



भारत कोकिंग कोल लिमिटेड
(कोल इण्डिया लिमिटेड की एक अनुषंगी कंपनी)
Bharat Coking Coal Limited
(A Subsidiary of Coal India Limited)
(एक मिनीरत्न कंपनी / A Miniratna Company)
(भारत सरकार का उपक्रम / A Government of India Undertaking)

Ref No.BCCL/5.0 MCW/2026-27/73

Date:-01.06.2026

To
The Director
Ministry of Environment, Forest & CC
2nd Floor, Headquarter- Jharkhand State Housing Board
Harmu Chowk
Ranchi, Jharkhand-834002

Sub: Six monthly reports on implementation of Environmental measures for the period from Oct' 2025 to Mar' 2026 in respect of 5.0 MTPA Madhuband Coal Washery.

Ref.:- EC Order No. J-11015/234/2009-IA.II (M) dated 25.01.2012

Dear Sir,

Kindly find enclosed herewith the six-monthly report on implementation of Environmental measures for the period from Oct' 2025 to Mar' 2026 in respect of 5.0 MTPA Madhuband Coal Washery.

This is for your kind information and doing needful, please.

Yours faithfully

Project Officer
New MCW

Encl: EC Compliance Report

C.C to

1. General Manager, Block-II Area
2. Area Manager (Envl.), Block-II Area

COMPLIANCE OF EC CONDITIONS OF 5.0 MTPA MADHUBAND NLW COAL WASHERY

EC order No. J-11015/234/2009-IA-II (M), dated: 25.01.2012

October 2025 to March 2026

A.	Specific Conditions:	Compliance Status
(i)	The capacity of the Washery shall not exceed 6.5 MTPA without prior environmental clearance from this Ministry.	Being Complied. Madhuband NLW Coal Washery will not exceed 6.5 MTPA capacity without prior NOC from MoEF&CC.
(ii)	Transport of washed coal from the Washery to the steel plants in Durgapur, Bhilai and Bokaro shall be by rail from the railway siding located within the premises.	Being Complied. Railway Siding located within the premises of the Madhuband NLW Coal Washery, is being used for transportation of Washed Coal products to identified steel plant.
(iii)	The entire coal rejects from the Washery shall be fully utilised in an FBC based TPP for which open tender for operation of the FBC based TPP has been called by the proponent. The FBC based TPPs shall be preferably located in or near Jharia coalfields. The Company shall enter into a long-term MOU for utilisation of the coal rejects from the Washery within 3 months and also for utilisation of fly-ash generated from the FBC based TPP with M/s ACC Ltd or any suitable company.	Being Complied. Government of India has changed policy of reject disposal and handling which is being complied. The rejects produced are being stacked separately and its disposal is carried out as per the <i>Policy for Handling & Disposal of Washery Rejects, 2021</i> prescribed by the Ministry of Coal.
(iv)	The entire coal rejects to be sent to the FBC based TPP shall be by rail mode.	Being Complied. Railway Siding, located within the premises of the Madhuband NLW Coal Washery, is being used for transportation of Rejects.
(v)	As the Washery is located in Jharia Coalfields, which forms a part of the Critically Polluted Area of Dhanbad, the company shall implement the mitigative measures outlined in the Environmental Action Plan for CPA-Dhanbad applicable to the project, which would be in conformity with the Environmental Action Plan prepared for Dhanbad Area to keep the levels of air quality parameters well within limits. The proponent shall implement mitigative measures such as providing water sprinkling arrangements at various transfer points and loading/unloading points, regular maintenance of vehicles	Being Complied. This unit is operating as per the guidelines of Environmental Action Plan for CPA-Dhanbad & takes all the mitigative measures to keep air quality parameters well within limit. The unit has installed sufficient sprinkling arrangements on roads and all coal transfer points (Photographs of mobile water sprinkler are enclosed in <i>ANNEXURE-I</i>). Regular maintenance of vehicles is being done to keep minimum source emissions. (Annexure2) Three tier green belt with native species is

	used for coal transportation, periodic and regular checking of vehicles for source emission, main approach roads used for transportation of raw coal to be black topped, monitoring for particulate matter (PM10 and PM2.5) and maintenance of records thereof, bag filter at suitable locations of the Washery, wind shelters/wind breaks in coal stockyards (raw coal, clean coal and coal rejects), providing 3-tier green belt with native species.	being developed, and plantation drives are also carried out at regular intervals. Pictures of plantation are enclosed in ANNEXURE-3 . Pressure filter has been installed and in operation at the Washery.
(vi)	The proponent shall implement a plan to regularly dredge River Damodar 0.5 km upstream and 1km length downstream of the Washery free of sludge, coal fines and silt which has accumulated in the river over a period of time and dispose the wastes in an environmentally friendly manner, in consultation with the Jharkhand State Pollution Control Board.	Not Applicable. 5.0 Mtpa Madhuband NLW Coal Washery is operating on Zero- Discharge Basis and no waste water is being discharged from this unit. Further, the Washery Unit is nearly 10 KM away from Damodar River and no effluent/ drainage from this unit will meet to Damodar River. Therefore, no sludge or coal fines deposit and siltation will be caused by the Washery.
(vii)	The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site(s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.	Being Complied. Washed Coal and Washed Coal Power is being stored in silos. Raw Coal and Coal Rejects are being stacked within stockyards fitted with wind breakers/ shields and sprinkling arrangements has been made to prevent heating of stored Raw Coal.
(viii)	Hoppers of the coal crushing unit and Washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.	Being Complied. The unit has installed Water Sprinkling system at all crushing & coal transfer points to control fugitive emissions. The pressure filter has also been installed at washery.

