

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

Ref No. - JMB/ENV/BAC/39/ 712/2024 November 27th, 2024

Ref.: Environmental Clearance letter no. - J-11015/29/2012-IA.II(M) dated- April 28, 2017.

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

Dear Sir,

We are enclosing herewith compliance report for the period **April-24 to September-24** for the EC granted vide letter no.- J-11015/29/2012-IAII(M) dated- April 28, 2017 issued by Ministry of Environment, Forest and Climate Change, New Delhi.

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

Thanking you,

Yours faithfully,

Head (Planning)

Jharia Division, Tata Steel Ltd.

Encl: As above.

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

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

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

TATA STEEL LIMITED

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

Your (Half Yearly Compliance Report) has been Submitted with following details		
Proposal No	IA/JH/CMIN/8359/2012	
Compliance ID	72230115	
Compliance Number(For Tracking)	EC/M/COMPLIANCE/72230115/2024	
Reporting Year	2024	
Reporting Period	01 Jun(01 Oct - 31 Mar)	
Submission Date	30-11-2024	
RO/SRO Name	ARTATRANA MISHRA	
RO/SRO Email	jhk109@ifs.nic.in	
State	JHARKHAND	
RO/SRO Office Address	Integrated Regional Offices, Ranchi	
Note:- SMS and E-Mail has been sent to ARTATRANA MISHRA, JHARKHAND with Notification to Project Proponent.		

	2 01 Jun(01	ompliance Report 024 Oct - 31 Mar) ledgement		
Proposal Name		MTPA to 0.41 MTPA Expansion of Bhelatar	ted Colliery (expansion from 0.38 in an ML area of 521.68 ha) & nd Washery (0.96 MTPA to 1.5 5 Tata Steel Ltd., Dhanbad,	
Name of Entity / Corporat	e Office	Tata Steel Ltd.		
Village(s)		N/A		
District		DHANBAD		
Proposal No.	IA/JH/CMIN/8359/2012	Category	Coal Mining	
Plot / Survey / Khasra No.	N/A	Sub-District	N/A	
State	JHARKHAND	Entity's PAN	****2803M	
MoEF File No.	J- 11015/29/2012.IA.II(M)	Entity name as per PAN	UTSAV KASHYAP	

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	Half Yearly Compliance Submission for April 2023 to September 2023 (Bhelatand Amalgamated Colliery (expansion from 0.38 MTPA to 0.41 MTPA in an ML area of 521.68 ha) and Expansion of Bhelatand Washery (0.96 MTPA to 1.5 MTPA in 8 ha) of M/s Tata Steel Ltd., Dhanbad, Jharkhand).
Reporting Period	01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Tata Steel Ltd.

Name of Entity /

Corporate Office Tata Steel Ltd.		
	Project Area as per EC Granted	Actual Project Area in Possession
Private	0	0
Revenue Land	286.94	286.94
Forest	0	0
Others	242.74	242.74
Total	529.680000000001	529.680000000001

Product	ion Capacity						
	Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity a per CTO
	1	Raw Coal	Million Tons per Annum (MTPA)	N/A	0.41	0.232	
	2	Raw Coal Feed	Million Tons per Annum (MTPA)	N/A	1.5	0.672	
Conditio	ons						
ecific Co	onditions						
Sr.No.	Condition Ty	ре	Condit	ion Details			
1	Statutory comp	pliance		ximum production ne limit as prescri			time shall no
It is bein production	ibmission: Compl g strictly followed on is well within th throughput which	l. The EC capaci ne limit. The EC	capacity of Bl	helatand Coal W			Date: 29/11/2024
2	Statutory comp	pliance	The wa presented	shery shall be as l to EAC.	per the projec	t report submitt	ed and
	ibmission: Compl g strictly complied						Date: 29/11/2024
3	Statutory comp	pliance		idity of the EC is fication, 2006, w			cified in the
The mini per appro	Ibmission: Compling lease of Bhelatoved mining plan i A Notification am	and A. Colliery is 25 years (Base	year is FY13-	14). However, the	he validity of E	EC for mines	Date: 29/11/2024
4	AIR QUALIT MONITORING PRESERVATIO	AND	belts. Mit	ortation of coal s tigative measures emission all along sprinklers.	s to be underta	ken to control d	lust and other
				· · · · · · · · · · · · · · · · · · ·			
The trans covered of generated installed fugitive of	Ibmission: Complession of coal factors of coal factors of coal factors of the conveyor belt network of at CHP and transformer on the internal roater of the internal roater of the stipulated norms.	from undergrour vorks. Dry-fog s sfer points of bel ads of the washe e dust emission	nd colliery to c ystem has been t conveyor sys ry. These are o	oal handling plan n already installe stems. Fixed-type operated effective	ed to suppress t e water sprinkl ely at all times	he dust ers are also to check the	Date: 29/11/2024

DGMS a		entage of the workers identified from workforce vashery plant are subjected to full medical checkup heckup, etc. These results are regularly submitted to	29/11/2024
6	MISCELLANEOUS	Modern practices for agriculture to be encouraged of organic farming through training and demonstration feasible)	
Farmers production lesser control (pesticido	on of quality grains with lesser see st. Matka Khad, etc. promotes org	RI (Systems of root intensification) which helps in more ed requirements. This helps farmers to produce grains at ganic farming which helps farmers to use less chemicals ammes farmers received hands on demonstration and	Date: 29/11/2024
7	MISCELLANEOUS	Special emphasis should be on training and demons conservation of crops and foods and food processing feasible)	
For the c wing, TS	SRDS (Tata Steel Rural Developm	ne following training programs are being through our CSR nent Society)- SRI Second crops (Rabi crops) Dry land shroom cultivation Vegetable cultivation	Date: 29/11/2024
8	AIR QUALITY MONITORING AND PRESERVATION	There will be no external /internal OB dumps	
	bmission: Complied s is an underground mine, it is not	t applicable.	Date: 29/11/2024
9	WATER QUALITY MONITORING AND PRESERVATION	Wastewater shall be effectively treated and recycled either for washery or maintenance of green belt around	
Washery	atural water systems. The recycled	scharge principle. No wastewater is discharged into the d water is again used for plant operations and green-belt	Date: 29/11/2024
10	PUBLIC HEARING	The assurances given during the Public Hearing and Action plan developed by the proponent should be in	
		aring with respect to environment and CSR are already	Date: 29/11/2024
11	AIR QUALITY MONITORING AND PRESERVATION	Hoppers of the coal crushing unit and washer unit s with high efficiency bag filters or mist spray water sp and operated effectively at all times of operation to c emissions from crushing operations, transfer points o conveyor systems and from transportation roads.	orinkling systen heck fugitive
PPs Su	bmission: Complied		Date:

convey The Du in wate	or systems. Fixed-type water sprinkle ist Extraction system (Bag filters) is in	as the dust generated at CHP and transfer points of belt ars are also installed on the internal roads of the washery. Installed at Coal Handling Plant. Extracted dust is mixed ner. These are operated effectively at all times to check	29/11/2024
12	AIR QUALITY MONITORING AND PRESERVATION	All approach roads shall be black topped and internal concreted. The roads shall be regularly cleaned with m sweepers.	
All the		hile the approach roads are black-topped. There is a Mechanical sweepers were mobilized for internal roads.	Date: 29/11/2024
13	AIR QUALITY MONITORING AND PRESERVATION	Records of quantum and ash contain of raw coal bein clean coal and coal rejects produced from every batch shall be maintained and details thereof be made availab whenever directed.	of washing
Proper	Submission: Complied records of quantity and ash content of ducts are being maintained regularly.	f raw coal being washed, clean/washed coal, and other	Date: 29/11/2024
14	WATER QUALITY MONITORING AND PRESERVATION	No ground water shall be used for the plant operation additional water requirement envisaged shall be obtain recycle/reuse of treated effluent and from rainwater ha	ed by
		measure.	1
No gro Dischar water r total 8 rainwat	rge Principle; all processed water is re equirement is met by mine water from ponds (Capacity- 20622 m3) for tailin	perations. Since, washery is operating on Zero Liquid ecycled back and reused for operations. The make- up a adjoining Bhelatand Colliery and Katri river. There are ag management which also act as surface runoff and Rooftop rainwater harvesting structure has been	Date: 29/11/2024
No gro Dischar water r total 8 rainwat constru	und water is used for washery plant of rge Principle; all processed water is re equirement is met by mine water from ponds (Capacity- 20622 m3) for tailin ter storage ponds. In addition to that, l	perations. Since, washery is operating on Zero Liquid ecycled back and reused for operations. The make- up a adjoining Bhelatand Colliery and Katri river. There are ag management which also act as surface runoff and Rooftop rainwater harvesting structure has been	29/11/2024 communities CSR. Activitie ntified in atus of
No gro Dischai water r total 8 rainwat constru 15 PPs S CSR ac experts villages implem	und water is used for washery plant of rge Principle; all processed water is re equirement is met by mine water from ponds (Capacity- 20622 m3) for tailin ter storage ponds. In addition to that, I acted in office premises of Bhelatand v Corporate Environmental Responsibility Submission: Complied ctivities are being carried out through a who are full time involved in providi s. The list of activities are developed i	perations. Since, washery is operating on Zero Liquid ecycled back and reused for operations. The make- up n adjoining Bhelatand Colliery and Katri river. There are ag management which also act as surface runoff and Rooftop rainwater harvesting structure has been washery. Socio – economic and welfare measures for the local for the adjoining villages shall be implemented under C to be undertaken for the adjoining villages shall be idea consultation with the local authorities, the details of sta implementation of CSR and expenditure thereon which annually updated on the company website.	29/11/2024 communities CSR. Activitie ntified in atus of
No gro Dischar water r total 8 rainwat constru 15 PPs S CSR ac experts villages implem	und water is used for washery plant of rge Principle; all processed water is re equirement is met by mine water from ponds (Capacity- 20622 m3) for tailin ter storage ponds. In addition to that, I acted in office premises of Bhelatand v Corporate Environmental Responsibility Submission: Complied ctivities are being carried out through who are full time involved in providi s. The list of activities are developed in ented in a time-bound manner. The a	perations. Since, washery is operating on Zero Liquid ecycled back and reused for operations. The make- up n adjoining Bhelatand Colliery and Katri river. There are ag management which also act as surface runoff and Rooftop rainwater harvesting structure has been washery. Socio – economic and welfare measures for the local for the adjoining villages shall be implemented under C to be undertaken for the adjoining villages shall be idea consultation with the local authorities, the details of sta implementation of CSR and expenditure thereon which annually updated on the company website.	29/11/2024 communities CSR. Activitie ntified in atus of a should be Date: 29/11/2024
No gro Dischar water r total 8 rainwat constru 15 PPs S CSR ac experts villages implem Report 16 PPs S Heavy	und water is used for washery plant of rge Principle; all processed water is re equirement is met by mine water from ponds (Capacity- 20622 m3) for tailin ter storage ponds. In addition to that, I acted in office premises of Bhelatand v Corporate Environmental Responsibility Submission: Complied ctivities are being carried out through who are full time involved in providi s. The list of activities are developed in pented in a time-bound manner. The a of Tata Steel every year which is uplo MISCELLANEOUS Submission: Complied	perations. Since, washery is operating on Zero Liquid ecycled back and reused for operations. The make- up in adjoining Bhelatand Colliery and Katri river. There are ag management which also act as surface runoff and Rooftop rainwater harvesting structure has been washery. Socio – economic and welfare measures for the local for the adjoining villages shall be implemented under C to be undertaken for the adjoining villages shall be idea consultation with the local authorities, the details of sta implementation of CSR and expenditure thereon which annually updated on the company website.	29/11/2024 communities CSR. Activitie ntified in atus of a should be Date: 29/11/2024

	the mine and a 3-tier avenue plantation along the main approach road to the mine.

PPs Submission: Complied

1) 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. 2) Avenue plantation is done in residential colony and along the roadside every year. Green belt development report has been attached as Annexure-1.

Date: 29/11/2024

18	MISCELLANEOUS	CCTV cameras to be installed at washery gate to che of covering of trucks.	eck compliance	
PPs Submission: Complied CCTV cameras at washery entrance gate and near weigh bridge gate have been provided. It is to be 30/11/202		Date: 30/11/2024		

mentioned here that no truck is allowed into the premises which are not covered by tarpaulin sheets. Refer Annexure-V.

General Conditions

Sr.No.	Condition Type	Condition Details
1	LAND RECLAMATION	The top soil, if any, shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The overburden dumps should be vegetated with suitable native species to prevent erosion and surface run off. The entire excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self – sustaining Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

PPs Submission: Complied

There is no generation of top soil due to mining activities as this is an underground mine. Mining is being done by Board and Pillar method with sand stowing. The rehabilitation is also not applicable in this case as there is no change in land use pattern due to underground mining operation.

Date: 29/11/2024

2 PUBLIC HEARING The Board of every company, shall ensure that the company spends in every financial year, at least two per cent. of the average net profits of the company made during the three immediately preceding financial year, in pursuance of its corporate Social Responsibility policy under Section 135 of the Companies Act,2013, for the socio economic development of the neighbourhood.			
	2	PUBLIC HEARING	in every financial year, at least two per cent. of the average net profits of the company made during the three immediately preceding financial year, in pursuance of its corporate Social Responsibility policy under Section 135 of the Companies Act,2013, for the socio

PPs Submission: Complied

Date: The proposed CSR expenditure for the entire company is decided as per the new Company Rules. 29/11/2024 Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY24 is Rs. 21.81 crores.

3	Corporate Environmental Responsibility	The Company should have a well laid down Environment Policy approved by the Board of Directors.

DDa Submission, Compliad

	Date: 9/11/2024
--	--------------------

4	Corporate Environmental	To have proper checks and balances, the Company should a well

	Responsibility	laid down system of reporting of non – compliances / environmental norms to the Board of Directors of the or shareholders or stakeholders at large.	
The sta regular	rly discussed at higher levels. Any no	ompliance to Environmental laws and regulations is n-compliance noticed is corrected at divisional level. If t to the notice of higher management.	Date: 29/11/2024
5	Corporate Environmental Responsibility	A separate environment management cell with suitable personnel should be set – up under the control of a Ser who will report directly to the Head of the Organization	nior Executive
We hav	Submission: Complied ve a separate Environmental Manager nmental Cell is directly to General M	ment Cell with qualified personnel. The reporting of lanager of the Division.	Date: 29/11/2024
6	Corporate Environmental Responsibility	The funds earmarked for environment protection me not be diverted for other purpose. Year wise expenditu reported to the Ministry and its Regional Office.	
The Er with le Enviro	gal requirements. The year-wise expe	or Environmental protection measures and for complying enditure is being already submitted to JSPCB as al annual environmental expenditure for the financial	Date: 29/11/2024
7	Statutory compliance	Environment clearance is granted subject to final out Hon'ble Supreme Court of India, High Court, NGT an Court of Law, if any, as may be applicable to the proje	d any other
	Submission: Complied be strictly followed.		Date: 29/11/2024
8	Statutory compliance	This Environmental Clearance is subject to obtaining NBWL Clearance from the Standing Committee of Na for Wildlife , if any , applicable to the project	
	Submission: Complied plicable.		Date: 29/11/2024
9	Statutory compliance	The project proponent shall obtain Consent to Establ Consent to Operate from the concerned State Pollution prior to increase in capacity of washery and effectively the conditions stipulated therein.	Control Boar
The co 342731 JSPCB	1/2017/686 dt. 20.11.2017). The Cons	y JSPCB (Ref no JSPCB/HO/RNC/CTE- sent to Operate has been granted by JSPCB (Ref no dt. 23.02.2023) valid till 31.03.2028. The conditions of submitted to JSPCB.	Date: 29/11/2024
10	Statutory compliance	Project proponent shall obtain the necessary prior pe the Central Ground Water Authority (CGWA) for draw (surface and ground water).	
	Submission: Complied jection Certificate for withdrawal of 1	mine water approved by CGWA, New Delhi vide letter	Date: 29/11/2024
	Address: IA Divi	sion, Ministry of Environment, Forest and Climate Change,	Page

11	MISCELLANEOUS	No change in mining technology and scope of work a without prior approval of the Ministry of Environment climate Change. No change in the calendar plan includ quantum of coal and waste should be made.	Forest and
	Submission: Complied ng strictly followed and complied wi	th.	Date: 29/11/2024
12	Statutory compliance	Mining shall be carried out as per the approved mininalso abiding by the relevant laws related to coal mining circulars issued by Directorate General Mines Safety (approved progressive Mine Closure Plan shall strictly with and submitted.	g and the DGMS) An
It is bei accorda approve plan are	ance with other mining rules, DGMS ed along with mining plan by Ministr	carried out as per the approved mining plan in permissions etc. The mine closure plan was also y of Coal, Govt of India. The provisions of mine closure ssive closure activities, plantation for green cover in and	Date: 29/11/2024
13	LAND RECLAMATION	Digital processing of the entire lease area using remote technique shall be carried out regularly once in three y monitoring land use pattern and report submitted to M Environment, Forest and Climate Change its Regional	ears for inistry of
Compli and the		pleted by Indian School of Mines (IIT-ISM) Dhanbad IB/ENV/BAC/39/466/2021 dated: 27.06.2021 to	Date: 29/11/2024
14	LAND RECLAMATION	Final mine void depth should not be more than 40m. should be converted into water body. The remaining at back filled up to ground level and covered with thick to land after mining should be restored for agriculture or purpose.	rea should be op soil. The
	Submission: Complied		Date: 29/11/2024
	t applicable as this is an underground	mine.	23/11/2024
It is not	t applicable as this is an underground Statutory compliance	mine. Regular monitoring of ground water level and quality carried out in and around the mine lease by establishin existing wells and constructing new piezometers durin operation. The monitoring shall be carried out four tim – monsoon (April-May) , monsoon (August), post-mon (November) and winter (January) and the data thus col sent regularly to Ministry of Environment, Forest and Change and its Regional Office, Central Ground water Regional Director , Central Ground Water Board.	y shall be g a network o g the mining les in a year pr isoon lected may be Climate
It is not 15 PPs S The mo	Statutory compliance	Regular monitoring of ground water level and quality carried out in and around the mine lease by establishin existing wells and constructing new piezometers durin operation. The monitoring shall be carried out four tim – monsoon (April-May), monsoon (August), post-mon (November) and winter (January) and the data thus col sent regularly to Ministry of Environment, Forest and Change and its Regional Office, Central Ground water Regional Director, Central Ground Water Board.	y shall be g a network o g the mining les in a year pr isoon lected may be Climate

		Regional Office, central Pollution Control Board and S Control Board.	
It is bei its regio	onal office, CPCB and SPCB twice 1.2018, from now onwards, we ar	ting the six-monthly compliance reports to MoEF and CC, e a year. In adherence with the guideline as per notification re sending only soft copy of the compliance status report	Date: 29/11/2024
17	Statutory compliance	The Regional Office of this Ministry shall monitor control the stipulated conditions. The project authorities should cooperation to the officer (s) of the Regional Office by requisite data / information / monitoring reports.	d extend full
	ubmission: Complied be complied with.		Date: 29/11/2024
18	GREENBELT	The activities pertaining to development of green bel shall be reported to concern Regional Office of MoEF monthly basis from the data of commencement of min	&CC on six
In our le every ye into pla	ear outside the leasehold area. In a	on of sapling is being done and saplings are distributed addition to above, maintenance of old saplings (converted the region is also being done. The greenbelt development C earlier.	Date: 29/11/2024
19	Statutory compliance For half yearly monitoring reports. The data should be monitored for period of April to September and October to March of the financial years and submitted to the concerned authorities Within 2 months of the completion of periodicity of monitoring.		n of the ties Within 2
The cyc	ubmission: Complied ele of April to September and Octo sion of compliance and monitoring	ober to March of every financial year is being followed for g reports.	Date: 29/11/2024
20	MISCELLANEOUS	A copy of clearance letter will be marked to concern panchayat/local NGO, if any, from whom suggestion / has been received while processing the proposal.	
The cop	ubmission: Complied by of Clearance letter has been sen overnment offices on 11th May, 20	nt to District Commissioner, Municipal Commissioner and 017.	Date: 29/11/2024
21	MISCELLANEOUS	An electronic copy of the EC letter shall be marked to concerned State Pollution Control Board, Regional off Industry Sector and Collector's Office / Tehsildar Offi information in public domain within 30 days.	ice , District
The ele	ubmission: Complied ctronic copy of EC letter has been office via mail on 11th May, 2017	forwarded to DC office, JSPCB Dhanbad office, JSPCB	Date: 29/11/2024
22	MISCELLANEOUS	The EC letter shall be uploaded on the company's we compliance status of the stipulated EC conditions shall uploaded by the project authorities on their website an least once every six months so as to bring the same in The monitoring data of environmental quality paramet noise and soil) and critical pollutant such as PM10, PM	l also be d updated at public domair er (air, water,

