



एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)
एनटीपीसी, बरौनी /NTPC, Barauni

संदर्भसंख्या/Ref No:Ref:/BARAUNI TPS/EMG/2023-24/19

दिनांक/Date:30.11.2023

To,

Integrated Regional Office (East Central Zone),
Ministry of Environment, Forest & Climate Change,
2nd Floor, Headquarter- Jharkhand State Housing Board,
Harmu Chowk, Ranchi, Jharkhand – 834002, Ranchi
Email: ro.ranchi-mef@gov.in

Kind Attention : Dr. T. H. Mahato, Scientist 'C'

Subject : Half Yearly Compliance Report of condition stipulated in Environmental Clearance of 2X250 MW Barauni (Extension) Thermal Power Station at Barauni Block, District Begusarai & Patna, Bihar for the period of April,2023 to September,2023.

MOEF&CC Ref: EC letter no. J-13012/143/2008-IA.II(T) dated 08.05.2014 and 22.04.2020

Dear Sir,

Kindly find enclosed Half Yearly Compliance Report regarding compliance of conditions stipulated in Environmental Clearance accorded by MOE&CC vide letter no. J-13012/143/2008-IA.II(T) dated 08.05.2014 and 22.04.2020 for Barauni TPS Stage-II (2x250 MW) for the period 01.04.2023 to 30.09.2023.

This is for your kind information please.

Thanking You

Yours faithfully

(S.K.Singh)
Additional General Manager (EMG & AU)
For & on behalf of Barauni TPS

Encl : As above

Copy to : (i) Regional Office, Bihar Pollution Control Board, Barauni, Dist. BeguSarai.
(ii) Regional Director, CPCB, Kolkata

बरौनी थर्मल पावर स्टेशन, बीटीपीएस, बरौनी, जिला— बेगूसराय — 851116 (बिहार),
Barauni Thermal Power Station, BTPS, Barauni, Dist. - Begusarai- 851116 (Bihar)
Registered Office: NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi- 110003
Corporate Identification Number- L40101DL1975GO1007966, Website- www.ntpc.co.in



एक महारत्न कम्पनी

**HALF-YEARLY COMPLIANCE REPORT OF BARAUNI THERMAL POWER
PLANT STAGE-II (2x250 MW) of NTPC LIMITED
(April'2023 to September'2023)**

COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS

Vide Letter No. J- 13012/143/2008-IA. II (T) Dated 08th May 2014

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
A. Specific Conditions:		
(i)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	Complied. NTPC vide its letter dated 19.04.2019 has submitted a Project Vision Document to the Regional Office of Ministry of Environment and Forest & Climate Change (MoEF&CC) at Ranchi.
(ii)	Scheme for implementation for harnessing solar power within the premises of the plant particularly at available roof tops shall be formulated and status of implementation shall be submitted periodically to the Regional Office of the Ministry from time to time.	The contract for 900 KW roof top solar system has been awarded. Preparation of drawings and BBU is under progress. Solar road lights at various places in township has been installed.
(iii)	Sulphur and ash contents in the coal to be used in project shall not exceed 0.6% and 40.1% respectively at any given time. In case of variance of coal quality at any point of time fresh reference shall be made to the Ministry for suitable amendments to environmental clearance Condition(S) wherever necessary.	Complied. As per MoEF&CC Notification dated 21.05.2020, stipulations with regard to ash content in coal used by Thermal Power Plants are waived-off.

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
(iv)	A stack of 275 m height shall be provided with continuous online monitoring equipment for SO _x , NO _x , and PM _{2.5} & PM ₁₀ . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack shall also be monitored on periodic basis.	Complied. Equipment for continuous online monitoring of PM _{2.5} & PM ₁₀ in stack emissions is not available in market. Therefore, continuous online monitoring equipment for SO _x , NO _x , and PM has been installed in stack. However, flue gas velocity is more than 22 m/sec and Mercury emissions from stack are being monitored periodically by third party lab approved by BSPCB and MOEF&CC.
(v)	High Efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm ³ .	Complied. High Efficiency Electrostatic Precipitator (ESPs) are under operation.
(vi)	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points transfer areas and other vulnerable dusty areas shall be provided.	Dust suppression has been commissioned in coal handling plant, coal stock yard area, ash handling points and conveyor belts and transfer points for control of fugitive dust emissions. Water sprinkling is being done on roads to minimize dust emissions. Dust extraction system is under commissioning stage.
(vii)	Fly ash shall not be used for agricultural purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted. Prior from an institute of repute and adequate clay lining area shall be ascertained by the State Pollution Control Board and	Complied. No mines are available in Barauni area for ash filling. Therefore, option for mine void filling is not adopted.

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
	implementation done in close coordination with the State Control Board.	
(viii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As. Hg. Cr. Pb etc). will be monitored in the bottom ash as also in the effluents emanating from the existing pond, No ash shall be disposed off in low lying area.	<p>Complied.</p> <p>Two Number of Ash Silos of 1300 MT capacity each are under operation for storing and evacuation of fly ash.</p> <p>Heavy metal monitoring is being done in Bottom ash (pond) periodically. Fly ash is being lifted by Cement Industries, ash brick industries and Pond Ash in NHAI, road projects etc. Ash water from ash pond is completely recycled to power plant for ash slurry preparation. No effluent is being discharge from existing ash ponds.</p>
(ix)	Ash pond shall be lined with HDPE/LDPE or any other suitable impermeable media so that no leachate takes place at any point of time. A strong embankment shall be constructed around the ash dyke and TPP to prevent any flood water entering the site. The stability of these embankment shall be studied by reputed institutes like CWPRS, Pune and the recommendations of the institute shall be accordingly implemented.	<p>The 56 Acres contingency dyke has two lagoons. Impermeable LDPE lining work in Lagoon-I & II has been done and Lagoon-II in operation.</p> <p>Embankment has been constructed by Water Resources Department Govt. of Bihar and erstwhile BSPGCL. Same is being maintained by NTPC.</p> <p>The stability of the ash dyke embankment was studied by IIT Hyderabad and recommendation given by them are being followed.</p> <p>The construction of 290 Acres permanent ash dyke is under suspended state due to land issues. The new dyke will be constructed using state of the art technologies.</p>

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
(x)	Fugitive emission of fly ash (Dry or wet system) shall be controlled such that no agricultural or non agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Complied. Regular water sprinkling is being done along with covering of dry patches of ash pond with waste polypropylene sheet. No agriculture/Non-agriculture land is affected due to ash.
(xi)	A long term study of heavy metal and radioactivity contents on coal shall be carried out through a reputed institute and results thereof analyzed every two years and reported along with monitoring reports. Thereafter mechanism for in built continuous monitoring of radio activity and heavy metals in coal and fly ash(including bottom ash) will be put in place.	Report of Radio activity analysis of Coal and Ash by BARC in FY 2022-23 attached as Annexure-I . Heavy metal testing in coal, ash, and water is being done. Equipment for continuous monitoring of heavy metals in coal and ash is not available in market.
(xii)	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up/operation of the power plant.	Complied. No natural water bodies has been diverted/disturbed for installation of Power Plant.
(xiii)	COC of 5.0 shall be adopted.	Complied.
(xiv)	A well designed rain water harvesting system will be put in place within six months , which shall comprise of rain water collection from built up and open area in the plant premises and detailed record of quantity of water collected and its use. Action plan and road map for its implementation shall be submitted to regional office of Ministry.	Complied. 12 no of rainwater harvesting pits are constructed. A large storm water pit of 8000 Cum capacity has been constructed to collect rainwater from storm water drains for in plant use.
(xv)	Hydrogeology of the area shall be reviewed annually from an institute /organization of repute to assess impact of surface water and ground regime	Complied. Surface and ground water Quality monitoring is being done periodically and reports are enclosed. There is no

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
	(especially around ash dyke) in Case any deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	deterioration is observed in water quality around ash dyke. Groundwater quality monitoring data nearby villages of ash dyke is enclosed at Annexure-II .
(xvi)	Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Report of Surface water and groundwater analysis are attached as Annexure-II .
(xvii)	Wastewater generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB.	An effluent management scheme (ETP, STP and Coal Slurry Settling pit) has been implemented. No wastewater is being discharge from plant and it is being completely recycled/reused within plant itself.
(xviii)	No discharge in the River is permitted except if the quality of the effluent is of the quality or better as that of River.	Complied. The plant is Zero Liquid effluent Discharge (ZLD) Plant, and no effluent is being discharged from project boundary. All effluents are being recycled and reused within plant.
(xix)	Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	Complied.
(xx)	Green Belt consisting of three tiers of plantations of native	<ul style="list-style-type: none"> • Complied. • Cumulative trees (inhouse and

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
	<p>species around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per with survival rate not less than 80%.</p>	<p>External area plantation) planted By Barauni TPS at its project area as well as Baegusarai division is 75100 Nos. till September, 2023.</p>
(xxi)	<p>The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.</p>	<p>Being Complied. Various community development work like construction of Boundary wall of Govt. schools, Toilets, Infrastructure development etc. has been done. Computer lab in Govt. ITI has been set-up. Scholarship to Govt. school students, organizing sports activities, mobile medical camps, distribution of wheelchairs to Divyangjan etc. has been done for welfare of community.</p>
(xxii)	<p>As committed an amount of Rs 21.996 Crores as one time capital investment shall be earmarked for activities to be taken up under CSR during construction phase of the Project. Recurring expenditure for CSR thereafter shall be RS. 3.66 crores per annum or as per CSR guidelines of Govt of India, whichever is more till the life of the plant.</p>	<p>A budgetary provision of 22 Crore is kept in the stage-II DCO for CSR activities. A plan for community development has been approved by District Magistrate, Begusarai. Hence development work under progress as per approved plan & directions of district administration along with other activities.</p>
(xxiii)	<p>For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable credible external agency shall be appointed. CSR activities shall be evaluated by an independent external agency. The evaluation shall be both concurrent and final.</p>	<p>For monitoring and implementation of CSR/CD schemes, A dedicated CSR department is in place and it is functioning under HR dept of Barauni. Corporate R&R, CSR dept. also monitor the CD/CSR activities of NTPC Barauni.</p>

SI No	MoEF&CC STIPULATIONS	STATUS AS ON 30.09.2023
(xxiv)	CSR Schemes identified based on need based assessment shall be implemented in consultation with the village panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual employment in project after imparting relevant training shall be also undertaken. Company shall provide budget for Community development activities and income generating programmers.	CSR/CD Scheme has been finalized as per recommendation of DM Begusarai. The scheme was approved by DM, Begusarai vide letter dated 12.06.2020 and copy of same has been submitted along with half yearly compliance to R.O., MOEF&CC vide our letter dated 30.12.2020. A Need Assessment Survey for CD/CSR activities has been done in 2021 for details analysis of CD/CSR requirement in the area.
(xxv)	An Environmental Cell comprising of at least one expert in environmental science / engineering occupational health and social scientist shall be created preferably at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell directly report to the head of the organization who would be accountable for implementation of environmental regulation and social impact improvement mitigation measures.	Environment Cell is headed by an Additional General Manager level Executive Which directly report to Head of Plant. One Senior Manager level executive is M.Tech in Environmental Sc. & Engg.

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
B. General Conditions		
(i)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	Complied. Treated effluents conforming to the prescribed standards only are being re-circulated and reused within the plant. As per ZLD scheme effluents drains and storm water drains do not get mixed.

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
(ii)	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising green belt/plantation.	Complied. A STP in plant has been installed.
(iii)	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	Hydrant system for covering the entire power station including all the auxiliaries and buildings in the plant area has been commissioned. Key plan for fire protection system was submitted in Half yearly compliance report dated 06.12.2021.
(iv)	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with department of Explosives, Nagpur; Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Complied. A detailed Disaster Management Plan has been prepared and submitted to Chief Inspector of factories Bihar for approval.
(v)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied. Rest rooms, toilets and occupational centre is under operation. First Aid box has been provided at designated locations of plant.
(vi)	Noise levels emanating from turbines shall be limited to 85 dB (A) from source. For people working in the high noise area, requisite personal protective equipment like ear plugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any	Personal protective equipment has been arranged through contractors/safety department during execution of works. The operators working in turbine area, compressor etc. or high noisy area are provided ear plugs/ earmuffs by contractors/safety Department. Periodic examination of operators are being done for operators working in Turbine area, air compressors etc. for operational

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
	hearing loss including shifting to non noisy/less noisy areas.	Unit.
(vii)	Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone and record maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional office of this Ministry. The data shall also be put on the website of the company.	Regular monitoring of AAQ is being done in and around plant area. The CAAQMS have been Implemented in 3 locations. Ambient air quality data (April-Sept.2023) from MOEF&CC and BSPCB approved lab is attached as Annexure-III and same shall be uploaded on NTPC website along with Half yearly Compliance Report.
(viii)	Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructures and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	Complied. NTPC has constructed labour rest rooms with required facilities within the site. Infrastructure facilities such as sanitation, medical facilities, drinking water has been made available to workers. Canteen facilities provided to all persons working in plant.
(ix)	The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are	Complied. The information regarding Environmental Clearance was published by previous project proponent i.e. BSPGCL. NTPC is project proponent of Barauni Thermal Power Station since 15.12.2018.

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
	available with the State Pollution Control Board/Committee and may be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in	
(x)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation, urban local body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied. A copy of the clearance letter has been sent to District Collector, Begusarai dated 14.05.2014 and Mukhiya Malhipur Panchyat, Mukhia Kasha Diyara Panchyat and Adhyaska Nagar Parisad, Mokama vide dated 13.05.2014 by earlier project proponent BSPGCL. The Environmental Clearance (EC) copy is available on NTPC website.
(xi)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM _{2.5} & PM ₁₀), SO ₂ , NO _x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	Complied. The latest Half Yearly Compliance (HYC) status report of the stipulated environmental clearance conditions is being submitted to the Regional Office of MOEF&CC at Ranchi and monitoring data are enclosed with this half yearly compliance and will be available on NTPC website after submission. The Arrangement for Digital display of ambient air quality for PM ₁₀ , PM _{2.5} , SO ₂ and NO _x and Stack emissions (PM, SO ₂ and NO _x) near Plant main gate has been made at main gate.

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
(xii)	The environment statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Complied. The environment statement for financial year (2022-23) ending 31 st March in Form-V has been submitted to the Bihar State Pollution Control Board vide letter dated 30.09.2023. A copy of same is also sent by email to Regional office, Ranchi, MOEF&CC.
(xiii)	The project proponent shall submit six monthly reports on the status of the implementations of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by email to Regional office, Ministry of Environment and Forests.	Complied. Latest Half yearly Compliance status for Period April,2023-September,2023 of the stipulated environmental clearance conditions is being submitted to the Regional Office of MOEF&CC at Ranchi & other authorities and same will be available on NTPC website after submission.
(xiv)	Regional office of the Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and	Complied. A Copy of EIA/EMP has been submitted to the Regional Office of MoEF&CC at Ranchi. Latest Half yearly Compliance status for Period April,2023-September,2023 will be available

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
		on NTPC website after submission.
	Environment Management plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Complied. EMP already submitted to RO, MOEF&CC. Latest Half yearly Compliance status for Period April,2023-September,2023 will be available on NTPC website after submission. Criteria pollutants levels including NOx (from stack & ambient air) have been displayed on digital display board at the main gate of the power plant.
(xv)	Separate funds shall be allocated for implementation of environmental protection measures along with item wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should be reported to the ministry.	Complied. Implemented Measures 1.Installation of ESPs of 99.78 % efficiency to limit the RSPM concentrations below 50 mg/Nm ³ ; 2.275m stack for wider dispersion of gaseous emissions. (Rs.40 Crore) 3.ETP for treatment of waste water. 4.Coal slurry settling pond. 5.Dry ash Extraction system. 6.STP for treatment of sewage. 7. Dust suppression has been commissioned in coal handling area including coal stock yard area, ash handling points for control of fugitive dust emissions. 8. Continuous emission monitoring system(CEMS) and Effluent Quality Monitoring System(EQMS).(Rs.53 Lakhs) 9. Ambient Air quality monitoring system(AAQMS). (Rs.5 Crore)

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
		<p>Implemented</p> <p>1.Asphalting of the roads within the plant area.</p> <p>2.Rainwater harvesting system /pit.</p> <p>3.Zero liquid discharge system. (Rs.60 Lakhs)</p> <p>5. Dust extraction system being commissioned at transfer points of conveyor system.</p> <p>6. Plantation in Begusarai division through DFO with provision of expenditure of Rs. 2.2 Crores from CSR/CD expenses in FY2020-24.</p> <p>7. Plantation in Begusarai Division through DFO with provision of expenditure of Rs. 1.27 Crores in FY 2022-26.</p> <p>8. Total cost Rs. 12.785 Crore for NOx modification of both units. Unit#8 & 9 combustion modification completed.</p> <p>Systems under tendering/implementation</p> <p>1. Technoeconomic feasibility is being explored for alternate technologies for SO₂ reduction. Estimated cost Rs. 350 Crore.</p> <p>3.Contract for Roof Top Solar awarded for Rs. 4.2 Crore. Work is under progress.</p>
(xvi)	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	<p>Complied.</p> <p>Financial Closure achieved in 2015 with PFC.</p> <p>Commercial operation declaration of Unit # 8 Barauni Stage-II was done w.e.f 01.03.2020.</p> <p>Commercial operation declaration of Unit # 9 Barauni Stage-II was done w.e.f 01.11.2021.</p>

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
(xvii)	Full cooperation shall be extended to the Scientists/officers from the Ministry / Regional Office of the Ministry/ CPCB /SPCB who would be monitoring the compliance of environmental status.	Full cooperation is being extended to the Scientists/officers from the Ministry / Regional Office of the Ministry at Ranchi/ the CPCB / the SPCB during monitoring of the project.
6.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions of modify the existing ones, if necessary.	Noted.
7.	The environmental clearance accorded shall be valid for a period of 5 years from the date of issue of this letter to start operations by the power plant.	Noted.
8.	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection)Act, 1986.	Noted.
9.	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	Noted.

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
10.	The above stipulations would be enforced among others under the water (prevention and Control of pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act,1981, the Environment(Protection) Act,1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the public Liability Insurance Act,1991 and its amendments.	Noted.
11.	Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act,2010.	Noted.
C. Other Observation		
(i)	PP should get the Environmental Clearance transferred in their name as per para 11 of EIA notification 2006.	Environmental Clearance has been transferred in the Name of NTPC Limited Vide MOEF&CC letter dated 22.04.2020.
(ii)	PP should ensure Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas of BTPS stage I Plant. PP should also furnish up to date status to the ministry in the matter (Specific condition vi)	Dust suppression system has been commissioned in coal handling area including coal stock yard area, ash handling points for control of fugitive dust emissions. Dust suppression system has been commissioned for conveyor belts and transfer points. Dust extraction system under commissioning.



एक महारत्न कम्पनी

COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS

Vide Letter No. J-13012/143/2008-IA.II(T) dated 22.04.2020

SI No	MoEF STIPULATION	STATUS AS ON 30.09.2023
Additional Condition		
(i)	The necessary pollution control measures shall be implemented to comply with revised emission norms and specific water consumption as per the Ministry's Notifications S.O.3305(E) dated 07.12.2015 and GSR 593(E) dated 28.06.2018. The progress of its implementation (physical and Financial) and extensions received from CPCB/MOEF&CC, if any shall be submitted as part of compliance report.	The following pollution control measures has been implemented to comply new emission norms. i. Installation of ESPs of 99.78 % efficiency to limit the RSPM concentrations below 50 mg/Nm ³ ; ii. Combustion modification for reduce NOx emissions in Unit#8 and Unit#9 completed. iii. Technoeconomic feasibility is being explored for alternate technologies for SO ₂ reduction. iv. AWRS System and recycle of treated effluents to achieve specific water consumption norms.



Certificate Tracking ID / CTID : 2306749
Date of Issue / DOI : 13-Jul-2023
Certificate Serial No. / CSN : RAL(V)-2300055



Radioanalytical Laboratory

RADIOACTIVITY TEST CERTIFICATE

Ref : BRIT/RAL/DOM/65-88/MISC/39-62/23-24

To :
M/S NTPC LIMITED
BARAUNI THERMAL POWER STATION
P.O. BTPP, DIST. BEGUSARAI, PIN-85116

This is regarding the sample of "COAL & ASH" sent for radioactivity analysis vide your letter ref. no. NTPC/BARAUNI/CHEMISTRY/BRITS/2022-23/001 dated 27.04.2023 as shown in italics:

SAMPLE DESCRIPTION : **1) COAL SAMPLES (2 NOS.)**
2) ASH SAMPLES (4 NOS.)
QUANTITY (IN GM) : **300 GMS EACH**
SAMPLING DATE : **27/04/2023**
SAMPLE LOCATION : **NTPC LIMITED , BARAUNI, BEGUSARAI**

DATE OF RECEIPT OF SAMPLE: 10.05.2023

DATE OF COMPLETION OF TEST: 23.06.2023

The samples were analysed for U-238, Ra-226, Th-232 and K-40 radioactivity content by HPGe gamma spectrometry and the values obtained are as follows:

Sr. No	NAME OF THE PRODUCT	U-238 (Bq/Kg)	Ra-226 (Bq/Kg)	Th-232 (Bq/Kg)	K-40 (Bq/Kg)
1	COAL-1 (CAL/BTPS/COAL/ECL/01)	35 ± 1.9	28.9 ± 3.6	67.7 ± 7.0	168.5 ± 10.3
2	COAL-2 (CAL/BTPS/COAL/PBCMP/01)	46.4 ± 2.5	44.7 ± 5.2	62.7 ± 6.7	75 ± 5.9
3	ASH-1 (CAL/BTPS/FLY-ASH/01)	71.7 ± 2.1	52.4 ± 4.9	106.3 ± 10.6	316.4 ± 15.2
4	ASH-2 (CAL/BTPS/BOTTOM-ASH/01)	77 ± 2.9	62.8 ± 5.5	114.9 ± 11.5	315.1 ± 15.4
5	ASH-3 (CAL/BTPS/POND-ASH/01)	90 ± 3.1	88.7 ± 8.4	124.7 ± 12.9	250.9 ± 16.0
6	ASH-4 (CAL/BTPS/POND-ASH/02)	83.6 ± 2.8	78 ± 9.0	123.7 ± 12.6	262.3 ± 15.6

Opinion: The measurement values are below the clearance level for radionuclides of natural origin in bulk solid materials, as per AERB directive 01/2010 (table-3) dated 26/11/2010.