(ix)	All approach roads shall be black topped and all internal roads shall be black topped or concreted. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using local species shall be developed along the main roads, and approach roads to the Washery.	Being Complied. Approach roads have been concreted (Annexure 4) and internal roads is being concreted. Presently, cleaning of roads is being done manually in regular manner. Gabion plantation along the main/approach road is being done. Further, plantation activities have been carried out at different locations in the project.
(x)	High capacity/tonnage trucks shall be engaged for transportation of raw coal to the Washery and which shall be optimally loaded and covered with tarpaulin with no spillage en route. The trucks shall be properly maintained and emissions shall be below notified limits.	Being Complied. Trucks having valid PUC certificates (Annexure 2) are being used for transportation of raw coal to the Washery, and are loaded optimally within the limits and covered with tarpaulin to ensure no spillage en route.
(xi)	The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal and coal rejects of every consignment received and washed and the same shall be uploaded along with quantum of raw coal obtained and washed and dispatched every month on the Company's website every month.	Being Complied. Proper records of Ash content of Raw Coal, Clean Coal and Coal By-products is being maintained and being uploaded with this report.(Annexure 5)
(xii)	Water for the coal Washery shall be met from mine water from BCCL mines. No groundwater shall be used for the Washery plant operations. Any additional water requirement envisaged shall be obtained by recycle/reuse to the maximum extent and from rainwater harvesting measures. Pressure Filter and Thickener shall be installed in the Washery for water recovery and reuse.	Complied. Water is being recycled in Washery. Make up water for Washery is being met from the Block II mine of BCCL along with waste water from nearby BCCL colonies. Construction of infrastructure for Rain Water Harvesting has been completed. No groundwater is being used for the Washery plant operations. The Pressure Filter and Thickener are installed and in operation. (Annexure6)
(xiii)	The Washery unit shall be a zero-discharge facility and no waste water shall be discharged from the Washery into the drains/natural watercourses. The Washery shall be provided with a garland drain to carry/recycle the effluents generated from the Washery operations and coal fines collected shall be recovered from the slurry and concentrated and also sold for users. The wastewater from the Washery shall be free of coal dust and particles and recycled	Complied. Washery is operating on Zero-Liquid Discharge Basis and no waste water is being discharged from this unit. The Washery has been provided with a garland drain. (Annexure 7)

	for development and maintenance of green belt and in the plant operations.	
(xiv)	A separate storm water drain to carry storm water from the Washery for discharge outside the premises to nallahs/streams shall be established. The storm water drains shall be regularly desilted.	Complied. Separate drain to carry out the storm water from the Washery has been constructed and is cleaned regularly.
(xv)	Industrial wastewater (workshop and wastewater from the Washery) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.	Oil and grease trap is being installed for treatment of workshop effluents along with workshop.
(xvi)	Green belt shall be developed using local species all along the periphery of the site, along the areas such as the crushing unit and stockyard, transfer and loading points.	Being Complied. 12.4 Ha of 3-tier plantation has already been done. Further, plantation of 500 saplings of local species has been done recently in and around the Washery. Also, regular plantation drives to further boost the green cover are being carried out during World Environment Day, Van Mahotsav, Vriksharopan Abhiyaan, etc.
(xvii)	Socio-economic and welfare measures for the local communities shall be implemented under CSR with an outlay of Rs 2 crores/year. The village-wise activities undertaken and proposed and the expenditure thereon shall be displayed on the company website every year. A Monitoring Cell shall be established for monitoring activities undertaken under CSR.	Being Complied. As per Company's policy, a monitoring Cell of the Company already exists for monitoring activities under taken under CSR.
(xviii)	Levels of heavy metals such as mercury in raw coal, washed coal and rejects shall be analysed twice in a year and records maintained thereof and furnished as part of the Compliance Report to the MOEF RO, Bhubaneswar.	The level of heavy metal for raw coal receiving from Block-II Mines is enclosed as Annexure 8.
(xix)	Corporate Environment Responsibility: a) The company shall have a well laid down Environment Policy approved by the Board of Directors. b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any	Being Complied. A well-defined Corporate Environment Policy has already been laid down and approved by the Board of Directors. This is also posted on BCCL website. (https://www.bcclweb.in/environment/CEP_280220.pdf).

	infringements/deviation/ violation of the environmental or forest norms/conditions. c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	An Environment department at BCCL H.Q. looks after the infringements/ deviation/ violation of Environment & Forest norms, environmental issues, and compliances, etc., for all the units running in BCCL. To implement the Corporate Environment Policy, a manual for Environment Personnel is prescribed by CIL : https://www.coalindia.in/media/document s/Guidelines for Environmental Personnel in Mines 20092016 hAukCHt.pdf which has the proper operating procedures. In addition, status of Environment Management is reported to the BCCL Board every quarter. Monitoring is being done by CMPDIL which has NABL accredited laboratory.
B.	General Conditions:	
i.	No change in technology and scope of working of the Washery shall be made without prior approval of the Ministry of Environment and Forests.	Being Complied.
ii.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board .Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, PM10 and PM2.5 etc. shall be carried out at least once in six months.	Being Complied. Four ambient air monitoring stations for monitoring of PM10, PM2.5, SO2 and NOx have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 9). Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Data of six-monthly monitoring (done by CMPDIL) of heavy metals is also enclosed. Monitoring is being done by CMPDIL, which has NABL accredited laboratory.
iii.	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.	Being Complied. Four ambient air monitoring stations for monitoring of PM10, PM2.5, SO2 and NOx have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 9). Presently, CMPDIL Dhanbad is carrying out regular monitoring of environmental quality work.