The EC uploade entranc	ed once in six months in company w	any website. The compliance reports shall also be vebsite with all monitoring reports. The display board at avironment quality parameters and applicable statutory	Date: 29/11/2024
23	MISCELLANEOUS	The Environmental Statement for each financial year March in From-V is mandated to be submitted by the F concerned State Pollution Control Board as prescribed Environment (Protection) Rules, 1986, as amended sub shall also be uploaded on the Company's website along status of compliance of EC conditions and shall be sen respective Regional Office of the MoEF&CC by e-main	PP for the under the osequently, g with the t to the
The env JMB/E	NV/ESSA/05/567/2024 on 27th Sep e. The soft copy of Environment Sta	year 2023-24 has been submitted to JSPCB vide letter no. otember 2024 and it is also uploaded on the company tement is also sent to MOEF by email at ro.ranchi-	Date: 29/11/2024
24	GREENBELT	Greenbelt shall be developed all along the mine lease phased manner. The width of the green belt along fores not be less than 7.5 m, and the total area covered by 3 t shall not be less than 100 ha. A 3-tier green belt compr of native species shall be developed all along the major roads.	at area should fier green belt fising of a mix
Greene forest la	and in core and buffer zone. Howev	as around the colliery and washery premises. There is no ver, green belt is being developed in the leasehold area. 3- species is done on available vacant areas.	Date: 29/11/2024
25	AIR QUALITY MONITORING AND PRESERVATION	Transportation of coal by road should be carried out trucks only. Effective measures such as regular water s be carried out in critical areas prone to air pollution and levels of PM10 and PM 2.5 such as haul road, loading point and transfer points. Fugitive dust emission from a shall be controlled regularly it shall be ensured that the Quality parameters conform to the norms prescribed by	prinkling sha d having high and unloading all the sources Ambient Air
		Central/State Pollution Control Board in this regard.	
Transpo convey transpo to supp sprinklo sprinklo	ors. The washed coal from washery rted through Tarpaulin sheet covere ress the dust generated at CHP and ers are also installed on the internal	Central/State Pollution Control Board in this regard. A. Colliery to washery is done through underground belt is sent via rail network. The sand used for stowing is ed trucks only. Dry-fog system has been already installed transfer points of belt conveyor systems. Fixed-type water roads of the washery. In addition to these, movable water uppression. The ambient air quality report is submitted to	Date: 29/11/2024

	ertificates are being allowed to operate	- -	
27	AIR QUALITY MONITORING AND PRESERVATION	Adequate ambient air quality monitoring stations sha established in the core zone as well as in the buffer zon monitoring of pollutants, namely PM10 PM2.5 SO2 an Location of the stations shall be decided based on the r data, topographical features and environmentally and e sensitive in consultation with the state pollution Contro Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr out at least once in six months.	ne for nd NOX. neteorologica cologically ol Board.
Based buffer Air qu Sijua (Monite	zone. Monitoring and analysis of PM1(ality monitoring stations are: (i) Bhelat Buffer Zone) (iii) Malkera Colony (Bu oring of heavy metals in ambient air is b	ent air quality stations are established in core zone and 0, PM2.5, SO2, NO2 are done on monthly basis. The and Office Area (Core Zone) (ii) Russi Vihar Colony, ffer Zone) (iv) Bhelatand Colony (Buffer Zone) being performed by an independent laboratory months. The results are enclosed as Annexure-II.	Date: 29/11/2024
28	AIR QUALITY MONITORING AND PRESERVATION	Crusher / feeder and breaker material transfer points invariably be provided with dust suppression system. E Conveyors should be fully covered to avoid air borne of shall be wet operated or fitted with dust extractors.	Belt –
The fo Dust e covere	xtraction system (Bag filters) in CHP ii d on top and both sides. These arranger	ted: i) Dry-fog system at all transfers points of CHP. ii)) Enclosures around crushers. iii) Belts have been ments will protect the coal mass moving on belt from r borne is being minimized. iv) Fixed water sprinklers	Date: 29/11/2024
on the	haulage roads. v) In addition, movable st suppression.	water sprinklers are also being deployed on the roads	
on the			ng the side of he ary should be ngthened by h plantation se
on the for dus 29 PPs During involve Approon the	St suppression. WATER QUALITY MONITORING AND PRESERVATION Submission: Complied g the course of action, there is no propo ed. The prominent stream in the region priate embankment along the Katri rive embankment. The dense vegetation alr	water sprinklers are also being deployed on the roads The project proponent shall not alter the major chann site. Appropriate embankment should be provided alon the river/nallah flowing near or adjacent to the mine. T embankment constructed along the river/nallah bounda suitable dimensions and critical patches should be stren stone pitching on the river front side and stabilised with	ng the side of he ary should be ngthened by h plantation s
on the for dus 29 PPs During involve Approon the shall b	St suppression. WATER QUALITY MONITORING AND PRESERVATION Submission: Complied g the course of action, there is no propo ed. The prominent stream in the region priate embankment along the Katri rive embankment. The dense vegetation alr	water sprinklers are also being deployed on the roads The project proponent shall not alter the major chann site. Appropriate embankment should be provided alon the river/nallah flowing near or adjacent to the mine. T embankment constructed along the river/nallah bounda suitable dimensions and critical patches should be stren stone pitching on the river front side and stabilised with as to withstand the peak water flow and prevent mine i sed diversion or rechanneling of the water course is is Katri Nadi, a tributary of Damodar river. rr is already provided. Stone pitching has been provided eady exists between the river channel and lease which	ng the side of he ary should be ngthened by h plantation s nundation. Date: 29/11/2024
on the for dus 29 29 PPs During involv Appro- on the shall b 30 PPs Every of silts These	st suppression. WATER QUALITY MONITORING AND PRESERVATION Submission: Complied g the course of action, there is no propo ed. The prominent stream in the region priate embankment along the Katri rive embankment. The dense vegetation alre e strengthened further to check the peal WATER QUALITY MONITORING AND PRESERVATION Submission: Complied year Tata Steel through its CSR wing c in and around Bhelatand lease area for	water sprinklers are also being deployed on the roads The project proponent shall not alter the major chann site. Appropriate embankment should be provided alon the river/nallah flowing near or adjacent to the mine. T embankment constructed along the river/nallah bounda suitable dimensions and critical patches should be strer stone pitching on the river front side and stabilised with as to withstand the peak water flow and prevent mine i sed diversion or rechanneling of the water course is is Katri Nadi, a tributary of Damodar river. tr is already provided. Stone pitching has been provided eady exists between the river channel and lease which k water flow and prevent mine inundation. Rainwater harvesting shall be implemented for conse augmentation of ground water resource in the area in c with Central Ground Water Board.	ng the side of he ary should be ngthened by h plantation s nundation. Date: 29/11/2024

	and other water bodies. The water so collected should be utilized for watering the mine area. Roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper setting of silt material. Dimension of the retaining wall to be constructed at the toe of the dump and OB benches within the mine to check run – off and siltation should be based on the rainfall.
--	---

PPs Submission: Complied

There are no soil or OB dumps in the colliery and washery premises. Only the by-products are stored in the stockyards located in the washery premises which are sold off within 10-15 days. Garland drains of adequate size and gradient already exist around the washery area to channelize the surface runoff. The runoff is diverted to the tailing ponds and clear water after settle is re-utilized in the washery.

Date: 29/11/2024

32	WATER QUALITY MONITORING AND PRESERVATION	Industrial waste water (CHP, workshop and waste water from the mine) should be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
----	---	---

PPs Submission: Complied

33

35

No waste-water is discharged outside the washery premises. 100 percentage water is re-circulated back for re-use in the washery. There is a central workshop and garage in Jamadoba where Effluent Date: Treatment Plant having oil and grease trap facility has been provided. Some of the mine water is sent 29/11/2024 back into underground during stowing and remaining water is used for dust suppression, washery make-up water, greenbelt development and drinking water supply to colonies and stakeholders. We have also commissioned an STP for canteen wastewater in Colliery premises. Treated water of STP is used in horticulture and greenbelt development.

Noise Monitoring & Prevention	Adequate measure shall be taken for control of noise levels below 85dBA in the work environment Workers engaged in blasting in drilling operation of HEMM, etc shall be provided with plugs/muffs.
-------------------------------	--

	PPs Submission: Complied Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas. Since this is an underground mine where no HEMM is used. Coal preparation is done by drilling and solid blasting. The noise levels report is provided as Annexure II.	Date: 29/11/2024	
--	--	---------------------	--

34	Noise Monitoring & Prevention	Controlled blasting techniques should be practiced with use of delay detonators to mitigate ground vibrations and fly rocks.

PPs Submission: Complied

Human Health Environment

Date: Not applicable as it is an underground mine. However, due to implementation of various mitigation 29/11/2024 measures, and use of delay detonators due to blasting in underground vibration does not cause damage to any structure on the surface. Besides carrying out regular periodic health check – up of their

workers, 20% of the workers identified from workforce engaged in active mining operation shall be subjected to health check – up for occupational diseases and hearing impairment, if any, through an specialised agency / institution within the District/ State and the results reported to this Ministry and to DGMS.

Date: PPs Submission: Complied 29/11/2024 The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination)

		Personal working in dusty area should wear protective	ve respiratory
36	Human Health Environment	devices and they should also be provided with adequat information on safety and health aspects. Supervisory held responsible for ensuring compulsory wearing of c	e training and staff shall be
Persons		ovided with dust masks and have been given awareness ar PME (Periodic Medical Examinations) are also being	Date: 29/11/2024
37	Human Health Environment	In case of outsourcing of work through MDO, the pr shall ensure the strict enforcement of above condition.	
	Submission: Complied plicable		Date: 29/11/2024
38	MISCELLANEOUS	The project proponent shall take all precautionary me mining operation for conservation and protection of er fauna, if any, spotted in the study area. Action plan for of flora and fauna shall be prepared and implemented with the state Forest and Wildlife Department. A copy shall be submitted to the Ministry of Environment, For Climate Change and its Regional Office.	dangered conservation in consultation of action plan
Tata St Nature) Manag for enh conserv are med) which work in the field of faunal an ement Plan (BMP) and thereafter pre- ancement of biodiversity. We have a vation and enhancement of flora and the	n viz. IUCN (International Union for Conservation of d floral conservation. We have prepared a Biodiversity pared BMP action plan (BAP) in association with IUCN lready started to implement the BAP in our area for fauna. Some key initiatives for biodiversity enhancement pecies plantation and Butterfly park development,	Date: 29/11/2024
Tata St Nature) Manag for enh conserv are med	eel has engaged a global organisation) which work in the field of faunal an ement Plan (BMP) and thereafter pre- ancement of biodiversity. We have a vation and enhancement of flora and the dicinal garden development, Native s	d floral conservation. We have prepared a Biodiversity pared BMP action plan (BAP) in association with IUCN lready started to implement the BAP in our area for fauna. Some key initiatives for biodiversity enhancement	29/11/2024 luring the it shall th budgetary buld be the Company
Tata St Nature) Manag for enh conserv are mec artificia 39 PPs S The im	eel has engaged a global organisation) which work in the field of faunal an ement Plan (BMP) and thereafter pre- ancement of biodiversity. We have al vation and enhancement of flora and f dicinal garden development, Native s al niche nesting etc. PUBLIC HEARING	d floral conservation. We have prepared a Biodiversity pared BMP action plan (BAP) in association with IUCN lready started to implement the BAP in our area for fauna. Some key initiatives for biodiversity enhancement pecies plantation and Butterfly park development, Implementation of Action Plan on the issues raised d Public Hearing shall be ensured. The Project proponent complete all the tasks as per Action plan submitted with provisions during the public Hearing. Land oustees she compensated as per the norms laid out R&R Policy of or the National R&R Policy of the State Government,	29/11/2024 luring the it shall th budgetary buld be the Company

The Notice has been advertised in two lo	PPs Submission: CompliedDate: 29/11/2024The Notice has been advertised in two local newspapers viz. Prabhat Khabar (Hindi) and Hindustan (Hindi) on May 05, 2017. Attached as Annexure-IV.Date: 29/11/2024	
	Visit Remarks	
Last Site Visit Report Date:	N/A	
Additional Remarks:		

HALF YEARLY COMPLIANCE REPORT (PERIOD: APRIL 2024 – SEPTEMBER 2024)

BHELATAND A. COLLIERY (EXPANSION FROM 0.38 MTPA TO 0.41 MTPA OF RAW COAL PRODUCTION) AND BHELATAND COAL WASHERY (EXPANSION FROM 0.96 MTPA TO 1.5 MTPA RAW COAL THROUGHPUT)

P.O.: BHELATAND, DIST: DHANBAD, JHARKHAND



TATA STEEL LIMITED, JHARIA DIVISION

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

S. No.	Condition	Compliance Status		
Specifi	Specific Condition			
(i)	The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.	It is being strictly followed. The EC capacity of Bhelatand A. Colliery is for 0.41 MTPA raw coal production is well within the limit. The EC capacity of Bhelatand Coal Washery is for 1.5 MTPA raw coal throughput which is also being maintained within the limit.		
(ii)	The washery shall be as per the project report submitted and presented to EAC.	It is being strictly complied with.		
(iii)	The validity of the EC is for the life of mine or as specified in the EIA Notification, 2006, whichever is earlier.	The mining lease of Bhelatand A. Colliery is valid for 999 years i.e. 20.01.2903 and life of mine as per approved mining plan is 25 years (Base year is FY13-14). However, the validity of EC for mines as per EIA Notification amendment dt. 14.09.2016 is kept as 30 years. Therefore, the EC is valid till 31.03.2038.		
(iv)	Transportation of coal should be carried out by covered conveyor belts. Mitigative measures to be undertaken to control dust and other fugitive emission all along the roads by providing sufficient numbers of water sprinklers.	 The transportation of coal from underground colliery to coal handling plant (CHP) is through covered conveyor belt networks. Dry-fog system has been already installed to suppress the dust generated at CHP and transfer points of belt conveyor systems. Fixed-type water sprinklers are also installed on the internal roads of the washery. These are operated effectively at all times to check the fugitive emissions. Fugitive dust emission monitoring is done on half-yearly basis. The values are within the stipulated norms. 		
(v)	Continuous monitoring of occupational safety and other health hazards, and the corrective action need to be ensured.	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 and washery plant are subjected to full medical checkup every year including hearing impairment checkup, etc. These results are regularly submitted to DGMS as per mines rules.		

(vi)	Modern practices for agriculture to be encouraged with promotion of organic farming through training and demonstration (where ever feasible)	Farmers have been effectively trained in SRI (Systems of root intensification) which helps in more production of quality grains with lesser seed requirements. This helps farmers to produce grains at lesser cost. Matka Khad, etc. promotes organic farming which helps farmers to use less chemicals (pesticides, insecticides etc.). In this programmes farmers received hands on demonstration and training on organic farming.
(vii)	Special emphasis should be on training and demonstration on conservation of crops and foods and food processing (Wherever feasible)	 For the conservation of crops and foods, the following training programs are being through our CSR wing, TSRDS (Tata Steel Rural Development Society)- SRI Second crops (Rabi crops) Dry land farming Fisheries training Pisciculture Mushroom cultivation Vegetable cultivation
(viii)	CCTV cameras to be installed at washery gate to check compliance of covering of trucks.	CCTV cameras at washery entrance gate and near weigh bridge gate have been provided. It is to be mentioned here that no truck is allowed into the premises which are not covered by tarpaulin sheets. Refer Annexure-V .
(ix)	This is an underground mine. Afforestation/green belt development takes place every year on the open surface within leasehold areas. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach road to the mine.	 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. Avenue plantation is done in residential colony and along the roadside every year. Green belt development report has been attached as Annexure-1.
(x)	There will be no external /internal OB dumps	Since this is an underground mine, it is not applicable.
(xi)	Wastewater shall be effectively treated and recycled completely either for washery or maintenance of green belt around the plant.	Washery is already operating on a zero-discharge principle. No wastewater is discharged into the drains/ natural water systems. The recycled water is again used for plant operations and green-belt development.
(xii)	The assurances given during the Public Hearing and as per the Action	The assurances given during the public hearing with respect to environment and CSR are already being executed.

	plan developed by the proponent should be implemented.	
(xiii)	Hoppers of the coal crushing unit and washer unit shall be fitted with high efficiency bag filters or mist spray water sprinkling system and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.	 Dry-fog system has been installed to suppress the dust generated at CHP and transfer points of belt conveyor systems. Fixed-type water sprinklers are also installed on the internal roads of the washery. The Dust Extraction system (Bag filters) is installed at Coal Handling Plant. Extracted dust is mixed in water and then fed into the Tailing Thickener. These are operated effectively at all times to check the fugitive emissions.
(xiv)	All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned with mechanical sweepers.	All the internal roads have been concreted while the approach roads are black-topped. There is a facility for parking of trucks within the unit. Mechanical sweepers were mobilized for internal roads.
(xv)	Records of quantum and ash contain of raw coal being washed and clean coal and coal rejects produced from every batch of washing shall be maintained and details thereof be made available to Ministry whenever directed.	Proper records of quantity and ash content of raw coal being washed, clean/washed coal, and other by-products are being maintained regularly.
(xvi)	No ground water shall be used for the plant operations. Any additional water requirement envisaged shall be obtained by recycle/reuse of treated effluent and from rainwater harvesting measure.	No ground water is used for washery plant operations. Since, washery is operating on Zero Liquid Discharge Principle; all processed water is recycled back and reused for operations. The make- up water requirement is met by mine water from adjoining Bhelatand Colliery and Katri river. There are total 8 ponds (Capacity- 20622 m3) for tailing management which also act as surface runoff and rainwater storage ponds. In addition to that, Rooftop rainwater harvesting structure has been constructed in office premises of Bhelatand washery.
(xvii)	Socio – economic and welfare measures for the local communities for the adjoining villages shall be implemented under CSR. Activities to be undertaken for the adjoining villages shall be identified in consultation with the local authorities, the details of status of implementation	CSR activities are being carried out through our CSR wing, TSRDS, which is managed by a team of experts who are full time involved in providing benefits and improving standard of living in over 30 villages. The list of activities are developed in consultation with the village representatives and implemented in a time-bound manner. The annual expenditure on CSR is updated in Integrated Report

	of CSR and expenditure thereon	of Tata Steel every year which is uploaded in
	which should be annually updated on the company website.	company's website.
(xviii)	Heavy metal content in raw coal, and washed coal shall be analysed once in a year and records maintained thereof.	Heavy metal content analysis in raw coal and washed coal is being done from a NABL approved lab & the data are being maintained.
Genera	l Conditions:	
A. Min	ing	
(i)	No change in mining technology and scope of work shall be made without prior approval of the Ministry of Environment Forest and climate Change. No change in the calendar plan including excavation, quantum of coal and waste should be made.	It is being strictly followed and complied with.
(ii)	Mining shall be carried out as per the approved mining plan, and also abiding by the relevant laws related to coal mining and the circulars issued by Directorate General Mines Safety (DGMS) An approved progressive Mine Closure Plan shall strictly be complied with and submitted.	It is being strictly followed. Mining is being carried out as per the approved mining plan in accordance with other mining rules, DGMS permissions etc. The mine closure plan was also approved along with mining plan by Ministry of Coal, Govt of India. The provisions of mine closure plan are being complied with. As per progressive closure activities, plantation for green cover in and around leasehold area is being done.
B. Lan	d Reclamation	
(i)	Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.	Complied. The land use study has been completed by Indian School of Mines (IIT-ISM) Dhanbad and the report is submitted vide letter no. JMB/ENV/BAC/39/466/2021 dated: 27.06.2021 to Regional Office, MoEFCC at Ranchi
(ii)	Final mine void depth should not be more than 40m. The void area should be converted into water body. The remaining area should be back filled up to ground level and covered with thick top soil. The land after mining should be restored for agriculture or forestry purpose.	It is not applicable as this is an underground mine.
(iii)	The top soil, if any, shall temporarily be stored at earmarked site (s) only	There is no generation of top soil due to mining activities as this is an underground mine. Mining is

	and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The overburden dumps should be vegetated with suitable native species to prevent erosion and surface run off. The entire excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self – sustaining Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.	being done by Board and Pillar method with sand stowing. The rehabilitation is also not applicable in this case as there is no change in land use pattern due to underground mining operation.
(iv)	Greenbelt shall be developed all along the mine lease area in a phased manner. The width of the green belt along forest area should not be less than 7.5 m, and the total area covered by 3 tier green belt shall not be less than 100 ha. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads.	 Greenery has been developed in many areas around the colliery and washery premises. There is no forest land in core and buffer zone. However, green belt is being developed in the leasehold area. 3-Tier plantation along the roads with native species is done on available vacant areas.
	issions, Effluents, and waste Disposal	
(i)	Transportation of coal by road should be carried out by covered trucks only. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM 2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emission from all the sources shall be controlled regularly it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board in this regard.	 Transportation of raw coal from Bhelatand A. Colliery to washery is done through underground belt conveyors. The washed coal from washery is sent via rail network. The sand used for stowing is transported through Tarpaulin sheet covered trucks only. Dry-fog system has been already installed to suppress the dust generated at CHP and transfer points of belt conveyor systems. Fixed-type water sprinklers are also installed on the internal roads of the washery. In addition to these, movable water sprinkler ply on regular intervals for dust suppression. The ambient air quality report is submitted to SPCB every quarter.