Note: (i) The report pertains to the given sample only. (ii) The sample will be retained in this laboratory for a period of 1 month from certificate date and thereafter it will be disposed off. (iii) This report shall not be reproduced except in full, without written approval of the laboratory. (iv) The sampling is not done by this laboratory.

Checked by:
SHEEBA S.W.
Assistant

Authorized Signatory:
AJAY NANA THAMKE
OIC, RAL

***** End of Report *****

1/1

The authenticity of this certificate is verifiable. Please scan the QR code using a QR scanning application on any mobile devices. Upon redirection you must enter the necessary information in landing page <https://portal.britatom.gov.in>. We will then revert you back with a digital copy of the certificate in your verified e-mail ID. In accordance to IT Act 2000 (21 of 2000), this document is generated electronically through a validated s/w and need no physical/ digital signature(s).





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/440	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Plant Water Sample					
[c] Sample Collected by	Shiva Test House on 18.04.23					
[d] Sampling Location	Collected from C W Blow Down- Stage - 2					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	38	Humidity(%) 31			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-440					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	18.04.23					
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH	----	IS 3025 (Part-11)	6.5	8.5	7.19
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	376.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		565.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	1.0
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	314.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	294.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		39.4
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	24.50
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.01



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:16:17 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.04.27 14:56:34 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email : sthpatna1@shivo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/440(A)	Di: 26.04.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2023			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Plant Water Sample					
[c] Sample Collected by	Shiva Test House on 18.04.23					
[d] Sampling Location	Collected from C W Blow Down- Stage - 2					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°c)	38	Humidity(%) 31			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-440					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	18.04.23					
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.2
2.	BOD (3 days at 27 ⁰ C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		5.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:16:29 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.04.27 14:56:55 +05'30'

Authorized Signatory
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 3A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10562

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/442	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Surface Water Sample					
[c] Sample Collected by	Shiva Test House on 18.04.23					
[d] Sampling Location	Collected From Near Awws Pump House Stage-2					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	38	Humidity(%) 31			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	SW-442					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	18.04.23					
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982		Results
				Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/L)	Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/L)	
1.	pH	-----	IS 3025 (Part-11)	6.5 - 8.5	6.5 - 8.5	7.11
2.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	6.0	4.0	5.8
3.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	2.0	3.0	2.4
4.	COD	mg/l	IS3025(Part-58)	Not Specified		28.0
5.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		36.0
6.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)		1500.00	484.0
7.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified		926.0
8.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	2.1
10.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		48.1
11.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	25.4
12.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	1.82



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:17:07 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.04.27 14:59:17 +05'30'
Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashu, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249, +919431047908 Email: shiptest@shiva.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/442(A)	Di: 26.04.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Surface Water Sample					
[c] Sample Collected by	Shiva Test House on 18.04.23					
[d] Sampling Location	Collected From Near Awrs Pump House Stage-2					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	38	Humidity(%)	31		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	SW-442					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	18.04.23					
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982		Results
				Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/L)	Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/L)	
1.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	Not Specified		136.0
2.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	Not Specified		404.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27
12:17:20 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.04.27
14:59:38 +05'30'
Authorized Signatory
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : sthpatal@vahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/443	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	Shiva Test House on 18.04.23			
[d] Sampling Location	ETP Outlet Stage I			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	38	Humidity (%) 31	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-443			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	18.04.23			
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH	--	IS 3025 (Part-11)	6.5 - 8.5	8.24
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1597.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	23.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	934.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	13.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	44.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.9



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27
12:17:37 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.04.27
15:00:02 +05'30'

Authorized Signatory
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipara Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249, +919431047908 Email: shipatna@yahoo.co.in, info@shivatest.com
Website: www.shivatest.com, www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No: STH/TR/23-24/444	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer:	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	Shiva Test House on 18.04.23			
[d] Sampling Location	ETP Outlet Stage II			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	38	Humidity (%) 31	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-444			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	18.04.23			
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 21.04.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH	--	IS 3025 (Part-11)	6.5 – 8.5	9.05
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1482.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	20.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	865.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	8.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	28.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.7



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:17:53 +05'30'

Verified by :
Technical Manager

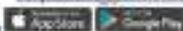
Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.04.27 15:00:29 +05'30'
Authorized Signatory
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10482

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1200	Di: 26.05.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	Shiva Test House on 12.05.23					
[d] Sampling Location	Collected from Near Temple pump house					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-1200					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	13.05.23					
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH	---	IS 3025 (Part-11)	6.5	8.5	7.51
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	242.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		441.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.9
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	242.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	164.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		37.8
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	21.8
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.10

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:57:32 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:09:01 +05'30'

Authorized Signatory
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Asafra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob: +918676886249 ; +919431047908 Email: shivapnta@yahoo.co.in ; info@shivatest.com
 Website: www.shivatest.com ; www.shivatestofbse.com



SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1200(A)	Di: 26.05.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	Shiva Test House on 12.05.23					
[d] Sampling Location	Collected from Near Temple pump house					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-1200					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	13.05.23					
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.4
2.	BOD (3 days at 27 ^o C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		12.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01 13:57:51 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01 14:09:21 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Ashta, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shivapnta1@shivo.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1201	Di: 26.05.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	Shiva Test House on 12.05.23					
[d] Sampling Location	Collected from Hand pump near Chakballi Diaya (East side of Ash pond)					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-1201					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	13.05.23					
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH	---	IS 3025 (Part-11)	6.5	8.5	7.33
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	232.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		418.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.9
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	204.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	176.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		36.5
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	20.60
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.07

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01 13:58:04 +05'30'



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01 14:09:34 +05'30'
Authorized Signatory
Quality Manager

Verified by:
Technical Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email : sh@patna1.jty.aboo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1201(A)	Dt: 26.05.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	Shiva Test House on 12.05.23					
[d] Sampling Location	Collected from Hand pump near Chakballi Diya (East side of Ash pond)					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-1201					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	13.05.23					
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.5
2.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		11.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:58:15 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:09:50 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249 ; +919421047908 Email : shivapara@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1202	Di: 26.05.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Surface Water Sample					
[c] Sample Collected by	Shiva Test House on 12.05.23					
[d] Sampling Location	Collected From Near Awws Pump House Stage-2					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	SW-1202					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	13.05.23					
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982		Results
				Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/L)	Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/L)	
1.	pH	—	IS 3025 (Part-11)	6.5 – 8.5	6.5 – 8.5	7.77
2.	Dissolved Oxygen	mg/l	IS3025(Part-38)	6.0	4.0	7.8
3.	BOD (3daysat27 ⁰ C)	mg/l	IS3025(Part-44)	2.0	3.0	1.8
4.	COD	mg/l	IS3025(Part-58)	Not Specified		24.0
5.	Total Suspended Solids	mg/l	IS 3025 (Part-17)	Not Specified		126.0
6.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	-	1500.00	272.0
7.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified		438.0
8.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	4.40
9.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		43.1
10.	Sulphate as SO ₄	mg/l	IS 3025 (Part-24)	200.00	400.00	28.6
11.	Nitrate as NO ₃	mg/l	IS3025(Part-34)	45.00	No relaxation	0.72



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:56:31 +05'30'

Verified by :
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:10:15 +05'30'
Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashu, Road No. 5A, Patlipuris Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : stipatna1@shiva.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1202(A)	Dt: 26.05.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARA-I - 851 116					
(b) Details of Sample	Surface Water Sample					
(c) Sample Collected by	Shiva Test House on 12.05.23					
(d) Sampling Location	Collected From Near Awws Pump House Stage-2					
(e) Method of Sampling	IS: 3025, APHA					
(f) Sampling Environmental Condition	Temp (°C)	35	Humidity(%) 42			
(g) Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
(h) Sample Quantity	2 Liters					
(i) Sample Code	SW-1202					
(j) Sample Condition on Receipt	Fit for analysis					
(k) Items required to be tested	As per contract					
(l) Whether any specific Method of Test has been suggested by the customer	No					
(m) Date of receiving the sample in Laboratory	13.05.23					
(n) Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982 Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/l)	Limit as per IS IS 2296-1982 Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/l)	Results
1.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	Not Specified		180.0
2.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	Not Specified		152.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01 13:58:43 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01 14:10:29 +05'30'

Authorized Signatory
Quality Manager

- END OF TEST REPORT -

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aawbs. Road No. 5A, Patliputra Colony, Patna - 800 015 (Bihar)
Mob.: +918676886249 ; +919431047008 Email: shpatna@shivatest.com, info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



TC-10882

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1203	Dt: 26.05.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	Shiva Test House on 12.05.23			
[d] Sampling Location	ETP Outlet Stage I			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	35	Humidity(%) 42	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-1203			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	13.05.23			
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH	--	IS 3025 (Part-11)	6.5 - 8.5	8.0
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1578.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	26.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	907.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	12.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	52.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	1.1

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:58:55 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:10:42 +05'30'

Verified by:
Technical Manager

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aartha, Road No. 5A, Patliputra Colony, Patna - 800 015 (Bihar)
 Mob.: +918676886249 ; +919431047908 Email: shprasad@yahoo.co.in ; info@shivatest.com
 Website: www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1204	Di: 26.05.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	Shiva Test House on 12.05.23			
[d] Sampling Location	ETP Outlet Stage II			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	35	Humidity (%) 42	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-1204			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	13.05.23			
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 16.05.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH	—	IS 3025 (Part-11)	6.5 – 8.5	8.79
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1502.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	10.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	878.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	10.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	36.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.8

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:59:06 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:10:57 +05'30'
Authorized Signatory
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Anitha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : sthpatra@shiva.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthence.com



SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1936	DU: 28.06.2023	Your PO No. 4000283588-057-1019	Dr: 20.07.2022		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116				
[b] Details of Sample	Monitoring of Ambient Noise Level				
[c] Sample Collected By	SHIVA TEST HOUSE on 12/13.06.23				
[d] Sampling Location	Within Premises				
[e] Sampling Environmental Condition	Temp. (°C)	39	Humidity (%) 35		
[f] Sample Code	N-1936				
[g] Items required to be tested	Day & Night time Noise Level				
[h] Whether any specific Method of Test has been suggested by the customer	No				
[i] Date of receiving the sample in Laboratory	13.06.23				
Sampling Point	Unit	TWA Of Noise Level		Standards	
		Day Time (6.0am to 10.0pm)	Night Time (10.0pm to 6.0am)	Industrial Area	
		Day Time	Night Time	Day Time	Night Time
STAGE - I					
1. CHP	dB(A)	65.1	52.1	75.00	70.00
2. Cooling Tower	dB(A)	66.7	47.8	--do--	--do--
3. Main Gate	dB(A)	64.4	58.0	--do--	--do--
4. Post Office	dB(A)	62.5	50.4	--do--	--do--
5. ETP	dB(A)	58.3	50.0	--do--	--do--
STAGE - II					
6. CW Pump House	dB(A)	62.9	59.4	--do--	--do--
7. Cooling Tower	dB(A)	67.4	48.7	--do--	--do--
8. ETP	dB(A)	62.8	54.6	--do--	--do--
9. Canteen	dB(A)	58.2	51.1	--do--	--do--
10. Main Gate	dB(A)	70.2	57.4	--do--	--do--
N.B. : Standards in respect of Noise as per Noise Pollution (Regulation & Control) Rules' 2000					

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29 11:23:01 +05'30'
Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29 11:36:38 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashu, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249 ; +919431042908 Email: sthp@shivatsthouse.com ; info@shivatest.com
Website : www.shivatst.com ; www.shivatsthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1948</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>30.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116		
[b] Details of Sample	Surface Water Sample		
[c] Sample Collected by	Shiva Test House on 13.06.23		
[d] Sampling Location	Near AWRS Pump House (Stage -2)		
[e] Method of Sampling	IS: 3025, APHA		
[f] Sampling Environmental Condition	Temp (°C)	39	Humidity(%) 35
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)		
[h] Sample Quantity	2 Liters		
[i] Sample Code	SW-1948		
[j] Sample Condition on Receipt	Fit for analysis		
[k] Items required to be tested	As per contract		
[l] Whether any specific Method of Test has been suggested by the customer	No		
[m] Date of receiving the sample in Laboratory	13.06.23		
[n] Analysis Start Date / Analysis Completion Date	14.06.23 / 17.06.23		

S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25° C	-----	IS 3025 (Part-11)	6.5	8.5	6.87
2.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		5.5
3.	BOD (3 days at 27 ⁰ C)	mg/l	IS3025(Part-44)	Not Specified		2.3
4.	COD	mg/l	IS3025(Part-58)	Not Specified		42.0
5.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		32.0
6.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	489.0
7.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified		932.0
8.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	1.46
9.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	246.0
10.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	354.0
11.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		47.1
12.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	26.7
13.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.61

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:24:05 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:38:23 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Padipata Colony, Patna - 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email : shprasad@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatohouse.com



SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1948(A)</i>	Di: <i>28.06.2023</i>	Year PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2023</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116				
[b] Details of Sample	Surface Water Sample				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	Near AWRS Pump House (Stage -2)				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (2)				
[h] Sample Quantity	2 Litres				
[i] Sample Code	SW-1948				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Parameters	Unit	Requirement as per IS 10500:2012		Method of Test	Results
		Acceptable Limit	Permissible Limit in the absence of alternative SOURCE		
1.Iron as Fe	mg/l.	1.0	No relaxation	APHA3500 Fe B	0.35
2.Copper as Cu	mg/l.	0.05	1.50	APHA(3111B)	< 0.05
3.Manganese as Mn	mg/l.	0.1	0.3	APHA3111B	<0.01
4.Mercury as Hg	mg/l.	0.001	No Relaxation	APHA3111B	<0.001
5.Cadmium as Cd	mg/l.	0.003	No Relaxation	APHA3111B	<0.003
6.Selenium as Se	mg/l.	0.01	No Relaxation	APHA3111B	<0.01
7.Total Arsenic as As	mg/l.	0.01	0.05	APHA(3114B)	<0.01
8.Cyanide as CN	mg/l.	0.05	No Relaxation	IS3025(Part-27)	<0.01
9.Lead as Pb	mg/l.	0.01	No Relaxation	APHA3111B	<0.01
10.Zinc as Zn	mg/l.	5.00	15.00	APHA(3111B)	0.42
11.Chromium as Cr	mg/l.	0.05	No Relaxation	APHA(3111B)	<0.05
12.Aluminium as Al	mg/l.	0.03	0.2	APHA3111 D	<0.03
13.Boron as B	mg/l.	0.5	1.0	APHA4500BB	< 0.5

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:24:17 +05'30'

Verified by :

Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:38:43 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +919676886249 ; +919431047908 Email : shivahouse@shiva.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1948(MCB)	Dr: 28.06.2023	Your PO No. 4000283588-057-1019	Dr: 30.07.2023		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	Surface Water Sample				
[c] Sample Collected by	Shiva Test House on 13.06.23				
[d] Sampling Location	Near AWRS Pump House (Stage -2)				
[e] Method of Sampling	IS 1622				
[f] Sampling Environmental Condition	Temp (°c)	39	Humidity (%) 35		
[g] No. & Type of Container	One Sterilized Glass Bottle				
[h] Sample Quantity	250 ml				
[i] Sample Code	SW-1948				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	13.06.23				
[n] Analysis Start Date / Analysis Completion Date	14.06.23 / 16.06.23				
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml



Vishal Sharma

Authorized Signatory
Mr. Vishal Sharma
Section In-Charge (Microbiology)

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob.: +918676886249 ; +919431047908 Email : sthpatal@yahoocoin ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1949</i>	Dt. <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di. <i>20.07.2022</i>
[c] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116		
[p] Details of Sample	Surface Water Sample		
[q] Sample Collected by	Shiva Test House on <i>13.06.23</i>		
[r] Sampling Location	Ganga Water Reservoir Tank		
[e] Method of Sampling	IS: 3025, APHA		
[t] Sampling Environmental Condition	Temp (°C)	30	Humidity(%) 35
[u] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)		
[v] Sample Quantity	2 Liters		
[w] Sample Code	SW-1949		
[x] Sample Condition on Receipt	Fit for analysis		
[y] Items required to be tested	As per contract		
[z] Whether any specific Method of Test has been suggested by the customer	No		
[aa] Date of receiving the sample in Laboratory	13.06.23		
[bb] Analysis Start Date / Analysis Completion Date	14.06.23 / 17.06.23		

S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25° C	-----	IS 3025 (Part-11)	6.5	8.5	7.34
2.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		7.7
3.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		1.5
4.	COD	mg/l	IS3025(Part-58)	Not Specified		15.0
5.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		35.0
6.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	284.0
7.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		547.0
8.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	1.58
9.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	144.0
10.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	158.0
11.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		32.1
12.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	19.2
13.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	0.85

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29 11:24:35 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29 11:39:03 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna - 800 013 (Bihar)
Mob.: +918676885249 ; +919431047908 Email: shivatna@shivatna.com ; info@shivatest.com
Website: www.shivatna.com, www.shivatnagroup.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1949(A)</i>	DL: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	DL: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116				
[b] Details of Sample	<i>Surface Water Sample</i>				
[c] Sample Collected by	<i>Shiva Test House on 13.06.23</i>				
[d] Sampling Location	<i>Ganga Water Reservoir Tank</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (2)				
[h] Sample Quantity	2 Litres				
[i] Sample Code	SW-1949				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	13.06.23				
[n] Analysis Start Date / Analysis Completion Date	14.06.23 / 17.06.23				
Parameters	Unit	Requirement as per IS 10500:2012		Method of Test	Results
		Acceptable Limit	Permissible Limit in the absence of alternative source		
1.Iron as Fe	mg/l	1.0	No relaxation	APHA3500 Fe B	0.42
2.Copper as Cu	mg/l	0.05	1.50	APHA(3111B)	< 0.05
3.Manganese as Mn	mg/l	0.1	0.3	APHA3111B	<0.01
4.Mercury as Hg	mg/l	0.001	No Relaxation	APHA3111B	<0.001
5.Cadmium as Cd	mg/l	0.003	No Relaxation	APHA3111B	<0.003
6.Selenium as Se	mg/l	0.01	No Relaxation	APHA3111B	<0.01
7.Total Arsenic as As	mg/l	0.01	0.05	APHA(3114B)	<0.01
8.Cyanide as CN	mg/l	0.05	No Relaxation	IS3025(Part-27)	<0.01
9.Lead as Pb	mg/l	0.01	No Relaxation	APHA3111B	<0.01
10.Zinc as Zn	mg/l	5.00	15.00	APHA(3111B)	0.42
11.Chromium as Cr	mg/l	0.05	No Relaxation	APHA(3111B)	<0.05
12.Aluminium as Al	mg/l	0.03	0.2	APHA3111 D	<0.03
13.Boron as B	mg/l	0.5	1.0	APHA4500BB	< 0.5

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:25:06 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:39:26 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aartha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob : +918676836249 ; +919431047908 Email : shp@mail@shiva.co.in ; info@shivatest.com
Website : www.shivatst.com ; www.shivatsthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1949(MCB)	Dt: 28.06.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2023		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	Surface Water Sample				
[c] Sample Collected by	Shiva Test House on 13.06.23				
[d] Sampling Location	Ganga Water Reservoir Tank				
[e] Method of Sampling	IS 1622				
[f] Sampling Environmental Condition	Temp (^o c)	39	Humidity (%) 35		
[g] No. & Type of Container	One Sterilized Glass Bottle				
[h] Sample Quantity	250 ml				
[i] Sample Code	SW-1949				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	13.06.23				
[n] Analysis Start Date / Analysis Completion Date	14.06.23 / 16.06.23				
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml



Vishal Sharma

Authorized Signatory
Mr. Vishal Sharma
Section In-Charge (Microbiology)

-- END OF TEST REPORT --

- The report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to Invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob: +918676886249; +919431047908 Email: sthpatsa1@yahoo.co.in; info@shivatest.com
 Website: www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1950</i>	Date: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851116				
[b] Details of Sample	<i>Ground Water Sample near Ash Pond</i>				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	<i>South side of Ash pond (Handpump at Chak Ball VII.)</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%)	35	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (2)				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>BW-1950</i>				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Parameters	Unit	Requirement as per IS10500:2012		Method of Test	Results
		Acceptable Limit	Permissible Limit in the absence of alternative source		
1. Iron as Fe	mg/l.	1.0	No relaxation	APHA3500	0.47
2. Copper as Cu	mg/l.	0.05	1.50	APHA(3111B)	<0.01
3. Cadmium as Cd	mg/l.	0.003	No Relaxation	APHA3111B	<0.01
4. Hexavalent	mg/l.	---	---	IS 3025 (P-52)	<0.01
5. Chromium as Cr	mg/l.	0.05	No Relaxation	APHA(3111B)	<0.01
6. Lead as Pb	mg/l.	0.01	No Relaxation	APHA3111B	<0.01
7. Total Arsenic as As	mg/l.	0.01	0.05	APHA(3114B)	<0.01
8. Mercury as Hg	mg/l.	0.001	No Relaxation	APHA3111B	<0.001