iv.	Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals such as Hg, As, Ni, Cd, Cr, and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the state Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.	Being Complied. Four ambient air monitoring stations for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 10). Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Data of six-monthly monitoring (done by CMPDIL) of heavy metals is also enclosed. (Annexure 10) Monitoring for the same is done by CMPDIL having own laboratory recognized under EPA Rules, 1986.
v.	Adequate measures shall be taken for control of noise levels below 85 dBL in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM etc. shall be provided with ear plugs/muffs.	Being Complied. Preventive measure i.e. maintenance is being taken to keep the noise levels below 85 dBL in the work environment. Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Monitoring Reports enclosed as Annexure 9.
v.	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	Complied. All workers are provided with training on safety and health aspect with effective sprinkling and proper enclosure, dust suppression is ensured in the Washery. In addition, protective respiratory devices are being provided to the workmen. As per Company's Policy, periodic PME of all the workmen is being done.
vi.	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	Being Complied. A full- fledged Environment Department, headed by a HoD (Environment) along with a suitable qualified multidisciplinary team of executives which includes Environment, Mining, Excavation, Civil, Survey, Electrical & Mechanical, Forestry discipline executives and technicians (4 nos.) has been established in BCCL Headquarters. They are also trained in ecological restoration, sustainable development, rainwater harvesting methods, etc. At the project level, one Executive in each Area has also been nominated as Project Nodal Officer (Environment) and is also entrusted with the responsibility of compliance and

		observance of the Environmental Acts/ Laws including Environment Protection measures. The activities are monitored on regular basis at Area and at Head quarter levels. HoD (Environment) at Headquarter level coordinates with all the Areas and reports to the Director (Technical) and in turn he reports to the CMD of the company. The team is multidisciplinary and very much motivated under the guidance of company's Director (Technical) and CMD for further capacity building.
vii.	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office Bhubaneshwar.	Complied. Earmarked Funds for Environment Protection and Environment Compliance related activities are allotted in the Budget every financial year, which are kept separately under Environment Head of the Budget.
viii.	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in	Complied. The Washery has already advertised the Environment Clearance letter in local newspapers for wide circulation. A copy of the Environmental Clearance has also been displayed on the Company's website and MoEFCC.
ix.	A copy of the environmental clearance letter shall be marked to concerned Panchayat / Zila Parishad/Municipal Corporation or Urban Local Body/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	Complied. The copy of Environmental Clearance has already been made available to District Collector, local Zila Parishad, Ward Councillor, Municipal Corporation. A copy of the Environmental Clearance has also been displayed on the Company's website.
x.	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	Complied. The Environmental Clearance letter has already been forwarded to Jharkhand State Pollution Control Board, Regional Office, District Industry Centre and Collector's Office for doing the needful.

xi.	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	Being Complied. The Environment Clearance letter has been uploaded on the Company's website. Compliance Status Report is also regularly uploaded on the Company's website every six months. Environment Monitoring Report along with six monthly compliance report are displayed on the Company's website. Monitoring data of environmental quality parameters has been displayed at the project office and being updated regularly.
xii.	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	Complied.
xiii.	The Regional Office of this Ministry located Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Being Complied.
xiv.	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.	Complied.


Project Officer

5.0 MTPA Madhuband NLW Coal Washery

Code of practice for Madhuband NLW Coal Washery is as below:

Sl.No.	Particulars	Compliance
1	Water or Water mixed chemical shall be sprayed at all strategic coal transfer points such as conveyors, loading/unloading points etc. As far as practically possible conveyors, transfer points etc. shall be provided with enclosures.	Water sprinklers installed along conveyor, transfer points and crushing points. The conveyor, transfer points are properly enclosed.
2	The crushers/pulverizes of the coal washeries shall be provided with enclosures, fitted with suitable air pollution control measures and finally emitted through a stack of a minimum height of 30m. conforming particulate matter emission standard of 150 mg/Nm ³ or provided with adequate water sprinkling arrangement	The crushers of the coal washeries are properly enclosed and water sprinkling arrangement is present as air pollution control measures.
3	Water sprinkling by using fine atomizer nozzles arrangement shall be provided on the coal heaps and on around the crushers/pulverizers.	Fixed sprinklers and mobile tankers are being used for water sprinkling on coal heap and around crushers
4	Area, in and around the coal Washery shall be pucca either asphalted or concreted.	Concrete roads have been constructed in and around Washery.
5	Water consumption in the coal Washery shall not exceed 1.5 cubic meter per tonne of raw coal.	The Water consumption in the coal Washery is not exceeding 1.5 cubic meter per tonne of coal.
6	The efficiency of the settling ponds of the wastewater treatment system of the coal Washery shall not be less than 90%.	Being complied.
7	Green belt shall be developed along the road side, coal handling plants, residential complex, office building and all around the boundary line of the coal Washery.	12.4 Ha of 3-tier plantation has already been done.(Annexure...) Further, plantation of 500 saplings of local species has been done recently in and around the Washery. Also, regular plantation drives to further boost the green cover are being carried out during World Environment Day, Van Mahotsav, Vriksharopan Abhiyaan, etc.
8	Storage bunkers, hoppers, rubber decks in chutes and centrifugal chutes shall be provided with proper rubber linings.	The Storage bunkers, hoppers, rubber decks in chutes and

		centrifugal chutes is provided with proper rubber lining.
9	Vehicles movement in the coal Washery area shall be regulated effectively to avoid traffic congestion. High pressure horn shall be prohibited. Smoke emission from heavy duty vehicle operating in the coal washeries should conform the standards prescribed under Motor Vehicle Rules, 1989.	Security guards are being posted to monitor the Vehicles movement to avoid traffic congestion in the coal Washery. Trucks having valid PUC certificates (Annexure..) are being used for transportation No High pressure horn is being used in vehicles.