(ii)	Vehicular emission shall be kept under control and regularly. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.	Raw coal transportation is done through underground belt network. Only the vehicles having valid PUC certificates are being allowed to operate for sand transportation.
(iii)	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely 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 in consultation with the state pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.	 Based on meteorological data, total four ambient air quality stations are established in core zone and buffer zone. Monitoring and analysis of PM10, PM2.5, SO2, NO2 are done on monthly basis. The Air quality monitoring stations are: (i) Bhelatand Office Area (Core Zone) (ii) Russi Vihar Colony, Sijua (Buffer Zone) (iii) Malkera Colony (Buffer Zone) (iv) Bhelatand Colony (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognized by NABL/MoEFCC) once in six months. The results are enclosed as Annexure-II.
(iv)	Crusher / feeder and breaker material transfer points should invariably be provided with dust suppression system. Belt – Conveyors should be fully covered to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	 The following measures have been implemented: i) Dry-fog system at all transfers points of CHP. ii) Dust extraction system (Bag filters) in CHP ii) Enclosures around crushers. iii) Belts have been covered on top and both sides. These arrangements will protect the coal mass moving on belt from blowing wind. In this way, the dust getting air borne is being minimized. iv) Fixed water sprinklers on the haulage roads. v) In addition, movable water sprinklers are also being deployed on the roads for dust suppression.
(v)	The project proponent shall not alter the major channels around the site. Appropriate embankment should be	During the course of action, there is no proposed diversion or rechanneling of the water course is involved. The prominent stream in the region is Katri Nadi, a tributary of Damodar river.

	provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary should be of suitable dimensions and critical patches should be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.	Appropriate embankment along the Katri river is already provided. Stone pitching has been provided on the embankment. The dense vegetation already exists between the river channel and lease which shall be strengthened further to check the peak water flow and prevent mine inundation.
(vi)	Rainwater harvesting shall be implemented for conservation and augmentation of ground water resource in the area in consultation with Central Ground Water Board.	Every year Tata Steel through its CSR wing constructed as well as renovate the old pond by removal of silts in and around Bhelatand lease area for conservation and augmentation of ground water. These ponds act as surface reservoir for rainwater. In addition to that, Rooftop rainwater harvesting structure has been constructed in office premises of Bhelatand washery.
(vii)	Catch drain and siltation ponds of appropriate size shall be constructed around the mine working coal heaps and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area. Roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper setting of silt material. Dimension of the retaining wall to be constructed at the toe of the dump and OB benches within the mine to check run – off and siltation should be based on the rainfall.	 There are no soil or OB dumps in the colliery and washery premises. Only the by-products are stored in the stockyards located in the washery premises which are sold off within 10-15 days. Garland drains of adequate size and gradient already exist around the washery area to channelize the surface runoff. The runoff is diverted to the tailing ponds and clear water after settle is re-utilized in the washery.
(viii)	Industrial waste water (CHP, workshop and waste water from the	No waste-water is discharged outside the washery premises. 100% water is re-circulated back for re-

mine) should be properly collected	use in the washery. There is a central workshop and
and treated so as to conform to the	garage in Jamadoba where Effluent Treatment
standards prescribed under the	Plant having oil and grease trap facility has been
Environment (Protection) Act, 1986	provided. Some of the mine water is sent back into
and the Rules made there under, and	underground during stowing and remaining water
as amended from time to time. Oil and	is used for dust suppression, washery make-up
grease trap should be installed before	water, greenbelt development and drinking water
discharge of workshop effluents.	supply to colonies and stakeholders. We have also
	commissioned an STP for canteen wastewater in
	Colliery premises. Treated water of STP is used in
	horticulture and greenbelt development.

D. Noi	D. Noise & Vibration Control		
(i)	Adequate measure shall be taken for control of noise levels below 85dBA in the work environment Workers engaged in blasting in drilling operation of HEMM, etc shall be provided with plugs/muffs.	Regular noise survey is being conducted in the underground work environment. Workers are provided with ear-plugs/ muffs in high noise areas. Since this is an underground mine where no HEMM is used. Coal preparation is done by drilling & solid blasting. The noise levels report is provided as Annexure II.	
(ii)	Controlled blasting techniques should be practiced with use of delay detonators to mitigate ground vibrations and fly rocks.	Not applicable as it is an underground mine. However, due to implementation of various mitigation measures, and use of delay detonators due to blasting in underground vibration does not cause damage to any structure on the surface.	
	cupational Health & Safety		
(i)	Besides carrying out regular periodic health check – up of their workers, 20% of the workers identified from workforce engaged in active mining operation shall be subjected to health check – up for occupational diseases and hearing impairment ,if any, through an specialised agency / institution within the District/ State and the results reported to this Ministry and to DGMS.	The periodic health check-up of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where 20 % of the workers identified from workforce engaged in active mining operations are subjected to full medical check-up every year including hearing impairment check-up, etc. These results are regularly submitted to DGMS as per mines rules.	
(ii)	Personal working in dusty area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Supervisory	Persons working in dusty area have been provided with dust masks & have been given awareness training on safety & health aspects. Regular PME	

		(Deviation Medical Essentiantions) and the later
	staff shall be held responsible for ensuring compulsory wearing of dust	(Periodic Medical Examinations) are also being done.
	mask.	done.
(iii)	In case of outsourcing of work through	Not applicable
	MDO, the project proponent shall	
	ensure the strict enforcement of above condition.	
E Dia		
F. DIO	diversity	
(i)	The project proponent shall take all	Tata Steel has engaged a global organisation viz.
	precautionary measures during mining operation for conservation and	IUCN (International Union for Conservation of Nature) which work in the field of faunal and floral
	protection of endangered fauna, if any,	conservation. We have prepared a Biodiversity
	spotted in the study area. Action plan	Management Plan (BMP) and thereafter prepared
	for conservation of flora and fauna	BMP action plan (BAP) in association with IUCN
	shall be prepared and implemented in	for enhancement of biodiversity. We have already
	consultation with the state Forest and	started to implement the BAP in our area for
	Wildlife Department. A copy of action	conservation and enhancement of flora and fauna.
	plan shall be submitted to the Ministry	Some key initiatives for biodiversity enhancement
	of Environment, Forest and Climate	are medicinal garden development, Native species
	Change and its Regional Office.	plantation and Butterfly park development,
		artificial niche nesting etc.
G. Imp	plementation of Action Plan as per pub	olic Hearing And CSR Activities
(i)	Implementation of Action Plan on the	The implementation of action plan on the issues
(1)	issues raised during the Public Hearing	raised during public hearing is already in progress.
	shall be ensured. The Project	R&R is not applicable in this project.
	proponent shall complete all the tasks	
	as per Action plan submitted with	
	budgetary provisions during the public	
	Hearing. Land oustees should be	
	compensated as per the norms laid out	
	R&R Policy of the Company or the National R&R Policy of the State	
	Government, whichever is higher.	
(ii)	The Board of every company, shall	The proposed CSR expenditure for the entire
(ii)	ensure that the company spends in	company is decided as per the new Company Rules.
	every financial year, at least two per	Once the CSR budget for company is fixed, a share
	cent. of the average net profits of the	of that amount is dedicated and utilized for
	company made during the three	implementing the CSR activities at our Jharia
	immediately preceding financial year,	Division level. The CSR expenditure for FY24 is
	in pursuance of its corporate Social	Rs. 21.81 crores.
	Responsibility policy under Section	
	135 of the Companies Act,2013, for	
	the socio economic development of	
	the neighbourhood.	
H. Cor	rporate Environment Responsibility	

(i)	The Company should have a well laid down Environment Policy approved by the Board of Directors.	The Company already has an Environment Policy approved by the Managing Director. Attached as Annexure III.
(ii)	To have proper checks and balances, the Company should 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.	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.
(iii)	A separate environment management cell with suitable qualified personnel should be set – up under the control of a Senior Executive, who will report directly to the Head of the Organization	We have a separate Environmental Management Cell with qualified personnel. The reporting of Environmental Cell is directly to General Manager of the Division.
(iv)	The funds earmarked for environment protection measures should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.	The Environment Cell has a separate fund for Environmental protection measures and for complying with legal requirements. The year-wise expenditure is being already submitted to JSPCB as Environment Statement in Form-V. The total annual environmental expenditure for the financial year 2023-24 is Rs. 333.67 lakhs.
I. Stat	utory Obligations	
(i)	Environment clearance is granted subject to final outcome of Hon'ble Supreme Court of India, High Court, NGT and any other Court of Law, if any, as may be applicable to the project.	It shall be strictly followed.
(ii)	This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, applicable to the project	Not applicable.
(iii)	The project proponent shall obtain Consent to Establish and Consent to Operate from the concerned State Pollution Control Board prior to increase in capacity of washery and effectively implement all the conditions stipulated therein.	The consent to establish has been granted by JSPCB (Ref no JSPCB/HO/RNC/CTE- 342731/2017/686 dt. 20.11.2017). The Consent to Operate has been granted by JSPCB (Ref no JSPCB/HO/RNC/CTO-14751653/2023/369 dt. 23.02.2023) valid till 31.03.2028. The conditions of CTE and CTO are being complied with and submitted to JSPCB.

(iv)	Project proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) for drawl of water (surface and ground water).	No Objection Certificate for withdrawal of mine water approved by CGWA, New Delhi vide letter No. CGWA/NOC/MIN/REN/1/2024/10165 and was valid till 02.12.2025.
J. Mo	nitoring of Project	
(i)	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year pre – monsoon (April-May) , monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground water Authority and Regional Director , Central Ground Water Board.	The monitoring of groundwater level and quality is done four times a year. The groundwater quality report & groundwater level are provided in Annexure II.
(ii)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, central Pollution Control Board and State Pollution Control Board.	It is being complied with. We are submitting the six-monthly compliance reports to MoEF&CC, its regional office, CPCB and SPCB twice a year. In adherence with the guideline as per notification dt. 26.11.2018, from now onwards, we are sending only soft copy of the compliance status report over mail.
(iii)	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	It shall be complied with.
(iv)	The activities pertaining to development of green belt/horticulture shall be reported to concern Regional Office of MoEF&CC on six monthly basis from the data of commencement of mining operation.	In our leasehold area, every year plantation of sapling is being done and saplings are distributed every year outside the leasehold area. In addition to above, maintenance of old saplings (converted into plants) and developing green area of the region is

		also being done. The greenbelt development plan has been submitted to MoEF&CC earlier.
(v)	For half yearly monitoring reports. The data should be monitored for period of April to September and October to March of the financial years and submitted to the concerned authorities Within 2 months of the completion of periodicity of monitoring.	The cycle of April to September and October to March of every financial year is being followed for submission of compliance and monitoring reports.
K. Mi	scellaneous	
(i)	A copy of clearance letter will be marked to concerned panchayat/local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	The copy of Clearance letter has been sent to District Commissioner, Municipal Commissioner and other government offices on 11 th May, 2017.
(ii)	An electronic copy of the EC letter shall be marked to the concerned State Pollution Control Board, Regional office, District Industry Sector and Collector's Office / Tehsildar Office for information in public domain within 30 days.	The electronic copy of EC letter has been forwarded to DC office, JSPCB Dhanbad office, JSPCB Ranchi office via mail on 11 th May, 2017.
(iii)	The EC letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM10, PM2.5, SO2 and Nox (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.	The EC letter is already uploaded in company's website. The compliance reports shall also be uploaded once in six months in company's website with all monitoring reports. The display board at entrance of mine and washery covers all environment quality parameters and applicable statutory requirements as per the guidelines.
(iv)	The project authorities should advertise at least in two local newspapers widely circulated ,one of which shall be in the vernacular language of the locality concerned , within 7 days of the issue of the clearance letter informing that the	The Notice has been advertised in two local newspapers viz. Prabhat Khabar (Hindi) and Hindustan (Hindi) on May 05, 2017. Attached as Annexure-IV.

(v)	project has been accorded environmental clearance and a copy of the clearance letter is available with the SPCB and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office The Environmental Statement for each	The environmental statement for financial year
	financial year ending 31 March in From-V is mandated to be submitted by the PP for 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 Office of the MoEF&CC by e-mail.	2022-23 has been submitted to JSPCB vide letter no. JMB/ENV/ESSA/05/736/2023 on 29 th September 2023 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-mef@gov.in.

Statement showing measures taken for increasing tree and forest cover

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

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







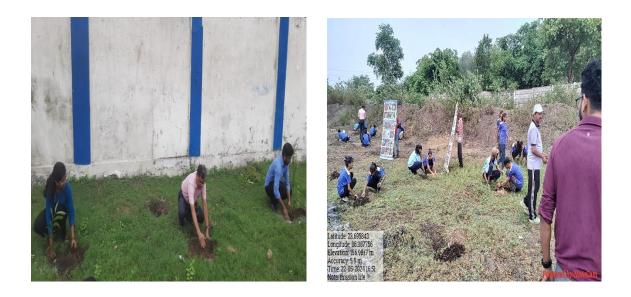












BIODIVERSITY ENHANCEMENT INITIATIVES:

Three projects are taken up in FY18 to enhance the biodiversity of the region in consultation with IUCN viz. Artificial Niche Nesting, Development of Butterfly park and Herbal park development.

Herbal Park Development:

As part of afforestation & tree plantation a herbal garden was developed in June'17 with more than fifteen varieties of medicinal plants viz. Ficus Compecta (Harit Kumari), Ficus black Japan (Golmirch), Phonexfam (Jaiphal), Caladinum Attala (Har singar) etc.



DEVELOPMENT OF MEDICINAL & HIBISCUS GARDEN

Around 46 variety of medicinal and 49 variety of Hibiscus species were identified to be planted in the park. Signage board were installed indicating the species name along with its medicinal uses.



Compliance to Specific Condition no. (viii)

Installation of high resolution revolving cameras at BCPP



ANNEXURE-I

Statement showing measures taken for increasing tree and forest cover

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

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

Glimpses of plantation activities for FY25:















Annexure- I Greenbelt Development Report

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



Picture: Existing Green Belt around JCPP

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



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



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

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 259 / 24 Date: 08/05 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in SIJUA 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 ³	NC 24 Howerty Limit-120 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	12.04.24	Clear	232.1	88.6	19.7	22.3
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	17.04.24	Clear	226.8	81.3	15.9	19.1

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

S. No	Location	Latitude/ Longitude	Dath 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 24Hourly Limit-80 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	12.04.24	Clear	88.6	44.2	19.7	22.3
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	17.04.24	Clear	81.3	39.7	15.9	19.1
3	Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	15.04.24	Clear	90.1	48.6	18,7	20.2
4	Malkera Colony	23°47'10" N/ 86°17'39" E	16.04.24	Clear	74.8	35.4	16.8	18.7
5	Bhelatand Colony	23°46'10.7" N/ 86°18'49"E	18.04.24	Clear	77.5	36.1	18.2	21.5

Note: PM₁₀ - Less than 10 micron Particulate Matter PM₂₅ - 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)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 33/ /24 Date: 03/06/2024

Re: AIR QUALITY REPORT

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

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

S. Nø	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	NO- 24 Hαy Limit-120 μg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	06.05.24	Clear	257.4	90.1	17.2	21.9
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	03.05.24	Clear	248.6	89.6	18.5	22.4

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

	S. No	Location	Latitude/ Longitude	Dat⊜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 24Hourly Limit-80 µg/m ³
Ī	1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	06.05.24	Clear	90.1	48.7	17.2	21.9
	2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	03.05.24	Clear	89.6	46.3	18.5	22.4
	3	Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	09.05.24	Cloudy	70.5	31.9	15.6	18.1
	4	Malkera Colony	23°47'10" N/ 86°17'39" E	07.05.24	Clear	81.7	42.0	14.7	17.5
Ī	5	Bhelatand Colony	23°46'10.7" N/ 86°18'49'E	08.05.24	Cloudy	72.3	32.4	16.8	19.2

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

μg - Microgram

This is for your information and necessary action please.

Pmahato .

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 396 / 24 Date: 03 / 04 / 2024

Re: AIR QUALITY REPORT

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

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

S. No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	14.06.24	Clear	239.7	87.9	18.6	21.8
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.06.24	Clear	256.1	91.3	16.2	19.6

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 24Hourly Limit-80 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	14.06.24	Clear	87.9	45.2	18.6	21.8
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.06.24	Clear	91.3	48.7	16.2	19.6
3	Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	13.06.24	Clear	85.7	42.3	17.1	20.5
4	Malkera Colony	23°47'10" N/ 86°17'39" E	11.06.24	Clear	94.2	50,1	19.6	22.3
5	Bhelatand Colony	23°46'10.7" N/ 86°18'49"E	17.06.24	Cloudy	70.5	30.8	15.7	18.4

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)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 466 / 24 Date: 01 / 08 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **SIJUA 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 Hour Limit-120 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	11.07.24	Cloudy	176.2	64.8	17.2	20.4
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.07.24	Cloudy	187.8	70.1	15.8	18.9

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

S. No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit-60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NOx 24Hourly Limit-80 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	11.07.24	Cloudy	64.8	28.6	16.7	18.0
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.07.24	Cloudy	70.1	32.3	15.8	18.9
3	Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	10.07.24	Clear	75.4	34.6	18.0	21
4	Malkera Colony	23°47'10" N/ 86°17'39" E	15.07.24	Cloudy	69.6	31.2	14.7	16.8
5	Bhelatand Colony	23°46'10.7" N/ 86°18'49"E	16.07.24	Clear	78.9	37.1	17.2	19.5

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.

Ponehat. Lab. Assistant (Environment)

Sr.Manager, Jamadoba Colliery

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 5-20 / 24 Date: 02 / 09 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in **SIJUA 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	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	05.08.24	Cloudy	154.9	60.2	14.9	16.3
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	07.08.24	Cloudy	144.7	58.7	16.2	19.1

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

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 24Hourly Limit-80 µg/m ³
Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	05.08.24	Cloudy	60.2	26.5	14.9	16.3
Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	07.08.24	Cloudy	58.7	24.1	16.2	19.1
Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	06.08.24	Çloudy	62.1	28.4	15.6	17.4
Malkera Colony	23°47'10" N/ 86°17'39" E	08.08.24	Clear	76.5	35.6	18.4	20.7
Bhelatand Colony	23°46'10.7" N/ 86°18'49"E	09.08.24	Cloudy	59.3	25.4	15.2	18.0
	Bhelatand Office Area Sijua Mine Office Area Sijua Russi Vihar Colony Malkera Colony	LocationLongitudeBhelatand Office Area $23^{\circ}46' 11" \text{ N/}$ $86^{\circ}18'51* \text{ E}$ Sijua Mine Office Area $23^{\circ}46'33" \text{ N/}$ $86^{\circ}19'51" \text{ E}$ Sijua Russi Vihar Colony $23^{\circ}46'45" \text{ N/}$ $86^{\circ}20'18" \text{ E}$ Malkera Colony $23^{\circ}47'10" \text{ N/}$ $86^{\circ}17'39" \text{ E}$ Bhelatand Colony $23^{\circ}46'10.7" \text{ N/}$	LocationLongitudeSamplingBhelatand Office Area $23^{\circ}46'11"$ N/ $86^{\circ}18'51*E$ 05.08.24Sijua Mine Office Area $23^{\circ}46'33"$ N/ $86^{\circ}19'51"E$ 07.08.24Sijua Russi Vihar Colony $23^{\circ}46'45"$ N/ $86^{\circ}20'18"E$ 06.08.24Malkera Colony $23^{\circ}47'10"$ N/ $86^{\circ}17'39"E$ 08.08.24.	LocationLongitudeSamplingConditionBhelatand Office Area $23^{\circ}46' 11"$ N/ $86^{\circ}18'51" E$ 05.08.24CloudySijua Mine Office Area $23^{\circ}46'33"$ N/ $86^{\circ}19'51" E$ 07.08.24CloudySijua Russi Vihar Colony $23^{\circ}46'45"$ N/ $86^{\circ}20'18" E$ 06.08.24CloudyMalkera Colony $23^{\circ}47'10"$ N/ $86^{\circ}17'39" E$ 08.08.24ClearBhelatand Colony $23^{\circ}46'10.7"$ N/ $23^{\circ}46'10.7"$ N/09.08.24Cloudy	LocationLatitude/ LongitudeDate of SamplingWeather Condition24 Hourly Limit-100 µg/m³Bhelatand Office Area23°46'11" N/ 86°18'51" E05.08.24Cloudy60.2Sijua Mine Office Area23°46'33" N/ 86°19'51" E07.08.24Cloudy58.7Sijua Russi Vihar Colony23°46'45" N/ 86°20'18" E06.08.24Cloudy62.1Malkera Colony23°47'10" N/ 86°17'39" E08.08.24.Clear76.5Bhelatand Colony23°46'10.7" N/ 86°10.7" N/09.08 24Cloudy59.3	LocationLatitude/ LongitudeDate of SamplingWeather Condition24 Hourly Limit-100 µg/m³24 Hourly Limit-100 µg/m³Bhelatand Office Area23°46'11" N/ 86°19'51" E05.08.24Cloudy60.226.5Sijua Mine Office Area23°46'33" N/ 86°19'51" E07.08.24Cloudy58.724.1Sijua Russi Vihar Colony23°46'45" N/ 86°20'18" E06.08.24Cloudy62.128.4Malkera Colony23°46'10" N/ 86°17'39" E08.08.24Clear76.535.6	LocationLatitude/ LongitudeDate of SamplingWeather Condition24 Hourly Limit-100 µg/m³24 Hourly Limit-60 µg/m³24 Hourly Limit-60 Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log24 Hourly Limit-60 Log<

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.