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:25:22 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:39:51 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Azadha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. +918676886249 ; +919431047908 Email: sstiprma@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1951</i>	Date: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Groundwater Sample near Ash Pond</i>			
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>			
[d] Sampling Location	<i>East Side of Ash pond (Handpump at Nohua VIII)</i>			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (2)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	<i>BW-1951</i>			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>			
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>			
Parameters	Requirement as per IS10500:2012		Method of Test	Results
	Acceptable Limit	Permissible Limit in the absence of alternative source		
1. Iron as Fe	1.0	No relaxation	APHA3500 FeB	0.49
2. Copper as Cu	0.05	1.50	APHA(3111B)	<0.01
3. Cadmium as Cd	0.003	No Relaxation	APHA3111B	<0.01
4. Hexavalent	---	---	IS 3025 (P-52)	<0.01
5. Chromium as Cr	0.05	No Relaxation	APHA(3111B)	<0.01
6. Lead as Pb	0.01	No Relaxation	APHA3111B	<0.01
7. Total Arsenic as As	0.01	0.05	APHA(3114B)	<0.01
8. Mercury as Hg	0.001	No Relaxation	APHA3111B	<0.001

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:25:37 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:40:16 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email : shpatna@shivathecology.com ; info@shivatest.com
Website : www.shivathecology.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1952</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #1</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%)	35	
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-1952</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Sl. no	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	pH at 25° C	—	IS 3025 (Part-11)	5.5 – 9.00	7.78
2.	Oil & Grease	mg/l	IS 3025 (Part-39)	10.00 mg/l	1.0
3.	Ammonical Nitrogen as N	mg/l	IS 3025 (Part-34)	50.00 mg/l	7.3
4.	Total Kjeldahl Nitrogen as N	mg/l	IS 3025 (Part-34)	100.00 mg/l	10.1
5.	BOD (3 days at 27°C)	mg/l	IS 3025 (Part-44)	100.00 mg/l	14.0
6.	COD	mg/l	APHA (5220 B)	Not Specified	60.0
7.	Arsenic as As	mg/l	APHA 3114 B	0.20 mg/l	< 0.20
8.	Mercury as Hg	mg/l	APHA 3112 B	0.01 mg/l	< 0.001
9.	Lead as Pb	mg/l	APHA 3111 B	0.10 mg/l	< 0.1
10.	Cadmium as Cd	mg/l	APHA 3111 B	2.00 mg/l	< 0.1
11.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS 3025 (Part-52)	0.10 mg/l	< 0.1
12.	Total Chromium as Cr	mg/l	IS 3025 (Part-52)	2.00 mg/l	< 0.1
13.	Copper as Cu	mg/l	APHA 3111 B	3.00 mg/l	< 3.0
14.	Zinc as Zn	mg/l	APHA 3111 B	5.00 mg/l	0.10
15.	Iron as Fe	mg/l	IS 3025 (Part-53)	3.00 mg/l	0.4
16.	Nickel as Ni	mg/l	APHA 3111 B	3.00 mg/l	< 0.1
17.	Boron as B	mg/l	APHA 4500 B B	Not Specified	0.08
18.	Fluoride as F	mg/l	APHA (4500 F D)	2.00 mg/l	0.6
19.	Dissolved Phosphates as P	mg/l	IS 3025 (Part-31)	5.00 mg/l	0.79
20.	Sulphide as S	mg/l	APHA 4500 S ² F	2.00 mg/l	< 0.1
21.	Sulphate as SO ₄	mg/l	IS3025(Part-24)	Not Specified	42.8

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:25:49 +05'30'



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29 14:08:40:27
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676885249 ; +919431047908 Email : shivan@shivat.com ; info@shivat.com
Where : www.shivat.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1952(A)</i>	Di: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #1</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-1952</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Sl. no.	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	Particle size of Suspended Solids	—	—	Shall pass 850 micron IS Sieve	Passes Test (850 micron)
2.	Temperature	°C	—	Shall not exceed 5°C above the receiving water temp.	23.0
3.	Colour	Hazen	IS 3025 (Part-4)	Colourless	<5.0
4.	Odour	—	IS 3025 (Part-4)	Odourless	Odourless
5.	Suspended Solids	mg/l.	IS 3025 (Part-17)	100.00 mg/l.	28.0
6.	Selenium as Se	mg/l.	APHA 3500 Se	0.05 mg/l.	<0.01
7.	Free Ammonia as NH ₃	mg/l.	APHA 4500 NH ₃ C	5.0 mg/l.	<1.0
8.	Percent Sodium	mg/l.	---	Not Specified	10.8
9.	Residual Sodium Carbonate	me/l.	---	Not Specified	4.08
10.	Cyanide as CN	mg/l.	IS 3025 (Part-37)	0.20 mg/l.	<0.1
11.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	1.00 mg/l.	<0.001
12.	Chloride	mg/l.	IS3025(Part-32)	Not Specified	98.0
13.	Total Residual Chlorine	mg/l.	IS3025(Part-26)	1.00mg/l.	<0.1
14.	Total Dissolved Solids	mg/l.	IS3025(Part-16)	Not Specified	879.0
15.	Bio-Assay Test	—	IS 6582 : 1971	90 % Fish Survived after 96 hrs. in 100% Effluent	98 % Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29 11:28:03 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29 11:47:02 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +91 8676886249 ; +91 9431047908 Email : shiprasad@shiva-test.com ; info@shiva-test.com
Website : www.shivatst.com ; www.shivatsthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

TC-10082

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1953</i>	Di: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #2</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%)	35	
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-1953</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Sl. no	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	pH at 25 ^o C	---	IS 3025 (Part-11)	5.5 – 9.00	8.35
2.	Oil & Grease	mg/l	IS 3025 (Part-39)	10.00 mg/l	0.70
3.	Ammonical Nitrogen as N	mg/l	IS 3025 (Part-34)	50.00 mg/l	9.52
4.	Total Kjeldahl Nitrogen as N	mg/l	IS 3025 (Part-34)	100.00 mg/l	13.4
5.	BOD (3 days at 27°C)	mg/l	IS 3025 (Part-44)	100.00 mg/l	12.0
6.	COD	mg/l	APHA (5220 B)	Not Specified	44.0
7.	Arsenic as As	mg/l	APHA 3114 B	0.20 mg/l	< 0.20
8.	Mercury as Hg	mg/l	APHA 3112 B	0.01 mg/l	<0.001
9.	Lead as Pb	mg/l	APHA 3111 B	0.10 mg/l	<0.1
10.	Cadmium as Cd	mg/l	APHA 3111 B	2.00 mg/l	<0.1
11.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS 3025 (Part-52)	0.10 mg/l	<0.1
12.	Total Chromium as Cr	mg/l	IS 3025 (Part-52)	2.00 mg/l	<0.1
13.	Copper as Cu	mg/l	APHA 3111 B	3.00 mg/l	<3.0
14.	Zinc as Zn	mg/l	APHA 3111 B	5.00 mg/l	0.08
15.	Iron as Fe	mg/l	IS 3025 (Part-53)	3.00 mg/l	0.37
16.	Nickel as Ni	mg/l	APHA 3111 B	3.00 mg/l	< 0.1
17.	Boron as B	mg/l	APHA 4500 B B	Not Specified	0.08
18.	Fluoride as F	mg/l	APHA (4500 F D)	2.00 mg/l	0.39
19.	Dissolved Phosphates as P	mg/l	IS 3025 (Part-31)	5.00 mg/l	0.62
20.	Sulphide as S	mg/l	APHA 4500 S ² F	2.00 mg/l	<0.1
21.	Sulphate as SO ₄	mg/l	IS3025(Part-24)	Not Specified	40.4

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:26:16 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:41:39 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Padipura Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shpatna@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1953(A)</i>	Date: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2023</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	Shiva Test House on <i>13.06.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #2</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-1953</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>13.06.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>14.06.23 / 17.06.23</i>				
Sl. no.	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	Particle size of Suspended Solids	—	—	Shall pass 850 micron IS Sieve	Passes Test (850 micron)
2.	Temperature	°C	—	Shall not exceed 5°C above the receiving water temp.	22.0
3.	Colour	Hazen	IS 3025 (Part-4)	Colourless	<5.0
4.	Odour	—	IS 3025 (Part-4)	Odourless	Odourless
5.	Suspended Solids	mg/l.	IS 3025 (Part-17)	100.00 mg/l.	21.0
6.	Selenium as Se	mg/l.	APHA 3500 Se	0.05 mg/l.	<0.01
7.	Free Ammonia as NH ₃	mg/l.	APHA 4500 NH ₃ C	5.0 mg/l.	<1.0
8.	Percent Sodium	mg/l.	—	Not Specified	10.2
9.	Residual Sodium Carbonate	me/l.	—	Not Specified	4.34
10.	Cyanide as CN	mg/l.	IS 3025 (Part-37)	0.20 mg/l.	<0.1
11.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	1.00 mg/l.	<0.001
12.	Chloride	mg/l.	IS3025(Part-32)	Not Specified	102.0
13.	Total Residual Chlorine	mg/l.	IS3025(Part-26)	1.00mg/l.	<0.1
14.	Total Dissolved Solids	mg/l.	IS3025(Part-16)	Not Specified	853.0
15.	Bio-Assay Test	—	IS 6582 : 1971	90 % Fish Survived after 96 hrs. in 100% Effluent	96 % Fish Survived after 96 hrs. in 100% Conc ⁿ of Treated Effluent

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:26:28 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:42:08 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: shibatna@shivatest.co.in ; info@shivatest.com
Website: www.shivatstest.com ; www.shivatstesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/39</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	<i>Coal Sample</i>		
[c] Sample Collected by	SHIVA TEST HOUSE on <i>13.06.23</i>		
[d] Sampling Location	<i>From Coal Storage Yard</i>		
[e] Sampling Environmental Condition	Temp. (°C)	<i>39</i>	Humidity(%) <i>35</i>
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags		
[g] Sample Quantity	2 kg.		
[h] Items required to be tested	As per contract		
[i] Whether any specific Method of Test has been suggested by the customer	No		
[j] Date of receiving the sample in Laboratory	<i>13.06.23</i>		
[k] Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>		
Parameters	Results (w/w)		
1. Mercury as Hg, %	<i><0.1</i>		
2. Copper as Cu, %	<i>0.23</i>		
3. Zinc as Zn, %	<i>2.9</i>		
4. Chromium as Cr, %	<i>0.17</i>		
5. Magnesium as Mg, %	<i>1.8</i>		
6. Arsenic as As, %	<i>0.04</i>		
7. Selenium as Se, %	<i><0.01</i>		
8. Nickel as Ni, %	<i>0.17</i>		
9. Cadmium as Cd, %	<i><0.1</i>		
10. Lead as Pb, %	<i>0.09</i>		
11. Cobalt as Co, %	<i><0.1</i>		
12. Sulphur Content, %	<i>0.75</i>		

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.06.29
11:26:40 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.06.29
11:42:46 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Ashta, Road No. 35A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 | +919431047908 Email : shiptest@yahoo.co.in | info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/40</i>	Dt: <i>22.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2023</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116		
[b] Details of Sample	<i>Fly Ash Sample</i>		
[c] Sample Collected by	SHIVA TEST HOUSE on <i>13.06.23</i>		
[d] Sampling Location	<i>Collected from Unit 8</i>		
[e] Sampling Environmental Condition	Temp. (°C)	39	Humidity(%) 35
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags		
[g] Sample Quantity	2 kg.		
[h] Items required to be tested	As per contract		
[i] Whether any specific Method of Test has been suggested by the customer	No		
[j] Date of receiving the sample in Laboratory	<i>13.06.23</i>		
[k] Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>		
Parameters	Results (w/w)		
1. Silica as SiO ₂ , %	50.5		
2. Alumina as Al ₂ O ₃ , %	21.6		
3. Iron as Fe ₂ O ₃ , %	4.9		
4. Calcium as CaO, %	1.6		
5. Magnesium as MgO, %	1.2		
6. Titania as TiO ₂ , %	1.0		
7. Potassium as K ₂ O, %	0.92		
8. Sodium as Na ₂ O, %	0.40		
9. Phosphate as P ₂ O ₅ , %	0.33		
10. Sulphate as SO ₃ , %	0.67		
11. Mercury as Hg, %	<0.01		
12. Arsenic as As, %	<0.01		
13. Lead as Pb, %	0.080		

SHIBESHWAR PRASAD
Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.06.29
11:26:54 +05'30'

Verified by :
Dr. Shiveshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by
Shreyasee Prasad
Date: 2023.06.29
11:43:48 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Patlipura Colony, Patna - 800 013 (Bihar)
Mob: +918676886249, +919431047908 Email: shivaprasad@shivatest.com ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/41</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116		
[b] Details of Sample	<i>Bottom Ash Sample</i>		
[c] Sample Collected by	SHIVA TEST HOUSE on <i>13.06.23</i>		
[d] Sampling Location	<i>From Bottom Ash hopper</i>		
[e] Sampling Environmental Condition	Temp. ($^{\circ}$ C)	39	Humidity(%) 35
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags		
[g] Sample Quantity	2 kg.		
[h] Items required to be tested	As per contract		
[i] Whether any specific Method of Test has been suggested by the customer	No		
[j] Date of receiving the sample in Laboratory	<i>13.06.23</i>		
[k] Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>		
Parameters		Results (w/w)	
1. Silica as SiO_2 , %	53.0		
2. Alumina as Al_2O_3 , %	23.0		
3. Iron as Fe_2O_3 , %	5.6		
4. Calcium as CaO, %	1.5		
5. Magnesium as MgO, %	1.6		
6. Titania as TiO_2 , %	1.0		
7. Potassium as K_2O , %	1.0		
8. Sodium as Na_2O , %	0.58		
9. Phosphate as P_2O_5 , %	0.47		
10. Sulphate as SO_3 , %	0.55		
11. Mercury as Hg, %	<0.01		
12. Arsenic as As, %	<0.01		
13. Lead as Pb, %	0.020		

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.06.29
11:27:10 +05'30'



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.06.29
11:44:53 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Padiguna Colony, Patna - 800 013 (Bihar)
Mob. +918676886249 ; +919431047908 Email: shivatna1@shivatna.co.in ; info@shivatest.com
Website: www.shivatna.com ; www.shivatnatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/42</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116		
[b] Details of Sample	<i>Pond Ash Sample</i>		
[c] Sample Collected by	SHIVA TEST HOUSE on <i>13.06.23</i>		
[d] Sampling Location	<i>From Ash Pond</i>		
[e] Sampling Environmental Condition	Temp. (°C)	<i>39</i>	Humidity(%) <i>35</i>
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags		
[g] Sample Quantity	2 kg.		
[h] Items required to be tested	As per contract		
[i] Whether any specific Method of Test has been suggested by the customer	No		
[j] Date of receiving the sample in Laboratory	<i>13.06.23</i>		
[k] Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>		
Parameters		Results (w/w)	
1. Silica as SiO ₂ , %	53.1		
2. Alumina as Al ₂ O ₃ , %	19.9		
3. Iron as Fe ₂ O ₃ , %	7.2		
4. Calcium as CaO, %	1.4		
5. Magnesium as MgO, %	1.0		
6. Titania as TiO ₂ , %	1.19		
7. Potassium as K ₂ O, %	0.96		
8. Sodium as Na ₂ O, %	0.84		
9. Phosphate as P ₂ O ₅ , %	0.60		
10. Sulphate as SO ₂ , %	0.87		
11. Mercury as Hg, %	<0.01		
12. Arsenic as As, %	<0.01		
13. Lead as Pb, %	0.028		

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHW PRASAD
Date: 2023.06.29
11:27:24 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.06.29
11:45:24 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Azha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +919676886249 ; +919431047908 Email: shivaprasad@shiva-test.com ; info@shiva-test.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2889	Date: 02.08.2023	Your PO No. 4000283588-057-1019	Date: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23					
[d] Sampling Location	Collected from Borewell near Mandir, stage 1					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	34	Humidity (%) 70			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	BW-2889					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	22.07.23					
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25°C	---	IS 3025 (Part-11)	6.5	8.5	7.37
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	280.0
3.	Conductivity	umhos/cm	IS 3025 (Part-14)	Not Specified		475.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.8
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	202.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	170.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		40.1
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	24.3
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.32



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02 17:39:21 +05'30'

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.08.02 17:47:59 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Azadia, Road No. 5A, Padiputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shivatest@shivatet.com ; info@shivatest.com
Website: www.shivatet.com ; www.shivatetshouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No: STH/TR/23-24/2889(A)	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23					
[d] Sampling Location	Collected from Borewell near Mandir, stage 1					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	34	Humidity(%) 70			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	BW-2889					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	22.07.23					
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/L) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.2
2.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		12.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:39:38 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:48:17 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

-- END OF TEST REPORT --

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Ashta, Road No. 5A, Padiputra Colony, Patna – 800 013 (Bihar)
Mob: +918576886249 ; +919431047908 Email : shipatna@yahoo.co.in ; info@shivatest.com
Website : www.shivatext.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2890	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Dt: 26.07.2022
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Ground Water Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23		
[d] Sampling Location	Collected from Hand pump near ash dyke		
[e] Method of Sampling	IS: 3025, APHA		
[f] Sampling Environmental Condition	Temp (°C)	34	Humidity(%) 70
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)		
[h] Sample Quantity	2 Liters		
[i] Sample Code	GW-2890		
[j] Sample Condition on Receipt	Fit for analysis		
[k] Items required to be tested	As per contract		
[l] Whether any specific Method of Test has been suggested by the customer	No		
[m] Date of receiving the sample in Laboratory	22.07.23		
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23		

S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25°C	---	IS 3025 (Part-11)	6.5	8.5	7.05
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	420.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		713.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.9
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	264.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	222.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		44.09
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	25.32
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	3.27



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02 17:39:47 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.08.02 17:48:30 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 033 (Bihar)
Mob.: +918676888249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2890(A)	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23					
[d] Sampling Location	Collected from Hand pump near ash dyke					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	34	Humidity(%) 70			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-2890					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	22.07.23					
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.6
2.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		16.0

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.08.02
17:39:57 +05'30'

Verified by :
Dr. Shiveshwar Prasad
Technical Manager



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.08.02
17:48:42 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : sthatpatna@shiva.co.in ; info@shivatest.com

Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



TC-10882

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2892	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23			
[d] Sampling Location	ETP Outlet Stage I			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	35	Humidity(%) 70	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-2892			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	22.07.23			
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH at 25°C	--	IS 3025 (Part-11)	6.5 – 8.5	7.67
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1588.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	32.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	862.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	16.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	68.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	1.1

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:40:32 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:49:18 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob : +918676886249 ; +919433047908 Email : shivaputra@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10682

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2893	DU: 02.08.2023	Your PO No. 4000283588-057-1019	DU: 20.07.2022
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Treated Effluent Sample		
[c] Sample Collected by	By Chitranjan Kumer (Lab Representative) of Shiva Test House on 21.07.23		
[d] Sampling Location	ETP Outlet Stage II		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	35	Humidity (%) 70
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)		
[h] Sample Quantity	2 Litres		
[i] Sample Code	E-2893		
[j] Sample Condition on Receipt	Fit for analysis		
[k] Items required to be tested	As per contract		
[l] Whether any specific Method of Test has been suggested by the customer	No		
[m] Date of receiving the sample in Laboratory	22.07.23		
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 25.07.23		

Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH at 25°C	--	IS 3025 (Part-11)	6.5 – 8.5	8.14
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1556.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	25.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	844.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	13.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	52.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.8

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:40:42 +05'30'



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:49:55 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Parlipura Colony, Patna – 800 013 (Bihar)
 Mob: +918676886249 ; +919431047908 Email: shivama1@yahoo.co.in ; info@shivatest.com
 Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3833	Di: 05.09.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Borewell near Mandir, stage 1					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	33	Humidity (%) 69			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	BW-3833					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25°C	---	IS 3025 (Part-11)	6.5	8.5	8.41
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	353.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		671.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.9
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	282.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	250.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		43.1
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	26.2
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	2.49



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:22:43 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:40:52 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasifa, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
 Mob. : +918676886249 , +919431047908 Email : shivatna@shivoh.com ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3833(A)	Dt: 05.09.2023	Your PO No, 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Borewell near Mandir, stage 1					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (^o c)	33	Humidity (%)	69		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-3833					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.8
2.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-56)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		13.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:29:02 +05'30'

Verified by :
Dr. Shiveshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:41:10 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919421047908 Email : sthpatal@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3834	Dt: 05.09.2023	Year PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Hand pump near ash dyke					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	33	Humidity (%) 69			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-3834					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25°C	----	IS 3025 (Part-11)	6.5	8.5	7.59
2.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	500.00	2000.00	391.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		735.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	1.0
5.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	200.00	600.00	336.0
6.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200.00	600.00	282.0
7.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		44.09
8.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	25.17
9.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	3.02



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:23:13 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:41:20 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 54, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +91 8676886249; +919431047908 Email : gthpatna1@yahoo.co.in; info@shivatest.com
Website : www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3834(A)	Dt: 05.09.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Hand pump near ash dyke					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	33	Humidity (%)	69		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-3834					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	Not Specified		4.5
2.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	Not Specified		< 0.1
3.	COD	mg/l	IS3025(Part-58)	Not Specified		1.0
4.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		20.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:23:26 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:41:34 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatcshouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3835	Di: 05.09.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2023			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Surface Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Near raw water pump house					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	33	Humidity (%) 69			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	SW-3835					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982		Results
				Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/l)	Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/l)	
1.	pH at 25°C	-----	IS 3025 (Part-11)	6.5 – 8.5	6.5 – 8.5	7.75
2.	Dissolved Oxygen	mg/l.	IS3025(Part-38)	6.0	4.0	7.5
3.	BOD (3 days at 27°C)	mg/l	IS3025(Part-44)	2.0	3.0	1.8
4.	COD	mg/l	IS3025(Part-58)	Not Specified		20.0
5.	Total Suspended Solids	mg/l.	IS 3025 (Part-17)	Not Specified		102.0
6.	Total Dissolved Solids (TDS)	mg/l.	IS 3025 (Part-16)	-	1500.00	296.0
7.	Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified		554.0
8.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	4.10
9.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		28.1
10.	Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	200.00	400.00	22.3
11.	Nitrate as NO ₃	mg/l.	IS3025(Part-34)	45.00	No relaxation	0.92



SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:23:36 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:41:46 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob : +918676886249 | +919431047908 Email : sthpatna1@shibon.co.in | info@shivatest.com
 Website : www.shivatest.com | www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3835(A)	Dt: 05.09.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Surface Water Sample					
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23					
[d] Sampling Location	Collected from Near raw water pump house					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°C)	33	Humidity (%)	69		
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	SW-3835					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	23.08.23					
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS IS 2296-1982		Results
				Tolerance Limit as per IS 2296-1982 for Class 'A' (mg/L)	Tolerance Limit as per IS 2296-1982 for Class 'C' (mg/L)	
1.	Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	Not Specified		156.0
2.	Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	Not Specified		166.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05 11:23:47 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05 11:41:08 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Anzha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886240 ; +919431047008 Email : shivajana1@shiva.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3836	Dt: 05.09.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23			
[d] Sampling Location	ETP Outlet Stage I			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity (%)	69
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-3836			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	23.08.23			
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH at 25°C	--	IS 3025 (Part-11)	6.5 – 8.5	7.58
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1608.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	46.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	874.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	14.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	72.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.80



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:23:58 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:42:10 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Ashta, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918576886249 ; +91441047908 Email: sh@patna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3837	Dt: 05.09.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23			
[d] Sampling Location	ETP Outlet Stage II			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity (%) 69	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-3837			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	23.08.23			
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH at 25°C	--	IS 3025 (Part-11)	6.5 – 8.5	7.78
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	1567.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	43.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	844.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	10.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	48.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.6



SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:24:09 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:42:21 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob: +918676885349 ; +919431047908 Email : sthp@shivatohouse.com ; info@shivatest.com
 Website : www.shivatohouse.com ; www.shivatotest.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-19882

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4409</i>		Dt. <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt. <i>26.07.2022</i>	
[a] Name and address of the Customer				NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample				Ground Water Sample			
[c] Sample Collected by				By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23			
[d] Sampling Location				Collected from Hand pump water Near mandir			
[e] Method of Sampling				IS: 3025, APHA			
[f] Sampling Environmental Condition				Temp (°C)	33	Humidity (%)	75
[g] Details of Sample Container (No. & Type of Container)				Polypropylene bottle (02)			
[h] Sample Quantity				2 Liters			
[i] Sample Code				GW-4409			
[j] Sample Condition on Receipt				Fit for analysis			
[k] Items required to be tested				As per contract			
[l] Whether any specific Method of Test has been suggested by the customer				No			
[m] Date of receiving the sample in Laboratory				16.09.23			
[n] Analysis Start Date / Analysis Completion Date				16.09.23 / 23.09.23			
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results	
				Limit (mg/l) Acceptable	Permissible Limit in the absence of alternative source		
1.	pH at 25° C	—	IS 3025 (Part-11)	6.5	8.5	7.11	
2.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	500.00	2000.00	662.0	
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		1351.0	
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.86	
5.	Total Alkalinity as CaCO ₃	mg/l	IS 3025 (Part-23)	200.00	600.00	330.0	
6.	Total Hardness as CaCO ₃	mg/l	IS 3025 (Part-21)	200.00	600.00	264.0	
7.	Sulphate as SO ₄	mg/l	IS 3025 (Part-24)	200.00	400.00	27.2	
8.	Nitrate as NO ₃	mg/l	IS3025(Part-34)	45.00	No relaxation	3.04	
9.	Sodium as Na	mg/l	IS3025(Part-45)	Not Specified		41.1	
10.	Iron as Fe	mg/l	APHA3500 FeB	1.00	No relaxation	0.27	
11.	Copper as Cu	mg/l	APHA (3111B)	0.05	1.50	<0.05	
12.	Manganese as Mn	mg/l	APHA3111B	0.1	0.3	<0.01	
13.	Mercury as Hg	mg/l	APHA3111B	0.001	No Relaxation	<0.001	
14.	Cadmium as Cd	mg/l	APHA3111B	0.003	No Relaxation	<0.01	
15.	Total Arsenic as As	mg/l	APHA (3114B)	0.01	0.05	<0.01	
16.	Lead as Pb	mg/l	APHA3111B	0.01	No Relaxation	<0.01	
17.	Zinc as Zn	mg/l	APHA (3111B)	5.00	15.00	0.09	
18.	Chromium as Cr	mg/l	APHA (3111B)	0.05	No Relaxation	<0.05	
19.	Aluminium as Al	mg/l	APHA3111 D	0.03	0.2	<0.03	
20.	Boron as B	mg/l	APHA4500BB	0.5	1.0	<0.5	

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:41:46 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
03:50:58 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasifa, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatetest.com ; www.shivatetesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4409(A)</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	Ground Water Sample					
[c] Sample Collected by	By Chitraran Kumar (Lab Representative) of Shiva Test House on 15.09.23					
[d] Sampling Location	Collected from Hand pump water Near mandir					
[e] Method of Sampling	IS: 3025, APHA					
[f] Sampling Environmental Condition	Temp (°c)	33	Humidity (%) 75			
[g] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[h] Sample Quantity	2 Liters					
[i] Sample Code	GW-4409					
[j] Sample Condition on Receipt	Fit for analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	16.09.23					
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	BOD (3 days at 27°C)	mg/l	IS3025 (Part-44)		Not Specified	<0.01
2.	COD	mg/l	IS3025 (Part-58)		Not Specified	1.0
3.	Dissolved Oxygen	mg/l	IS3025(Part-38)		Not Specified	1.4
4.	Total Suspended Solids	mg/l	IS 3025 (Part-17)		Not Specified	15.0
5.	Selenium as Se	mg/l.	APHA3111B	0.01	No Relaxation	<0.01
6.	Cyanide as CN	mg/l.	IS3025(Part-27)	0.05	No Relaxation	<0.01



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:42:08 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
03:51:12 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliguwa Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : st@prasad@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. *STH/TR/23-24/4409(Mcb)* Dt: *05.10.2023* Your PO No. *4000283588-057-1019* Dt: *20.07.2022*

[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Ground Water Sample</i>				
[c] Sample Collected by	<i>By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from Hand pump water Near mandir</i>				
[e] Method of Sampling	IS 1622				
[f] Sampling Environmental Condition	Temp (°c)	33	Humidity (%)	75	
[g] No. & Type of Container	One Sterilized Glass Bottle				
[h] Sample Quantity	250 ml				
[i] Sample Code	<i>GW-4409</i>				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 17.09.23				
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Not Detected / 100 ml
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Not Detected / 100 ml



Vishal Sharma
Authorized Signatory
Mr. Vishal Sharma
Deputy Quality Manager (DQM)

-- END OF TEST REPORT --

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : sthatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

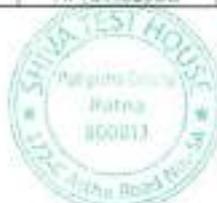
Ref. No. <i>STH/TR/23-24/4410</i>	<i>Di: 05.10.2023</i>	<i>Your PO No. 4000283588-057-1019</i>	<i>Di: 20.07.2022</i>	
[o] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[p] Details of Sample	Ground Water Sample			
[q] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23			
[r] Sampling Location	Collected from Hand pump water Near Vinod bhawan			
[s] Method of Sampling	IS: 3025, APHA			
[t] Sampling Environmental Condition	Temp (°C)	33	Humidity (%)	75
[u] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)			
[v] Sample Quantity	2 Liters			
[w] Sample Code	GW-4410			
[x] Sample Condition on Receipt	Fit for analysis			
[y] Items required to be tested	As per contract			
[z] Whether any specific Method of Test has been suggested by the customer	No			
[aa] Date of receiving the sample in Laboratory	16.09.23			
[bb] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23			

S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/L) Acceptable	Permissible Limit in the absence of alternative source	
1.	pH at 25° C	—	IS 3025 (Part-11)	8.5	8.5	7.14
2.	Total Dissolved Solids (TDS)	mg/L	IS 3025 (Part-15)	500.00	2000.00	647.0
3.	Conductivity	µmhos/cm	IS 3025 (Part-14)	Not Specified		1335.0
4.	Turbidity on NTU	NTU	IS 3025 (Part-10)	1.0	5.0	0.92
5.	Total Alkalinity as CaCO ₃	mg/L	IS 3025 (Part-23)	200.00	600.00	278.0
6.	Total Hardness as CaCO ₃	mg/L	IS 3025 (Part-21)	200.00	600.00	248.0
7.	Sulphate as SO ₄	mg/L	IS 3025 (Part-24)	200.00	400.00	25.1
8.	Nitrate as NO ₃	mg/L	IS 3025 (Part-34)	45.00	No relaxation	2.69
9.	Sodium as Na	mg/L	IS 3025 (Part-45)	Not Specified		37.1
10.	Iron as Fe	mg/L	APHA 3500 FeB	1.00	No relaxation	0.14
11.	Copper as Cu	mg/L	APHA (3111B)	0.05	1.50	<0.05
12.	Manganese as Mn	mg/L	APHA 3111B	0.1	0.3	<0.01
13.	Mercury as Hg	mg/L	APHA 3111B	0.001	No Relaxation	<0.001
14.	Cadmium as Cd	mg/L	APHA 3111B	0.003	No Relaxation	<0.01
15.	Total Arsenic as As	mg/L	APHA (3114B)	0.01	0.05	<0.01
16.	Lead as Pb	mg/L	APHA 3111B	0.01	No Relaxation	<0.01
17.	Zinc as Zn	mg/L	APHA (3111B)	5.00	15.00	0.09
18.	Chromium as Cr	mg/L	APHA (3111B)	0.05	No Relaxation	<0.05
19.	Aluminium as Al	mg/L	APHA 3111 D	0.03	0.2	<0.03
20.	Boron as B	mg/L	APHA 4500BB	0.5	1.0	<0.5

SHIBESHWAR PRASAD
R PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.10.05
12:42:19 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.10.05
03:51:23 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : shipatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4410(A)</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>			
[o] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[p] Details of Sample	Ground Water Sample					
[q] Sample Collected by	By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23					
[r] Sampling Location	Collected from Hand pump water Near Vinod bhawan					
[s] Method of Sampling	IS: 3025, APHA					
[t] Sampling Environmental Condition	Temp (°c)	33	Humidity (%) 75			
[u] Details of Sample Container (No. & Type of Container)	Polypropylene bottle (02)					
[v] Sample Quantity	2 Liters					
[w] Sample Code	GW-4410					
[x] Sample Condition on Receipt	Fit for analysis					
[y] Items required to be tested	As per contract					
[z] Whether any specific Method of Test has been suggested by the customer	No					
[aa] Date of receiving the sample in Laboratory	16.09.23					
[bb] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012		Results
				Limit (mg/l.) Acceptable	Permissible Limit in the absence of alternative source	
1.	BOD (3 days at 27 ⁰ C)	mg/l	IS3025 (Part-44)	Not Specified		<0.01
2.	COD	mg/l	IS3025 (Part-58)	Not Specified		1.0
3.	Dissolved Oxygen	mg/l	IS3025(Part-38)	Not Specified		0.9
4.	Total Suspended Solids	mg/l	IS 3025 (Part-17)	Not Specified		12.0
5.	Selenium as Se	mg/l	APHA3111B	0.01	No Relaxation	<0.01
6.	Cyanide as CN	mg/l	IS3025(Part-27)	0.05	No Relaxation	<0.01



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:42:30 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:51:33 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashu, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shipsma@shivahon.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivanesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4410(Mcb)</i>		Dt: <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt: <i>20.07.2022</i>	
[a] Name and address of the Customer				NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample				<i>Ground Water Sample</i>			
[c] Sample Collected by				<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>			
[d] Sampling Location				<i>Collected from Hand pump water Near Vinod bhawan</i>			
[e] Method of Sampling				IS 1622			
[f] Sampling Environmental Condition				Temp (^o c)	33	Humidity (%)	75
[g] No. & Type of Container				One Sterilized Glass Bottle			
[h] Sample Quantity				250 ml			
[i] Sample Code				<i>GW-4410</i>			
[j] Sample Condition on Receipt				Fit for analysis			
[k] Items required to be tested				As per contract			
[l] Whether any specific Method of Test has been suggested by the customer				No			
[m] Date of receiving the sample in Laboratory				16.09.23			
[n] Analysis Start Date / Analysis Completion Date				16.09.23 / 17.09.23			
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results		
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Not Detected / 100 ml		
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Not Detected / 100 ml		



Vishal Sharma
Authorized Signatory
Mr. Vishal Sharma
Deputy Quality Manager (DQM)

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : sthatpatna@yahoo.co.in ; info@shivatest.com

Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10082

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4413</i>	<i>Dr. 05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	<i>Dr. 20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Surface Water Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23		
[d] Sampling Location	Collected from Colony Pond near mandir side		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] No. & Type of Container	One poly Jar		
[h] Sample Quantity	2 Liters		
[i] Sample Code	SH-4413		
[j] Sample Condition on Receipt	Fit for Analysis		
[k] Items required to be tested	As per contract.		
[l] Whether any specific Method of Test has been suggested by the party	No		
[m] Date of receiving the sample	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. pH at 25 °C	—	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.28
2. Dissolved Oxygen	mg/l	IS 3025 (Part-38)	6.0	5.0	4.0	4.0	—	6.5
3. BOD (3 days at 27 °C)	mg/l	IS 3025 (Part-44)	2	3	3	—	—	2.8
4. Total Suspended Solids	mg/l	IS 3025 (Part-17)	—	—	—	—	—	40.0
5. Total Dissolved Solids	mg/l	IS 3025 (Part-16)	500.00	—	1500	—	2100	362.0
6. Conductivity	µmhos/cm.	IS 3025 (Part-14)	—	—	—	—	2250	672.0
7. Turbidity	NTU	IS 3025 (Part-10)	—	—	—	—	—	3.5
8. Sodium as Na	mg/l	IS 3025 (Part-45)	—	—	—	—	—	41.1
9. Sulphate as SO ₄	mg/l	IS 3025 (Part-24)	400.00	—	400.00	—	1000	32.8
10. Nitrate as NO ₃	mg/l	APHA 4500 NO3	20.00	—	50.0	—	—	0.64



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:43:41 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:52:27 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249; +919431047908 Email : shpatsol@yahoo.co.in; info@shivatest.com
Website : www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4413(A)</i>		Dt. <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt. <i>20.07.2022</i>		
[a]	Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116						
[b]	Details of Sample	Surface Water Sample						
[c]	Sample Collected by	By Chitraranjan Kumar (Lab Representative) of Shiva Test House on <i>15.09.23</i>						
[d]	Sampling Location	Collected from Colony Pond near mandir side						
[e]	Method of Sampling	IS 3025, APHA						
[f]	Sampling Environmental Condition	Temp. (°C)	33	Humidity(%)	75			
[g]	No. & Type of Container	One poly Jar						
[h]	Sample Quantity	2 Liters						
[i]	Sample Code	STH-4413						
[j]	Sample Condition on Receipt	Fit for Analysis						
[k]	Items required to be tested	As per contract.						
[l]	Whether any specific Method of Test has been suggested by the party	No						
[m]	Date of receiving the sample	16.09.23						
[n]	Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23						
Parameters	Unit	Method of Test	Tolerance Limit as per IS 2196-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Iron as Fe	mg/l	APHA 3500 Fe B	0.3	–	0.5	–	–	0.26
2. Copper as Cu	mg/l	APHA (3111 B)	1.5	–	1.5	–	–	<0.05
3. Manganese as Mn	mg/l	APHA 3111 B	0.5	–	–	–	–	<0.1
4. Mercury as Hg	mg/l	APHA 3112 B	0.001	–	–	–	–	< 0.001
5. Cadmium as Cd	mg/l	APHA 3111 B	0.01	–	0.01	–	–	<0.003
6. Selenium as Se	mg/l	APHA 3114 B	0.01	–	0.05	–	–	< 0.01
7. Total Arsenic as As	mg/l	APHA (3114 B)	0.05	0.2	0.2	–	–	< 0.01
8. Cyanide as CN	mg/l	IS 3025 (Part-27)	0.05	0.05	0.05	–	–	< 0.05
9. Lead as Pb	mg/l	APHA 3111 B	0.1	–	0.1	–	–	< 0.01
10. Zinc as Zn	mg/l	APHA (3111 B)	15	–	15	–	–	0.06
11. Total Chromium as Cr	mg/l	APHA (3111 B)	0.05	–	0.05	–	–	<0.05
12. Aluminum as Al	mg/l	APHA 3111 D	0.03	–	0.02	–	–	<0.01
13. Boron as B	mg/l	APHA 4500 B B	–	–	–	–	2.0	<0.01
14. COD	mg/l	IS 3025 (Part-58)	–	–	–	–	–	32.0
15. Total Alkalinity as CaCO ₃	mg/l	IS 3025 (Part-23)	–	–	–	–	–	228.0
16. Total Hardness as CaCO ₃	mg/l	IS 3025 (Part-21)	200	–	–	–	–	236.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:44:03 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
03:52:37 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : shivatna1@shivo.co.in ; info@shivatest.com
Website : www.shivatna.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4413(Mcb)</i>		Dt: <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt: <i>20.07.2022</i>	
[a] Name and address of the Customer		NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample		<i>Surface Water Sample</i>					
[c] Sample Collected by		<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>					
[d] Sampling Location		<i>Collected from Cafoty Pond near mandir side</i>					
[e] Method of Sampling		IS 1622					
[f] Sampling Environmental Condition		Temp (°c)	33	Humidity (%)	75		
[g] No. & Type of Container		One Sterilized Glass Bottle					
[h] Sample Quantity		250 ml					
[i] Sample Code		<i>SW-4413</i>					
[j] Sample Condition on Receipt		Fit for analysis					
[k] Items required to be tested		As per contract					
[l] Whether any specific Method of Test has been suggested by the customer		No					
[m] Date of receiving the sample in Laboratory		16.09.23					
[n] Analysis Start Date / Analysis Completion Date		16.09.23 / 17.09.23					
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results		
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		



Vishal Sharma
Authorized Signatory
Mr. Vishal Sharma
Deputy Quality Manager (DQM)

-- END OF TEST REPORT --

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : shpatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4414</i>	Dr. <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dr. <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Surface Water Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23		
[d] Sampling Location	Collected from Colony Pond near railway line side		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] No. & Type of Container	One poly Jar		
[h] Sample Quantity	2 Liters		
[i] Sample Code	SIH-4414		
[j] Sample Condition on Receipt	Fit for Analysis		
[k] Items required to be tested	As per contract.		
[l] Whether any specific Method of Test has been suggested by the party	No		
[m] Date of receiving the sample	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. pH at 25 °C	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.31
2. Dissolved Oxygen	mg/l.	IS 3025 (Part-38)	6.0	5.0	4.0	4.0	--	6.7
3. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	--	--	2.9
4. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	--	--	--	--	--	45.0
5. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00	--	1500	--	2100	367.0
6. Conductivity	µmhos/cm.	IS 3025 (Part-14)	--	--	--	--	2250	684.0
7. Turbidity	NTU	IS 3025 (Part-10)	--	--	--	--	--	3.7
8. Sodium as Na	mg/l.	IS 3025 (Part-45)	--	--	--	--	--	43.1
9. Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	400.00	--	400.00	--	1000	33.5
10. Nitrate as NO ₃	mg/l.	APHA 4500 NO3	20.00	--	50.0	--	--	0.85



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:44:12 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:52:49 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249; +919431047908 Email: shpatna1@yahoo.co.in; info@shivatest.com
Website: www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4414(A)</i>		Dt: <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt: <i>20.07.2023</i>		
[a]	Name and address of the Customer		NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b]	Details of Sample		Surface Water Sample					
[c]	Sample Collected by		By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23					
[d]	Sampling Location		Collected from Colony Pond near railway line side					
[e]	Method of Sampling		IS 3025, APHA					
[f]	Sampling Environmental Condition		Temp. (°C)	33	Humidity(%)	75		
[g]	No. & Type of Container		One poly Jar					
[h]	Sample Quantity		2 Liters					
[i]	Sample Code		SW-4414					
[j]	Sample Condition on Receipt		Fit for Analysis					
[k]	Items required to be tested		As per contract.					
[l]	Whether any specific Method of Test has been suggested by the party.		No					
[m]	Date of receiving the sample		16.09.23					
[n]	Analysis Start Date / Analysis Completion Date		16.09.23 / 23.09.23					
Parameters	Unit	Method of Test	Tolerance Limit as per IS 2286-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Iron as Fe	mg/l	APHA 3500 Fe B	0.3	--	0.5	--	--	0.27
2. Copper as Cu	mg/l	APHA (3111 B)	1.5	--	1.5	--	--	<0.05
3. Manganese as Mn	mg/l	APHA 3111 B	0.5	--	--	--	--	<0.1
4. Mercury as Hg	mg/l	APHA 3112 B	0.001	--	--	--	--	< 0.001
5. Cadmium as Cd	mg/l	APHA 3111 B	0.01	--	0.01	--	--	<0.003
6. Selenium as Se	mg/l	APHA 3114 B	0.01	--	0.05	--	--	< 0.01
7. Total Arsenic as As	mg/l	APHA (3114 B)	0.05	0.2	0.2	--	--	< 0.01
8. Cyanide as CN	mg/l	IS 3025 (Part-27)	0.05	0.05	0.05	--	--	< 0.05
9. Lead as Pb	mg/l	APHA 3111 B	0.1	--	0.1	--	--	< 0.01
10. Zinc as Zn	mg/l	APHA (3111 B)	15	--	15	--	--	0.07
11. Total Chromium as Cr	mg/l	APHA (3111 B)	0.05	--	0.05	--	--	<0.05
12. Aluminum as Al	mg/l	APHA 3111 D	0.03	--	0.02	--	--	<0.01
13. Boron as B	mg/l	APHA 4500 B B	--	--	--	--	2.0	<0.01
14. COD	mg/l	IS 3025 (Part-58)	--	--	--	--	--	36.0
15. Total Alkalinity as CaCO ₃	mg/l	IS 3025 (Part-23)	--	--	--	--	--	230.0
16. Total Hardness as CaCO ₃	mg/l	IS 3025 (Part-21)	200	--	--	--	--	240.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:44:23 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:53:00 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249, +919431047908 Email: shhprasad@yahoo.co.in, info@shivatest.com
Website: www.shivatest.com, www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4414(Mcb)</i>		Dt. <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt. <i>20.07.2023</i>	
[a] Name and address of the Customer				NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample				<i>Surface Water Sample</i>			
[c] Sample Collected by				<i>By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>			
[d] Sampling Location				<i>Collected from Colony Pond near railway line side</i>			
[e] Method of Sampling				IS 1622			
[f] Sampling Environmental Condition				Temp (°C)	33	Humidity (%)	75
[g] No. & Type of Container				One Sterilized Glass Bottle			
[h] Sample Quantity				250 ml			
[i] Sample Code				<i>SW-4414</i>			
[j] Sample Condition on Receipt				Fit for analysis			
[k] Items required to be tested				As per contract			
[l] Whether any specific Method of Test has been suggested by the customer				No			
[m] Date of receiving the sample in Laboratory				<i>16.09.23</i>			
[n] Analysis Start Date / Analysis Completion Date				<i>16.09.23 / 17.09.23</i>			
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results		
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		