2.4.1 Trace elements/ Heavy metals concentration in Coals of following mines (in ppm)

Sample collected from	Ash	As	Hg	Cd	Ni	Co	Cr	Cu	Zn	Mn	V	Pb
Muraidih Colliery	45.2	11.3	0.65	0.50	100.0	29.8	135.6	26.0	35.0	85.0	67.8	45.0
Nudkharkee Colliery	47.6	19.0	0.59	0.70	48.0	35.2	119.0	35.0	36.0	75.0	75.0	31.0
Benedih Colliery	40.8	20.4	0.48	0.40	92.0	36.7	142.0	32.0	42.0	70.0	80.0	25.0

*Sulphur Concentration : 0.2-0.7%

MOBILE SPRINKLING AT 5.0 MTPA MADHUBAND NLW COAL WASHERY



ANNEXURE 2

GOVERNMENT OF JHARKHAND
State Transport Department
BOKARO
FORM 38
 [See Rule 62(1)]
CERTIFICATE OF FITNESS
 (Applicable in the case of transport vehicles only)

Vehicle No: JH09AN2011 (Goods Carrier) is certified as complying with the provisions of the Motor Vehicles Act, 1988 and the rules made there under.

Registration No : JH09AN2011
 Application No : JH250125V5375485
 Inspection Fee Receipt No : JH250125C4548482
 Receipt Date : 25-Jan-2025
 Chassis No : MA12U2TBKJ1K85764
 Engine No : TBJ1K90221
 Seating Capacity : 2 (Including Driver)
 Type of Body : P/VAN
 Manufacturing Year : 2018
 Category of Vehicle : LGV
 Inspected on : 25-Jan-2025
 Inspected on : 30-Jan-2025 23:57:33

Certificate will expire on : 24-Jan-2027
 Next Inspection Due : 26-Nov-2026
 Date

Inspected by (MVI BOKARO)

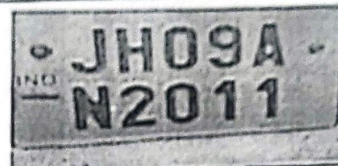
Signature of Inspecting Authority
 BOKARO
 Motor Vehicle Inspector
 Bokaro (Jharkhand)

Form 59

[See rules 115 (2)]

Pollution Under Control CertificateAuthorised By :
Government of JharkhandDate : 09/05/2026
Time : 11:24:43 AM
Validity upto : 08/05/2027

Certificate SL No. : JH01000710005032
 Registration No. : JH09AN2011
 Date of Registration : 01/Jan/2019
 Month & Year of Manufacturing : October 2018
 Valid Mobile Number : *****2943
 Emission Norms : BHARAT STAGE IV
 Fuel : DIESEL
 PUC Code : JH0100071
 GSTIN :
 Fees : Rs.120.00
 ARI observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm

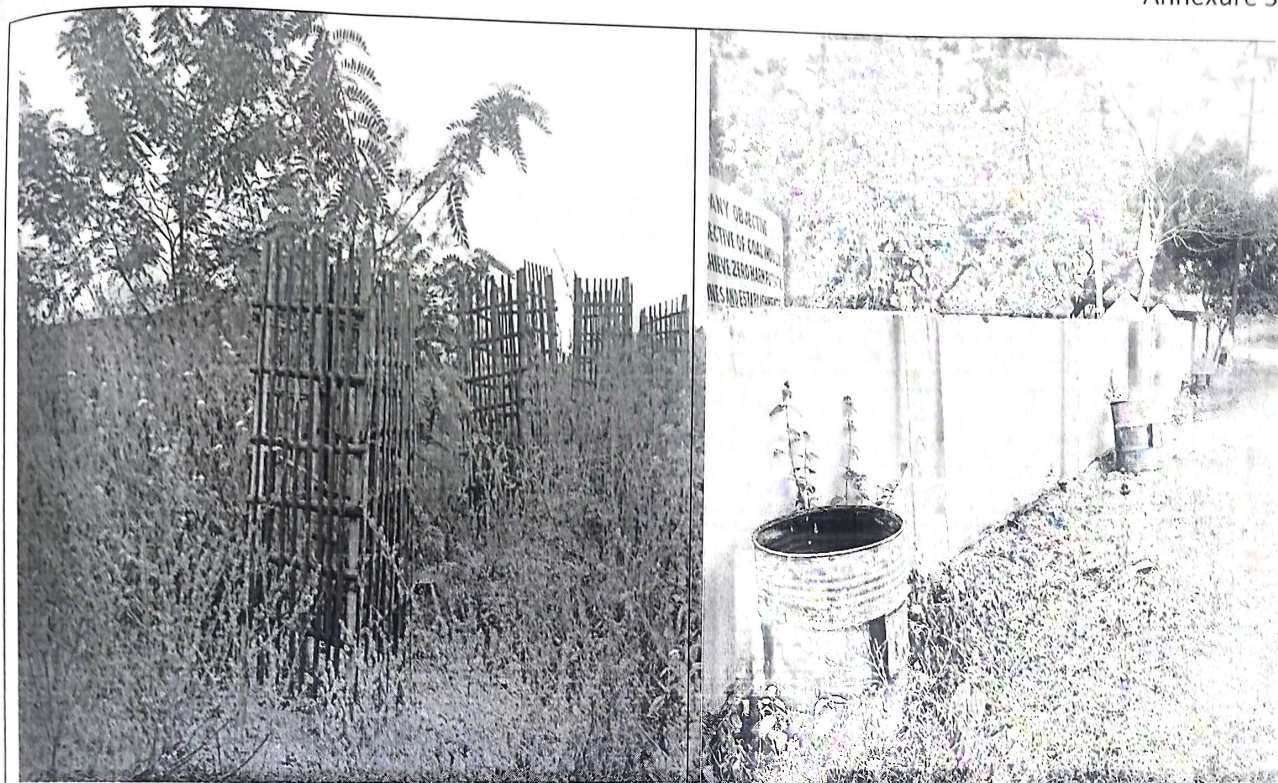
Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 $\pm$ 200	
	Lambda	-	1 $\pm$ 0.03	
Smoke Density	Light absorption coefficient	1/metre	1.62	0.06

