):194 IS 3025 40):194

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2. The test results reported in this report are valid at the time of and under the stated condition of measurement.



NOTE: BDL - Below Detection Limit

Sr. Chemist

Aditi R&D Services



1

Technical Manager Aditi R&D Services, Sindri

Statements :

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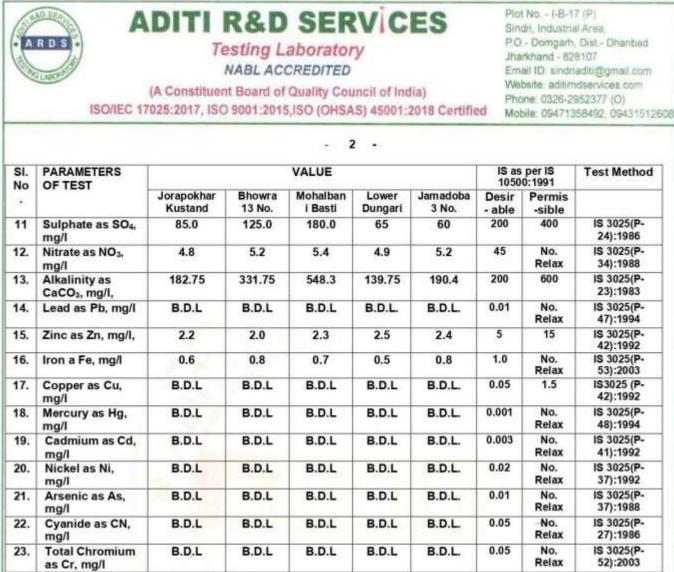
	R D S		(A Constitut 17025:2017, 1	Testing I NABL AC	Laborato CCREDITEL	ouncil of la	ndia)	S P J E V P	harkhand - mail ID: sir Vebsite: adi 'hone: 0326	strial Area, arh, Dist Dhanbad
	Ref. No.:	: - AF	RDS/23-24/G	- 935 (st. 140 Atl And	PORT OF	CROUN		Date	: 17.08.2	2024
	• N	lame	of the indus	stry :	M/S TATA STEE TATA STEE JAMADOB/ DIST DHA	STEEL, J El limite A grouf	AMADOBA ED P PLANT,			
	• s	Samp	Order Ref. N le Code of Sample C	10. : :	470012655 1. Jon 2. Bho 3. Mol 4. Lov 5. Jan	7/932 Da apokhar owra 13 N halbani B ver Dung hadoba 3	ite:-29/05/2 Kustand No. Basti gari	024		
			of Testing				16.08.202			
SI		est	3		Iron, C Solids Fluorid Arseni Chrom <u>TEST R</u>	hloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine	Taste, Turbic Res. Free chl , Copper, M lic Compour le, Lead, Zin eral Oil, Alka	orine, T anganes nd, Merc c, Total linity, A	otal Disso se, Sulpha cury, Cadi Coliform, luminium	olved ate, Nitrate, mium, & Boron.
	• T PARAME-TEI OF TEST	RS	Jorapokhar Kustand	Bhowra 13 No.	Iron, C Solids Fluorid Arseni Chron	hloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine	tes. Free chl , Copper, M lic Compour e, Lead, Zin	orine, T anganes nd, Merc c, Total linity, A IS as	otal Disso se, Sulpha sury, Cada Coliform,	olved ate, Nitrate, mium,
No 1.	PARAME-TEI OF TEST Colour, (Hazen Unit)	RS	Kustand 2	Bhowra 13 No. 4	Iron, C Solids Fluorid Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari 3	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No. 2	orine, T anganes nd, Merc c, Total linity, A IS as 1050 Desir-	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi-	olved ate, Nitrate, mium, & Boron. Test
No 1.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity,	RS ®C	Kustand	Bhowra 13 No.	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No.	orine, To anganes nd, Merc c, Total linity, A IS as 1050 Desir- able	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P-
No 1. 2. 3.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve	RS ⁰ C	Kustand 2 27	Bhowra 13 No. 4 27	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari 3 27	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27	orine, Ta anganes nd, Merc c, Total linity, A IS as 1050 Desir- able 5	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - -
No 1. 2. 3. 4.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm	RS ⁰ C	Kustand 2 27 1530	Bhowra 13 No. 4 27 1340	Iron, C Solids Fluorid Arseni Chrom <u>TEST Rf</u> VALUE Mohalbani Basti 4 27 1000	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine ESULT Lower Dungari 3 27 570	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No. 2 27 960	orine, To anganes nd, Merc c, Total linity, A IS as 1050 Desir- able 5 -	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021
No 1. 2. 3. 4. 5.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolvo Solids, mg/l	RS °C ed ss	Kustand 2 27 1530 858	Bhowra 13 No. 4 27 1340 745	Iron, C Solids Fluoric Arseni Chrom <u>TEST RF</u> VALUE Mohalbani Basti 4 27 1000	chloride, R , Calcium, de, Pheno ic, Cyanid hium, Mine SULT Lower Dungari 3 27 570 320	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537	orine, Tanganes and, Merc c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5-	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - - 2000	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - IS 3025(P- 16):1984 IS-3025(P-
No 1. 2. 3. 4. 5. 6. 7.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as Campyl	est RS °C ed ss y/l a,	Kustand 2 27 1530 858 7.4 552 112	Bhowra 13 No. 4 27 1340 745 7.5 550 140	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine <u>ESULT</u> Lower Dungari 3 27 570 320 7.6 229 40	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112	orine, Tanganes and, Merco c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - IS 3025(P- 16):1984 IS-3025(P- 11):1983 IS 3025(P- 21):2009 IS 3025(P- 40):1991
No 1. 2. 3. 4. 5. 6. 7. 8.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as C mg/l Magnesium a Mg, mg/l	est RS °C ed ss g/ a, is	Kustand 2 27 1530 858 7.4 552 112 67.9	Bhowra 13 No. 4 27 1340 745 7.5 550 140 50.0	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120 68	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine SULT Lower Dungari 3 27 570 320 7.6 229 40 32.1	Res. Free chl , Copper, M lic Compour e, Lead, Zim- eral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112 43	orine, Tanganes and, Merc c, Total linity, A IS as 10500 Desir- able 5 - 500 6.5- 8.5 200 75 30	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200 100	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - - - - - - - - - - - - - - - - -
SI. No 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as C mg/l Magnesium a	est RS °C ed ss g/l a, is Cl,	Kustand 2 27 1530 858 7.4 552 112	Bhowra 13 No. 4 27 1340 745 7.5 550 140	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine <u>ESULT</u> Lower Dungari 3 27 570 320 7.6 229 40	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112	orine, Tanganes and, Merco c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - - - - - - - - - - - - - - - - -



Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.



NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

3. This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory.

1

TATA STEEL



ENVIRONMENTAL POLICY

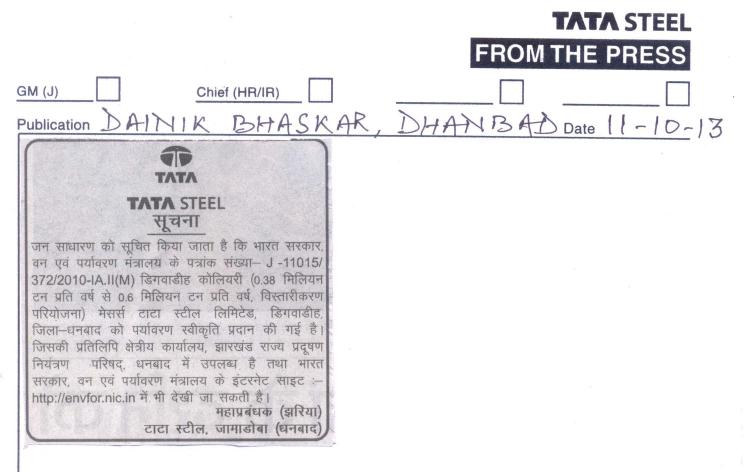
Tata Steel's environmental responsibilities are driven by our commitment to preserve the environment and are integral to the way we do business.