Vishal Sharma
Authorized Signatory
Mr. Vishal Sharma
Deputy Quality Manager (DQM)

-- END OF TEST REPORT --

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Parliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : sthp@patna@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4415</i>	Dr. <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dr. <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Surface Water Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23		
[d] Sampling Location	Collected from Ganga water from raw Water pump house		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] No. & Type of Container	One poly Jar		
[h] Sample Quantity	2 Liters		
[i] Sample Code	SW-4415		
[j] Sample Condition on Receipt	Fit for Analysis		
[k] Items required to be tested	As per contract.		
[l] Whether any specific Method of Test has been suggested by the party	No		
[m] Date of receiving the sample	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. pH at 25 °C	–	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	7.68
2. Dissolved Oxygen	mg/l.	IS 3025 (Part-38)	8.0	5.0	4.0	4.0	–	7.2
3. BOD (3 days at 27 °C)	mg/l.	IS 3025 (Part-44)	2	3	3	–	–	1.7
4. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	–	–	–	–	–	24.8
5. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	500.00	–	1500	–	2100	305.0
6. Conductivity	µmhos/cm.	IS 3025 (Part-14)	–	–	–	–	2250	562.0
7. Turbidity	NTU	IS 3025 (Part-10)	–	–	–	–	–	3.2
8. Sodium as Na	mg/l.	IS 3025 (Part-45)	–	–	–	–	–	32.1
9. Sulphate as SO ₄	mg/l.	IS 3025 (Part-24)	400.00	–	400.00	–	1000	24.8
10. Nitrate as NO ₃	mg/l.	APHA 4500 NO3	20.00	–	50.0	–	–	0.77



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:44:34 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:53:13 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: shpantol@yahoo.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. *STH/TR/23-24/4415(A)* Dt. *05.10.2023* Your PO No. *4000283588-057-1019* Dt. *20.07.2022*

[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Surface Water Sample</i>			
[c] Sample Collected by	<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>			
[d] Sampling Location	<i>Collected from Ganga water from raw Water pump house</i>			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%)	75
[g] No. & Type of Container	One poly Jar			
[h] Sample Quantity	2 Liters			
[i] Sample Code	<i>SW-4415</i>			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract.			
[l] Whether any specific Method of Test has been suggested by the party	No			
[m] Date of receiving the sample	16.09.23			
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23			

Parameters	Unit	Method of Test	Tolerance Limit as per IS 3295-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Iron as Fe	mg/l.	APHA 3500 Fe B	0.3	--	0.5	--	--	0.25
2. Copper as Cu	mg/l.	APHA (3111 B)	1.5	--	1.5	--	--	<0.05
3. Manganese as Mn	mg/l.	APHA 3111 B	0.5	--	--	--	--	<0.1
4. Mercury as Hg	mg/l.	APHA 3112 B	0.001	--	--	--	--	< 0.001
5. Cadmium as Cd	mg/l.	APHA 3111 B	0.01	--	0.01	--	--	<0.003
6. Selenium as Se	mg/l.	APHA 3114 B	0.01	--	0.05	--	--	< 0.01
7. Total Arsenic as As	mg/l.	APHA (3114 B)	0.05	0.2	0.2	--	--	< 0.01
8. Cyanide as CN	mg/l.	IS 3025 (Part-27)	0.05	0.05	0.05	--	--	< 0.05
9. Lead as Pb	mg/l.	APHA 3111 B	0.1	--	0.1	--	--	< 0.01
10. Zinc as Zn	mg/l.	APHA (3111 B)	15	--	15	--	--	0.07
11. Total Chromium as Cr	mg/l.	APHA (3111 B)	0.05	--	0.05	--	--	<0.05
12. Aluminum as Al	mg/l.	APHA 3111 D	0.03	--	0.02	--	--	<0.01
13. Boron as B	mg/l.	APHA 4500 B B	--	--	--	--	2.0	<0.01
14. COD	mg/l.	IS 3025 (Part-5B)	--	--	--	--	--	16.0
15. Total Alkalinity as CaCO ₃	mg/l.	IS 3025 (Part-23)	--	--	--	--	--	164.0
16. Total Hardness as CaCO ₃	mg/l.	IS 3025 (Part-21)	200	--	--	--	--	174.0

SHIBESHWAR PRASAD Digitally signed by SHIBESHWAR PRASAD Date: 2023.10.05 12:44:44 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad Date: 2023.10.05 09:53:25 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patipurna Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : shivapnma@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4415(Mcb)</i>		Dt. <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt. <i>20.07.2022</i>	
[a] Name and address of the Customer			NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample			<i>Surface Water Sample</i>				
[c] Sample Collected by			<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location			<i>Collected from Ganga water from raw Water pump house</i>				
[e] Method of Sampling			IS 1622				
[f] Sampling Environmental Condition			Temp (⁰ c)	33	Humidity (%)	75	
[g] No. & Type of Container			One Sterilized Glass Bottle				
[h] Sample Quantity			250 ml				
[i] Sample Code			<i>SW-4415</i>				
[j] Sample Condition on Receipt			Fit for analysis				
[k] Items required to be tested			As per contract				
[l] Whether any specific Method of Test has been suggested by the customer			No				
[m] Date of receiving the sample in Laboratory			16.09.23				
[n] Analysis Start Date / Analysis Completion Date			16.09.23 / 17.09.23				
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results		
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml		



Vishal Sharma
 Authorized Signatory
 Mr. Vishal Sharma
 Deputy Quality Manager (DQM)

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashfa, Road No. 5A, Parliputra Colony, Patna – 800 013 (Bihar)
 Mob.: +918676886249 ; +919431047908 Email : sthpatal@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4416</i>	Dr. <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dr. <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Surface Water Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23		
[d] Sampling Location	Collected from Awws sample from Ash dyke		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] No. & Type of Container	One poly Jar		
[h] Sample Quantity	2 Liters		
[i] Sample Code	SW-4416		
[j] Sample Condition on Receipt	Fit for Analysis		
[k] Items required to be tested	As per contract.		
[l] Whether any specific Method of Test has been suggested by the party	No		
[m] Date of receiving the sample	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2296-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. pH at 25 °C	--	IS 3025 (Part-11)	6.5 to 8.5	6.5 to 8.5	6.0 to 9.0	6.5 to 8.5	6.0 to 8.5	6.82
2. Dissolved Oxygen	mg/l	IS 3025 (Part-38)	6.0	6.0	4.0	4.0	--	5.6
3. BOD (3 days at 27 °C)	mg/l	IS 3025 (Part-44)	2	3	3	--	--	2.30
4. Total Suspended Solids	mg/l	IS 3025 (Part-17)	--	--	--	--	--	47.0
5. Total Dissolved Solids	mg/l	IS 3025 (Part-16)	500.00		1500		2100	27.9
6. Conductivity	µmhos/cm	IS 3025 (Part-14)	--	--	--	--	2250	812.0
7. Turbidity	NTU	IS 3025 (Part-10)	--	--	--	--	--	2.5
8. Sodium as Na	mg/l	IS 3025 (Part-45)	--	--	--	--	--	44.1
9. Sulphate as SO ₄	mg/l	IS 3025 (Part-24)	400.00	--	400.00	--	1000	27.9
10. Nitrate as NO ₃	mg/l	APHA 4500 NO3	20.00	--	50.0	--	--	2.5

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:44:55 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 03:53:51 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to involved amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shivahouse@yahoo.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. *STH/TR/23-24/4416(A)* Dt. *05.10.2023* Your PO No. *4000283588-057-1019* Dt. *20.07.2022*

[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Surface Water Sample			
[c] Sample Collected by	By Chitransh Kumar (Lab Representative) of Shiva Test House on 15.09.23			
[d] Sampling Location	Collected from Awws sample from Ash dyke			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%)	75
[g] No. & Type of Container	One poly Jar			
[h] Sample Quantity	2 Liters			
[i] Sample Code	SW-4416			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract.			
[l] Whether any specific Method of Test has been suggested by the party	No			
[m] Date of receiving the sample	16.09.23			
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23			

Parameters	Unit	Method of Test	Tolerance Limit as per IS 2286-1982					Results
			Class 'A'	Class 'B'	Class 'C'	Class 'D'	Class 'E'	
1. Iron as Fe	mg/l	APHA 3500 Fe B	0.3	--	0.5	--	--	0.27
2. Copper as Cu	mg/l	APHA (3111 B)	1.5	--	1.5	--	--	<0.05
3. Manganese as Mn	mg/l	APHA 3111 B	0.5	--	--	--	--	<0.1
4. Mercury as Hg	mg/l	APHA 3112 B	0.001	--	--	--	--	< 0.001
5. Cadmium as Cd	mg/l	APHA 3111 B	0.01	--	0.01	--	--	<0.003
6. Selenium as Se	mg/l	APHA 3114 B	0.01	--	0.05	--	--	< 0.01
7. Total Arsenic as As	mg/l	APHA (3114 B)	0.05	0.2	0.2	--	--	< 0.01
8. Cyanide as CN	mg/l	IS 3025 (Part-27)	0.05	0.05	0.05	--	--	< 0.05
9. Lead as Pb	mg/l	APHA 3111 B	0.1	--	0.1	--	--	< 0.01
10. Zinc as Zn	mg/l	APHA (3111 B)	15	--	15	--	--	0.06
11. Total Chromium as Cr	mg/l	APHA (3111 B)	0.05	--	0.05	--	--	<0.05
12. Aluminum as Al	mg/l	APHA 3111 D	0.03	--	0.02	--	--	<0.01
13. Boron as B	mg/l	APHA 4500 B B	--	--	--	--	2.0	<0.01
14. COD	mg/l	IS 3025 (Part-58)	--	--	--	--	--	40.0
15. Total Alkalinity as CaCO ₃	mg/l	IS 3025 (Part-23)	--	--	--	--	--	252.0
16. Total Hardness as CaCO ₃	mg/l	IS 3025 (Part-21)	200	--	--	--	--	366.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:45:05 +05'30'

Verified by :
Dr. Shreshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
09:54:26 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 015 (Bihar)
Mob. +918676886249 ; +919431047908 Email : ghpatal@shivahouse.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. *STH/TR/23-24/4416(Mcb)* Dt: *05.10.2023* Your PO No. *4000283588-057-1019* Dt: *20.07.2022*

[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Surface Water Sample</i>				
[c] Sample Collected by	<i>By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from Awws sample from Ash dyke</i>				
[e] Method of Sampling	IS 1622				
[f] Sampling Environmental Condition	Temp (°c)	33	Humidity (%)	75	
[g] No. & Type of Container	One Sterilized Glass Bottle				
[h] Sample Quantity	250 ml				
[i] Sample Code	<i>SW-4416</i>				
[j] Sample Condition on Receipt	Fit for analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 17.09.23				
S.N.	Parameters	Unit	Method of Test	Limit as per IS 10500: 2012	Results
1	Total Coliform	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml
2	E coli	/ 100 ml	IS 1622:1981	Shall not be detectable in 100 ml.	Detected / 100 ml



Vishal Sharma
Authorized Signatory
Mr. Vishal Sharma
Deputy Quality Manager (DQM)

-- END OF TEST REPORT --

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : sthpune1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4417</i>	Dr. <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dr. <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	<i>Ground Water</i>		
[c] Sample Collected by	<i>By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>		
[d] Sampling Location	<i>Collected from Hand pump water Near ash dyke (Chakballi Village)</i>		
[e] Method of Sampling	IS 3026, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (2)		
[h] Sample Quantity	2 Litres		
[i] Sample Code	<i>BW-4417</i>		
[j] Sample Condition on Receipt	Fit for analysis		
[k] Items required to be tested	As per contract		
[l] Whether any specific Method of Test has been suggested by the customer	No		
[m] Date of receiving the sample in Laboratory	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		

Parameters	Unit	Requirement as per IS10500:2012		Method of Test	Results
		Acceptable Limit	Permissible Limit in the absence of alternative source		
1. Iron as Fe	mg/l.	1.0	No relaxation	APHA3500	0.27
2. Copper as Cu	mg/l.	0.05	1.50	APHA (3111B)	<0.05
3. Cadmium as Cd	mg/l.	0.003	No Relaxation	APHA3111B	<0.003
4. Hexavalent Chromium as Cr ^{VI}	mg/l.	---	---	IS 3025 (P-62)	<0.01
5. Chromium as Cr	mg/l.	0.05	No Relaxation	APHA(3111B)	<0.05
6. Lead as Pb	mg/l.	0.01	No Relaxation	APHA3111B	<0.01
7. Total Arsenic as As	mg/l.	0.01	0.05	APHA(3114B)	<0.01
8. Mercury as Hg	mg/l.	0.001	No Relaxation	APHA3111B	<0.001



SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:46:02 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:05:04 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: shapatna@sahac.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4418</i>	DI: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	DI: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #1</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-4418</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23				
Sl. no	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	pH at 25° C	---	IS 3025 (Part-11)	5.5 – 9.00	7.36
2.	Oil & Grease	mg/l	IS 3025 (Part-39)	10.00 mg/l	0.9
3.	Ammonical Nitrogen as N	mg/l	IS 3025 (Part-34)	50.00 mg/l	6.7
4.	Total Kjeldahl Nitrogen as N	mg/l	IS 3025 (Part-34)	100.00 mg/l	9.5
5.	BOD (3 days at 27° C)	mg/l	IS 3025 (Part-44)	100.00 mg/l	13.0
6.	COD	mg/l	APHA (5220 B)	Not Specified	56.0
7.	Arsenic as As	mg/l	APHA 3114 B	0.20 mg/l	<0.01
8.	Mercury as Hg	mg/l	APHA 3112 B	0.01 mg/l	< 0.001
9.	Lead as Pb	mg/l	APHA 3111 B	0.10 mg/l	<0.1
10.	Cadmium as Cd	mg/l	APHA 3111 B	2.00 mg/l	<0.1
11.	Hexavalent Chromium as Cr ⁶⁺	mg/l	IS 3025 (Part-52)	0.10 mg/l	<0.1
12.	Total Chromium as Cr	mg/l	IS 3025 (Part-52)	2.00 mg/l	<0.1
13.	Copper as Cu	mg/l	APHA 3111 B	3.00 mg/l	<3.0
14.	Zinc as Zn	mg/l	APHA 3111 B	5.00 mg/l	<0.1
15.	Iron as Fe	mg/l	IS 3025 (Part-53)	3.00 mg/l	0.11
16.	Nickel as Ni	mg/l	APHA 3111 B	3.00 mg/l	< 0.1
17.	Boron as B	mg/l	APHA 4500 B B	Not Specified	0.08
18.	Fluoride as F	mg/l	APHA (4500 F D)	2.00 mg/l	0.50
19.	Dissolved Phosphates as P	mg/l	IS 3025 (Part-31)	5.00 mg/l	0.84
20.	Sulphide as S	mg/l	APHA 4500 S ²⁻ F	2.00 mg/l	0.064
21.	Sulphate as SO ₄	mg/l	IS3025(Part-24)	Not Specified	44.40

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:45:32 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 04:05:17 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Azadha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249; +919431047908 Email: shibatna@shivatest.com; info@shivatest.com
Website: www.shivatstest.com; www.shivatessthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4418(A)</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	<i>By Chitraranj Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #1</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-4418</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>16.09.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>16.09.23 / 23.09.23</i>				
Sl. no.	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	Particle size of Suspended Solids	---	---	Shall pass 850 micron IS Sieve	Passes Test (850 micron)
2.	Temperature	°C	---	Shall not exceed 5°C above the receiving water temp.	24.0
3.	Colour	Hazen	IS 3025 (Part-4)	Colourless	<5.0
4.	Odour	---	IS 3025 (Part-4)	Odorless	Odorless
5.	Suspended Solids	mg/l.	IS 3025 (Part-17)	100.00 mg/l.	28.0
6.	Selenium as Se	mg/l.	APHA 3500 Se	0.05 mg/l.	<0.01
7.	Free Ammonia as NH ₃	mg/l.	APHA 4500 NH ₃ C	5.0 mg/l.	<1.0
8.	Percent Sodium	mg/l.	---	Not Specified	11.29
9.	Residual Sodium Carbonate	me/l.	---	Not Specified	3.88
10.	Cyanide as CN	mg/l.	IS 3025 (Part-37)	0.20 mg/l.	<0.1
11.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	1.00 mg/l.	<0.001
12.	Chloride	mg/l.	IS3025(Part-32)	Not Specified	92.0
13.	Total Residual Chlorine	mg/l.	IS3025(Part-26)	1.00mg/l.	<0.1
14.	Total Dissolved Solids	mg/l.	IS3025(Part-16)	Not Specified	824.0
15.	Bio-Assay Test	--	IS 6582 : 1971	90 % Fish Survived after 96 hrs. in 100% Effluent	96 % Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:45:44 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 09:05:29 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : shipatna@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-19882

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4419</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	<i>By Chitraranj Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #2</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	<i>E-4419</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	<i>16.09.23</i>				
[n] Analysis Start Date / Analysis Completion Date	<i>16.09.23 / 23.09.23</i>				
Sl. no	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	pH at 25° C	—	IS 3025 (Part-11)	5.5 – 9.00	8.19
2.	Oil & Grease	mg/l	IS 3025 (Part-39)	10.00 mg/l	0.60
3.	Ammonical Nitrogen as N	mg/l	IS 3025 (Part-34)	50.00 mg/l	3.6
4.	Total Kjeldahl Nitrogen as N	mg/l	IS 3025 (Part-34)	100.00 mg/l	8.4
5.	BOD (3 days at 27°C)	mg/l	IS 3025 (Part-44)	100.00 mg/l	11.0
6.	COD	mg/l	APHA (5220 B)	Not Specified	40.0
7.	Arsenic as As	mg/l	APHA 3114 B	0.20 mg/l	<0.01
8.	Mercury as Hg	mg/l	APHA 3112 B	0.01 mg/l	<0.001
9.	Lead as Pb	mg/l	APHA 3111 B	0.10 mg/l	<0.01
10.	Cadmium as Cd	mg/l	APHA 3111 B	2.00 mg/l	<0.1
11.	Hexavalent Chromium as Cr ^{VI}	mg/l	IS 3025 (Part-52)	0.10 mg/l	<0.1
12.	Total Chromium as Cr	mg/l	IS 3025 (Part-52)	2.00 mg/l	<0.1
13.	Copper as Cu	mg/l	APHA 3111 B	3.00 mg/l	<0.1
14.	Zinc as Zn	mg/l	APHA 3111 B	5.00 mg/l	0.08
15.	Iron as Fe	mg/l	IS 3025 (Part-53)	3.00 mg/l	0.35
16.	Nickel as Ni	mg/l	APHA 3111 B	3.00 mg/l	< 0.1
17.	Boron as B	mg/l	APHA 4500 B B	Not Specified	0.06
18.	Fluoride as F	mg/l	APHA (4500 F D)	2.00 mg/l	0.40
19.	Dissolved Phosphates as P	mg/l	IS 3025 (Part-31)	5.00 mg/l	0.64
20.	Sulphide as S	mg/l	APHA 4500 S ² F	2.00 mg/l	0.048
21.	Sulphate as SO ₄	mg/l	IS3025(Part-24)	Not Specified	38.80

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:43:57 +05'30'