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC Operator
10mm x 20 mm

DUMRA PETROL SERVICE STATION





RAW COAL		
DATE OF SAMPLE	TOTAL MOISTURE %	ASH%
7-MARCH-26	3.90	42.00
15-MARCH-26	3.84	41.52

WASHED COAL		
DATE OF SAMPLE	TOTAL MOISTURE %	ASH%
7-MARCH-26	7.84	18.85
15-MARCH-26	7.94	18.98

WASHED POWER COAL		
DATE OF SAMPLE	TOTAL MOISTURE %	ASH%
7-MARCH-26	7.45	41.54
15-MARCH-26	7.48	42.25

REJECT		
DATE OF SAMPLE	TOTAL MOISTURE %	ASH%
7-MARCH-26	2.02	67.45
15-MARCH-26	1.82	68.40

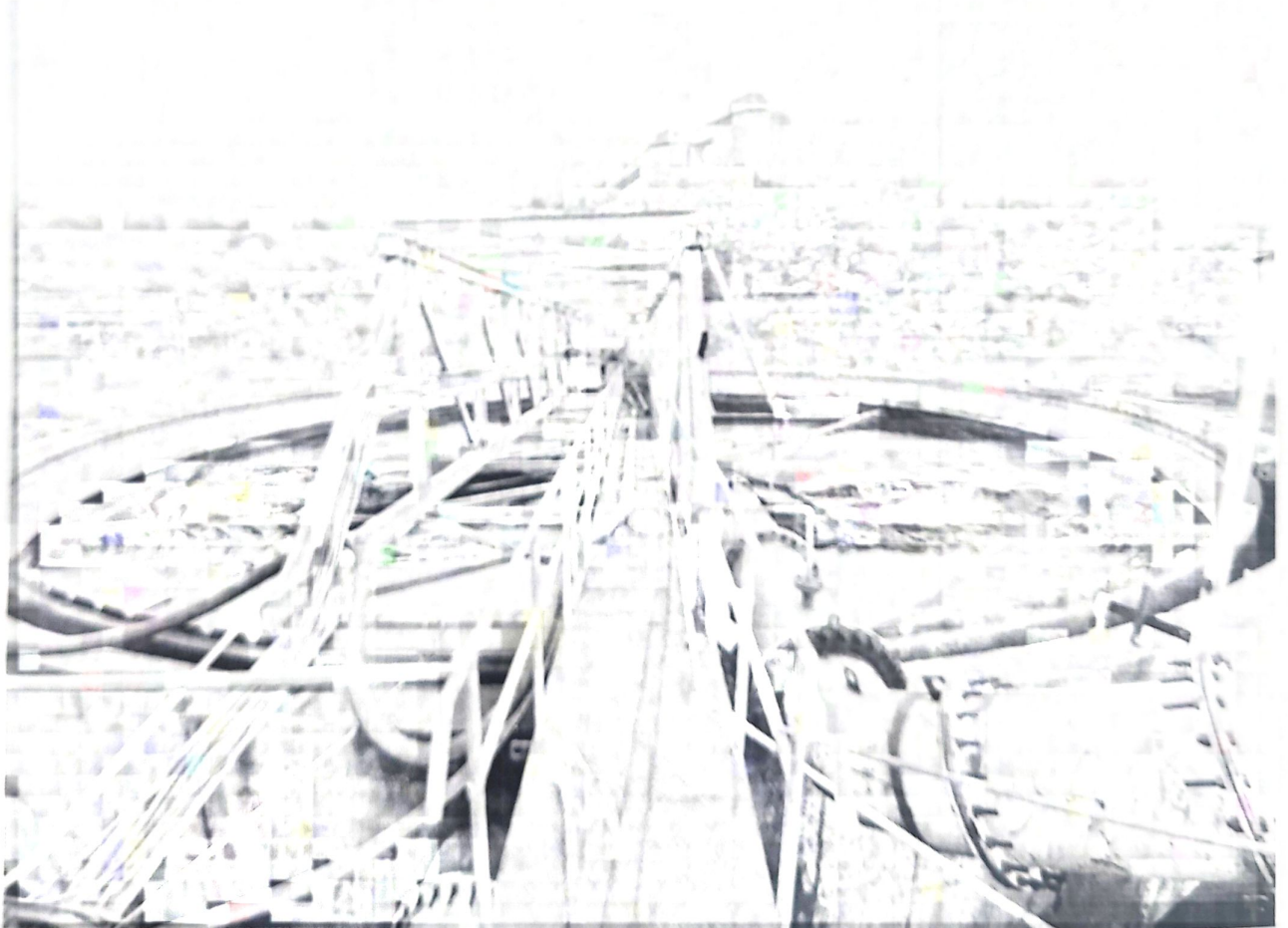
Madhuban

RAW COAL						
Date Of Sample	TM	ADB				
		ASH %	M %	VM %	FC %	GCV Kcal/Kg
31-Oct-22	3.51	49.04	1.25	13.25	36.46	
31-Oct-2022 (Stock Tube)	3.62	49.64	1.20	14.44	34.72	
1-Nov-22	3.49	51.02	1.17	12.73	35.08	
2-Nov-22	3.37	52.16	1.10	12.86	33.88	