Prohate .

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref: JMB/ ENV/ LAB/ 02 / 58 2-1 24 Date: 01/10/2024

Re: AIR QUALITY REPORT

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

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

S. No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	11.09.24	Cloudy	144.8	67.5	15.6	17.0
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.09.24	Clear	162.7	71.8	18.2	20.1

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 24Hourly Limit-80 µg/m ³
1	Bhelatand Office Area	23°46' 11" N/ 86°18'51" E	11.09.24	Cloudy	67.5	30.4	15.6	17.0
2	Sijua Mine Office Area	23°46'33" N/ 86°19'51" E	12.09.24	Clear	71.8	33.4	18.2	20.1
3	Sijua Russi Vihar Colony	23°46'45" N/ 86°20'18" E	10.09.24	Cloudy	63.9	29.1	17.6	19.5
4	Malkera Colony	23°47'10" N/ 86°17'39" E	13.09.24.	Cloudy	58.7	24.5	16.2	18.6
5	Bhelatand Colony	23°46'10.7" N/ 86°18'49"E	16.09.24	Cloudy	60.4	26.1	14.8	17.9
								4.

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.

(Prahato.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ ENV/ LAB/ 05 / 227 /24 Dated: 02/05/2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date		5.00 – 22.0 B Standa			Night (22.00 - 06.00 Hrs CPCB Standard- 45			
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.		
1	Bhelatand Officers Colony	19.04.24	45.3	47.5	46.4	37.7	39.4	38.6		
2	Russi Vihar Colony, Sijua	19.04.24	47.6	50.1	48.9	39.4	41.7	40.6		
3	Malkera Colony	19.04.24	46.5	48.4	47.5	38.2	40.5	39.4		
4	Adarsh Nagari Colony, Bhelatand	19.04.24	47.7	49.5	48.6	39.1	41.3	40.2		

C 31	March Cardina	Date	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
S.No	Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)	_	Min.	Max.	Avg.	Min.	Max.	Avg.
1	Chief Office, Bhelatand	19.04.24	51.5	54.2	52.9	43.2	45.5	44.4
2	Weigh Bridge, Bhelatand	19.04.24	58.2	60.4	59.3	50.5	52.2	51.4
3	Sub Station, Bhelatand	19.04.24	54.4	57.7	56.1	46.7	48.5	47.6
4	Canteen Complex, Bhelatand	19.04.24	55.7	58.9	57.3	47.4	49.7	48.6
5	Security gate, Sijua	19.04.24	54.2	57.5	55.9	46.5	48.3	47.4
6	15 Pit Top, Sijua	19.04.24	55.6	58.4	57.0	47.2	49.5	48.4
7	2 Pit Top, Sijua	19.04.24	54.8	57.6	56.2	46.3	48.7	47.5
8	NRD office, BCPP	19.04.24	58.6	61.8	60.2	50.1	52.3	51.2
9	Loading Yard Complex, BCPP	19.04.24	56.4	58.5	57.5	48.5	50.8	49.7
10	DG Set Complex, BCPP	19.04.24	56.3	59.7	58.0	47.8	50.5	49.2

Analysis: All the values are within permissible limit

This is for your information please

(K

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Sr. Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ ENV/ LAB/ 05 / 30 8/24 Dated: 03 / 08 / 2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
5.140	Monitoring Station	Date	CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Bhelatand Officers Colony	21.05.24	44.1	46.3	45.2	36.3	38.5	37.4
2	Russi Vihar Colony, Sijua	21.05.24	45.3	47.6	46.5	37.5	39.8	38.7
3	Malkera Colony	21.05.24	44.7	46.9	45.8	36.4	38.6	37.5
4	Adarsh Nagari Colony, Bhelatand	21.05.24	46.4	48.7	47.6	38.7	40.4	39.6

CM	Maria in Station	5.6	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
S.No	Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min,	Max.	Avg.	Min.	Max.	Avg.
1	Chief Office, Bhelatand	21.05.24	50.4	52.8	51.6	42.6	45.4	44.0
2	Weigh Bridge, Bhelatand	21.05.24	57.7	60.6	59.2	49.5	52.7	51.1
3	Sub Station, Bhelatand	21.05.24	52.2	54.4	53.3	44.3	46.5	45.4
4	Canteen Complex, Bhelatand	21.05.24	56.4	59.7	58.1	48.1	51.3	49.7
5	Security gate, Sijua	21.05.24	53.6	56.9	55.3	45.7	48.4	47.1
6	15 Pit Top, Sijua	21.05.24	56.3	59.2	57.8	48.5	51.8	50.2
7	2 Pit Top, Sijua	21.05.24	55.7	58.5	57.1	47.3	50.5	48.9
8	NRD office, BCPP	21.05.24	58.8	61.3	60.1	50.1	53.4	51.8
9	Loading Yard Complex, BCPP	21.05.24	54.2	57.4	55.8	46.4	49.7	48.1
10	DG Set Complex, BCPP	21.05.24	56.5	58.7	57.6	48.2	50.4	49.3

5

Analysis: All the values are within permissible limit

This is for your information please

Part

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ ENV/ LAB/ 05 / 371 /24 Dated: 01 / 07/ 2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date	Day (0	6.00-22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
0.1NO	Monitoring Station	Date	CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Bhelatand Officers Colony	26.06.24	45.4	47.6	46.5	37.4	39.7	38.6
2	Russi Vihar Colony, Sijua	26.06.24	45.8	47.5	46.7	37.1	39.3	38.2
3	Malkera Colony	26.06.24	43.4	45.7	44.6	35.6	37.4	36.5
4	Adarsh Nagari Colony, Bhelatand	26.06.24	44.7	46.5	45.6	36.3	38.8	37.6

		10000000	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	6.00 Hrs.)
S.No	Monitoring Station	Date	CPC	B Standa	rd- 75	CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Chief Office, Bhelatand	26.06.24	49.8	51.7	50.8	41.4	43.6	42.5
2	Weigh Bridge, Bhelatand	26.06.24	58.4	61.5	60.0	50.2	53.4	51.8
3	Sub Station, Bhelatand	26.06.24	50.6	53.8	52.2	42.5	45.6	44.1
4	Canteen Complex, Bhelatand	26.06.24	55.7	58.6	57.2	47.3	50.1	48.7
5	Security gate, Sijua	26.06.24	52.4	55.7	54.1	44.6	47.3	46.0
6	15 Pit Top, Sijua	26.06.24	56.6	59.4	58.0	48.9	51.7	50.3
7	2 Pit Top, Sijua	26.06.24	57.4	60.2	58.8	49.7	52.5	51.1
8	NRD office, BCPP	26.06.24	59.7	62.5	61.1	51.4	54.7	53.1
9	Loading Yard Complex, BCPP	26.06.24	52.5	54.7	53.6	44.1	46.3	45.2
10	DG Set Complex, BCPP	26.06.24	54.3	56.4	55.4	46.4	48.6	47.5

3

Analysis: All the values are within permissible limit

This is for your information please

anto

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ ENV/ LAB/ 05 / 4 4 3 /24 Dated: 0 / / 0 8 / 2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
5.140	Monitoring Station	Date	CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Bhelatand Officers Colony	16.07.24	46.2	48.3	47.3	38.5	40.8	39.7
2	Russi Vihar Colony, Sijua	16.07.24	45.5	47.8	46.7	37.3	39.6	38.5
3	Malkera Colony	16.07.24	43.7	45.5	44.6	35.4	37.7	36.6
4	Adarsh Nagari Colony, Bhelatand	16.07.24	45.4	47.9	46.7	37.6	39.5	38.6

C.M.	Maria in Real	Dete	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
S.No	Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Chief Office, Bhelatand	16.07.24	48.6	50.8	49.7	40.4	42.6	41.5
2	Weigh Bridge, Bhelatand	16.07.24	56.2	59.5	57.9	48.6	51.1	49.9
3	Sub Station, Bhelatand	16.07.24	52.5	55.7	54.1	44.3	46.8	45.6
4	Canteen Complex, Bhelatand	16.07.24	56.3	59.6	58.0	48.7	50.4	49.6
5	Security gate, Sijua	16.07.24	50.7	53.4	52.1	42.4	47.1	44.8
6	15 Pit Top, Sijua	16.07.24	54.4	57.5	56.0	46.6	49.2	47.9
7	2 Pit Top, Sijua	16.07.24	56.8	59.5	58.2	48.9	51.5	50.2
8	NRD office, BCPP	16.07.24	58.5	61.7	60.1	50.7	53.3	52.0
9	Loading Yard Complex, BCPP	16.07.24	50.7	53.6	52.2	42.5	45.1	43.8
10	DG Set Complex, BCPP	16.07.24	54.7	57.9	56.3	46.3	48.5	47.4

5

Analysis: All the values are within permissible limit

This is for your information please

Ro

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ ENV/ LAB/ 05 / 506/24 Dated: 02/09/2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date	Day (06.00 - 22.00 Hrs.)	Night (Night (22.00 - 06.00 H			
5.140	Monitoring Station	Date	CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)	-	Min.	Max.	Avg.	Min.	Max.	Avg.
1	Bhelatand Officers Colony	12.08.24	45.4	47.6	46.5	37.1	39.3	38.2
2	Russi Vihar Colony, Sijua	12.08.24	46.7	48.9	47.8	38.5	40.7	39.6
3	Malkera Colony	12.08.24	43.3	45.7	44.5	35.1	37.4	36.3
4	Adarsh Nagari Colony, Bhelatand	12.08.24	44.1	46.4	45.3	36.4	38.6	37.5

		Day (0	6.00 - 22.	00 Hrs.)	Night (22.00 - 06	.00 Hrs.)
Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
Chief Office, Bhelatand	12.08.24	46.3	48.9	47.6	38.5	40.7	39.6
Weigh Bridge, Bhelatand	12.08.24	54.5	57.7	56.1	46.8	49.6	48.2
Sub Station, Bhelatand	12.08.24	50.7	53.5	52.1	42.3	45.4	43.9
Canteen Complex, Bhelatand	12.08.24	56.5	59.8	58.2	48.7	51.9	50.3
Security gate, Sijua	12.08.24	52.1	55.3	53.7	44.3	47.5	45.9
15 Pit Top, Sijua	12.08.24	56.6	59.8	58.2	48.4	51.7	50.1
2 Pit Top, Sijua	12.08.24	55.3	58.6	57.0	47.6	50.8	49.2
NRD office, BCPP	12.08.24	58.7	61.9	60.3	50.2	53.7	52.0
Loading Yard Complex, BCPP	12.08.24	50.4	53.5	52.0	42.2	45.9	44.1
DG Set Complex, BCPP	12.08.24	54.6	57.4	56.0	46.5	49.7	48.1
	Chief Office, Bhelatand Weigh Bridge, Bhelatand Sub Station, Bhelatand Canteen Complex, Bhelatand Security gate, Sijua 15 Pit Top, Sijua 2 Pit Top, Sijua NRD office, BCPP Loading Yard Complex, BCPP	Industrial Area (Core Zone)Chief Office, Bhelatand12.08.24Weigh Bridge, Bhelatand12.08.24Sub Station, Bhelatand12.08.24Canteen Complex, Bhelatand12.08.24Security gate, Sijua12.08.2415 Pit Top, Sijua12.08.242 Pit Top, Sijua12.08.24NRD office, BCPP12.08.24Loading Yard Complex, BCPP12.08.24	Monitoring StationDateIndustrial Area (Core Zone)Min.Chief Office, Bhelatand12.08.2446.3Weigh Bridge, Bhelatand12.08.2454.5Sub Station, Bhelatand12.08.2450.7Canteen Complex, Bhelatand12.08.2456.5Security gate, Sijua12.08.2452.115 Pit Top, Sijua12.08.2455.3NRD office, BCPP12.08.2458.7Loading Yard Complex, BCPP12.08.2450.4	Monitoring Station Date CPCB Standa Industrial Area (Core Zone) Min. Max. Chief Office, Bhelatand 12.08.24 46.3 48.9 Weigh Bridge, Bhelatand 12.08.24 54.5 57.7 Sub Station, Bhelatand 12.08.24 50.7 53.5 Canteen Complex, Bhelatand 12.08.24 56.5 59.8 Security gate, Sijua 12.08.24 56.6 59.8 15 Pit Top, Sijua 12.08.24 56.6 59.8 2 Pit Top, Sijua 12.08.24 55.3 58.6 NRD office, BCPP 12.08.24 58.7 61.9 Loading Yard Complex, BCPP 12.08.24 50.4 53.5	Industrial Area (Core Zone)Min.Max.Avg.Chief Office, Bhelatand12.08.2446.348.947.6Weigh Bridge, Bhelatand12.08.2454.557.756.1Sub Station, Bhelatand12.08.2450.753.552.1Canteen Complex, Bhelatand12.08.2456.559.858.2Security gate, Sijua12.08.2456.659.858.215 Pit Top, Sijua12.08.2456.659.858.22 Pit Top, Sijua12.08.2455.358.657.0NRD office, BCPP12.08.2450.453.552.0Loading Yard Complex, BCPP12.08.2450.453.552.0	Monitoring Station Date CPCB Standard CPC Industrial Area (Core Zone) Min. Max. Avg. Min. Chief Office, Bhelatand 12.08.24 46.3 48.9 47.6 38.5 Weigh Bridge, Bhelatand 12.08.24 54.5 57.7 56.1 46.8 Sub Station, Bhelatand 12.08.24 50.7 53.5 52.1 42.3 Canteen Complex, Bhelatand 12.08.24 56.5 59.8 58.2 48.7 Security gate, Sijua 12.08.24 56.5 59.8 58.2 48.4 15 Pit Top, Sijua 12.08.24 56.6 59.8 58.2 48.4 2 Pit Top, Sijua 12.08.24 56.6 59.8 58.2 48.4 NRD office, BCPP 12.08.24 56.6 59.8 58.2 48.4 Loading Yard Complex, BCPP 12.08.24 58.7 61.9 60.3 50.2	Monitoring Station Date CPCB Standard CPCB Standard CPCB Standard Industrial Area (Core Zone) Min. Max. Avg. Min. Max. Chief Office, Bhelatand 12.08.24 46.3 48.9 47.6 38.5 40.7 Weigh Bridge, Bhelatand 12.08.24 54.5 57.7 56.1 46.8 49.6 Sub Station, Bhelatand 12.08.24 50.7 53.5 52.1 42.3 45.4 Canteen Complex, Bhelatand 12.08.24 56.5 59.8 58.2 48.7 51.9 Security gate, Sijua 12.08.24 56.6 59.8 58.2 48.4 51.7 15 Pit Top, Sijua 12.08.24 56.6 59.8 58.2 48.4 51.7 2 Pit Top, Sijua 12.08.24 55.3 58.6 57.0 47.6 50.8 NRD office, BCPP 12.08.24 58.7 61.9 60.3 50.2 53.7 Loading Yard Complex, BCPP 12.08.24 50.4 53.5 52.0

5

Analysis: All the values are within permissible limit

This is for your information please

Rel

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

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

Annexure- II

1.5

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery. Head, Bhelatand A.Colliery. Head, Bhelatand Coal Washery.

Ref : JMB/ENV/ LAB/ 05 / 583 /24 Dated: 0///D/2024

Re: Ambient Noise Level Report

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

S.No	Monitoring Station	Date	Day (06.00 - 22.00 Hrs.)	Night (22.00 - 06.00 Hrs. CPCB Standard- 45				
	Monitoring Station	Date	CPCB Standard- 55					
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Bhelatand Officers Colony	10.09.24	45.2	47.5	46.4	37.4	39.7	38.6
2	Russi Vihar Colony, Sijua	10.09.24	46.5	48.7	47.6	38.3	40.5	39.4
3	Malkera Colony	10.09.24	43.1	45.4	44.3	35.5	37.8	36.7
4	Adarsh Nagari Colony, Bhelatand	10.09.24	44.4	46.6	45.5	36.7	38.9	37.8

		1.1.1.1	Day (0	6.00-22.	00 Hrs.)	Night (22.00 - 06	00 Hrs)
S.No	Monitoring Station	Date	CPCB Standard- 75			CPCB Standard- 70		
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Chief Office, Bhelatand	10.09.24	46.1	48.4	47.3	38.3	40.5	39.4
2	Weigh Bridge, Bhelatand	10.09.24	56.7	59.6	58.2	48.4	51.7	50.1
3	Sub Station, Bhelatand	10.09.24	50.3	53.5	51.9	42.1	45.4	43.8
4	Canteen Complex, Bhelatand	10.09.24	56.8	59.7	58.3	48.5	51.8	50.2
5	Security gate, Sijua	10.09.24	52.4	54.1	53.3	44.7	47.9	46.3
6	15 Pit Top, Sijua	10.09.24	56.5	59.7	58.1	48.2	51.5	49.9
7	2 Pit Top, Sijua	10.09.24	55.7	57.9	56.8	47.4	49.7	48.6
8	NRD office, BCPP	10.09.24	58.4	61.5	60.0	50.5	53.8	52.2
9	Loading Yard Complex, BCPP	10.09.24	50.1	53.3	51.7	42.3	45.6	44.0
10	DG Set Complex, BCPP	10.09.24	54.3	57.6	56.0	46.1	49.3	47.7

5

Analysis: All the values are within permissible limit

This is for your information please

aht

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 256 / 2024 Dated - 08 / 05 / 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in SIJUA GROUP in the month of APRIL'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	Final Settling Pond Bhelatand Coal Washery	19.04.24	11:50 AM	29	7.8	36	926	3.2	94	1.8

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

This is for your information and necessary action please.

å.

6

Area Manager (Environment)

Lab. Assistant (Environment)

Emakat

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

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / -254 / 2024 Dated - 08 / 05 / 2024

Sub: MINE WATER ANALYSIS REPORT.

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

	Location:		Contraction	Temp	pН	TSS	TDS	BOD	COD	Oil & Grease
S. No	Final Discharge Point (Mine's Water)	Sampling Date	Sampling Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	Bhelatand A. Colliery	19.04.24	11:30 AM	32	7.4	25	715	1.8	64	0.4
2	15 Pit Sijua Colliery	19.04.24	10:40 AM	33	7.5	28	842	1.6	56	0.3
3	8 Pit Sijua Colliery	19.04.24	10:20 AM	32	7.6	16	921	2.3	75	0.7
4	2 Pit Sijua Colliery	19.04.24	10:05 AM	a		N	o Dischar	ge		

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

This is for your information and necessary action please.

Conchet

Lab. Assistant (Environment)

Area Manager (Environment)

5

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 2 55 / 2024 Dated - 08/05 / 2024

Sub: STP WATER ANALYSIS REPORT.

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

	Location:	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	O 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, Bltd.Canteen- Inlet	19.04.24	12:15 PM	26	8.0	144	1024	34.1	310	2.1
2	STP, Bltd.Canteen- Outlet	19.04.24	12:20 PM	25	7.7	31	720	5.4	74	0.4
3	STP, Sijua Canteen- Inlet	19.04.24	10:55 AM	26	8.1	134	826	32.1	260	3.4
4	STP, Sijua Canteen- Outlet	19.04.24	11:00 AM	25	7.7	42	682	7.2	84	0.3
5	STP, Aadarsh Nagari- Inlet	19.04.24	12:40 PM	27	8.0	116	967	30.8	310	2.6
6	STP, Aadarsh Nagari- Outlet	19.04.24	12:45 PM	26	7.6	22	712	5.7	58	0.2
7	STP, Bhelatand Officers Colony- Inlet	19.04.24	01:15 PM	26	7.8	139	918	36.2	320	3.7
8	STP, Bhelatand Officers Colony- Outlet	19.04.24	01:20 PM	25	7.3	39	658	5.3	64	0.6

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

This is for your information and necessary action please.