Verified by :
Dr. Shubeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 04:05:42 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob: +918676886249, +919431047908 Email: shivatest@yahoo.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4419(A)</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Treated Effluent Sample</i>				
[c] Sample Collected by	<i>By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Collected from ETP Outlet Stage #2</i>				
[e] Method of Sampling	IS 3025, APHA				
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75		
[g] No. & Type of Container	Plastic Bottle				
[h] Sample Quantity	2 Litres				
[i] Sample Code	E-4419				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the party	No				
[m] Date of receiving the sample	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23				
Sl. no.	Parameters	Unit	Method of Test	Limit as per E (P) Rules	RESULTS
1.	Particle size of Suspended Solids	---	---	Shall pass 850 micron IS Sieve	Passes Test (850 micron)
2.	Temperature	°C	---	Shall not exceed 5°C above the receiving water temp.	25.0
3.	Colour	Hazen	IS 3025 (Part-4)	Colourless	<5.0
4.	Odour	---	IS 3025 (Part-4)	Odourless	Odourless
5.	Suspended Solids	mg/l.	IS 3025 (Part-17)	100.00 mg/l.	19.0
6.	Selenium as Se	mg/l.	APHA 3500 Se	0.05 mg/l.	<0.1
7.	Free Ammonia as NH ₃	mg/l.	APHA 4500 NH ₃ C	5.0 mg/l.	<1.0
8.	Percent Sodium	mg/l.	---	Not Specified	9.63
9.	Residual Sodium Carbonate	me/l.	---	Not Specified	3.44
10.	Cyanide as CN	mg/l.	IS 3025 (Part-37)	0.20 mg/l.	<0.1
11.	Phenolic Compound as C ₆ H ₅ OH	mg/l.	APHA 6420 B	1.00 mg/l.	<0.001
12.	Chloride	mg/l.	IS3025(Part-32)	Not Specified	82.0
13.	Total Residual Chlorine	mg/l.	IS3025(Part-26)	1.00mg/l.	<0.1
14.	Total Dissolved Solids	mg/l.	IS3025(Part-16)	Not Specified	772.0
15.	Bio-Assay Test	-	IS 6582: 1971	90 % Fish Survived after 96 hrs. in 100% Effluent	96 % Fish Survived after 96 hrs. in 100% Conc ⁿ Of Treated Effluent

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:46:08 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:05:57 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : sthpntsa1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/22-23/4420	Dt: 05.10.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Untreated Effluent Sample		
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23		
[d] Sampling Location	Collected from STP Inlet (Stage 2)		
[e] Method of Sampling	IS 3025, APHA		
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)		
[h] Sample Quantity	2 Litres		
[i] Sample Code	E-4420		
[j] Sample Condition on Receipt	Fit for analysis		
[k] Items required to be tested	As per contract		
[l] Whether any specific Method of Test has been suggested by the customer	No		
[m] Date of receiving the sample in Laboratory	16.09.23		
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		
Parameters	Unit	Method of Test	Results
1. pH	--	IS 3025 (Part-11)	6.19
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	1764.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	38.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	1088.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	80.0
6. C.O.D.	mg/l.	APHA (5220 B)	240.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	1.0



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
12:46:21 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:06:11 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : shivapanna@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/22-23/4421	Dt: 05.10.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Treated Effluent Sample			
[c] Sample Collected by	By Chitranshu Kumar (Lab Representative) of Shiva Test House on 15.09.23			
[d] Sampling Location	Collected from STP Outlet (Stage 2)			
[e] Method of Sampling	IS 3025, APHA			
[f] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75	
[g] Details of Sample Container (No. & Type of Container)	Polypropylene Bottle (02)			
[h] Sample Quantity	2 Litres			
[i] Sample Code	E-4421			
[j] Sample Condition on Receipt	Fit for analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	16.09.23			
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23			
Parameters	Unit	Method of Test	Standards as per E(P) Rules Schedule VI	Results
1. pH	--	IS 3025 (Part-11)	6.5 – 8.5	7.25
2. Conductivity	µmhos/cm.	IS 3025 (Part-14)	Not Specified	684.0
3. Total Suspended Solids	mg/l.	IS 3025 (Part-17)	100	14.0
4. Total Dissolved Solids	mg/l.	IS 3025 (Part-16)	Not Specified	411.0
5. B.O.D. (3 days at 27°C)	mg/l.	IS 3025 (Part-44)	30	11.0
6. C.O.D.	mg/l.	APHA (5220 B)	250	72.0
7. Oil & Grease	mg/l.	IS 3025 (Part-39)	10	0.7



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 12:46:37 +05'30'

Verified by :
Dr. Shiheshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05 04:06:24 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aazha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. +918676886289; +919431047908 Email: shivat@shivat.com / info@shivat.com
Website : www.shivat.com / www.shivatsthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/4426	Dt: 05.10.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	Monitoring of Ambient Noise Level				
[c] Sample Collected By	By Chitranshu Kumar (Lab Representative) of Shiva Test House on 15/16.09.23				
[d] Sampling Location	Within Premises				
[e] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75		
[f] Sample Code	N-1936				
[g] Items required to be tested	Day & Night time Noise Level				
[h] Whether any specific Method of Test has been suggested by the customer	No				
[i] Date of receiving the sample in Laboratory	16.09.23				
Sampling Point	Unit	TWA Of Noise Level		Standards	
		Day Time (6.0am to 10.0pm)	Night Time (10.0pm to 6.0am)	Day Time	Night Time
1. Near CHP Crusher House Stage 1	dB(A)	58.4	47.2	75.00	70.00
2. Near CHP Crusher House Stage 2	dB(A)	59.2	47.3	--do--	--do--
3. Near cooling tower stage 2	dB(A)	68.2	55.2	--do--	--do--
4. NTPC Hospital (silence Zone)	dB(A)	42.3	38.1	50	40
5. Polish Hostel	dB(A)	53.8	46.8	--do--	--do--
6. Ash Dyke Area	dB(A)	61.7	44.7	--do--	--do--
7. Malhipur Chowk Area (Commercial area)	dB(A)	64.8	51.2	65	55
8. CW Pump House	dB(A)	65.1	56.2	--do--	--do--
9. Boiler Area Stage	dB(A)	72.8	60.5	--do--	--do--
10. Near Main Gate Stage 2	dB(A)	62.8	54.3	--do--	--do--
N.B. Standards in respect of Noise as per Noise Pollution (Regulation & Control) Rules' 2000					

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 04:18:56 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.07.20 09:18:11 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : shpatna1@shivaohc.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/118</i>	Dt: <i>05.10.2023</i>	Your PO No. 4000283588-057-1019	Dt: 20.07.2022	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116			
[b] Details of Sample	Pond Ash Sample			
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23			
[d] Sampling Location	From Ash Pond			
[e] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%)	75
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags			
[g] Sample Quantity	2 kg.			
[h] Items required to be tested	As per contract			
[i] Whether any specific Method of Test has been suggested by the customer	No			
[j] Date of receiving the sample in Laboratory	16.09.23			
[k] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23			
Parameters		Results (w/w)		
1. Silica as SiO ₂ , %	52.8			
2. Alumina as Al ₂ O ₃ , %	19.7			
3. Iron as Fe ₂ O ₃ , %	7.4			
4. Calcium as CaO, %	1.6			
5. Magnesium as MgO, %	1.1			
6. Titania as TiO ₂ , %	1.16			
7. Potassium as K ₂ O, %	0.94			
8. Sodium as Na ₂ O, %	0.88			
9. Phosphate as P ₂ O ₅ , %	0.66			
10. Sulphate as SO ₃ , %	0.81			
11. Mercury as Hg, %	<0.01			
12. Arsenic as As, %	<0.01			
13. Lead as Pb, %	0.024			

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.10.05
04:17:05 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.10.05
04:19:05 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: sthpntnl@yahoo.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/NN/TR/23-24/119</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116		
[b] Details of Sample	Coal Sample		
[c] Sample Collected by	By <i>Chitranjan Kumar (Lab Representative)</i> of <i>Shiva Test House</i> on <i>15.09.23</i>		
[d] Sampling Location	From Coal Storage Yard		
[e] Sampling Environmental Condition	Temp. (°C)	33	Humidity(%) 75
[f] Details of Sample Container (No. & Type of Container)	Two Poly Bags		
[g] Sample Quantity	2 kg.		
[h] Items required to be tested	As per contract		
[i] Whether any specific Method of Test has been suggested by the customer	No		
[j] Date of receiving the sample in Laboratory	16.09.23		
[k] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23		
Parameters		Results (w/w)	
1. Mercury as Hg, %	<0.1		
2. Copper as Cu, %	0.21		
3. Zinc as Zn, %	3.2		
4. Chromium as Cr, %	0.19		
5. Magnesium as Mg, %	1.6		
6. Arsenic as As, %	0.06		
7. Selenium as Se, %	<0.01		
8. Nickel as Ni, %	0.19		
9. Cadmium as Cd, %	<0.1		
10. Lead as Pb, %	0.07		
11. Cobalt as Co, %	<0.1		
12. Sulphur Content, %	0.81		

SHIBESHW
AR PRASAD

Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.10.05
04:17:16 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee
Prasad

Digitally signed by
Shreyasee Prasad
Date: 2023.10.05
04:19:16 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email : sthpamel@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/432	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022			
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
(b) Details of Sample	Monitoring of Ambient Air Quality					
(c) Sample Collected by	Shiva Test House on 17.04.23					
(d) Sampling Location	Collected from Near Main Gate (Stage 1)					
(e) Method of Sampling	IS 5182 (Part - 14)					
(f) Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger					
(g) Instrument ID	RDS-1, FPM-1					
(h) Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)					
(i) Sample Code	A-432					
(j) Sample Condition on Receipt	Fit for Analysis					
(k) Items required to be tested	As per contract					
(l) Whether any specific Method of Test has been suggested by the customer	No					
(m) Date of receiving the sample in Laboratory	18.04.23					
(n) Analysis Start Date / Analysis Completion Date	18.04.23 / 19.04.23					
(o) Meteorological Data	Max ^m Temperature	42.0 °C				
	Min ^m Temperature	34.0 °C				
	Relative Humidity	30%				
	Wind Direction	W				
	Wind Speed	6.0 Km./hr.				
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station		
				Near Main Gate (Stage 1)		
RESULTS						
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	75.5	Avg. value:	74.1
				74.5		
				71.4		
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	44.4	Avg. value:	40.6
				35.5		
				41.8		
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	15.6	Avg. value:	14.7
				21.9		
				8.8		
				10.7		
				13.7		
4. Oxides of Nitrogen as NO _x	(µg / m ³)	IS 5182 (Part-6)	80.0	37.2	Avg. value:	32.4
				38.0		
				27.2		
				25.9		
				29.9		
				36.5		

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:11:42 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.04.27 14:51:37 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Astha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Moh : +918676886249 ; +919431047908 Email : shivastha1@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivastesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/433	Di: 26.04.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	Shiva Test House on 17.04.23												
[d] Sampling Location	Collected from Near Vinod Bhawan (Township)												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	RDS-2, FPM-2												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-433												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	18.04.23												
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 19.04.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Max^m Temperature</td> <td>42.0 °C</td> </tr> <tr> <td>Min^m Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>30%</td> </tr> <tr> <td>Wind Direction</td> <td>W</td> </tr> <tr> <td>Wind Speed</td> <td>6.0 Km/hr</td> </tr> </table>			Max ^m Temperature	42.0 °C	Min ^m Temperature	34.0 °C	Relative Humidity	30%	Wind Direction	W	Wind Speed	6.0 Km/hr
Max ^m Temperature	42.0 °C												
Min ^m Temperature	34.0 °C												
Relative Humidity	30%												
Wind Direction	W												
Wind Speed	6.0 Km/hr												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Vinod Bhawan (Township)									
RESULTS													
1. Particulate Matter (PM ₁₀)	($\mu\text{g} / \text{m}^3$)	IS 5182 (Part-23)	100.0	76.1	Avg. value: 76.4								
				65.2									
				88.0									
2. Particulate Matter (PM _{2.5})	($\mu\text{g} / \text{m}^3$)	CPCB (GMAAP Vol. I)	60.0	48.0	Avg. value: 42.5								
				36.6									
				43.0									
3. Sulphur Dioxide as SO ₂	($\mu\text{g} / \text{m}^3$)	IS 5182 (Part-2)	80.0	16.8	Avg. value: 14.0								
				16.0									
				9.4									
				10.5									
				13.6									
				17.8									
4. Oxides of Nitrogen as NO ₂	($\mu\text{g} / \text{m}^3$)	IS 5182 (Part-6)	80.0	41.3	Avg. value: 34.4								
				37.8									
				22.8									
				24.2									
				37.5									
				42.7									

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27 12:12:00 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.04.27 14:51:55 +05'30'

Authorized Signatory
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob.: +918676886249 ; +919431047908 Email: shpatna1@yahoo.co.in ; info@shivatest.com
 Website: www.shivatetest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10682

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/434	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	Shiva Test House on 17.04.23												
[d] Sampling Location	Collected from Near Ash Dyke												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	RDS-3, FPM-3												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-434												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	18.04.23												
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 19.04.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Maxⁿ Temperature</td> <td>42.0 °C</td> </tr> <tr> <td>Minⁿ Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>30%</td> </tr> <tr> <td>Wind Direction</td> <td>W</td> </tr> <tr> <td>Wind Speed</td> <td>6.0 Km./hr</td> </tr> </table>			Max ⁿ Temperature	42.0 °C	Min ⁿ Temperature	34.0 °C	Relative Humidity	30%	Wind Direction	W	Wind Speed	6.0 Km./hr
Max ⁿ Temperature	42.0 °C												
Min ⁿ Temperature	34.0 °C												
Relative Humidity	30%												
Wind Direction	W												
Wind Speed	6.0 Km./hr												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Ash Dyke									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	81.2	Avg. value: 75.3								
				69.9									
				74.8									
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	43.0	Avg. value: 40.9								
				39.2									
				40.5									
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	25.2	Avg. value: 14.8								
				11.3									
				9.1									
				10.1									
				11.1									
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	22.1	Avg. value: 40.9								
				38.3									
				35.6									
				32.1									
				28.7									
				32.8									
				41.7									

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27
12:12:14 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.04.27
14:52:12 +05'30'

Authorized Signatory
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob : +918676886249 ; +919431047908 Email : shivahouse@shivatest.com ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/435	Dt: 26.04.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	Shiva Test House on 17.04.23												
[d] Sampling Location	Collected from Near CW, Pump House-(Stage-2)												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	RDS-4, FPM-4												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-435												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	18.04.23												
[n] Analysis Start Date / Analysis Completion Date	18.04.23 / 19.04.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Max^m Temperature</td> <td>42.0 °C</td> </tr> <tr> <td>Min^m Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>30%</td> </tr> <tr> <td>Wind Direction</td> <td>W</td> </tr> <tr> <td>Wind Speed</td> <td>6.0 Km /hr</td> </tr> </table>			Max ^m Temperature	42.0 °C	Min ^m Temperature	34.0 °C	Relative Humidity	30%	Wind Direction	W	Wind Speed	6.0 Km /hr
Max ^m Temperature	42.0 °C												
Min ^m Temperature	34.0 °C												
Relative Humidity	30%												
Wind Direction	W												
Wind Speed	6.0 Km /hr												
Parameters	Unit	Method of Test	Standard as per NAACS 2019	Sampling Station									
				Near CW, Pump House-(Stage-2)									
				RESULTS									
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	76.5 68.4 84.4	Avg. value: 76.5								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	42.8 35.3 40.3	Avg. value: 39.5								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	22.7 17.1 11.9 8.9 12.8 18.8	Avg. value: 15.4								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	43.0 34.3 30.2 25.5 39.6 44.3	Avg. value: 36.1								

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.04.27
12:14:16 +05'30'

Verified by :
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.04.27
14:52:37 +05'30'

Authorized Signatory
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Ashta, Road No. 5A, Padiputra Colony, Patna - 800 013 (Bihar)
 Mob: +918676886249 ; +910431047908 Email: sthpatna1@yahoo.co.in ; info@shivatest.com
 Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10092

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT, OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1205	Date: 26.05.2023	Your PO No. 4000283588-057-1019	Date: 20.07.2022		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116				
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by	Shiva Test House on 12.05.23				
[d] Sampling Location	Collected from Near Main Gate (Stage 1)				
[e] Method of Sampling	IS 5182 (Part - 14)				
[f] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger				
[g] Instrument ID	RDS-1, FPM-1				
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
[i] Sample Code	A-1205				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	13.05.23				
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 14.05.23				
[o] Meteorological Data	Max ^m Temperature	38.0 °C			
	Min ^m Temperature	30.0 °C			
	Relative Humidity	42%			
	Wind Direction	ENE			
	Wind Speed	6.0 Km/hr			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station	
				Near Main Gate (Stage 1)	
				RESULTS	
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	83.0 71.9 78.2	Avg. value: 77.1
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	80.0	41.8 32.0 39.4	Avg. value: 37.7
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	21.2 15.5 9.1 12.1 14.2 16.2	Avg. value: 14.7
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	43.3 39.3 33.7 26.1 35.1 37.8	Avg. value: 35.9

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01 13:59:19 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01 14:11:14 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249, +919431047908 Email: shipatna@shivatest.com, info@shivatest.com
Website: www.shivatest.com, www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1206		Dt. 26.05.2023		Your PO No. 4000283588-057-1019		Dt. 20.07.2022	
[a] Name and address of the Customer				NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample				Monitoring of Ambient Air Quality			
[c] Sample Collected by				Shiva Test House on 12.05.23			
[d] Sampling Location				Collected from Near Ash Dyke			
[e] Method of Sampling				IS 5182 (Part - 14)			
[f] Details of Sample Container (No. & Type of Container)				Filter Paper, Glass Impinger			
[g] Instrument ID				RDS-3, FPM-3			
[h] Sample Quantity				30 ml x 6 (for each NO ₂ , SO ₂)			
[i] Sample Code				A-1206			
[j] Sample Condition on Receipt				Fit for Analysis			
[k] Items required to be tested				As per contract			
[l] Whether any specific Method of Test has been suggested by the customer				No			
[m] Date of receiving the sample in Laboratory				13.05.23			
[n] Analysis Start Date / Analysis Completion Date				13.05.23 / 14.05.23			
[o] Meteorological Data				Max ^m Temperature		39.0 °C	
				Min ^m Temperature		30.0 °C	
				Relative Humidity		42%	
				Wind Direction		ENE	
				Wind Speed		6.0 Km./hr.	
Parameters	Unit	Method of Test	Standard as per NAAS 2009	Sampling Station			
				Near Ash Dyke			
RESULTS							
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	76.8	Avg. value:	73.4	70.4
				73.0			
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	41.0	Avg. value:	36.5	34.5
				38.5			
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	60.0	15.2	Avg. value:	12.6	13.5
				9.1			
				8.1			
				14.2			
				15.2			
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-5)	80.0	34.5	Avg. value:	38.5	34.5
				30.3			
				26.2			
				28.9			
				38.6			

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.05.01
15:59:32 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:11:41 +05'30'

Authorized Signatory
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 125-C, Aastha, Road No. 5A, Padipura Colony, Patna – 800 013 (Bihar)
 Mob.: +918676886249 ; +919431047908 Email : st@shivatst.com / shivatst@vsnl.com ; info@shivatest.com
 Website : www.shivatst.com ; www.shivatstbharat.com



SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1207	Dt: 26.05.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116				
[b] Details of Sample	Monitoring of Ambient Air Quality				
[c] Sample Collected by	Shiva Test House on 12.05.23				
[d] Sampling Location	Collected from Near CW, Pump House-(Stage-2)				
[e] Method of Sampling	IS 5182 (Part - 14)				
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger				
[g] Instrument ID	RDS-4, FPM-4				
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
[i] Sample Code	A-1207				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	13.05.23				
[n] Analysis Start Date / Analysis Completion Date	13.05.23 / 14.05.23				
[o] Meteorological Data	Max ^o Temperature	39.0 ^o C			
	Min ^o Temperature	30.0 ^o C			
	Relative Humidity	42%			
	Wind Direction	ENE			
	Wind Speed	6.0 Km./hr.			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station	
				Near CW, Pump House-(Stage-2)	
RESULTS					
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	76.5 69.3 72.9	Avg. value: 72.9
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	39.8 31.1 36.1	Avg. value: 35.7
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	19.2 17.6 11.1 6.1 13.1 15.2	Avg. value: 13.7
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	42.6 33.7 31.6 28.2 33.0 35.7	Avg. value: 35.7

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01 13:59:45 +05'30'

Verified by:
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.01 14:11:38 +05'30'

Authorized Signatory
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob: +918676886249 ; +919431047908 Email: theatral@shivo.co.in ; info@shivatest.com
 Website: www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/1208	Di: 26.05.2023	Year PO No. 4000283588-057-1019	Di: 20.07.2023			
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
(b) Details of Sample	Monitoring of Ambient Air Quality					
(c) Sample Collected by	Shiva Test House on 12.05.23					
(d) Sampling Location	Collected from Near Vinod Bhawan (Township)					
(e) Method of Sampling	IS 5182 (Part - 14)					
(f) Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger					
(g) Instrument ID	RDS-2, FPM-2					
(h) Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)					
(i) Sample Code	A-1208					
(j) Sample Condition on Receipt	Fit for Analysis					
(k) Items required to be tested	As per contract					
(l) Whether any specific Method of Test has been suggested by the customer	No					
(m) Date of receiving the sample in Laboratory	13.05.23					
(n) Analysis Start Date / Analysis Completion Date	13.05.23 / 14.05.23					
(o) Meteorological Data	Max ^m Temperature	39.0 ^o C				
	Min ^m Temperature	30.0 ^o C				
	Relative Humidity	42%				
	Wind Direction	ENE				
	Wind Speed	6.0 Km/h				
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station		
				Near Vinod Bhawan (Township)		
RESULTS						
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	75.0	Avg. value:	71.9
				67.7		
				72.9		
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	38.6	Avg. value:	34.4
				31.1		
				33.6		
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	19.2	Avg. value:	14.1
				17.6		
				11.1		
				8.1		
				13.1		
				15.2		
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	42.6	Avg. value:	34.4
				33.7		
				31.6		
				28.2		
				33.0		
				35.7		

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.01
13:59:57 +05'30'

Verified by :
Technical Manager



– END OF TEST REPORT –

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.06.01
14:12:14 +05'30'