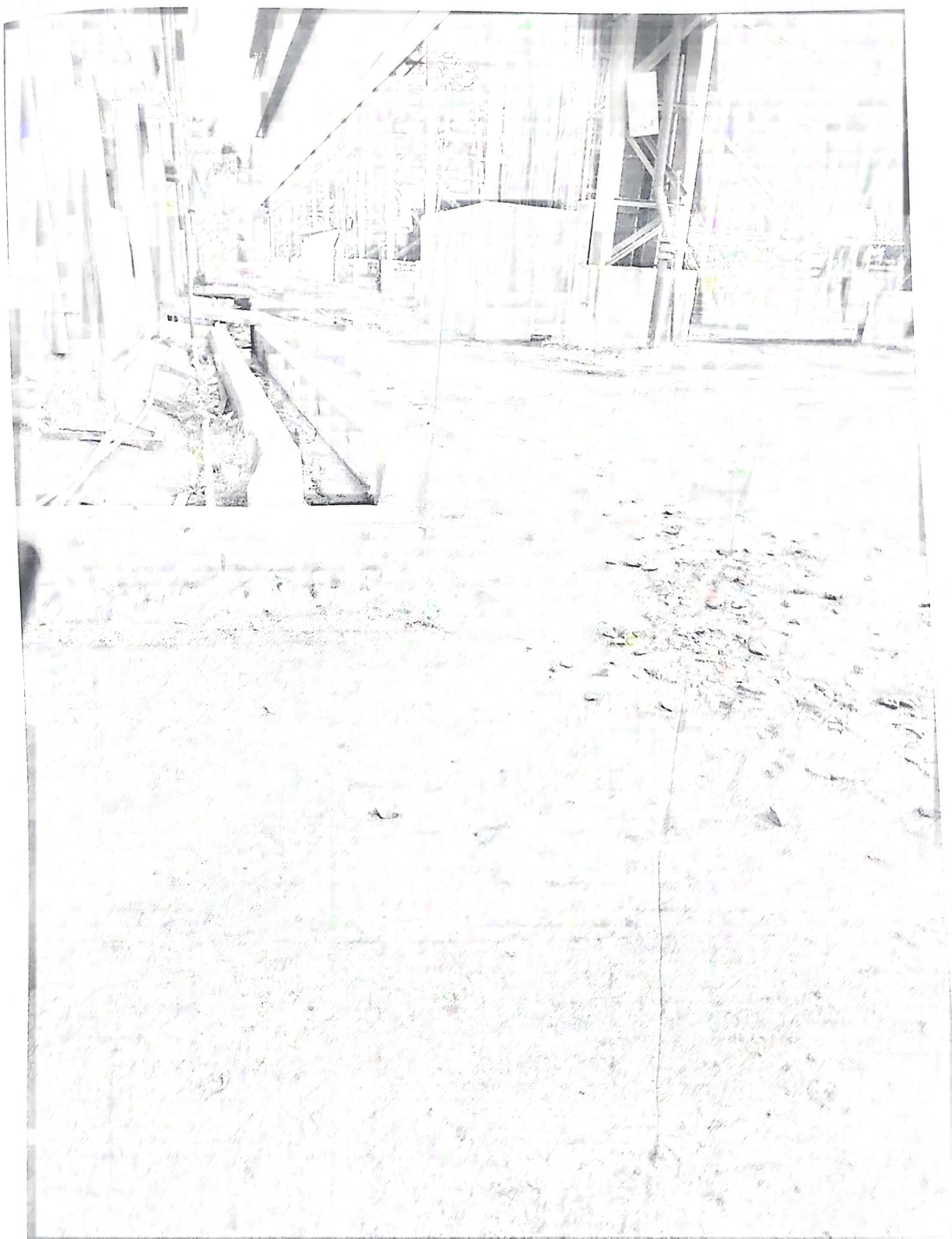
WASH POWER COAL						
Date Of Sample	TM	ADB				
		ASH %	M %	VM %	FC %	
31-Oct-22	7.52	21.5	0.83	15.26	62.41	
1-Nov-22	7.48	34.02	1.19	14.97	49.82	
2-Nov-22	7.61	36.77	1.23	14.77	47.23	

WASH COAL						
Date Of Sample	TM	ADB				
		ASH %	M %	VM %	FC %	
31-Oct-22	7.12	14.55	1.05	16.64	67.76	
1-Nov-22	7.31	14.41	1.26	17.86	66.47	
2-Nov-22	7.29	10.10	1.17	19.12	69.61	

REJECTS						
Date Of Sample	TM	ADB				
		ASH %	M %	VM %	FC %	
31-Oct-22	8.73	37.52	1.14	14.42		
1-Nov-22	8.68	63.05	0.91	12.40		
2-Nov-22	8.59	67.06	0.98	11.90		
2-Nov-2022 Primery U/Flow	8.43	38.38	1.03	15.22		



Annexure 7



2.4.1 Trace elements/ Heavy metals concentration in Coals of following mines (in ppm)

Sample collected from	Ash	As	Hg	Cd	Ni	Co	Cr	Cu	Zn	Mn	V	Pb
Muraidih Colliery	45.2	11.3	0.65	0.50	100.0	29.8	135.6	26.0	35.0	85.0	67.8	45.0
Nudkhalkee Colliery	47.6	19.0	0.59	0.70	48.0	35.2	119.0	35.0	36.0	75.0	75.0	31.0
Benedih Colliery	40.8	20.4	0.48	0.40	92.0	36.7	142.0	32.0	42.0	70.0	80.0	25.0

*Sulphur Concentration : 0.2-0.7%

CMPDI, B-1
 KOTLA BAHADUR COMPLEX
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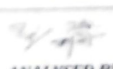
CENTRAL MINES PLANNING AND DESIGN INSTITUTE LIMITED
 Environment Laboratory, Regional Institute-II
 Ambient Air Quality Test Report

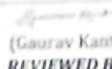
Test Report for Ambient Air Samples

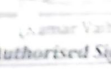
Month & Year	03/2026	Cluster	Cluster II	ULR No.	TC143212668800024748
Customer	Environment Department, Bihar Coal Mining Corporation (BCCL), Koyla Bihawan, Dhanbad (E-mail: gmenv.bcl@biodata.in)			Date of Issue	04.05.2026
Project	Madhuband Washery	Sample Ref. No.	RFM/BCCL/2026/03	Sampling Method	CMPDI/RI-II/LPM 11.1 (IS 5182)
Date of Sampling	11.03.26	Period of Analysis	11.03.26 to 25.04.2026	Zone of Station	Buffer Zone