Emphats.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head,

Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 323 / 2024 Dated - 03 / 06 / 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in SIJUA 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/l	250 mg/l	10 mg/l
1	Final Settling Pond Bhelatand Coal Washery	21.05.24	10:10 AM	30	7.7	31	892	2.8	68	1.4

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

This is for your information and necessary action please.

à

Area Manager (Environment)

Lab. Assistant (Environment)

Panakat

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

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 32//2024 Dated - 03 / 06 / 2024

Sub: MINE WATER ANALYSIS REPORT.

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

1	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	Bhelatand A. Colliery	21.05,24	10:50 AM	31	7.3	18	621	2.3	52	0.3
2	15 Pit Sijua Colliery	21.05.24	12:10 PM			No	o Dischar	ge		
3	8 Pit Sijua Colliery	21.05.24	11:35 AM	33	7.9	36	610	2.5	92	0.5
4	2 Pit Sijua Colliery	21.05.24	11:15 AM	32	7.8	27	714	1.5	67	0.6

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

This is for your information and necessary action please.

Emahato .

Lab. Assistant (Environment)

Area Manager (Environment)

5

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 222 / 2024 Dated - 03 / 06 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in SIJUA GROUP in the month of MAY²024. The results are as given below:

C . N.	Location:	Sampling	Sampling	Temp	pН	TSS	TDS	BOD	COD	Grease
S. No	Final Discharge Point	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	250 mg/l	10 mg/l
1	STP, Bltd.Canteen- Inlet	21.05.24	09:45 AM	27	8.1	126	927	35.7	360	2.4
2	STP, Bltd.Canteen- Outlet	21.05.24	09:50 AM	26	7.8	29	789	6.1	62	0.2
3	STP, Sijua Canteen- Inlet	21.05.24	11:50 AM	27	8.4	119	817	33.6	310	2.9
4	STP, Sijua Canteen- Outlet	21.05.24	11:55 AM	26	8.0	38	758	5.7	76	0.4
5	STP, Aadarsh Nagari- Inlet	21.05.24	10:25 AM	26	8.2	129	927	31.8	326	3.2
6	STP, Aadarsh Nagari- Outlet	21.05.24	10:30 AM	25	7.8	38	724	6.3	66	1.2
7	STP,Bhelatand Officers Colony- Inlet	21.05.24	12:35 PM	27	8.3	146	825	33.2	290	3.1
8	STP,Bhelatand Officers Colony- Outlet	21.05.24	12:40 PM	26	8.0	23	654	6.8	98	1.3

ς.

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

This is for your information and necessary action please.

Enchet .

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

SIJUA GROUP

S.No	Date	Location	Time	Depth in meter	рН	Electrical Conductivity µS/m
1	29.05.24	Ruddi Basti	11:45 AM	10.74	7.4	892
2	29.05.24	Rampur Basti	12:20 PM	14.59	7.0	1028
3	29.05.24	Malkera Trigunait Basti	12:15 PM	3.62	7.3	1670
4	29.05.24	Sijua 6 No	01:20 PM	3.72	7.2	1186
5	29.05.24	Sijua 12 No	01:40 PM	4.15	7.3	1483
6	29.05.24	Rampur Basti, (Road Side)	12:45 PM	8.63	7.4	912
7	29.05.24	Bansh Kapuria	02:35 PM	8.33	7.7	894
8	29.05.24	Pasitand Basti	12:30 PM	8.15	7.6	1220
9	29.05.24	Bhelatand 500 Qtr. (Back Side)	02:15 PM	2.78	7.0	1132
10	29.05.24	Dhobani Shiv Mandir	09:40 AM	8.67	7.4	1337
11	29.05.24	Moonidih Bazar	10:05 AM	6.72	7.2	1226
12	29.05.24	Karitand Manjhadih	10:40 AM	8.93	7.3	1687
13	29.05.24	Sawardih 🍐	11:45 AM	11.45	7.6	987
14	29.05.24	Kasiyatand	01:55 PM	2.55	7.5	1056

. Emchato

Lab Assistant (Environment)

Area Manager (Environment)

5

TATA STEEL LIMITED JHARIA DIVISION

Head,

Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 390/2024 Dated - 03 / 07 / 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

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

S No.	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	Final Settling Pond Bhelatand Coal Washery	26.06.24	12:05 PM	29	7.9	39	898	2.6	62	0.7

a

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

This is for your information and necessary action please.

Enchat.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 389 / 2024

Dated - 03/07/2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in SIJUA 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 (Mine's Water)	Date	Time	< 40 ^a C	< 40°C 5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
Bhelatand A. Colliery	26.06.24	11:05 AM	32	7.7	37	712	1.9	58	0.5
15 Pit Sijua Colliery	26.06.24	10:20 AM	30	7.8	46	887	2.1	74	1.2
8 Pit Sijua Colliery	26.06.24	10:00 AM	30	8.0	34	570	2.6	96	0.8
2 Pit Sijua Colliery	26.06.24	09:45 AM	a		N	lo Discharg	ge		
	Final Discharge Point (Mine's Water) Bhelatand A. Colliery 15 Pit Sijua Colliery 8 Pit Sijua Colliery	Final Discharge Point (Mine's Water)Samping DateBhelatand A. Colliery26.06.2415 Pit Sijua Colliery26.06.248 Pit Sijua Colliery26.06.24	Final Discharge Point (Mine's Water)Samping DateSamping TimeBhelatand A. Colliery26.06.2411:05 AM15 Pit Sijua Colliery26.06.2410:20 AM8 Pit Sijua Colliery26.06.2410:00 AM	Execution: Final Discharge Point (Mine's Water) Sampling Date Sampling Time Bhelatand A. Colliery 26.06.24 11:05 AM 32 15 Pit Sijua Colliery 26.06.24 10:20 AM 30 8 Pit Sijua Colliery 26.06.24 10:00 AM 30	Discharge Point (Mine's Water)Sampling DateSampling TimeSampling (Mine's Water)Bhelatand A. Colliery26.06.2411:05 AM327.715 Pit Sijua Colliery26.06.2410:20 AM307.88 Pit Sijua Colliery26.06.2410:00 AM308.0	Location: Final Discharge Point (Mine's Water) Sampling Date Sampling Time Mine's (Mine's Water) Mine's (Mine's Water) Bhelatand A. Colliery 26.06.24 11:05 AM 32 7.7 37 15 Pit Sijua Colliery 26.06.24 10:20 AM 30 7.8 46 8 Pit Sijua Colliery 26.06.24 10:00 AM 30 8.0 34	Location: Final Discharge Point (Mine's Water) Sampling Date Sampling Time Intel (Mine') Intel (Mine') Bhelatand A. Colliery 26.06.24 11:05 AM 32 7.7 37 712 15 Pit Sijua Colliery 26.06.24 10:20 AM 30 7.8 46 887 8 Pit Sijua Colliery 26.06.24 10:00 AM 30 8.0 34 570	Location: Final Discharge Point (Mine's Water) Sampling Date Sampling Time March Final Hoto Hot	Location: Final Discharge Point (Mine's Water) Sampling Date Temp Time PH TSS TDS BOD COD 8 Pit Sijua Colliery 26.06.24 11:05 AM 32 7.7 37 712 1.9 58 15 Pit Sijua Colliery 26.06.24 10:20 AM 30 7.8 46 887 2.1 74 8 Pit Sijua Colliery 26.06.24 10:00 AM 30 8.0 34 570 2.6 96

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

Poncho

Lab. Assistant (Environment)

Area Manager (Environment)

-5

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / **388**/2024 Dated - **03 / 07** / 2024

Sub: STP WATER ANALYSIS REPORT.

	Location:	Sampling	Sampling	Temp	pH	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	STP, Bltd.Canteen- Inlet	26.06.24	12:30 PM	26	8.3	164	916	36.8	342	2.7
2	STP, Bltd.Canteen- Outlet	26.06.24	12:35 PM	25	8.1	32	764	7.2	82	0.6
3	STP, Sijua Canteen- Inlet	26.06.24	10:35 AM	27	8.2	97	987	31.2	290	2.3
4	STP, Sijua Canteen- Outlet	26.06.24	10:40 AM	26	7.9	40	836	6.5	60	0.2
5	STP, Aadarsh Nagari- Inlet	26.06.24	11:25 AM	27	8.0	134	872	30.7	336	3.8
6	STP, Aadarsh Nagari- Outlet	26.06.24	11:30 AM	26	7.7	35	730	6.6	58	1.0
7	STP,Bhelatand Officers Colony- Inlet	26.06.24	12:50 PM	27	8.4	155	779	35.0	310	3.9
8	STP,Bhelatand Officers Colony- Outlet	26.06.24	12:55 PM	26	8.2	46	650	8.2	104	1.5

5

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

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

This is for your information and necessary action please.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head,

Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 458 / 2024 Dated - 0/ / 08/ 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

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

à

	Location:	Sampling	Sampling	Temp	pН	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	Final Settling Pond Bhelatand Coal Washery	16.07.24	12:10 PM	28	8.0	48	910	2.4	76	- 1.2

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

This is for your information and necessary action please.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 4 56 / 2024 Dated - 61 / 68 / 2024

Sub: MINE WATER ANALYSIS REPORT.

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

S. No	Location: Final Discharge Point	Sampling	Sampling	Temp	рН	TSS	TDS	BOD	COD	Oil & Grease
0.140	(Mine's Water)	Date	Time	< 40 ⁴ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	Bhelatand A. Colliery	16.07.24	11:30 AM	32	7.6	24	726	1.8	62	0.7
2	15 Pit Sijua Colliery	16.07.24	11:04 AM			N	o Discharg	je		
3	8 Pit Sijua Colliery	16.07.24	10:29 AM	30	7.7	18	975	2.7	84	0.6
4	2 Pit Sijua Colliery	16.07.24	10:45 AM	a	A	N	o 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.

Pan

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 4 57 / 2024 Dated - 01 / 08 / 2024

Sub: STP WATER ANALYSIS REPORT.

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

	Location: Final Discharge Point	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD 30 mg/l	COD	Oil & Grease
S. No				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l		250 mg/l	10 mg/l
1	STP, Bltd.Canteen- Inlet	16.07.24	11:50 AM	27	8.2	123	862	37.2	348	2.5
2	STP, Bltd.Canteen-Outlet	16.07.24	11:55 AM	26	8.0	41	715	5.8	96	0.5
3	STP, Sijua Canteen- Inlet	16.07.24	11:10 AM	27	8.3	110	972	34.8	310	2.7
4	STP, Sijua Canteen- Outlet	16.07.24	11:15 AM	26	7.8	22	784	6.1	68	0.3
5	STP, Aadarsh Nagari- Inlet	16.07.24	12:40 PM	28	8.1	159	886	32.1	326	3.5
6	STP, Aadarsh Nagari- Outlet	16.07.24	12:45 PM	27	7.9	39	754	6.2	60	0 ^
7	STP, Bhelatand Officers Colony- Inlet	16.07.24	01:00 PM	27	8.3	164	797	34.7	360	3.4
8	STP,Bhelatand Officers Colony- Outlet	16.07.24	01:05 PM	26	8.0	32	690	7.3	76	1.4

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

This is for your information and necessary action please.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head,

Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 524 / 2024 Dated - 02/09 / 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

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

à

	Location: Final Discharge Point	I Dischause Daint Data Time	pH	TSS	TDS	BOD	COD	Oil & Grease		
			< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l	
1	Final Settling Pond Bhelatand Coal Washery	12.08.24	10:55 AM	30	7.8	29	610	2.7	54	1.4

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

This is for your information and necessary action please.

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 522 / 2024

Dated - 02/09/2024

Sub: MINE WATER ANALYSIS REPORT.

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

S.	Location: Final Discharge Point (Mine's Water)	Sampling Date	Sampling Time	Temp < 40°C	рН 5.5 - 9.0	TSS	TDS 2100 mg/l	BOD 30 mg/l	COD 250 mg/l	Oil & Grease	
No						100 mg/l				10 mg/l	
1	Bhelatand A. Colliery	12.08.24	11:15 AM	31	7.5	21	742	2.0	54	0.4	
2	15 Pit Sijua Colliery	12.08.24	11:45 AM	30	7.4	18	956	2.2	32	0.7	
3	8 Pit Sijua Colliery	12.08.24	12:30 PM	30	7.6	16	984	2.4	76	0.3	
4	2 Pit Sijua Colliery	12.08,24	12:45 PM	32@	7.7	20	610	1.8	48	0.5	

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

Ponchat

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 523 / 2024 Dated - 02 / 09 / 2024

Sub: STP WATER ANALYSIS REPORT.

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

S. No	Location: Final Discharge Point	Sampling Date	Sampling Time	Тетр	рН 5.5 - 9.0	TSS 100 mg/l	TDS	BOD 30 mg/l	COD 250 mg/l	On ex Grease 10 mg/l
5. 110				< 40°C			2100 mg/l			
1	STP, Bltd.Canteen- Inlet	12.08.24	10:25 AM	28	8.1	108	732	30.1	310	2.9
2	STP, Bltd.Canteen- Outlet	12.08.24	10:30 AM	27	7.9	22	506	4.6	42	0.4
3	STP, Sijua Canteen- Inlet	12.08.24	12:05 PM	27	8.0	116	827	36.4	294	2.4
4	STP, Sijua Canteen- Outlet	12.08.24	12:10 PM	26	7.7	14	657	5.2	46	0.5
5	STP, Aadarsh Nagari- Inlet	12.08.24	10:00 AM	27	7.8	146	738	30.9	327	2.9
6	STP, Aadarsh Nagari- Outlet	12.08.24	10:05 AM	26	7.6	27	561	3.7	38	0.2
7	STP,Bhelatand Officers Colony- Inlet	12.08.24	09:40 AM	27	8.0	173	784	33.6	316	3.5
8	STP,Bhelatand Officers Colony- Outlet	12.08.24	09:45 AM	26	7.8	24	606	5.8	94	0.8

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

This is for your information and necessary action please.

Emphato

Lab. Assistant (Environment)

.

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

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

SIJUA GROUP

S.No	Date	Location	Time	Depth in meter	pН	Electrical Conductivity µS/m	
1	21.08.24	Ruddi Basti	01:10 PM	1.84	7.2	710	
2	21.08.24	Rampur Basti	11:15 AM	4.60	7.3	628	
3	21.08.24	Malkera Trigunait Basti	12:20 PM	1.63	7.0	1610	
4	21.08.24	Sijua 6 No	10:20 AM	2.04	7.1	1069	
5	21.08.24	Sijua 12 No	10:05 AM	2.98	7.2	1106	
6	21.08.24	Rampur Basti, (Road Side)	11:30 AM	6.78	7.1	580	
7	21.08.24	Bansh Kapuria	09:45 AM	4.86	7.4	835	
8	21.08.24	Pasitand Basti	11:45 AM	2.47	7.3	1126	
9	21.08.24	Bhelatand 500 Qtr. (Back Side)	11:05 AM	0.84	7.1	1436	
10	21.08.24	Dhobani Shiv Mandir	02:20 PM	1.25	7.0	1254	
11	21.08.24	Moonidih Bazar	02:05 PM	1.16	7.1	1198	
12	21.08.24	Karitand Manjhadih	01:40 PM	2.14	7.0	1548	
13	21.08.24	Sawardih a	12:45 PM	0.96	7.2	446	
14	21.08.24	Kasiyatand	10:45 AM	1.03	7.3	916	

Prehato Lab Assistant (Environment)

Area Manager (Environment)

5

1.12

TATA STEEL LIMITED JHARIA DIVISION

Head, Bhelatand Coal Washery.

Ref. No. - JMB / ENV / LAB / 03 / 580 / 2024 Dated - 01 / 10 / 2024

Sub: EFFLUENT WATER ANALYSIS REPORT.

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

		Location:	Sampling	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
0		Final Discharge Point	Date		< 40 ⁶ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
	1	Final Settling Pond Bhelatand Coal Washery	10.09.24	11:40 AM	30	7.5	24	736	2.5	68	1.6

à

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

This is for your information and necessary action please.

Proha

Lab. Assistant (Environment)

Area Manager'(Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 578 / 2024

Dated - 01/10/2024

Sub: MINE WATER ANALYSIS REPORT.

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

31	S.	Location: Final Discharge Point (Mine's Water)	Sampling Date	Sampling Time	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
	No				< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
	1	Bhelatand A. Colliery	10.09.24	10:10 AM	30	7.6	12	687	2.4	76	0.6
	2	15 Pit Sijua Colliery	10.09.24	10:30 AM			;	No Dischar	ge		
	3	8 Pit Sijua Colliery	10.09.24	11:05 AM	30	7.5	20	872	3.2	92	0.7
	4	2 Pit Sijua Colliery	10.09.24	11:20 AM	32	7.8	14	528	2.1	54	0.3

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

Prochat

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Sijua Colliery Head, Bhelatand A. Colliery

Ref. No. - JMB / ENV / LAB / 03 / 579 / 2024 Dated - 0J / 10 / 2024

Sub: STP WATER ANALYSIS REPORT.

	Location: Final Discharge Point	Sampling Date	Sampling Time	Temp < 40°C	рН 5.5 - 9.0	TSS 100 mg/l	TDS	BOD 30 mg/l	COD	O* * Gre
S. No							2100 mg/l		250 mg/l	10 mg/l
1	STP, Bltd.Canteen- Inlet	10.09.24	12:05 PM	27	8.0	127	784	33.7	290	2.4
2	STP, Bltd.Canteen- Outlet	10.09.24	12:10 PM	26	7.8	26	547	4.3	54	0.8
3	STP, Sijua Canteen- Inlet	10.09.24	10:40 AM	27	8.2	138	810	34.7	326	2.8
4	STP, Sijua Canteen- Outlet	10.09.24	10:45 AM	26	7.6	23	698	5.4	84	0.7
5	STP, Aadarsh Nagari- Inlet	10.09.24	12:35 PM	28	7.9	164	764	31.5	317	3.1
6	STP, Aadarsh Nagari- Outlet	10.09.24	12:40 PM	27	7.5	21	574	4.8	52	0.5
7	STP,Bhelatand Officers Colony- Inlet	10.09.24	12:55 PM	27	8.2	148	779	35.4	310	3.8
8	STP,Bhelatand Officers Colony- Outlet	10.09.24	01:00 PM	· 26	7.9	35	628	6.2	80	1.2

2

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

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

This is for your information and necessary action please.

Conchato.

Lab. Assistant (Environment)

Area Manager (Environment)



NOTE: BDL - Below Detection Limit

B. 12. (QU) 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.

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

Plot No. - I-B-17 (P) ADITI R&D SERV CES Sindri, Industrial Area, P.O.- Domgarh, Dist.- Dhanbad Testing Laboratory Jharkhand - 828107 Email ID: sindriaditi@gmail.com NABL ACCREDITED Website: aditimdservices.com Phone: 0326-2952377 (O), (A Constituent Board of Quality Council of India) Fax: 0326-2952377 ISO/IEC 17025:2017, ISO 9001:2015,ISO (OHSAS) 45001:2018 Certified Mobile: 09471358492, 09431512608 Ref. No.: - ARDS/24-25/ AAQ/3 Date: 14.05.2024 TEST REPORT OF AMBIENT AIR QUALITY Name of the industry : TATA STEEL JHARIA DIVISION TATA STEEL COLLIERY (SIJUA GROUP) DIST. - DHANBAD (JHARKHAND) Work Order Ref. NO .: : 4700092573/932 Dt. 20.07.2021 Date of Sample Collection : 07.05.2024 to 08.05.2024 Date of Testing : 09.05.2024 to 13.05.2024 **Test Procedure** : As per IS-5182 TEST RESULTS LOCATION -SIJUA GROUP OFFICE Avg. Ambient Temperature 39°C Avg. Humidity 26% SI No. Particulars Value CPCB STANDARD 1. Particulate Matter (PM10), µg/m3 91.33 100 µg/m³ 2. Particulate Matter (PM2.5), µg/m3 53.26 60 µg/m³ SO₂, µg/m³ 3. 22.82 80 µg/m³ 4. NO2 µg/m3 34.66 80 µg/m³ 5. Ozone, µg/m3 22.80 180 µg/m³ 6. NH₃, µg/m³ 16.46 400 µg/m3 7. CO, mg/m³ 1.88 4 mg/m³ Pb, µg/m³ 8. BDL 1 µg/m3 9. As, ng/m³ BDL 6 ng/m3 10. Ni, ng/m3 BDL 20 ng/m3 11. Benzene, µg/m3 BDL 5 µg/m³ 12. Benzoapyrene ng/m³ BDL 1 ng/m¹

Remarks: The ambient air quality is within the prescribed National Ambient Air quality Standard.