Authorized Signatory
Quality Manager

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 3A, Patlipura Colony, Patna – 800 013 (Bihar)
 Mob.: +918676886240 ; +919431047908 Email : shivamail@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1928</i>	Dr. <i>28.06.2023</i>	Your PO No. <i>4800283588-057-1019</i>	DL: <i>20.07.2023</i>										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	SHIVA TEST HOUSE on 12.06.23												
[d] Sampling Location	Premises of NTPC, Barauni												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	RDS-2, FPM-2												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-1928												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	13.06.23												
[n] Analysis Start Date / Analysis Completion Date	13.06.23 / 16.06.23												
[o] Meteorological Data	<table border="1"> <tr><td>Max^m Temperature</td><td>41.0 °C</td></tr> <tr><td>Min^m Temperature</td><td>33.0 °C</td></tr> <tr><td>Relative Humidity</td><td>35%</td></tr> <tr><td>Wind Direction</td><td>E</td></tr> <tr><td>Wind Speed</td><td>4.0 Km/hr.</td></tr> </table>			Max ^m Temperature	41.0 °C	Min ^m Temperature	33.0 °C	Relative Humidity	35%	Wind Direction	E	Wind Speed	4.0 Km/hr.
Max ^m Temperature	41.0 °C												
Min ^m Temperature	33.0 °C												
Relative Humidity	35%												
Wind Direction	E												
Wind Speed	4.0 Km/hr.												
Parameters	Unit	Method of Test	Standard as per NAAGS 2009	Sampling Station									
				Near Main Gate (Stage - 1)									
Results													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	77.5	Avg. value: 74.6								
				73.6									
				72.8									
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	44.2	Avg. value: 42.1								
				40.4									
				41.7									
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	19.9	Avg. value: 16.5								
				17.1									
				17.8									
				9.4									
				13.6									
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	41.3	Avg. value: 35.1								
				34.2									
				34.2									
				29.2									
				34.9									
				37.0									

SHIBESHWA R PRASAD
Digitally signed by SHIBESHWA R PRASAD
Date: 2023.05.29 11:19:18 +05'30'
Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.05.29 11:01:02 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob: +918676886249; +919431047908 Email: shivatn@shivatn.com / info@shivatn.com
Website: www.shivatn.com - www.shivatntest.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1928(A)</i>	Dt: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>			
[d] Sampling Location	<i>Premises of NTPC, Barauni</i>			
[e] Method of Sampling	IS 5182 (Part -14)			
[f] Sampling Environmental Condition	Temp. (°C)	41	Humidity(%) 35	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger			
[h] Instrument ID	RDS-2, FPM-2			
[i] Sample Code	A-1928			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>			
[n] Analysis StartDate/Analysis Completion Date	<i>13.06.23 / 16.06.23</i>			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station Near Main Gate (Stage – 1)
1. Carbon Monoxide(CO)	mg / m ³	IS 5182 (Part-10)	4 mg/m ³	0.34
2. Lead (Pb)	µg / m ³	IS 5182 (Part-22)	1 µg/m ³	0.09
3. Ammonia as NH ₃	µg / m ³	IS 5182 (Part-5)	400 µg/m ³	6.6
4. Ozone (O ₃)	µg / m ³	IS 5182 (Part-8)	180 µg/m ³	22.6
5. Benzene(C ₆ H ₆)	µg / m ³	IS 5182 (Part-11)	5 µg/m ³	0.11
6. Benzo (a) Pyrene	ng / m ³	IS 5182 (Part-12)	1 ng/m ³	0.17
7. Arsenic (As)	ng / m ³	AAS Method	6 ng/m ³	0.21
8. Nickel as Ni	ng / m ³	AAS Method	20 ng/m ³	3.48

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:19:36 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:31:23 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Asha, Road No. 5A, Padipura Colony, Patna – 800 013 (Bihar)
Mob. : +918675886249 ; +919431047908 Email : shpatna1@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1929</i>	Dt: <i>28.06.2023</i>	Year PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>			
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
(b) Details of Sample	<i>Monitoring of Ambient Air Quality</i>					
(c) Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>					
(d) Sampling Location	<i>Premises of NTPC, Barauni</i>					
(e) Method of Sampling	IS 5182 (Part - 14)					
(f) Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger					
(g) Instrument ID	RDS-3, FPM-3					
(h) Sample Quantity	30 ml x 6 (for each NO _x , SO ₂)					
(i) Sample Code	<i>A-1929</i>					
(j) Sample Condition on Receipt	Fit for Analysis					
(k) Items required to be tested	As per contract					
(l) Whether any specific Method of Test has been suggested by the customer	No					
(m) Date of receiving the sample in Laboratory	<i>13.06.23</i>					
(n) Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>					
(o) Meteorological Data	Max ⁿ Temperature	<i>41.0 °C</i>				
	Min ⁿ Temperature	<i>33.0 °C</i>				
	Relative Humidity	<i>35%</i>				
	Wind Direction	<i>E</i>				
	Wind Speed	<i>4.0 Km/hr</i>				
Parameters	Unit	Method of Test	Standard as per NAAQS 2008	Sampling Station		
				Near Ash Dyke Area		
RESULTS						
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	76.8	Avg value	76.8
				76.9		
				76.6		
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	40.5	Avg value	41.8
				44.3		
				40.5		
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	22.1	Avg value	15.8
				13.4		
				5.0		
				18.1		
				15.1		
4. Oxides of Nitrogen as NO _x	(µg / m ³)	IS 5182 (Part-6)	80.0	41.7	Avg value	35.7
				34.2		
				32.8		
				30.8		
				36.2		
				38.3		

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:19:46 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:31:45 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 121-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : shmatna@shiva-test.com ; info@shiva-test.com
Website : www.shivatst.com - www.shivatsthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1929(A)</i>	Dt: <i>28.06.2023</i>	Year PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2023</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>			
[d] Sampling Location	<i>Premises of NTPC, Barauni</i>			
[e] Method of Sampling	IS 5182(Part -14)			
[f] Sampling Environmental Condition	Temp.(°C)	<i>41</i>	Humidity(%)	<i>35</i>
[g] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger			
[h] Instrument ID	RDS-3, FPM-3			
[i] Sample Code	<i>A-1929</i>			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>			
[n] Analysis StartDate/Analysis Completion Date	<i>13.06.23 / 16.06.23</i>			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station
1. Carbon Monoxide(CO)	mg /m ³	IS 5182(Part-10)	4 mg/m ³	<i>0.34</i>
2. Lead (Pb)	µg / m ³	IS 5182(Part-22)	1 µg/m ³	<i>0.09</i>
3. Ammonia as NH ₃	µg /m ³	IS 5182(Part-5)	400 µg/m ³	<i>7.3</i>
4. Ozone (O ₃)	µg /m ³	IS 5182(Part-8)	100 µg/m ³	<i>21.7</i>
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182(Part-11)	5 µg/m ³	<i>0.11</i>
6. Benzo (a) Pyrene	ng / m ³	IS 5182(Part-12)	1 ng/m ³	<i>0.16</i>
7. Arsenic (As)	ng /m ³	AAS Method	6 ng/m ³	<i>0.20</i>
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	<i>2.90</i>

SHIBESHWAR PRASAD
Digitally signed by:
SHIBESHWAR PRASAD
Date: 2023.06.29
11:19:59 +05'30'

Verified by :
Dr. Shiveshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by
Shreyasee Prasad
Date: 2023.06.29
11:33:23 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918576886249 ; +919431047908 Email : shivatest@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10382

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1930</i>	Date: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2022</i>		
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
(b) Details of Sample	<i>Monitoring of Ambient Air Quality</i>				
(c) Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>				
(d) Sampling Location	<i>Premises of NTPC, Barauni</i>				
(e) Method of Sampling	IS 5182 (Part - 14)				
(f) Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger				
(g) Instrument ID	RDS-4, FPM-4				
(h) Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
(i) Sample Code	<i>A-1930</i>				
(j) Sample Condition on Receipt	Fit for Analysis				
(k) Items required to be tested	As per contract				
(l) Whether any specific Method of Test has been suggested by the customer	No				
(m) Date of receiving the sample in Laboratory	<i>13.06.23</i>				
(n) Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>				
(o) Meteorological Data	Max ⁿ Temperature	41.0 °C			
	Min ⁿ Temperature	33.0 °C			
	Relative Humidity	35%			
	Wind Direction	E			
	Wind Speed	4.0 Km/hr			
Parameters	Unit	Method of Test	Standard as per NAAQS-2009	Sampling Station	
				Near CW, Pump House-(Stage-2)	
RESULTS					
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	81.2	Avg value: 76.8
				75.4	
				73.8	
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	50.0	44.1	Avg value: 41.2
				39.1	
				40.3	
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	50.0	20.7	Avg value: 16.2
				18.2	
				14.8	
				12.8	
				11.9	
				18.8	
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-5)	50.0	36.3	Avg value: 34.8
				33.6	
				38.3	
				30.9	
				30.9	
				38.9	

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.05.29 11:20:11 +05'30'
Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.05.29 11:33:35 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob: +918076885249; +919431047908 Email: sthpatal@yahoop.in; info@shivatest.com
Website: www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1930(A)</i>	Dt: <i>28.06.2023</i>		Year PO No. <i>4000283588-057-1019</i>		Dt: <i>20.07.2022</i>
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>				
[d] Sampling Location	<i>Premises of NTPC, Barauni</i>				
[e] Method of Sampling	IS 5182(Part -14)				
[f] Sampling Environmental Condition	Temp.(^o C)	41	Humidity(%)	35	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper: Glass Impinger				
[h] Instrument ID	RDS-4, FPM-4				
[i] Sample Code	A-1930				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>				
[n] Analysis Start Date/Analysis Completion Date	<i>13.06.23 / 16.06.23</i>				
Parameters	Unit	Method of Test	Standard as per NAAQS2009	Sampling Station	
				Near CW, Pump House- (Stage-2)	
1. Carbon Monoxide(CO)	mg /m ³	IS 5182(Part-10)	4 mg/m ³	0.48	
2. Lead (Pb)	µg / m ³	IS 5182(Part-22)	1 µg/m ³	0.09	
3. Ammonia as NH ₃	µg /m ³	IS 5182(Part-5)	400 µg/m ³	7.4	
4. Ozone (O ₃)	µg /m ³	IS 5182(Part-9)	180 µg/m ³	21.9	
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182(Part-11)	6 µg/m ³	0.13	
6. Benzo (a) Pyrene	ng/ m ³	IS 5182(Part-12)	1 ng/m ³	0.18	
7. Arsenic (As)	ng /m ³	AAS Method	8 ng/m ³	0.20	
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	5.80	

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29
11:20:22 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29
11:33:56 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 121-C, Aastha, Road No. 3A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431947908 Email : sthpunjab@yahoo.co.in ; stho@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com



SHIVA TEST HOUSE

(Serving since 1988)



TC-11882

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1931</i>	Date: <i>28.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2022</i>		
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
(b) Details of Sample	<i>Monitoring of Ambient Air Quality</i>				
(c) Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>				
(d) Sampling Location	<i>Premises of NTPC, Barauni</i>				
(e) Method of Sampling	IS 5182 (Part - 14)				
(f) Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger				
(g) Instrument ID	RDS-1, FPM-1				
(h) Sample Quantity	30 ml x 6 (for each NO _x , SO ₂)				
(i) Sample Code	<i>A-1931</i>				
(j) Sample Condition on Receipt	Fit for Analysis				
(k) Items required to be tested	As per contract				
(l) Whether any specific Method of Test has been suggested by the customer	No				
(m) Date of receiving the sample in Laboratory	<i>13.06.23</i>				
(n) Analysis Start Date / Analysis Completion Date	<i>13.06.23 / 16.06.23</i>				
(o) Meteorological Data	Max ⁿ Temperature	41.0 °C			
	Min ⁿ Temperature	33.0 °C			
	Relative Humidity	35%			
	Wind Direction	E			
	Wind Speed	4.0 Km/hr			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station	
				Near Vinod Bhawan (Township)	
				RESULTS	
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	81.4	Avg. value: 78.9
				81.9	
				73.2	
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	50.0	35.5	Avg. value: 38.9
				39.3	
				41.8	
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	50.0	24.4	Avg. value: 15.7
				13.0	
				15.6	
				8.8	
				10.7	
4. Oxides of Nitrogen as NO _x	(µg / m ³)	IS 5182 (Part-6)	50.0	34.5	Avg. value: 34.0
				33.2	
				29.9	
				31.9	
				37.6	
				36.5	

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29 11:20:40 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29 11:24:12 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. +918626886249, +919431047908 Email: shpatna@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatenthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/1931(A)</i>	Date: <i>22.06.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Date: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by	SHIVA TEST HOUSE on <i>12.06.23</i>			
[d] Sampling Location	<i>Premises of NTPC, Barauni</i>			
[e] Method of Sampling	IS 5182(Part -14)			
[f] Sampling Environmental Condition	Temp.(^o C)	41	Humidity(%) 35	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger			
[h] Instrument ID	RDS-1, FPM-1			
[i] Sample Code	<i>A-1931</i>			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	<i>13.06.23</i>			
[n] Analysis Start Date/Analysis Completion Date	<i>13.06.23 / 16.06.23</i>			
Parameters	Unit	Method of Test	Standard as per NAAQS 2008	Sampling Station
				<i>Near Vinod Bhawan (Township)</i>
1. Carbon Monoxide(CO)	mg /m ³	IS 5182 (Part-10)	4 mg/m ³	0.57
2. Lead (Pb)	µg / m ³	IS 5182 (Part-22)	1 µg/m ³	0.12
3. Ammonia as NH ₃	µg /m ³	IS 5182 (Part-9)	400 µg/m ³	7.0
4. Ozone (O ₃)	µg /m ³	IS 5182 (Part-9)	180 µg/m ³	22.2
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182 (Part-11)	5 µg/m ³	0.13
6. Benzo (a) Pyrene	ng/ m ³	IS 5182 (Part-12)	1 ng/m ³	0.22
7. Arsenic (As)	ng /m ³	AAS Method	6 ng/m ³	0.24
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	2.99

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.06.29 11:20:49 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.06.29 11:34:27 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Anzha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918076580249, +919431047908 Email: shivanet@shiva.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2894	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>												
[c] Sample Collected by	<i>By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23</i>												
[d] Sampling Location	<i>Collected from Near Main Gate (Stage 1)</i>												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	STH/Equip/97,391-DTH-2022												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-2894												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	22.07.23												
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 23.07.23												
[o] Meteorological Data	<table border="1"> <tr><td>Maxⁿ Temperature</td><td>34.0 °C</td></tr> <tr><td>Minⁿ Temperature</td><td>30.0 °C</td></tr> <tr><td>Relative Humidity</td><td>68%</td></tr> <tr><td>Wind Direction</td><td>ESE</td></tr> <tr><td>Wind Speed</td><td>15 Km./hr.</td></tr> </table>			Max ⁿ Temperature	34.0 °C	Min ⁿ Temperature	30.0 °C	Relative Humidity	68%	Wind Direction	ESE	Wind Speed	15 Km./hr.
Max ⁿ Temperature	34.0 °C												
Min ⁿ Temperature	30.0 °C												
Relative Humidity	68%												
Wind Direction	ESE												
Wind Speed	15 Km./hr.												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Main Gate (Stage 1)									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	77.4 68.7 71.4	Avg. value: 72.5								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	49.3 35.4 45.5	Avg. value: 43.4								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	19.1 11.3 8.1 9.1 12.1 21.1	Avg. value: 13.5								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	39.0 39.1 28.7 26.0 34.9 39.7	Avg. value: 34.6								

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:40:53 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:50:08 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aartha, Road No. 5A, Parlipura Colony, Patna - 800 013 (Bihar)
 Mob. +918676886249, +919431041908 Email : atpanna1@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2895	Di: 02.08.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23												
[d] Sampling Location	Collected from Near Ash Dyke												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger												
[g] Instrument ID	STH/Equip/98,392-DTI-2022												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-2895												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	22.07.23												
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 23.07.23												
[o] Meteorological Data	<table border="1"> <tr><td>Max^m Temperature</td><td>34.0 °C</td></tr> <tr><td>Min^m Temperature</td><td>30.0 °C</td></tr> <tr><td>Relative Humidity</td><td>66%</td></tr> <tr><td>Wind Direction</td><td>ESE</td></tr> <tr><td>Wind Speed</td><td>15 Km./hr.</td></tr> </table>			Max ^m Temperature	34.0 °C	Min ^m Temperature	30.0 °C	Relative Humidity	66%	Wind Direction	ESE	Wind Speed	15 Km./hr.
Max ^m Temperature	34.0 °C												
Min ^m Temperature	30.0 °C												
Relative Humidity	66%												
Wind Direction	ESE												
Wind Speed	15 Km./hr.												
Parameters	Unit	Method of Test	Standard as per ISASIS 2009	Sampling Station									
				Near Ash Dyke									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	75.1 62.7 69.4	Avg. value: 69.4								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	47.5 33.8 43.8	Avg. value: 41.7								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	41.8 38.6 23.2 26.5 36.5 18.6	Avg. value: 14.2								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	41.8 38.6 23.2 26.5 36.5 45.1	Avg. value: 35.3								

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02 17:41:04 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.08.02 17:50:23 +05'30'
Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Azada, Road No. 5A, Padipatra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249, +919431047908 Email: shivapara1@yahoo.co.in, info@shivatest.com
Website: www.shivatest.com, www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2896	Dt: 02.08.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022										
[a] Name and address of the Customer		NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116											
[b] Details of Sample		Monitoring of Ambient Air Quality											
[c] Sample Collected by		By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23											
[d] Sampling Location		Collected from Near CW, Pump House-(Stage-2)											
[e] Method of Sampling		IS 5182 (Part - 14)											
[f] Details of Sample Container (No. & Type of Container)		Filter Paper; Glass Impinger											
[g] Instrument ID		STH/Equip/85, STH/Equip/40											
[h] Sample Quantity		30 ml x 6 (for each NO ₂ , SO ₂)											
[i] Sample Code		A-2896											
[j] Sample Condition on Receipt		Fit for Analysis											
[k] Items required to be tested		As per contract											
[l] Whether any specific Method of Test has been suggested by the customer		No											
[m] Date of receiving the sample in Laboratory		22.07.23											
[n] Analysis Start Date / Analysis Completion Date		22.07.23 / 23.07.23											
[o] Meteorological Data		<table border="1"> <tr> <td>Max^m Temperature</td> <td>34.0^oC</td> </tr> <tr> <td>Min^m Temperature</td> <td>30.0^oC</td> </tr> <tr> <td>Relative Humidity</td> <td>66%</td> </tr> <tr> <td>Wind Direction</td> <td>ESE</td> </tr> <tr> <td>Wind Speed</td> <td>15 Km./hr</td> </tr> </table>		Max ^m Temperature	34.0 ^o C	Min ^m Temperature	30.0 ^o C	Relative Humidity	66%	Wind Direction	ESE	Wind Speed	15 Km./hr
Max ^m Temperature	34.0 ^o C												
Min ^m Temperature	30.0 ^o C												
Relative Humidity	66%												
Wind Direction	ESE												
Wind Speed	15 Km./hr												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near CW, Pump House-(Stage-2)									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	73.1	Avg. value: 68.5								
				62.4									
				69.9									
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	45.1	Avg. value: 40.5								
				33.8									
				42.6									
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	13.8	Avg. value: 11.7								
				11.1									
				9.9									
				8.9									
				10.9									
				15.8									
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-5)	80.0	41.6	Avg. value: 32.8								
				38.4									
				23.5									
				22.2									
				32.2									
				38.9									

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:41:15 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:50:37 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to involved amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
 Mob : +918676886249 ; +919431047908 Email : sthatna1@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/2897	Di: 02.08.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.07.23												
[d] Sampling Location	Collected from Near Vinod Bhawan (Township)												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	STH/Equip/84,390-DHI-2022												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-2897												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	22.07.23												
[n] Analysis Start Date / Analysis Completion Date	22.07.23 / 23.07.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Max^m Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Min^m Temperature</td> <td>30.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>66%</td> </tr> <tr> <td>Wind Direction</td> <td>ESE</td> </tr> <tr> <td>Wind Speed</td> <td>15 Km./hr.</td> </tr> </table>			Max ^m Temperature	34.0 °C	Min ^m Temperature	30.0 °C	Relative Humidity	66%	Wind Direction	ESE	Wind Speed	15 Km./hr.
Max ^m Temperature	34.0 °C												
Min ^m Temperature	30.0 °C												
Relative Humidity	66%												
Wind Direction	ESE												
Wind Speed	15 Km./hr.												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Vinod Bhawan (Township)									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	77.5	Avg. value: 70.2								
				62.6									
				70.6									
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	46.4	Avg. value: 41.4								
				33.9									
				43.9									
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	15.8	Avg. value: 12.2								
				12.1									
				7.9									
				8.9									
				10.9									
				17.8									
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	40.3	Avg. value: 34.0								
				38.4									
				26.2									
				24.8									
				34.9									
				39.6									

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.08.02
17:41:26 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.08.02
17:50:51 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patligutra Colony, Patna – 800 013 (Bihar)
 Mob : +918676886249 ; +919431047908 Email : sthpatna1@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3838	Di: 05.09.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23												
[d] Sampling Location	Collected from Near Main Gate (Stage 1)												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	STH/Equip/97,391-DTH-2022												
[h] Sample Quantity	30 ml x 6 (for each NO₂, SO₂)												
[i] Sample Code	A-3838												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	23.08.23												
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23												
[o] Meteorological Data	<table border="1"> <tr><td>Maxⁿ Temperature</td><td>33.0 °C</td></tr> <tr><td>Minⁿ Temperature</td><td>30.0 °C</td></tr> <tr><td>Relative Humidity</td><td>69%</td></tr> <tr><td>Wind Direction</td><td>ESE</td></tr> <tr><td>Wind Speed</td><td>15 Km/hr.</td></tr> </table>			Max ⁿ Temperature	33.0 °C	Min ⁿ Temperature	30.0 °C	Relative Humidity	69%	Wind Direction	ESE	Wind Speed	15 Km/hr.
Max ⁿ Temperature	33.0 °C												
Min ⁿ Temperature	30.0 °C												
Relative Humidity	69%												
Wind Direction	ESE												
Wind Speed	15 Km/hr.												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Main Gate (Stage 1)									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	75.4 63.3 71.9	Avg. value: 70.2								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	41.8 31.6 39.2	Avg. value: 37.6								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	16.1 13.4 7.0 10.1 12.1 17.1	Avg. value: 12.6								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	38.3 34.2 28.7 29.4 34.2 36.9	Avg. value: 33.6								