Sl. No.	Parameter	Method Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 [GSR 742 E]	NAAQS, 2009
			A5457	A5537				
1	PM ₁₀	IS -5182 (Part 23):2006, R-2017	108	122	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182 (Part 24):2019	60	65	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182 (Part-2): 2001 R-2017	11	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006, R-2017	28	22	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in µg/m³, 24 hours Average, 1 m³


ANALYSED BY


REVIEWED BY


Authorised Signatory

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

Month & Year: 03/2026 Cluster: Cluster II ULR No.: TC1432126000004939

Customer: Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcccl@coalindia.in) Date of Issue: 04.05.2026

Project: Madhuband Washery Sample Ref. No.: REM/BCCL/2026/03 Sampling Method: CMPDI/RI-II/LPM 11

Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dBA)	Date of Sampling	11.03.26	25.03.26	Zone Category of Station	Buffer Zone
1	Noise Level dBA Leq - Day	06:00 - 07:00	49.4	11.03.26	50.3	25 dB-135 dB	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	49.3	49.3				
3		08:00 - 09:00	49.3	49.3				
4		09:00 - 10:00	49.3	49.3				
5		10:00 - 11:00	50.1	50.8				
6		11:00 - 12:00	49.3	51.3				
7		12:00 - 13:00	50.4	50.4				
8		13:00 - 14:00	50	52				
9		14:00 - 15:00	50.3	50.5				
10		15:00 - 16:00	52.4	55.2				
11		16:00 - 17:00	50.1	52.4				
12		17:00 - 18:00	48.4	47.1				
13		18:00 - 19:00	50.7	52.4				
14		19:00 - 20:00	50.1	52.2				
15		20:00 - 21:00	50.4	50.3				
16		21:00 - 22:00	54.3	53.3				
17	Noise Level dBA Leq - Night	Leq DAY	50.3	50.3	25 dB-135 dB	35 dBA	Industrial Commercial Residential Silence	75 65 55 50
18		22:00 - 23:00	50.3	49.3				
19		23:00 - 24:00	50.3	49.3				
20		24:00 - 25:00	50.3	49.3				
21		25:00 - 26:00	50.3	49.3				
22		26:00 - 27:00	50.3	49.3				
23		27:00 - 28:00	50.3	49.3				
24		28:00 - 29:00	50.3	49.3				

Method of Analysis: CPCL Protocol for Ambient Level Noise Monitoring - 2015

Zone Category of Station: Industrial, Commercial, Residential, Silence

Buffer Zone: 75, 65, 55, 50

Analysed By: (Gaurav Kant) REVIEWED BY: (Kumar Vaibhav)

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JOB NO. 200316028

Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient-Air Quality Test Report

Month & Year: 02/2026 Cluster: Cluster II ULR No.: TC14321260000024034

Customer: Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcccl@coalindia.in) Date of Issue: 20.03.2026

Project: Madhuband Washery Sample Ref. No.: REM/BCCL/2026/02 Sampling Method: CMPDI/RI-II/LPM 11 (IS 5182)

Date of Sampling: 11.02.26 Period of Analysis: 11.02.2026 to 25.03.2026 Zone of Station: Buffer Zone

Sl. No.	Parameter	Method Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)	Range Of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 (GSR 742 E)	NAAQS, 2009
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	129	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300	100
2	PM _{2.5}	IS -5182(Part 24):2019	72	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001, R-2017	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120	80
4	NO ₂	IS-5182 (Part-6): 2006, R-2017	21	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL in $\mu\text{g}/\text{m}^3$ ** Lower Detection Limit

Analysed By: (Gaurav Kant) REVIEWED BY: (Kumar Vaibhav)

Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env), CMPDI, RI-II.

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Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

Month & Year	02/2026	Cluster	Cluster II	ULR No.	TC1422126000024277	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)				Date of Issue	20.03.2026
Project	Madhuband Washery	Sample Ref. No.	REM/BCCL/2026/02	Sampling Method	CMPDI/RI-II/LPM 12	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Teststage	Observed Values (in Leq dB(A)) Second Teststage	Method of Analysis	Zone Category of Station: Buffer Zone
1	Noise Level dBA(Leq) - Day	06:00 - 07:00	40.5	40.2	CPCV Protocol for Ambient Level Noise Monitoring - 2015	Noise Pollution (REGULATION AND CONTROL) RULES, 2000 Standards Limits in dB
2		07:00 - 08:00	40.5	40.5		
3		08:00 - 09:00	41.8	41.7		
4		09:00 - 10:00	41.3	41.4		
5		10:00 - 11:00	54.2	51.4		
6		11:00 - 12:00	49.2	49.2		
7		12:00 - 13:00	56.5	58		
8		13:00 - 14:00	55.8	54.8		
9		14:00 - 15:00	55.4	54.1		
10		15:00 - 16:00	52.1	52.8		
11		16:00 - 17:00	56.7	60.1		
12		17:00 - 18:00	48.2	45.2		
13		18:00 - 19:00	54.3	55.1		
14		19:00 - 20:00	58.7	59.1		
15		20:00 - 21:00	55.4	51.4		
16		21:00 - 22:00	54.8	51.3		
1	Noise Level dBA(Leq) - Night	Leq DAY	52.4	50.7	CPCV Protocol for Ambient Level Noise Monitoring - 2015	Industrial, Commercial, Residential, Silence
2		Leq NIGHT	55.7	55.8		
3		24 hr Leq	55.2	55.5		
4		06:00 - 12:00	54.4	55.5		
5		12:00 - 18:00	54.5	52.4		
6		18:00 - 06:00	51.5	53.7		
7		06:00 - 06:00	53.7	54.8		
8		Leq NIGHT	52.7	50.6		