NOTE: BDL - Below Detection Limit

B. 22. QU 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.
- 3. This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.

Annexure- II

경제 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전 전	BIENT AIR QUA	Date: 14.05.2024	
the industry : TATA STEE			
	EL JHARIA DIVI EL COLLIERY (S ANBAD (JHARP	SIJUA GROUP)	
	andan ya gadana maanin	Sector Contraction	
ample Collection : 07.05.2024 esting : 09.05.2024	to 08.05.2024 to 13.05.2024		
TEST RES	ULTS		
LOCATION -	W.T.P. MALKER	A	
Avg. Ambient Temperature	39°C	Avg. Humidity	26%
ticulars	Value	CPCB STAND	ARD
iculate Matter (PM10), µg/m3	76.20	100 µg/m ³	
iculate Matter (PM _{2.5}), µg/m ³	44.19	60 µg/m ³	
µg/m³	16.36	80 µg/m ³	
µg/m³	29.54	80 µg/m ³	
ne, μg/m³	18.66	180 µg/m ³	
, μg/m³	17.57	400 µg/m ^{3*}	
mg/m ³	1.48	4 mg/m ³	
µg/m³	BDL	1 µg/m³	
ng/m ³	BDL	6 ng/m ³	
ig/m ³	BDL	20 ng/m ³	
zene, µg/m³	BDL	5 µg/m ³	
zoapyrene ng/m ³	BDL	1 ng/m ³	
	ample Collection : 07.05.2024 esting : 09.05.2024 cedure : As per IS-518 <u>TEST RES</u> LOCATION – Avg. Ambient Temperature ticulars ticulate Matter (PM ₁₀), µg/m ³ ticulate Matter (PM _{2.5}), µg/m ³ µg/m ³ µg/m ³ ne, µg/m ³ ng/m ³ ng/m ³ azene, µg/m ³ azene, µg/m ³ azene, µg/m ³	ample Collection : 07.05.2024 to 08.05.2024 esting : 09.05.2024 to 13.05.2024 cedure : As per IS-5182 TEST RESULTS LOCATION – W.T.P. MALKER Avg. Ambient Temperature 39°C ticulars Value ticulars Value ticulate Matter (PM10), µg/m³ 76.20 ticulate Matter (PM2.5), µg/m³ 44.19 µg/m³ 16.36 µg/m³ 18.66 µg/m³ 17.57 mg/m³ BDL ng/m³ BDL ng/m³ BDL azene, µg/m³ BDL azene, µg/m³ BDL azene, µg/m³ BDL	ample Collection : 07.05.2024 to 08.05.2024 esting : 09.05.2024 to 13.05.2024 cedure : As per IS-5182 TEST RESULTS LOCATION – W.T.P. MALKERA Avg. Ambient Temperature 39°C Avg. Humidity ticulars Value CPCB STANDA ticulate Matter (PM10), µg/m³ 76.20 100 µg/m³ p. µg/m³ 16.36 80 µg/m³ e. µg/m³ 16.36 80 µg/m³ p. µg/m³ 17.57 400 µg/m³ mg/m³ 1.48 4 mg/m³ µg/m³ BDL 6 ng/m³ ng/m³ 8DL 6 ng/m³ ng/m³ 8DL 5 µg/m³

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.

S) e	(A ISO/IEC 1702	Constitu	NAE lent Bo	ng Lab BLACCRE bard of Que 11:2015,ISC	EDITED ality Coun	cil of lr		Jharkha Email ID Website Phone: Fax: 032	omgarh, Dist D nd - 828107): sindriaditi@gr : aditimdservice 0326-2952377 (26-2952377 09471358492, (
	TEST	REPC	RT O	F NOISE	(AMBIE	NT) L	EVEL M	ONITORING	I
	Ref. M	lo. & Dat	e		N	AME A	ND ADDRES	SS OF THE CLI	ENT
AR	DS/24-25/NOIS	E/1 Da	te: 09.0	5.2024	1	ATAS	STEEL JH	ARIA DIVISI	ON
	Date of	Monitor	ing		TATA	STEE	L COLLIE	RY (SIJUA C	GROUP)
					D	ST I	DHANBAD) (JHARKHA	ND)
	07/05/2024	to 08/0	5/2024		Avg. Ambient Temperat ure (°C)		verage nidity (%)	Weather Condition	Status of the plant
	Work Order Dt. 20	4700092).07.2021		2	39		26	Clear	Running
_		-		MONITO	DRING R	ESULT	S		
SI. No	Place of Monitoring (6 AM to 10 PM) Avg. dB(A)		10 PM)	Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules , 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leg		
-	LOCATION	MAX	MIN	AVG. dB(A	MAX	MIN	AVERAGE	Day Time	Night Time Industrial
5	SIJUA GROUP		100000011	Leq			dB(A) Leq	Industrial Area	Area
1.	Sijua Group Office	66.4	54.2	63.64	57.6	42.4	54.72	75	70
2,	Sijua Colliery 15 Pit	68.8	62.8	66.76	55.4	40.6	52.53		
	La Plicen							Residential Area	Residential Area
3.	Russi Vihar Colony	57.4	46.2	54.71	46.8	33.2	43.98	65	55
4.	WTP Malkera	56.8	48.6	54.40	44.6	37.4	42.35	5	
	narks: Nois S 2 C Sr. Chemi Aditi R&D Ser	st	is well	within the	ADITI ACTION	SERV	- 13	or Industrial A Fechnical Ma R&D Service	Thager

Annexure- II



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 contraction of the second		Laboraton ACCREDITED of Quality Con	uncil of India)	S Sind P.O Jha Em Wei Pho	No I-B-17 (P) dri, Industrial Area, - Domgarh, Dist Dhanbad rkhand - 826107 ail ID: sindriaditi@gmail.com biste: aditimdservices.com ine: 0326-2952377 (O). - 0326-2952377 bile: 09471358492, 0943151;
Ref.	No.: - ARDS/24-25/SW/1				4.05.2024
	TEST REF	PORT OF S	URFACE V	NATER	
	Work Order Ref. NO.:	 TATA STEI TATA STEI DIST DHA 4700092573 1. Katri Riv 2. Katri Riv 	EL COLLIER NBAD (JHAR 3/932 Dt. 20. ver (Up Strea	Y (SIJUA GRO KHAND) 07.2021 m)	UP)
		n: 08.05.202 : 09.05.202	4 4 To 13.05.2		04
	Date of Testing	n: 08.05.202 : 09.05.202	4 4 To 13.05.2 urbidity, DO	2024	04
SI. No.	Date of Testing	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River (Up	4 4 To 13.05.2 urbidity, DO <u>SULT</u> LUE Katri River (Down	2024	S Test
and the second sec	Date of Testing Test	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River	4 4 To 13.05.2 urbidity, DO <u>SULT</u> LUE Katri River	2024 , BOD, CI, F, S Limit as per l	S Test
No.	Date of Testing Test PARAMETERS OF TEST	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River (Up Stream)	4 4 To 13.05.2 urbidity, DO <u>SULT</u> LUE Katri River (Down Stream)	Limit as per l	S Test Method
No. 1.	Date of Testing Test PARAMETERS OF TEST pH,	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River (Up Stream) 7.7	4 4 To 13.05.2 urbidity, DO SULT LUE Katri River (Down Stream) 7.8	2024 , BOD, CI, F, S Limit as per 1 2296 Class - 0 6.5 - 8.5	S Test Method IS-3025 (P-11): 1983
No. 1. 2.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l	n: 08.05.202 09.05.202 pH, TDS, T <u>TEST RE</u> VAI Katri River (Up Stream) 7.7 835	4 4 To 13.05.2 urbidity, DO SULT LUE Katri River (Down Stream) 7.8 870	2024 , BOD, CI, F, S Limit as per 1 2296 Class - 0 6.5 - 8.5 1500(Max.)	S Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984
No. 1. 2. 3. 4. 5.	Date of Testing Test PARAMETERS OF TEST PH, Total Dissolved Solids, mg/l Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River (Up Stream) 7.7 835 3.6	4 4 To 13.05.2 urbidity, DO <u>SULT</u> LUE Katri River (Down Stream) 7.8 870 12.8	2024 , BOD, CI, F, S Limit as per l 2296 Class - (6.5 - 8.5 1500(Max.)	S Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984
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	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> : VAI Katri River (Up Stream) 7.7 835 3.6 4.4	4 4 To 13.05.2 urbidity, DO SULT LUE Katri River (Down Stream) 7.8 870 12.8 4.0	2024 , BOD, CI, F, S Limit as per 1 2296 Class - 0 6.5 - 8.5 1500(Max.) - 4 (Min.)	S 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. 5.	Date of Testing Test PARAMETERS OF TEST PH, Total Dissolved Solids, mg/l Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	n: 08.05.202 : 09.05.202 : pH, TDS, T <u>TEST RE</u> VAI Katri River (Up Stream) 7.7 835 3.6 4.4 1.6	4 4 To 13.05.2 urbidity, DO SULT LUE Katri River (Down Stream) 7.8 870 12.8 4.0 2.0	2024 , BOD, CI, F, S Limit as per 1 2296 Class - (6.5 - 8.5 1500(Max.) - 4 (Min.) 3	S 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. Chemis Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

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.

S S S		tituent Board	Labor ACCRED	atory ITED y Council	of India)		Jharkhand - 8 Email ID: sind Website: aditi Phone: 0326- Fax: 0326-29	tal Arèa, h, Dist Dhanbad 28107 Iriaditi@gmail.com mdservices.com 2952377 (O),
Ref.	No.: - ARDS/24-25	/MWD/1					Date: 14.	05.2024
	TES	T REPOR	T OF M	NE WA	TER DIS	CHARG	Ē	
1	 Name of the inc 	lustry	TA	TA STEE	EL COLLI	A DIVISIO ERY (SIJU IHARKHAI	A GROUP)
	 Work Order Ref Sample Code Date of Sample Date of Testin Test 	e Collectio	: 1. 2. 3. 4 5. n: 07 : 08	2 Pit Sij 8 Pit Sij 15 Pit S B.C.P.P Bhelata .05.2024 .05.2024	ua Collie ijua Collie ijua Colli . Final Se nd A Col To 08.05 To 13.0	ry ery etting Pone liery .2024		E.
			TEST	RESULT				
SI. No.	PARAMETERS OF TEST	2 Pit Sijua Colliery	8 Pit Sijua Colliery	VALUE 15 Pit Sijua Colliery	B.C.P.P . Final Setting Pond	Bhelatnd A Colliery	Limit as per IS-2296 Class B (For Bathing)	Test Method
1.	pH,	7.9	8.0	7.8	7.9	7.7	6.5-8.5	IS-3025 (P-11):
2.	Total Dissolved Solids, mg/l	720	570	885	898	710 -		1983 IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	32	33	45	39	37	-	IS-3025 (P-17): 1984
4.	Bio chemical Oxygen Demand, mg/l	1.8	2.7	2.1	2.4	1.8	3	IS-3025 (P- 44):1994
5.	Chemical Oxygen Demand, mg/l	67	96	74	67	52	-	IS-3025 (P- 58):2006
6.	Oil & Grease, mg/l	B.D.L	0.8	1.6	B.D.L	B.D.L	•8	IS-3025 (P- 39):2021
A	Sr. Chemist diti R&D Service	s	(Support	DOMGARH OHANDAD	avices	Techr Aditi R&D	ical Mana Services,	•

and the second s	(A Cons	Testing L NABL AC	D SERVI Laboratory CCREDITED If Quality Council of 15,ISO (OHSAS) 4500	India)	Plot 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 Mobile: 09471358492, 0943151260
					1. No.
Ref.	. No.: - ARDS/24-25	/STP/1			Date:14.05.2024
		TEST F	REPORT OF SE	WAGE	
•	Name of the inc		TATA STEEL JHA TATA STEEL COL DIST DHANBAI	LIERY (SIJUA GR	OUP)
5 m	Work Order Ref Sample Code	:	4700092573/932 D 1. STP Outlet - Aac		24
SI.	Test PARAMETERS OF		TEST RESULT	OD, COD, OIL & G As per MoEF&CO	
No.	TEST	STP Outlet - Aadarsh Nagari	STP Outlet - Bhelatand Officers Colony	Notification dated Oct. 2017 for Sewa Treatment Plant	13 th Method
1.	pH,	8.0	8.3	6.5 - 9.0	*IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	730	650	*	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	39	40	100	IS-3025 (P-17): 1984
4.	Bio chemical Oxygen Demand, mg/l	6.6	8.4	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	60	104	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	1.2	2.0	2 C	IS-3025 (P-39):2021
7.	Fecal Coliform (FC) (MPN/100ml)	696	636	<1000 MPN/100n	nl IS - 1622
	1 12 13	2			1 .

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.

S S S S S S S S S S S S S S S S S S S		Laborat ACCREDIT	tory ED Council of	India)	Sin P.O Jha Em Pho Fro	t No I-B-17 (P) dri, Industrial Area, - Domgarh, Dist Dhan rkhand - 828107 ail ID: sindriaditi@gmail. bsite: aditimdservices.ca one: 0326-2952377 (O), :: 0326-2952377
	SO/IEC 17025.2017, 130 5001.2	013,130 (01	10/10/ 400		Mo	bile: 09471358492, 0943
Ref.	No.: - ARDS/24-25/DW/1				Date: 1	4.05.2024
	TEST REI	PORT OF	DRINK	NG WAT	ER	
•	Name of the industry Work Order Ref. NO.: Sample Code	DIST : 4700092 : 1. Canto	TEEL COI DHANBA 2573/932	LLIERY (S D (JHARK Dt. 20.07 tand Collie	IJUA GRO HAND) 7.2021	UP)
		3. WTP	Bhelatano	đ	es.	
•	Date of Sample Collectio Date of Testing	n: 07.05.2	024 10 0	3.05.2024	9J	
					nH Total Ha	rdness, Iron.
	Test	: Olour, O Chloride Calcium, Phenolic Lead, Zir	dour, Taste , Res. Free Copper, M Compoun nc, Total Co	, Turbidity, chlorine, To anganese, S d, Mercury, bliform, Tota	tal Dissolve Sulphate, Nit	trate, Fluoride, rsenic, Cyanide,
		: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral (dour, Taste , Res. Free Copper, M Compoun nc, Total Co	e, Turbidity, chlorine, To anganese, S d, Mercury, oliform, Tota ty, Aluminin	otal Dissolve Sulphate, Nil Cadmium, A I Chromium um & Boron	ed Solids, trate, Fluoride, trsenic, Cyanide,
• SI.		: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral (dour, Taste , Res. Free Copper, M Compoun nc, Total Co Dil, Alkalini <u>RESULT</u>	I S as per IS	otal Dissolve Sulphate, Nit Cadmium, A Il Chromium um & Boron 10500:1991	d Solids, trate, Fluoride, trsenic, Cyanide, tr tr Test
SI. No.	Test	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral (<u>TEST</u>	dour, Taste , Res. Free Copper, M Compoun nc, Total Co Dil, Alkalini <u>RESULT</u>	Is as per IS Desirable	otal Dissolve Sulphate, Nil Cadmium, A I Chromium um & Boron 10500:1991 Permissib le	Test
2.573	Test	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand	dour, Taste , Res. Free Copper, M Compoun nc, Total Co Dil, Alkalini <u>RESULT</u> UE Canteen Sijua	I S as per IS	tal Dissolve Sulphate, Nit Cadmium, A Il Chromium um & Boron 10500:1991 Permissib	d Solids, trate, Fluoride, trsenic, Cyanide, tr tr Test
No.	Test PARAMETERS OF TEST	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery	dour, Taste , Res. Free Copper, M Compoun nc, Total Co Dil, Alkalini <u>RESULT</u> UE Canteen Sijua Colliery	Is as per IS Desirable	otal Dissolve Sulphate, Nil Cadmium, A I Chromium um & Boron 10500:1991 Permissib le	Test Method Method Method Method Method
No. 1.	Test PARAMETERS OF TEST Colour, (Hazen Unit)	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1	dour, Taste , Res. Free Copper, M Compoun nc, Total Co Dil, Alkalini <u>RESULT</u> UE Canteen Sijua Colliery 1 Agreeabl	, Turbidity, chlorine, To anganese, S d, Mercury, bliform, Tota ty, Aluminin IS as per IS Desirable 5.00	otal Dissolve Sulphate, Nit Cadmium, A Il Chromium um & Boron 10500:1991 Permissib le 15.0	Test Method IS 3025 (P-4):201
No. 1. 2.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable	dour, Taste , Res. Free Copper, M Compoun , Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e Agreeabl	, Turbidity, chlorine, To anganese, S d, Mercury, oliform, Tota ty, Aluminia IS as per IS Desirable 5.00 Agreeable	otal Dissolve Sulphate, Nit Cadmium, A I Chromium um & Boron 10500:1991 Permissib le 15.0 Agreeable	Test
No. 1. 2. 3.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste,	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral (<u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable Agreeable	dour, Taste , Res. Free Copper, M Compoun- nc, Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e Agreeabl e	, Turbidity, chlorine, To anganese, S d, Mercury, oliform, Tota ty, Aluminin IS as per IS Desirable 5.00 Agreeable Agreeable	Agreeable	d Solids, trate, Fluoride, trate, Fluoride, trsenic, Cyanide,
No. 1. 2. 3. 4.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste, Turbidity, NTU pH Total Hardness as CaCO ₃ ,	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable Agreeable 3.0	dour, Taste , Res. Free Copper, M Compoun , Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e Agreeabl e 2.0	, Turbidity, chlorine, To anganese, S d, Mercury, oliform, Tota ty, Aluminin IS as per IS Desirable 5.00 Agreeable Agreeable 1.0	Agreeable 5.0 No. Relax. 600	d Solids, trate, Fluoride, trate, Fluoride, trasenic, Cyanide, Method IS 3025 (P-4):202 IS 3025 (P-4):201 IS 3025 (P-7):201 IS 3025 (P-7):201 IS 3025 (P-11):198 IS 3025 (P-21):200
No. 1. 2. 3. 4. 5.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste, Turbidity, NTU pH	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral (<u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable Agreeable 3.0 8.2	dour, Taste , Res. Free Copper, M Compoun- nc, Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e Agreeabl e 2.0 8.0	, Turbidity, chlorine, To anganese, S d, Mercury, bliform, Tota ty, Aluminin IS as per IS Desirable 5.00 Agreeable Agreeable 1.0 6.5-8.5	otal Dissolve Sulphate, Nit Cadmium, A I Chromium um & Boron 10500:1991 Permissib le 15.0 Agreeable 5.0 No. Relax.	d Solids, trate, Fluoride, trate, Fluoride, trasenic, Cyanide, Method IS 3025 (P-4):202 IS 3025 (P-4):201 IS 3025 (P-7):201 IS 3025 (P-7):201 IS 3025 (P-11):198 IS 3025 (P-21):200
No. 1. 2. 3. 4. 5. 6.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste, Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable Agreeable 3.0 8.2 216	dour, Taste , Res. Free Copper, M Compoun- nc, Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e Agreeabl e 2.0 8.0 192	, Turbidity, chlorine, To anganese, S d, Mercury, bliform, Tota ty, Aluminin IS as per IS Desirable 5.00 Agreeable 1.0 6.5-8.5 200	Agreeable 5.0 No. Relax. 600	Test Method IS 3025 (P-4):202 IS 3025 (P-4):201 IS 3025 (P-7):201 IS 3025 (P-10):198 IS-3025 (P-10):198 IS-3025 (P-11): 199 IS 3025 (P-21):200 IS 3025 (P-21):200
No. 1. 2. 3. 4. 5. 6. 7.	Test PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste, Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable 3.0 8.2 216 65.9	dour, Taste , Res. Free Copper, M Compoun ic, Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e 2.0 8.0 192 67.9	Agreeable 1.0 6.5-8.5 250	tal Dissolve Sulphate, Nit Cadmium, A I Chromium um & Boron 10500:1991 Permissib le 15.0 Agreeable 5.0 No. Relax. 600 1000	Test Method IS 3025 (P-4):201 IS 3025 (P-7):201
No. 1. 2. 3. 4. 5. 6. 7. 8.	Test 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	: Olour, O Chloride Calcium, Phenolic Lead, Zir Mineral O <u>TEST</u> VAL Canteen Bhelatand Colliery 1 Agreeable Agreeable 3.0 8.2 216 65.9 NIL	dour, Taste , Res. Free Copper, M Compoun , Total Co Dil, Alkalini RESULT UE Canteen Sijua Colliery 1 Agreeabl e 2.0 8.0 192 67.9 NIL	Agreeable 1.0 6.5-8.5 200 0.20	tal Dissolve Sulphate, Nit Cadmium, A I Chromium um & Boron 10500:1991 Permissib le 15.0 Agreeable 5.0 No. Relax. 600 1000 1.03	Test Method IS 3025 (P-4):202 IS 3025 (P-4):201 IS 3025 (P-7):201 IS 3025 (P-10):198- IS 3025 (P-11): 198- IS 3025 (P-21):200 IS 3025 (P-21):200 IS 3025 (P-26):200

Continued on Page 2

Annexure- II

Statements :

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

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

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.	PARAMETERS OF	VAL	UE	IS as per IS	10500:1991	Test Method
No.	TEST	Canteen Bhelatand Colliery	Canteen Sijua Colliery	Desirable	Permissib le	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2006
13.	Sulphate as SO4, mg/l	61.1	28.6	200	400	IS 3025 (P-24):1986
14.	Nitrate as NO ₃ , mg/l	8.1	2.7	45	No. Relax	IS 3025 (P-34):1988
15.	Fluoride as F, mg/l	0.34	0.30	1.0	1.5	IS 3025 (P-60):2008
16.	Phenolic Compound as (C6H5OH) mg/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	0.001	No. Relax	IS 3025 (P-48):1994
18.	Cadmium as Cd, mg/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	0.01	No. Relax	IS 3025 (P-37):1988
20.	Cyanide as CN, mg/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	0.01	No. Relax	IS 3025 (P-47):1994
22.	Zinc as Zn, mg/l,	0.20	0.28	5	15	IS 3025 (P-42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	IS 3025 (P-49):1994
24.	Total Chromium as Cr, mg/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	0.5	No. Relax	IS 3025 (P-39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	307.2	321.6	200	600	IS 3025 (P-23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):2003
28.	Boran as B, mg/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.