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:24:22 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:42:32 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashra, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob : +918576885249 ; +919431047908 Email : sitpatna@shivaoo.com ; info@shivatest.com
 Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3839	Di: 05.09.2023	Your PO No. 4000283588-057-1019	Di: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23												
[d] Sampling Location	Collected from Near Ash Dyke												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	STH/EQIP/54 STH/EQIP/55												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-3839												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	23.08.23												
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Maxⁿ Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Minⁿ Temperature</td> <td>30.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>66%</td> </tr> <tr> <td>Wind Direction</td> <td>ESE</td> </tr> <tr> <td>Wind Speed</td> <td>12 Km./hr.</td> </tr> </table>			Max ⁿ Temperature	34.0 °C	Min ⁿ Temperature	30.0 °C	Relative Humidity	66%	Wind Direction	ESE	Wind Speed	12 Km./hr.
Max ⁿ Temperature	34.0 °C												
Min ⁿ Temperature	30.0 °C												
Relative Humidity	66%												
Wind Direction	ESE												
Wind Speed	12 Km./hr.												
Sampling Station													
Near Ash Dyke													
RESULTS													
Parameters	Unit	Method of Test	Standard as per NAQS 2009	RESULTS									
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	73.4 69.6 63.7	Avg. value: 68.9								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	41.6 31.5 39.1	Avg. value: 37.4								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	17.8 13.1 8.9 9.9 11.9 18.8	Avg. value: 13.4								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	36.9 33.6 28.2 28.9 34.2 36.3	Avg. value: 33.0								

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05 11:24:47 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05 11:42:43 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aasha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : sthpटना@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10593

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3840	Date: 05.09.2023	Your PO No. 4000283588-057-1019	Date: 20.07.2022		
(a) Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
(b) Details of Sample	Monitoring of Ambient Air Quality				
(c) Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23				
(d) Sampling Location	Collected from Near CW, Pump House-(Stage-2)				
(e) Method of Sampling	IS 5182 (Part - 14)				
(f) Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger				
(g) Instrument ID	STH/EQIP/113STH/EQIP/114				
(h) Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
(i) Sample Code	A-3840				
(j) Sample Condition on Receipt	Fit for Analysis				
(k) Items required to be tested	As per contract				
(l) Whether any specific Method of Test has been suggested by the customer	No				
(m) Date of receiving the sample in Laboratory	23.08.23				
(n) Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23				
(o) Meteorological Data	Max ^m Temperature	34.0 °C			
	Min ^m Temperature	30.0 °C			
	Relative Humidity	66%			
	Wind Direction	ESE			
	Wind Speed	12 Km./hr.			
Parameters	Unit	Method of Test	Standard as per NAAQS 2029	Sampling Station	
				Near CW, Pump House-(Stage-2)	
				RESULTS	
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	74.1 59.3 68.3	Avg. value: 67.2
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	41.4 31.4 37.7	Avg. value: 36.8
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	15.8 14.1 9.9 10.9 14.8 17.8	Avg. value: 13.9
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	40.3 39.1 26.2 31.6 39.6 43.0	Avg. value: 36.6

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05 11:25:04 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.09.05 11:42:56 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

-- END OF TEST REPORT --

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob : +918676886240 ; +919431047908 Email : shrestha1@shivaon.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10682

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. STH/TR/23-24/3841	Dt: 05.09.2023	Your PO No. 4000283588-057-1019	Dt: 20.07.2022										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By Chitraranjan Kumar (Lab Representative) of Shiva Test House on 21.08.23												
[d] Sampling Location	Collected from Near Canteen Stage II												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger												
[g] Instrument ID	STHEQIP/115 STHEQIP/116												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	A-3841												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	23.08.23												
[n] Analysis Start Date / Analysis Completion Date	23.08.23 / 30.08.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Max^m Temperature</td> <td>34.0 °C</td> </tr> <tr> <td>Min^m Temperature</td> <td>30.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>66%</td> </tr> <tr> <td>Wind Direction</td> <td>ESE</td> </tr> <tr> <td>Wind Speed</td> <td>12 Km./hr</td> </tr> </table>			Max ^m Temperature	34.0 °C	Min ^m Temperature	30.0 °C	Relative Humidity	66%	Wind Direction	ESE	Wind Speed	12 Km./hr
Max ^m Temperature	34.0 °C												
Min ^m Temperature	30.0 °C												
Relative Humidity	66%												
Wind Direction	ESE												
Wind Speed	12 Km./hr												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Near Canteen Stage-II									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	70.8 59.9 67.6	Avg. value: 66.1								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-24)	60.0	41.3 31.3 40.1	Avg. value: 37.6								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	17.8 15.1 9.9 8.9 12.8 15.8	Avg. value: 13.4								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	41.6 38.4 23.5 28.9 36.9 38.9	Avg. value: 34.7								

SHIBESHWAR PRASAD

Digitally signed by SHIBESHWAR PRASAD
Date: 2023.09.05
11:25:15 +05'30'

Verified by:
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.09.05
11:43:06 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

- END OF TEST REPORT -

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Anzha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
 Mob : +918676886249 ; +919431047908 Email : sthpatna@yahoo.co.in ; info@shivatest.com
 Website : www.shivatest.com ; www.shivahouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4422</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>			
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>					
[c] Sample Collected by	<i>By Chitrangan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>					
[d] Sampling Location	<i>CW pump house stage-2</i>					
[e] Method of Sampling	IS 5182 (Part - 14)					
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger					
[g] Instrument ID	<i>STH/Equip/26, STH/Equip/113</i>					
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)					
[i] Sample Code	<i>A-4422</i>					
[j] Sample Condition on Receipt	Fit for Analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	16.09.23					
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23					
[o] Meteorological Data	Max ^m Temperature	33.0 °C				
	Min ^m Temperature	29.0 °C				
	Relative Humidity	75%				
	Wind Direction	S				
	Wind Speed	9.0 Km/hr.				
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station		
				CW pump house stage-2		
RESULTS						
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	75.4	Avg. value:	70.2
				63.3		
				71.9		
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-25)	60.0	41.8	Avg. value:	37.6
				31.6		
				39.2		
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	16.1	Avg. value:	12.6
				13.4		
				7.0		
				10.1		
				12.1		
				17.1		
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	38.3	Avg. value:	33.6
				34.2		
				28.7		
				29.4		
				34.2		
				36.9		

SHIBESHW AR PRASAD Digitally signed by SHIBESHW AR PRASAD Date: 2023.10.05 04:15:33 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad Digitally signed by Shreyasee Prasad Date: 2023.10.05 04:17:36 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249; +919431047908 Email: shiptest@yahoo.co.in; info@shivatest.com
Website: www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4422(A)</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by	<i>By Chiranjay Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>			
[d] Sampling Location	<i>CW pump house stage-2</i>			
[e] Method of Sampling	IS 5182 (Part-14)			
[f] Sampling Environmental Condition	Temp.(^o C)	33	Humidity(%) 75	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger			
[h] Instrument ID	<i>STH/Equip/26, STH/Equip/113</i>			
[i] Sample Code	<i>A-4422</i>			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	16.09.23			
[n] Analysis StartDate/Analysis Completion Date	16.09.23 / 23.09.23			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station <i>CW pump house stage-2</i>
1. Carbon Monoxide(CO)	mg /m ³	IS 5182 (Part-10)	4 mg/m ³	0.34
2. Lead (Pb)	µg / m ³	IS 5182 (Part-22)	1 µg/m ³	0.08
3. Ammonia as NH ₃	µg /m ³	IS 5182 (Part-5)	400 µg/m ³	7.3
4. Ozone (O ₃)	µg /m ³	IS 5182 (Part-9)	180 µg/m ³	21.67
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182 (Part-11)	5 µg/m ³	0.15
6. Benzo (a) Pyrene	ng/ m ³	IS 5182 (Part-12)	1 ng/m ³	0.16
7. Arsenic (As)	ng /m ³	AAS Method	6 ng/m ³	0.21
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	4.35



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
04:15:43 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:17:49 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to involved amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob. : +918676886249 , +919431047908 Email : shiva@shivatest.com ; info@shivatest.com
Website : www.shivatest.com ; www.shivatestfuture.com





SHIVA TEST HOUSE

(Serving since 1988)



RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4423</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>				
[c] Sample Collected by	<i>By Chitrangan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>				
[d] Sampling Location	<i>Vinod Bhawan, NTPC Barauni</i>				
[e] Method of Sampling	IS 5182 (Part - 14)				
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger				
[g] Instrument ID	STH/Equip/27, STH/Equip/114				
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
[i] Sample Code	<i>A-4423</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23				
[o] Meteorological Data	Max ^m Temperature	33.0 °C			
	Min ^m Temperature	29.0 °C			
	Relative Humidity	75%			
	Wind Direction	S			
	Wind Speed	9.0 Km/hr			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station	
				Vinod Bhawan, NTPC Barauni	
				RESULTS	
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	73.4 69.6 63.7	Avg. value: 68.9
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-25)	60.0	41.6 31.5 41.6	Avg. value: 38.2
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	17.8 13.1 8.9 9.9 11.9 18.4	Avg. value: 13.4
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-5)	80.0	36.9 33.6 28.2 28.9 34.2 36.3	Avg. value: 33.0

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
04:15:55 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:17:58 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

- This report applies only to sample tested as above.
- Total Liability of our Laboratory is limited to invoiced amount.
- Test Report endorsed only the tests and not the product certificate.
- Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob: +918676886249; +919431047908 Email: shipatna@yahoo.co.in; info@shivatest.com
Website: www.shivatest.com; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4423(A)</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>	
[a] Name and address of the Customer:	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116			
[b] Details of Sample	Monitoring of Ambient Air Quality			
[c] Sample Collected by	By <i>Chitraranjan Kumar (Lab Representative)</i> of Shiva Test House on <i>15.09.23</i>			
[d] Sampling Location	Vinod Bhawan, NTPC Barauni			
[e] Method of Sampling	IS 5182(Part -14)			
[f] Sampling Environmental Condition	Temp.(^o C)	33	Humidity(%) 75	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger			
[h] Instrument ID	STH/Equip/27, STH/Equip/114			
[i] Sample Code	A-4423			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	16.09.23			
[n] Analysis StartDate/Analysis Completion Date	16.09.23 / 23.09.23			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station Near Vinod Bhawan NTPC Barauni
1. Carbon Monoxide (CO)	mg /m ³	IS 5182(Part-10)	4 mg/m ³	0.46
2. Lead (Pb)	µg / m ³	IS 5182(Part-22)	1 µg/m ³	0.09
3. Ammonia as NH ₃	µg /m ³	IS 5182(Part-5)	400 µg/m ³	8.4
4. Ozone (O ₃)	µg /m ³	IS 5182(Part-9)	180 µg/m ³	23.4
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182(Part-11)	5 µg/m ³	0.15
6. Benzo (a) Pyrene	ng/ m ³	IS 5182(Part-12)	1 ng/m ³	0.14
7. Arsenic (As)	ng /m ³	AAS Method	6 ng/m ³	0.21
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	4.35



SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05 04:16:05 +05'30'

Verified by :
Dr. Shiveshwar Prasad
Technical Manager

Shreyasee Prasad

Digitally signed by Shreyasee Prasad
Date: 2023.10.05 04:18:07 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aestha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob: +918676886249 ; +919431047908 Email: shipatna1@shivoce.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4424</i>	Dt: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Dt: <i>20.07.2022</i>										
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116												
[b] Details of Sample	Monitoring of Ambient Air Quality												
[c] Sample Collected by	By <i>Chitraranjan Kumar</i> (Lab Representative) of Shiva Test House on <i>15.09.23</i>												
[d] Sampling Location	Bariyahi Village												
[e] Method of Sampling	IS 5182 (Part - 14)												
[f] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger												
[g] Instrument ID	RDS-1, FPM-1												
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)												
[i] Sample Code	<i>A-4424</i>												
[j] Sample Condition on Receipt	Fit for Analysis												
[k] Items required to be tested	As per contract												
[l] Whether any specific Method of Test has been suggested by the customer	No												
[m] Date of receiving the sample in Laboratory	16.09.23												
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23												
[o] Meteorological Data	<table border="1"> <tr> <td>Max^m Temperature</td> <td>33.0 °C</td> </tr> <tr> <td>Min^m Temperature</td> <td>29.0 °C</td> </tr> <tr> <td>Relative Humidity</td> <td>75%</td> </tr> <tr> <td>Wind Direction</td> <td>S</td> </tr> <tr> <td>Wind Speed</td> <td>9.0 Km/hr.</td> </tr> </table>			Max ^m Temperature	33.0 °C	Min ^m Temperature	29.0 °C	Relative Humidity	75%	Wind Direction	S	Wind Speed	9.0 Km/hr.
Max ^m Temperature	33.0 °C												
Min ^m Temperature	29.0 °C												
Relative Humidity	75%												
Wind Direction	S												
Wind Speed	9.0 Km/hr.												
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station									
				Bariyahi Village									
RESULTS													
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	73.4 69.6 63.7	Avg. value: 67.2								
2. Particulate Matter (PM _{2.5})	(µg / m ³)	IS 5182 (Part-25)	60.0	41.6 31.3 41.6	Avg. value: 36.8								
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	15.8 14.1 9.9 10.9 14.8 17.8	Avg. value: 13.9								
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	40.3 39.1 26.2 31.6 39.6 43.0	Avg. value: 36.6								

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
04:16:13 +0530

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:18:15 +0530

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aashita, Road No. 5A, Patlipura Colony, Patna – 800 013 (Bihar)
Mob : +918676886249 ; +919431047908 Email : shipatna1@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com - www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4424(A)</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI - 851 116			
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>			
[c] Sample Collected by	By Chitranjan Kumar (Lab Representative) of Shiva Test House on <i>23.09.23</i>			
[d] Sampling Location	<i>Bariyahi Village</i>			
[e] Method of Sampling	IS 5182(Part -14)			
[f] Sampling Environmental Condition	Temp.(°C)	33	Humidity(%) 75	
[g] Details of Sample Container (No. & Type of Container)	Filter Paper; Glass Impinger			
[h] Instrument ID	RDS-1, FPM-1			
[i] Sample Code	<i>A-4424</i>			
[j] Sample Condition on Receipt	Fit for Analysis			
[k] Items required to be tested	As per contract			
[l] Whether any specific Method of Test has been suggested by the customer	No			
[m] Date of receiving the sample in Laboratory	<i>16.09.23</i>			
[n] Analysis Start Date/Analysis Completion Date	<i>16.09.23 / 23.09.23</i>			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station
				<i>Bariyahi Village</i>
1. Carbon Monoxide (CO)	mg / m ³	IS 5182 (Part-10)	4 mg/m ³	0.19
2. Lead (Pb)	µg / m ³	IS 5182 (Part-22)	1 µg/m ³	0.09
3. Ammonia as NH ₃	µg / m ³	IS 5182 (Part-5)	400 µg/m ³	14.1
4. Ozone (O ₃)	µg / m ³	IS 5182 (Part-9)	180 µg/m ³	35.6
5. Benzene(C ₆ H ₆)	µg / m ³	IS 5182 (Part-11)	5 µg/m ³	0.15
6. Benzo (a) Pyrene	ng / m ³	IS 5182 (Part-12)	1 ng/m ³	0.15
7. Arsenic (As)	ng / m ³	AAS Method	6 ng/m ³	0.15
8. Nickel as Ni	ng / m ³	AAS Method	20 ng/m ³	2.90

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
04:16:23 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:18:26 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

— END OF TEST REPORT —

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna - 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: shivamatlab@yahoo.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatesthouse.com





SHIVA TEST HOUSE

(Serving since 1988)



TC-10582

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4425</i>	Di: <i>05.10.2023</i>	Your PO No. <i>4000283588-057-1019</i>	Di: <i>20.07.2022</i>		
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116				
[b] Details of Sample	Monitoring of Ambient Air Quality				
[c] Sample Collected by	By <i>Chitranjan Kumar</i> (Lab Representative) of Shiva Test House on <i>15.09.23</i>				
[d] Sampling Location	Ash dyke area of NTPC Barauni				
[e] Method of Sampling	IS 5182 (Part - 14)				
[f] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger				
[g] Instrument ID	STH/Equip/55, STH/Equip/116				
[h] Sample Quantity	30 ml x 6 (for each NO ₂ , SO ₂)				
[i] Sample Code	<i>A-4425</i>				
[j] Sample Condition on Receipt	Fit for Analysis				
[k] Items required to be tested	As per contract				
[l] Whether any specific Method of Test has been suggested by the customer	No				
[m] Date of receiving the sample in Laboratory	16.09.23				
[n] Analysis Start Date / Analysis Completion Date	16.09.23 / 23.09.23				
[o] Meteorological Data	Max ⁿ Temperature	33.0 °C			
	Min ⁿ Temperature	29.0 °C			
	Relative Humidity	75%			
	Wind Direction	S			
	Wind Speed	9.0 Km./hr			
Parameters	Unit	Method of Test	Standard as per NAAQS 2009	Sampling Station	
				Ash dyke area of NTPC Barauni	
RESULTS					
1. Particulate Matter (PM ₁₀)	(µg / m ³)	IS 5182 (Part-23)	100.0	74.1 59.3 68.3	Avg. value: 67.2
2. Particulate Matter (PM _{2.5})	(µg / m ³)	CPCB (GMAAP Vol. I)	60.0	41.4 31.4 37.7	Avg. value: 36.8
3. Sulphur Dioxide as SO ₂	(µg / m ³)	IS 5182 (Part-2)	80.0	15.8 14.1 9.9 10.9 14.8 17.8	Avg. value: 13.9
4. Oxides of Nitrogen as NO ₂	(µg / m ³)	IS 5182 (Part-6)	80.0	40.3 39.1 26.2 31.6 39.6 43.0	Avg. value: 36.6

SHIBESHWAR PRASAD
Digitally signed by SHIBESHWAR PRASAD
Date: 2023.10.05
04:16:32 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager



Shreyasee Prasad
Digitally signed by Shreyasee Prasad
Date: 2023.10.05
04:18:35 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 122-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 015 (Bihar)
Mob. : +918676886249 ; +919431047908 Email : shivatest@shivahub.co.in ; info@shivatest.com
Website : www.shivatest.com ; www.shivatestshiva.com





SHIVA TEST HOUSE

(Serving since 1988)

RECOGNISED AS ENVIRONMENTAL LABORATORY BY MoEFCC, GOVT. OF INDIA, UNDER ENVIRONMENT (PROTECTION) ACT 1986, DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref. No. <i>STH/TR/23-24/4425(A)</i>	Dt: <i>05.10.2023</i>		Your PO No. <i>4000283588-057-1019</i>		Dt: <i>20.07.2022</i>	
[a] Name and address of the Customer	NTPC LIMITED BARAUNI THERMAL POWER PLANT PROJECT NH 31, BARAUNI BEGUSARAI – 851 116					
[b] Details of Sample	<i>Monitoring of Ambient Air Quality</i>					
[c] Sample Collected by	<i>Ily Chitranjan Kumar (Lab Representative) of Shiva Test House on 15.09.23</i>					
[d] Sampling Location	<i>Ash dyke area of NTPC Barauni</i>					
[e] Method of Sampling	IS 5182(Part -14)					
[f] Sampling Environmental Condition	Temp.(^o C)	33	Humidity(%)	75		
[g] Details of Sample Container (No. & Type of Container)	Filter Paper, Glass Impinger					
[h] Instrument ID	STH/Equip/55, STH/Equip/116					
[i] Sample Code	A-4425					
[j] Sample Condition on Receipt	Fit for Analysis					
[k] Items required to be tested	As per contract					
[l] Whether any specific Method of Test has been suggested by the customer	No					
[m] Date of receiving the sample in Laboratory	16.09.23					
[n] Analysis Start Date/Analysis Completion Date	16.09.23 / 23.09.23					
Parameters	Unit	Method of Test	Standard as per NAAQS2009	Sampling Station		
				<i>Ash dyke area of NTPC Barauni</i>		
1. Carbon Monoxide(CO)	mg /m ³	IS 5182(Part-10)	4 mg/m ³	0.19		
2. Lead (Pb)	µg / m ³	IS 5182(Part-22)	1 µg/m ³	0.11		
3. Ammonia as NH ₃	µg /m ³	IS 5182(Part-5)	400 µg/m ³	14.1		
4. Ozone (O ₃)	µg /m ³	IS 5182(Part-9)	180 µg/m ³	35.6		
5. Benzene(C ₆ H ₆)	µg /m ³	IS 5182(Part-11)	5 µg/m ³	0.15		
6. Benzo (a) Pyrene	ng/ m ³	IS 5182(Part-12)	1 ng/m ³	0.15		
7. Arsenic (As)	ng /m ³	AAS Method	6 ng/m ³	0.18		
8. Nickel as Ni	ng /m ³	AAS Method	20 ng/m ³	2.99		



SHIBESHWAR PRASAD
Digitally signed by
SHIBESHWAR PRASAD
Date: 2023.10.05
04:16:43 +05'30'

Verified by :
Dr. Shibeshwar Prasad
Technical Manager

Shreyasee Prasad
Digitally signed by
Shreyasee Prasad
Date: 2023.10.05
04:18:44 +05'30'

Authorized Signatory
Dr. (Mrs.) Shreyasee Prasad
Quality Manager

– END OF TEST REPORT –

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

Page 1 of 1

Contact us : 123-C, Aastha, Road No. 5A, Patliputra Colony, Patna – 800 013 (Bihar)
Mob.: +918676886249 ; +919431047908 Email: shivatest@shiva.co.in ; info@shivatest.com
Website: www.shivatest.com ; www.shivatesthouse.com