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

Date : November 1, 2017

T V Narendran CEO & Managing Director

ANNEXURE-IV



CORPORATE AFFAIRS & COMMUNICATIONS JHARIA DIVISION

JHARIA DIVISION

TATA STEEL

FROM THE PRESS

KHABAR, DHANBAD Date 11-10-13

CORPORATE AFFAIRS & COMMUNICATIONS

GM (J)

Publication

Chief (HR/IR)

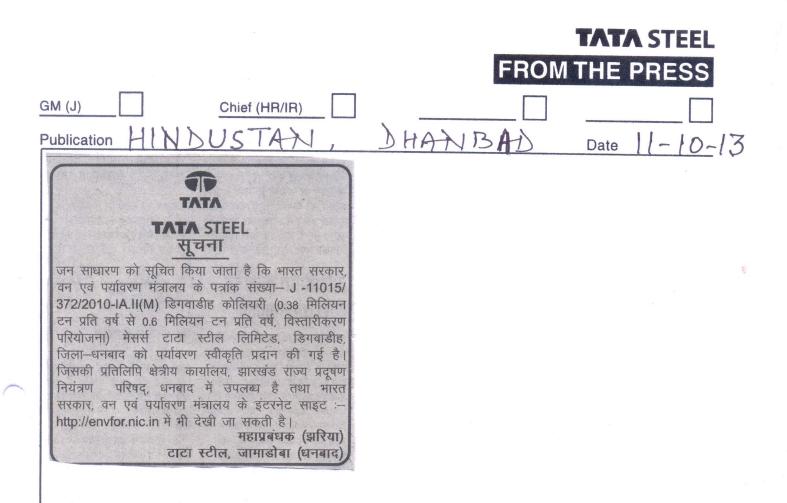
महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)

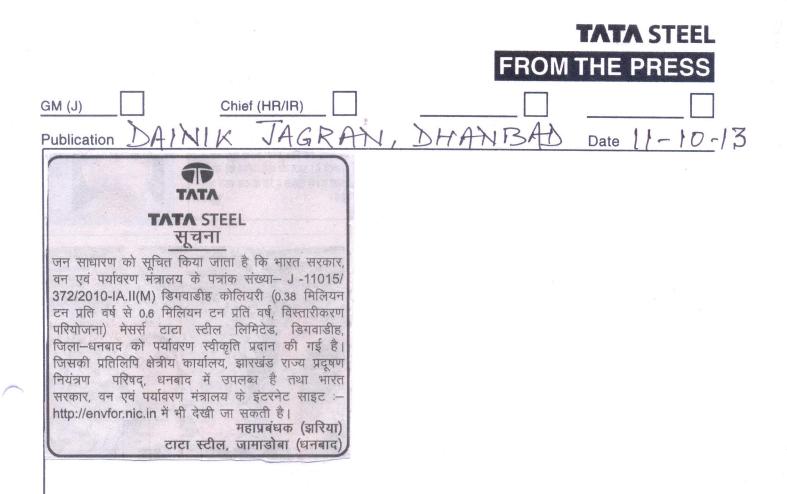
PRABHAT

TATA TATA STEEL सूचना जन साधारण को सुचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या- J -11015/ 372/2010-IA.II(M) डिगवाडीह कोलियरी (0.38 मिलियन टन प्रति वर्ष से 0.6 मिलियन टन प्रति वर्ष, विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, डिगवाडीह, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गई है। जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखंड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट :--

http://envfor.nic.in में भी देखी जा सकती है।



CORPORATE AFFAIRS & COMMUNICATIONS



CORPORATE AFFAIRS & COMMUNICATIONS JHARIA DIVISION

Municipal Commissioner, Dhanbad.

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

September 17, 2018

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

Dear Sir,

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

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

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

Thanking You,

Yours faithfully,

Head, Planning

Jharia Division

कार्यालय नगर निगम माचि तिथि २९ धनबदि