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

- 2 -

			(i enou		i to septe				Annexur
RAD SERLA		Te Constituer 2017, ISC	R&D esting La NABL ACC to Board of 0 9001:2015	aborat REDIT	ED Council of I	ndia)	Sii P.I Jh Er W	arkhand - i nail ID: sin ebsite: adit hone: 0326 ax: 0326-25	trial Àrea, rh, Dist Dhanbad 828107 driaditi@gmail.com timdservices.com -2952377 (O),
			TEST REP	ORT OF	GROUN	D WATER			
	Name of th	ne industr	т	ATA ST	FEEL COL	RIA DIVISIO LIERY (SIJ) (JHARKH	UA GR	OUP)	
	Work Ord	er Ref. N		470009	2573/932	Dt. 20.07.2	2021		
	 Sample Co Date of Si Date of To Test 	ample Co	:	3. Sijua 4. Bans 5. Pasit 07.05.2 08.05.2 Colour, C Chloride, Copper, Compour Total Col	th Kapuria and Basti 024 To 0 024 To 1 0dour, Taste, Res. Free ch Manganese, ad. Mercury,	8.05.2024 3.05.2024 Turbidity, pH, Ilorine, Total Di Sulphate, Nitra Cadmium, Arse Chromium, Min	ssolved S te, Fluori mic, Cyar	Solids, Cal de, Phenol vide, Lead,	cium, ic
				TEST	RESULT				
SL.	PARAMETERS			VALU	E			per IS 0:1991	Test Method
No.	OF TEST	Ruddi Basti	Rampur Basti	Sijua 6 No	Bansh Kapuria	Pasitand Basti	Desir- able	Perm- issible	
1.	Colour, (Hazen Unit)	1	1	2	1	2	5	15	IS 3025 (P- 4):2021
2.	Temperature [®] C	28	28	28	28	29	-	1	
3.	Electrical Conductivity, umhos/cm	740	600	1070	820	1220	*1		-
4.	Total Dissolved	480	389	699	530	790	500	2000	IS 3025(P- 6):1984
5.	Solids, mg/l pH	7.8	8.0	7.3	8.2	7.6	6.5- 8.5	No Relax	IS-3025(P- 11):1983

11):1983 IS 3025(P-300 600 580 180 320 232 572 Total Hardness as 6. 1):2009 CaCO₃, mg/l IS 3025(P-75 200 155.2 38.4 24.96 142.4 60.8 7. Calcium as Ca, 0):1991 mg/l 100 IS 3025(P-30 20.2 46.08 51.8 30.7 40.32 Magnesium as 8. 6):1994 Mg, mg/l IS 3025(P-1000 199.76 250 95.03 69.8 73.7 71.76 Chloride as Cl, 9. 2):1988 mg/l IS 3025(P-1.5 0.40 1.0 0.54 0.40 0.50 Fluoride as F, 0.45 10 0):2008 mg/l Continued on Page-2



Statements :

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

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

Annexure- II

e bio

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: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512508

SI. No	PARAMETERS			VALUE				per IS 0:1991	Test Method
2	TEST	Ruddi Basti	Rampur Basti	Sijua 6 No	Bansh Kapuria	Pasita nd Basti	Desir- able	Permi ssible	15 2025/D
11	Sulphate asSO ₄ , mg/l	66.0	51.7	46.5	80.5	75.5	200	400	IS 3025(P- 24):1986
12	Nitrate as NO ₃ , mg/l	8.5	7.9	8.5	3.3	7.7	45	No. Relax	IS 3025(P- 34):1988
13	Alkalinity as CaCO ₃ , mg/l,	316.8	259.2	489.6	412.8	384	200	600	IS 3025(P- 23):1983
14	Lead as Pb, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.01	No. Relax	IS 3025(P- 47):1994
15	Zinc as Zn, mg/l,	0.16	0.22	0.20	0.24	0.18	5	15	IS 3025(P- 42):1992
16	Iron a Fe, mg/l	0.2	0.17	0.15	0.2	0.17	1.0	No. Relax	IS 3025(P- 53):2003
17	Copper as Cu,	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.05	1.5	IS3025 (P- 42):1992
18	Mercury as Hg, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.001	No. Relax	IS 3025(P- 48):1994
19	Cadmium as Cd, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.003	No. Relax	IS 3025(P- 41):1992
20	Nickel as Ni, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.02	No. • Relax	IS 3025(P- 37):1992
21	Arsenic as As, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.01	No. Relax	IS 3025(P- 37):1988
22	Cyanide as CN, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.05	No. Relax	IS 3025(P- 27):1986
23	Total Chromium as Cr, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	B.D.L.	0.05	No. Relax	IS 3025(P- 52):2003

- 2 -

NOTE: BDL - Below Detection Limit

Sr Chemist Aditi R&D Services



nager Techn 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 SER	7.	g Laborato ACCREDITE	ory D ouncil of India	a)	Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist D Jharkhand - 828107 Email ID: sindriadili@gi Website: aditimdservice Phone: 0326-2952377 Fax: 0326-2952377 Mobile: 09471358492,	mail.com es.com (O),
1	Ref. No.: - ARDS/24-25/STP/1			Date:	14.05.2024	
	TES	T REPORT C	F STP OUTL	ET	1	
	 Name of the industry Work Order Ref. NO. 	TATA STE DIST DH	EL JHARIA D EL COLLIERY IANBAD (JHA 73/932 Dt. 20	((SIJUA GROU RKHAND)	IP)	
	Sample Code	: 1. STP O	utlet - Sijua Ca utlet - Bhelata	anteen		
	 Date of Sample Collection Date of Testing Test 	: 08.05.202 : pH, TDS,	4 To 13.05.20 TSS, B.O.D., 0		irease	
	 Date of Testing Test 	: 08.05.202 : pH, TDS, Fecal Colif <u>TEST R</u>	4 To 13.05.20 TSS, B.O.D., 0 form <u>ESULT</u>	124 CO.D. & Oil & G		
SI. No.	Date of Testing	: 08.05.202 : pH, TDS, Fecal Colif <u>TEST R</u>	4 To 13.05.20 TSS, B.O.D., 0 form	24	Test Method	
	 Date of Testing Test 	: 08.05.202 : pH, TDS, ' Fecal Colif <u>TEST R</u> VA STP Outlet Sijua	4 To 13.05.20 TSS, B.O.D., 0 form ESULT ALUE STP Outlet Bhelatand	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment	Test	
No.	Date of Testing Test PARAMETERS OF TEST	: 08.05.2024 : pH, TDS, ' Fecal Colification <u>TEST R</u> VA STP Outlet Sijua Canteen	4 To 13.05.20 TSS, B.O.D., C form ESULT ALUE STP Outlet Bhelatand Canteen	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment Plant	Test Method • IS-3025 (P-11):	
No.	Date of Testing Test PARAMETERS OF TEST pH,	: 08.05.2024 : pH, TDS, ' Fecal Colification <u>TEST R</u> VA STP Outlet Sijua Canteen 8.0	4 To 13.05.20 TSS, B.O.D., C form ESULT ALUE STP Outlet Bhelatand Canteen 8.3	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment Plant 6.5-9.0	Test Method ' IS-3025 (P-11): 1983 IS-3025 (P-16):	
No. 1. 2.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l	: 08.05.2024 : pH, TDS, ' Fecal Colif <u>TEST R</u> VA STP Outlet Sijua Canteen 8.0 838 40	4 To 13.05.20 TSS, B.O.D., C form ESULT ALUE STP Outlet Bhelatand Canteen 8.3 760	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment Plant 6.5-9.0	Test Method ' IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025(P-17) :	
No. 1. 2. 3.	Date of Testing Test PARAMETERS OF TEST PH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l	: 08.05.2024 : pH, TDS, ' Fecal Colif <u>TEST R</u> VA STP Outlet Sijua Canteen 8.0 838 40 g/l 2.4	4 To 13.05.20 TSS, B.O.D., C form ESULT ALUE STP Outlet Bhelatand Canteen 8.3 760 32	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment Plant 6.5-9.0	Test Method ' IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025(P-17) : 1984 IS-3025 (P-	
No. 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	: 08.05.2024 : pH, TDS, ' Fecal Colif <u>TEST R</u> VA STP Outlet Sijua Canteen 8.0 838 40 g/l 2.4	4 To 13.05.20 TSS, B.O.D., C form ESULT ALUE STP Outlet Bhelatand Canteen 8.3 760 32 3.6	As per MoEF&C Notification dated 13 th October 2017 for Sewage Treatment Plant 6.5-9.0	Test Method ' IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-17) : 1984 IS-3025 (P- 44):1994 IS-3025 (P-	

Aditi R&D Services



Aditi R&D Services, Sindri

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.

Annexure- II

A R D	ISO/IE	ADITI R&D SE Testing Labora NABL ACCREDIT (A Constituent Board of Quality C 17025:2017, ISO 9001:2015,ISO (C	TED Council of In	dia) P	Iot No I-B-17 (P) indri, Industrial Area, O Domgerh, Dist Dhanbad harkhand - 828107 imail ID: sindriaditi@gmail.com Vebsite: aditimdservices.com thone: 0326-2952377 (O), ax: 0326-2952377 Iobile: 09471358492, 09431512
	Ref. No.: -	ARDS/24-25/AAQ/1			Date: 14.05.2024
		TEST REPORT OF A	MBIENT AI	R QUALITY	
	• Nai	TATA ST	EEL JHARIA EEL COLLIEI DHANBAD (JH	RY (SIJUA GROUI	2)
	• Dat	te of Sample Collection : 07.05.20	573/932 Dt. 24 to 08.05.20 24 to 13.05.20	024	
			2012233	024	
	• 165		S-5182 RESULTS	9	
		TEST LOCATION - RU	RESULTS SSI VIHAR C		26 8/
		TEST LOCATION – RU Avg. Ambient Temperature	RESULTS SSI VIHAR C 39 °C	Avg. Humidity	
	SI No.	TEST LOCATION – RU Avg. Ambient Temperature Particulars	RESULTS SSI VIHAR C 39 °C Value	Avg. Humidity CPCB ST/	ANDARD
	SI No. 1.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15	Avg. Humidity CPCB ST/ 100 µ	g/m ³
	SI No. 1. 2.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38	Avg. Humidity CPCB ST/ 100 µ 60 µg	g/m ³
	SI No. 1. 2. 3.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg	and and a second
	SI No. 1. 2.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46	Avg. Humidity CPCB ST/ 100 µ 60 µg	2/m ³ g/m ³ g/m ³ g/m ³
	SI No. 1. 2. 3. 4.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg 80 µg	g/m ³ g/m ³ g/m ³ g/m ³ g/m ³
	SI No. 1. 2. 3. 4. 5. 6.	<u>TEST</u> LOCATION – RU 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	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54 22.15	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg 80 µg 180 µ	ANDARD 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.	TEST LOCATION – RU 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	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54 22.15 15.83	Avg. Humidity CPCB ST/ 100 μ 60 μ 80 μ 80 μ 180 μ 400 μ	2/m ³ 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. 7.	<u>TEST</u> LOCATION – RU 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	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54 22.15 15.83 0.28	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 4 mg	ANDARD g/m ³ 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. 7. 8.	TEST LOCATION - RU 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 Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54 22.15 15.83 0.28 BDL	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 4 mg 1 µg	g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ m ³
	SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	TEST LOCATION – RU Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m³ Particulate Matter (PM2.5), µg/m³ SO2, µg/m³ NO2, µg/m³ Ozone, µg/m³ NH3, µg/m³ CO, mg/m³ Pb, µg/m³ As, ng/m³	RESULTS SSI VIHAR C 39 °C Value 66.15 38.38 17.46 29.54 22.15 15.83 0.28 BDL BDL	Avg. Humidity CPCB ST/ 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 4 mg 1 µg 6 ng	2000 2007 200 200

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

Annexure- II



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

ARD

Date: 20.08.2024

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry
 TATA STEEL JHARIA DIVISION TATA STEEL COLLIERY (SIJUA GROUP) DIST. - DHANBAD (JHARKHAND)
 Work Order Ref. NO.:
 4700126557/932 Date:- 29/05/2024
 Date of Sample Collection
 13/08/2024 to 14/08/2024
 Date of Testing
 16/08/2024 to 19/08/2024
- Test Procedure
- : As per IS-5182

TEST RESULTS

	LOCATION - RU	SSI VIHAR C	OLONY			
	Avg. Ambient Temperature	31 °C	Avg. Humidity	78 %		
SI No.	Particulars	Value	CPCB STAND	ARD		
1.	Particulate Matter (PM10), µg/m3	62.48	100 µg/m ³			
2.	Particulate Matter (PM2.5), µg/m3	40.80	60 µg/m ³			
3.	SO ₂ ,µg/m ³	15.57	80 µg/m³			
4.	NO ₂ , µg/m ³	27.42	80 µg/m ³	5		
5.	Ozone, µg/m³	18.66	180 µg/m ³			
6.	NH ₃ , µg/m ³	13.84	400 µg/m ³			
7.	CO, mg/m ³	0.42	4 mg/m ³ ,			
8.	Pb, µg/m ³	BDL	1 µg/m³			
9.	As, ng/m ³	BDL	6 ng/m ³			
10.	Ni, ng/m ³	BDL	20 ng/m ³			
11.	Benzene, µg/m ³	BDL	5 µg/m³			
12.	Benzoapyrene ng/m ³	BDL	1 ng/m ³			

Remarks: The ambient air quality is within the prescribed National Ambient Air quality Standard.

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.



Remarks: The ambient air quality is within the prescribed National Ambient Air quality Standard.

NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services

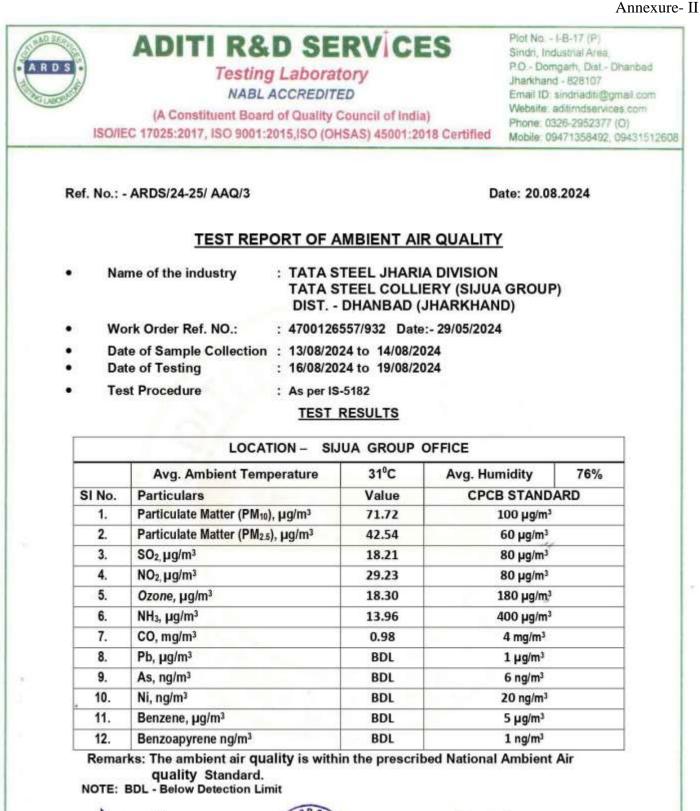


¢

Annexure- II

Technical Manager Aditi R&D Services, Sindri

- 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.



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.

Π

ISO/IE	ADITI R&D SER Testing Laboratory NABL ACCREDITED (A Constituent Board of Quality Court C 17025:2017, ISO 9001:2015,ISO (OHSAS)	/ ncil of India)	Plot No I-B-17 (P Sindri, Industrial Ar P.O Domgarh, Dis Jharkhand - 62810 Email ID: sindriadit Website: aditirndse Phone: 0326-29523 Mobile: 094713584	ea, st Dhanba 7 i@gmail.co rvices.com 377 (O)
	ARDS/24-25/ AAQ/4		Date: 20.08.2024	ac, 03451
	TEST REPORT OF AMB	BIENT AIR QU	ALITY	
• Da • Da	DIST DH	ANBAD (JHAR /932 Date:- 29/0 o 13/08/2024 o 19/08/2024 2		
	LOCATION -	W.T.P. MALKE	RA	
	Avg. Ambient Temperature	31ºC	Avg. Humidity	76%
SI No.	Particulars	Value	CPCB STAND	ARD
1.	Particulate Matter (PM ₁₀), µg/m ³	67.42	100 µg/m ³	
2.	Particulate Matter (PM2.5), µg/m3	39.86	60 µg/m ³	
3.	SO ₂ , µg/m ³	17.51	80 µg/m ³	
4.	NO ₂ , µg/m ³	26.35	80 µg/m ³	
5.	Ozone, µg/m³	16.24	180 µg/m³	
5.	NH3, µg/m3	14.52	400 µg/m ³	2
6.		0.04		
6. 7.	CO, mg/m ³	0.94	4 mg/m ³	
6. 7. 8.	CO, mg/m ³ Pb, μg/m ³	BDL	1 µg/m³	
6. 7. 8. 9.	CO, mg/m ³ Pb, μg/m ³ As, ng/m ³	BDL BDL	1 µg/m ³ 6 ng/m ³	
6. 7. 8. 9.	CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³	BDL	1 µg/m³	
6. 7. 8. 9. 10. 11.	CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³ Benzene, µg/m ³	BDL BDL BDL BDL	1 μg/m ³ 6 ng/m ³ 20 ng/m ³ 5 μg/m ³	
6. 7. 8. 9. , 10. 11. 12.	CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³ Benzene, µg/m ³ Benzoapyrene ng/m ³	BDL BDL BDL BDL BDL	1 μg/m ³ 6 ng/m ³ 20 ng/m ³ 5 μg/m ³ 1 ng/m ³	uality
6. 7. 8. 9. 10. 11. 12. Remarks	CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³ Benzene, µg/m ³ Benzoapyrene ng/m ³ : The ambient air quality is within the Standard. L - Below Detection Limit	BDL BDL BDL BDL BDL	1 μg/m ³ 6 ng/m ³ 20 ng/m ³ 5 μg/m ³ 1 ng/m ³	uality

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.



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

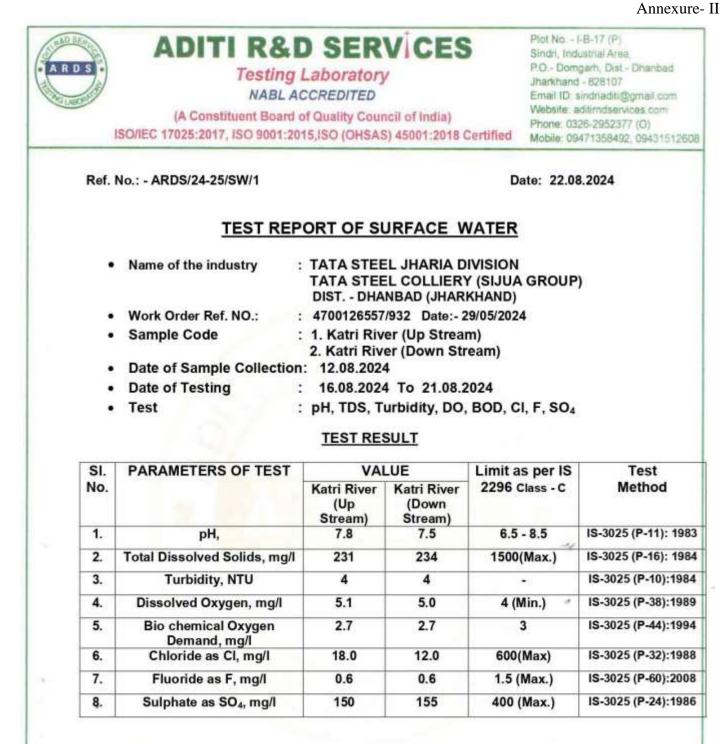
Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O. - Domgarh, Dist - Dhanbad Jharkhand - 828107 Email ID: sindnaditi@gmail.com Website: aditindservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608

TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

HARIA DIVISIO IERY (SIJUA G AD (JHARKHA) Weather Condition	ROUP) ND) Status of	
AD (JHARKHA) Weather	ND) Status of	
Weather	Status of	
	Status of the plant Running	
Clear		
standard) f Area as per Pollution (Re Control) (A Rules , 2000 S.O. 1 Dt. 22.	I (Ambient or Industrial CPCB Noise egulation and mendment) notified vide 046(E) 11.2020 IB(A) Leq	
Day Time	Night Time Industria	
	Area	
75	70	
Residential Area	Residenti Area	
65	55	
	Noise leve standard) f Area as per Pollution (Re Control) (A Rules , 2000 S.O. 1 Dt. 22. Limit in o Day Time E Industrial Area 75 Residential Area 65	

- 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.

D S			ng Laborator	y Incil of India	n)	Sind P.O. Jhar Ema Web Pho	No I-B-17 (P ir), Industrial An - Domgarh, Dis Khand - 82810 iii ID: sindriaditi site: aditirndise ne: 0326-29523 ite: 094713584	sa, t Dhanbad 7 @gmail.com rvices.com
R	tef. No.: - AR	DS/24-25/MINER./	1			Date: 1	9.08.2024	
		TEST REPOR	T OF MINERA	e travelar a Method	WO REAL YO	OSITIO	N	
•	Name o	of the industry	: TATA STE TATA STE DIST DH	EL JHARI. EL COLLI	A DIVISI ERY (SI.	IUA GR	OUP)	
:	Date of	Order Ref. NO.: f Sample Collectio f Testing	: 4700126557	7/932 Date	:- 29/05/2	100102-000		
•	Test P	rocedure	: As per IS <u>TEST RE</u>	SULTS				
	SI No.	Particulars		Miner	alogical (Composi	tion (%)	1
				SiO ₂	FeO	Al ₂ O ₃	CaO	
	1.	Sijua Colliery 1	5 Pit	1.70	0.06	0.28	2.1	-
	2.	Russi Vihar Co	lony	1.64	0.50	0.62	2.9	
	Sr. Ch Aditi R&D		P.D. DOMGA OHANB	Statutes			AIG al Manager ervices, Si	



Sr. Chemist Aditi R&D Services



¢

Technical Manager Aditi R&D Services, Sindri

- 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.

AR	131	ADIT	Testing	the second second	tory	CES	P	iot No I-B-17 indri, Industrial O Domgarh, E harkhand - 8281	Area Xet Dhanbad 107
AL DA	1018	IA Const	ituent Board	0.000	CORN.	(India)		mail ID: sindriad Vebsite: aditimd	
		ISO/IEC 17025:2017					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	hone: 0326-295 Iobile: 0947135	2377 (O) 8492, 09431512608
	Ref.	No.: - ARDS/24-25	/MWD/1					Date: 22.0	08.2024
		TES	T REPOR	T OF MI	NE WA	TER DIS	CHARG	E	
		 Name of the ind 	ustry	TA	TA STEE	EL COLLI	A DIVISIO ERY (SIJI JHARKHA	JA GROUP)
		Work Order Ref	NO.	: 47	00126557/	/932 Date	e:- 29/05/20	24	
		Sample Code			1991 - C. 17 17 1997 - 2017	ua Collie ua Collie	-		
				3. 4 5.	15 Pit S B.C.P.P Bhelata	ijua Colli . Final Se nd A Col	ery etting Pon liery	d	
		Date of Sampl				To 14.0			
		 Date of Testin Test 				To 21.0 SS, BOD,		& GREAS	E.
				TEST	RESULT	C .			
	SI.	PARAMETERS			VALUE			Limit as	Test
	No.	OF TEST	2 Pit Sijua Colliery	8 Pit Sijua Colliery	15 Pit Sijua Colliery	B.C.P.P . Final Setting Pond	Bhelatnd A Colliery	per IS-2296 Class B (For Bathing)	Method
	1.	pH,	7.8	7.6	7.6	7.9	7.5	6.5-8.5	IS-3025 (P-11) 1983
	2.	Total Dissolved Solids, mg/l	552	1155	957	605	740	-	IS-3025 (P-16) 1984
	3.	Total Suspended Solids, mg/l	20	15.0	20.0	25.0	13.0		IS-3025 (P-17) 1984
	4.	Bio chemical Oxygen Demand, mg/l	1.5	2.6	2.4	2.8	1.8	3	IS-3025 (P- 44):1994
	5.	Chemical Oxygen Demand, mg/l	36.5	48.6	12.2	18.2	54.7	-	IS-3025 (P- 58):2006
	6.	Oil & Grease,	0.5	0.3	0.3	0.2	0.4	-	IS-3025 (P-

mg/l

Sr. Chemist Aditi R&D Services



¢

39):2021

Technical Manager Aditi R&D Services, Sindri

- 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.

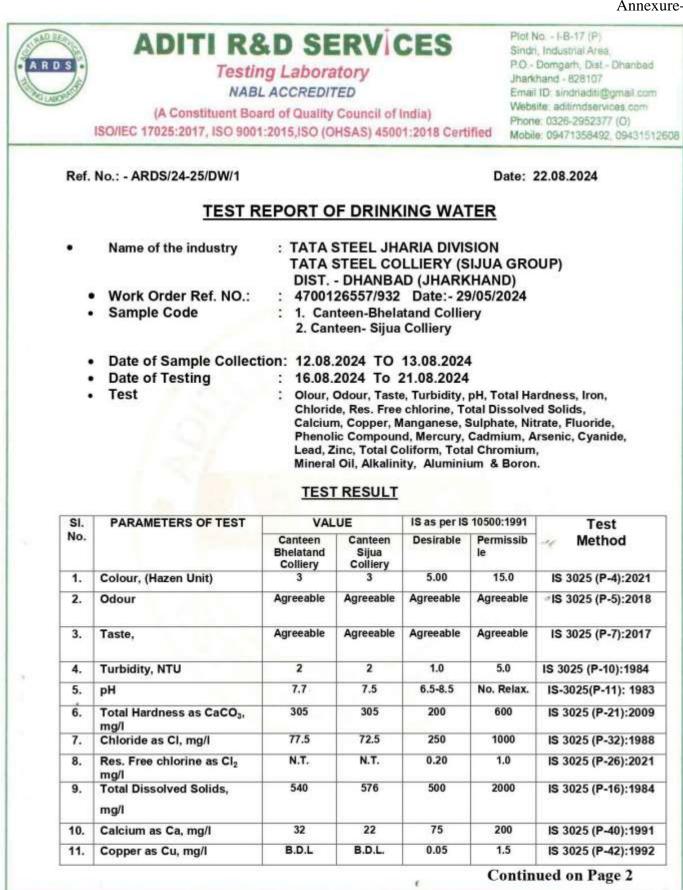
DS		R&D		P.O E Jharkh	a I-B-17 (P) Industrial Area, Jomgarh, Dist Dhanbad and - 628107 ID: sindriaditi@gmail.com
	(A Constitu ISO/IEC 17025:2017, IS		uality Council of I SO (OHSAS) 45001	ndia) Phone	e: aditindservices.com 0326-2952377 (O) 09471358492, 0943151.
Ref	. No.: - ARDS/24-25/S	TP/1		c	Date:22.08.2024
		TEST R	EPORT OF SE	WAGE	
٠	Name of the indus	т,		ARIA DIVISION LLIERY (SIJUA GROU D (JHARKHAND)	JP)
	 Work Order Ref. N Sample Code Date of Sample 0 Date of Testing 	: 1. 2. Collection: 1		darsh Nagari elatand Officers Colon	y
	• Test			OD, COD, OIL & GRE	ASE.
SI.	PARAMETERS OF		H, TDS, TSS, B TEST RESULT ALUE	As per MoEF&CC	Test
SI. No.	18		TEST RESULT		Test
1.	PARAMETERS OF	V STP Outlet - Aadarsh	ALUE STP Outlet - Bhelatand	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage	Test Method
No.	PARAMETERS OF TEST pH, Total Dissolved	V STP Outlet - Aadarsh Nagari	ALUE STP Outlet - Bhelatand Officers Colony	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant	Test Method
No.	PARAMETERS OF TEST pH,	V STP Outlet - Aadarsh Nagari 7.6	ALUE STP Outlet - Bhelatand Officers Colony 7.7	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant	Test Method IS-3025 (P-11): 1983 IS-3025
No.	PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand,	V STP Outlet - Aadarsh Nagari 7.6 564	ALUE STP Outlet - Bhelatand Officers Colony 7.7 654	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant 6.5 - 9.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025
No. 1. 2. 3.	PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand, mg/l Chemical Oxygen	V STP Outlet - Aadarsh Nagari 7.6 564 20.0	ALUE STP Outlet - Bhelatand Officers Colony 7.7 654 18.0	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant 6.5 - 9.0 - 100	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-17): 1984 IS-3025
No. 1. 2. 3. 4.	PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand, mg/l	V STP Outlet - Aadarsh Nagari 7.6 564 20.0 3.6	TEST RESULT ALUE STP Outlet - Bhelatand Officers Colony 7.7 654 18.0 11.0	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant 6.5 - 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 IS-3025 (P-58):2006 IS-3025
No. 1. 2. 3. 4. 5.	PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand, mg/l Chemical Oxygen Demand, mg/l	V STP Outlet - Aadarsh Nagari 7.6 564 20.0 3.6 24.3	TEST RESULT ALUE STP Outlet - Bhelatand Officers Colony 7.7 654 18.0 11.0 91.2	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant 6.5 - 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 IS-3025 (P-58):2006

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. 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.

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) Mobile: 09471358492, 09431512608

SI.	PARAMETERS OF	VAL	UE	IS as per IS	10500:1991	Test	
No.	TEST	Canteen Bhelatand Colliery	Canteen Sijua Colliery	Desirable	Permissib le	Method	
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	0.10	0.30	IS 3025 (P-59):2000	
13.	Sulphate as SO4, mg/l	60.0	70.0	200	400	IS 3025 (P-24):1980	
14.	Nitrate as NO ₃ , mg/l	4.9	4.7	45	No. Relax	IS 3025 (P-34):1988	
15.	Fluoride as F, mg/l	0.3	0.3	1.0	1.5	IS 3025 (P-60):2008	
16.	Phenolic Compound as (C6H5OH) mg/l	B.D.L	B.D.L	0.001	0.002	IS 3025 (P-43):199	
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P-48):199	
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P-41):199	
19.	Arsenic as As, mg/l	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-37):198	
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P-27):198	
21.	Lead as Pb, mg/l	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P-47):199	
22.	Zinc as Zn, mg/l,	3.2	3.4	5	15	IS 3025 (P-42):199	
23.	Total Coliform, No./100ml	50/100 ml	50/100 ml	Absent	Absent	IS 3025 (P-49):199	
24.	Total Chromium as Cr, mg/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	0.5	No. Relax	IS 3025 (P-39):198	
26.	Alkalinity as CaCO ₃ , mg/l,	371	365.5	200	600	IS 3025 (P-23):198	
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	0.03	0.2	IS 3025 (P-55):200	
28.	Boran as B, mg/l	B.D.L	B.D.L	0.5	1.0	IS 3025 (P-57):200	

- 2 -

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.

			(i chica rip)		september 21)			Annexure			
A R D S	(A)	Tes N Constituent	sting Labo ABL ACCRE Board of Qua	Accredited and of Quality Council of India) 1:2015,ISO (OHSAS) 45001:2018 Certified Plot No I-B-17 (P) Sindri, Industrial Arr P.O Domgarh, Dia Jharkhand - 828107 Email ID: sindriaditi Website: aditindiser Phone: 0326-29523 Mobile: 094713584							
Re	. No.: - ARDS/	24-25/GW/1				Date	: 23.08.20)24			
		TE	EST REPOR	RT OF G	ROUND WATER						
	 Name of the second secon	ne industry	TAT	A STEE	EL JHARIA DIVISI EL COLLIERY (SIJ ANBAD (JHARKH	UA GF	ROUP)				
	Work Ord	er Ref. NO		: 4700126557/932 Date:- 29/05/2024							
	Sample Co	ode	2. 3.	Rampur Sijua 12	Trignite Basti Basti Road side No nd Basti (Near 500	Quarter	s)				
					To 14.08.2024						
	 Date of Te 	esting	: 16.	08.2024	To 22.08.2024						
	• Test		Chi Cop Cor Tot	oride, Res oper, Man npound, N	r, Taste, Turbidity, pH, Free chlorine, Total D ganese, Sulphate, Nitra lercury, Cadmium, Arse n, Total Chromium, Min Boron.	issolved te, Fluori enic, Cya	Solids, Cal ide, Phenol nide, Lead,	icium, lic			
			Т	EST RE	SULT						
SI. P No.	ARAMETERS			VALUE			per IS 0:1991	Test Method			
average	TEST	Malkera Trignite Basti	Rampur Basti Road side	Sijua 12 No	Bhelatand Basti (Near 500 Quarters)	Desir- able	Perm- issible				
1. Co Un	lour, (Hazen it)	3	4	3	2	5	15	IS 3025 (P- 4):2021			

SI. No.	PARAMETERS OF		,	ALUE			per IS 0:1991	Test Method
	TEST	Malkera Trignite Basti	Rampur Basti Road side	Sijua 12 No	Bhelatand Basti (Near 500 Quarters)	Desir- able	Perm- issible	
1.	Colour, (Hazen Unit)	3	4	3	2	5	15	IS 3025 (P- 4):2021
2.	Temperature ^o C	27	27	27	27		S#92	-
3.	Electrical Conductivity, µmhos/cm	1840	330	1110	1840	•	•	-
4.	Total Dissolved Solids, mg/l	1020	185	630	1020	500	2000	IS 3025(P- 6):1984
5.	рН	7.0	7.1	7.3	7.0	6.5- 8.5	No Relax	IS-3025(P- 11):1983
6.	Total Hardness as CaCO ₃ , mg/l	545	181	400	582	300	600	IS 3025(P- 1):2009
7.	Calcium as Ca, mg/l	168	40	92	160	75	200	IS 3025(P- 0):1991
8.	Magnesium as Mg, mg/l	31.2	20.2	42.5	45.5	30	100	IS 3025(P- 6):1994
9.	Chloride as Cl, mg/l	225	17.49	327.9	225.0	250	1000	IS 3025(P- 2):1988
10	Fluoride as F, mg/l	0.6	0.3	0.6	0.40	1.0	1.5	IS 3025(P- 0):2008
	122			10		Contin	ued on F	age-2

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.

ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

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

SI. No	PARAMETERS OF	Ý.		VALUE		IS as per IS 10500:1991		Test Method
•	TEST	Malkera Trignite Basti	Rampur Basti Road side	Sijua 12 No	Bhelatand Basti (Near 500 Quarters)	Desir- able	Permi ssible	
11	Sulphate asSO ₄ , mg/l	130	110	95	88	200	400	IS 3025(P- 24):1986
12	Nitrate as NO ₃ , mg/l	5.2	5.4	4.9	5.1	45	No. Relax	IS 3025(P- 34):1988
13	Alkalinity as CaCO ₃ , mg/l,	456.88	195.2	327.9	467.88	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.	0.01	No. Relax	IS 3025(P- 47):1994
15	Zinc as Zn, mg/l,	2.6	2.4	2.8	2.3	5	15	IS 3025(P- 42):1992
16	Iron a Fe, mg/l	0.6	0.8	0.3	0.8	1.0	No. Relax	IS 3025(P- 53):2003
17	Copper as Cu, mg/l	B.D.L.	B.D.L.	B.D.L.	B.D.L.	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.	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.	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.	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.	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.	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.	0.05	No. Relax	IS 3025(P- 52):2003

NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

ARD

- 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.

¢

- 2 -

Π

Ref. No.: - ARDS/24-25/STP/1 Date: 22.08.2024 TEST REPORT OF STP OUTLET • Name of the industry : TATA STEEL JHARIA DIVISION TATA STEEL COLLIERY (SHUA CROUP)	
Name of the industry : TATA STEEL JHARIA DIVISION	
TATA STEEL COLLIERY (SIJUA GROUP) DIST DHANBAD (JHARKHAND)	
 Work Order Ref. NO. : 4700126557/932 Date:- 29/05/2024 	
Sample Code : 1. STP Outlet - Sijua Canteen 2. STP Outlet - Bhelatand Canteen	
 Date of Sample Collection : 12.08.2024 To 13.08.2024 Date of Testing : 16.08.2024 To 21.08.2024 	
Test PH, TDS, TSS, B.O.D., CO.D. & Oil & Grease Fecal Coliform <u>TEST RESULT</u>	
SI. PARAMETERS OF TEST VALUE As per Tes	2.2.
No. STP Outlet STP Outlet MoEF&C Meth Sijua Bhelatand dated 13 th October 2017	lod
for Sewage Treatment Plant	
Treatment Treatment Plant Plant 1. pH, 7.8 8.0 6.5-9.0 IS-3025 (
Treatment	33 (P-16):
I. pH, 7.8 8.0 6.5-9.0 IS-3025 (198 2. Total Dissolved Solids, mg/l 557 506 - IS-3025 (198	33 (P-16): 34 (P-17) :
Image: Non-State in the image in t	33 (P-16): 34 (P-17): 34 5 (P-
Image: Physical system PH, Physical system Treatment Plant Plan	33 (P-16): 34 (P-17): 34 5 (P- 994 5 (P-
Image: Physical system PH,	33 (P-16): 34 (P-17): 34 5 (P- 994 5 (P- 006 5 (P-

Aditi R&D Services, Sindri

¢

Statements :

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

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.

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.

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

Date: November 1, 2017

TV Narendran CEO & Managing Director

Coverage of Environment Clearance in newspapers

Environment Clearance coverage in Prabhat Khabar- Hindi Dainik, Dhanbad on 5th May'2017



महाप्रबंधक (झरिया), टाटा स्टील जामाडोबा (धनबाद)

Environment Clearance coverage in Hindustan- Hindi Dainik, Dhanbad on 5th May'2017



Communication to government offices regarding grant of EC

🥪 > Environment Clearance granted for expansion of Bhelatand A. Colliery and Bhelatand Washery of M/s Tata Steel, Jharia Division - IBM Lotus Notes File Edit View Create Actions Attachment Tools Window Help	- C	3 X
Open 👢 📵 🛜 Home 🗴 🧕 ANKIT AGRAHARI - Mail 🗴 🏂 > Environment Clearance granted for 🗴		
12·8 3 % % 2 % = A & 3	🛛 🛃 🔹 Search Al Mai	Q)
🝸 New 🔻 ạ Reply • 🚚 Reply to All 🔹 🤤 Forward • 🍅 • 📄 🕈 Display • 🔍 • More •		
Environment Clearance granted for expansion of Bhelatand A. Colliery and Bhelatand Washery of M/s Tata Steel, Jharia Division ANKIT AGRAHARI to ranchigspeb, dhanbadjspeb, dc-dha cc: GMO JHARIA KUNAL SHARAN	11-05-2017 15:23 Show Details	
Dear Sir, This is to inform you that Ministry of Environment, Forest and Climate change (MoEFCC). Delhi has granted Environment Clearance for expansion of Bhelatand A. Colliery (0.38 MTPA to 0.41 M Washery (0.96 MTPA to 1.5 MTPA) of M/s Tata Steel Limited vide its letter no. J-11015/29/2012-IA.II(M) on 28th April, 2017. The copy of the same is attached herewith. EC for expansion of BAC and BCPP net	ITPA) and Bhelatand	
This is for your information purpose only. Thanks and best regards,		
Ankit Agrahari Manager Emironment - Jharia Division Tata Steel Limited Environment Cell Jamadoba 828112 Jharkhand Tel: 0328-6612306 Mob: 07766913530 ankit.agrahari@tatasteel.com <u>http://www.tatasteel.com</u>		
	· 🛁 🖓	Online *
^ ــــــــــــــــــــــــــــــــــــ		15:31 11-05-2017

Annexure-V ----Installation of high resolution revolving cameras at BCPP