(Kumar Vaibhav)
Authorised Signatory

ANALYSED BY: (Gaurav Kant)
REVIEWED BY: (Kumar Vaibhav)

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Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

Test Report for Ambient Air Samples

Month & Year	01/2026	Cluster	Cluster II	ULR No.	TC143212611100002351F		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)				Date of Issue	05.03.2026	
Project	Madhuband Washery	Sample Ref. No.	REM/BCCL/2026/01	Sampling Method	CMPDI/RI-II/LPM 11. (IS 5182)		
Date of Sampling	09.01.26	23.01.26	Period of Analysis	09.01.26 to 25.02.2026	Zone of Station: Buffer Zone		
Sl. No.	Parameter	Method Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)	Range Of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 (GSR 742 E)	NAAQS, 2009
1	PM_{10}	IS -5182(Part 23):2006, R-2017	124	107	$10 \mu\text{g}/\text{m}^3 - 1000 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	300
2	$\text{PM}_{2.5}$	IS -5182(Part 24):2019	68	55	$10 \mu\text{g}/\text{m}^3 - 400 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	Not Specified
3	SO_2	IS-5182(Part-2): 2001, R-2017	<10	<10	$10 \mu\text{g}/\text{m}^3 - 1050 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	120
4	NO_2	IS-5182 (Part-6): 2006, R-2017	21	20	$06 \mu\text{g}/\text{m}^3 - 420 \mu\text{g}/\text{m}^3$	$06 \mu\text{g}/\text{m}^3$	120

(Kumar Vaibhav)
Authorised Signatory

ANALYSED BY: (Gaurav Kant)
REVIEWED BY: (Kumar Vaibhav)

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Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

Month & Year: 01/2026 Cluster: Cluster II ULR No: TC14321265800002297F

Customer: Environment Department, Bharat Coking Coal Limited (BCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in) Date of Issue: 05.01.2026

Project: Madhuband Washery Sample Ref. No.: REM/BCCL/2025/01 Sampling Method: CMPDI/RI-II/LPM 22

Sl. No.	Parameter	Hour / Time of day	Observed Values (in Log dB(A))	Date of Sampling	Method of Analysis	Range of Testing	LDL	Zone Category of Station	Buffer Zone
1	Noise Level dBA)eq - Day	06:00 - 07:00	65.7	05.01.26	CPCB Protocol for Ambient Level Noise Monitoring - 2015	75 dB - 135 dB	15 dBA	Industrial, Commercial, Residential, Silence	75, 65, 55, 50
2		07:00 - 08:00	62.5	05.01.26					
3		08:00 - 09:00	60.8	05.01.26					
4		09:00 - 10:00	60.4	05.01.26					
5		10:00 - 11:00	58.9	05.01.26					
6		11:00 - 12:00	53.4	05.01.26					
7		12:00 - 13:00	61.4	05.01.26					
8		13:00 - 14:00	59.2	05.01.26					
9		14:00 - 15:00	60.2	05.01.26					
10		15:00 - 16:00	57.4	05.01.26					
11		16:00 - 17:00	55	05.01.26					
12		17:00 - 18:00	48.9	05.01.26					
13		18:00 - 19:00	58.7	05.01.26					
14		19:00 - 20:00	64.8	05.01.26					
15		20:00 - 21:00	60.5	05.01.26					
16		21:00 - 22:00	60	05.01.26					
1	Noise Level dBA)eq - Night	Log (DAY)	62.1	05.01.26	CPCB Protocol for Ambient Level Noise Monitoring - 2015	75 dB - 135 dB	15 dBA	Industrial, Commercial, Residential, Silence	75, 65, 55, 50
2		22:00 - 23:00	57.4	05.01.26					
3		23:00 - 00:00	57.2	05.01.26					
4		00:00 - 01:00	56.8	05.01.26					
5		01:00 - 02:00	56.2	05.01.26					
6		02:00 - 03:00	55.1	05.01.26					
7		03:00 - 04:00	55.1	05.01.26					
8		04:00 - 05:00	55.3	05.01.26					
		Log NIGHT	55.4	05.01.26					

(Kumar Vaibhav)
Authorized Signatory

Sampling Assistant: ANALISED BY: (Signature)
REVIEWED BY: (Signature)

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Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

Month & Year: 12/2025 Cluster: Cluster II ULR No: TC14321265800002297F

Customer: Environment Department, Bharat Coking Coal Limited (BCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in) Date of Issue: 13.02.2026

Project: Madhuband Washery Sample Ref. No.: REM/BCCL/2025/12 Sampling Method: CMPDI/RI-II/LPM 11, (IS 182)

Date of Sampling: 10.12.25 TO 17.12.25 Period of Analysis: 10.12.25 TO 20.01.26

Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 (GSR 742 E)	NAAQS, 2009
			A4837	A4908				
1	PM_{10}	IS -5182(Part 23) 2006, R-2017	74	81	$10 \mu\text{g}/\text{m}^3 - 1000 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	300	100
2	$\text{PM}_{2.5}$	IS -5182(Part 24) 2019	43	42	$10 \mu\text{g}/\text{m}^3 - 400 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	Not Specified	60
3	SO_2	IS-5182(Part-2): 2001, R-2017	<10	12	$10 \mu\text{g}/\text{m}^3 - 1050 \mu\text{g}/\text{m}^3$	$10 \mu\text{g}/\text{m}^3$	120	80
4	NO_2	IS-5182 (Part-6): 2006, R-2017	28	25	$06 \mu\text{g}/\text{m}^3 - 420 \mu\text{g}/\text{m}^3$	$06 \mu\text{g}/\text{m}^3$	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit.

ANALYSED BY: (Signature) (Gaurav Kant) REVIEWED BY: (Signature) (Kumar Vaibhav) Authorised Signatory

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Cluster - II, BCCL Environmental Monitoring Report

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

Month & Year: 12/2025 Cluster: Cluster II ULR No: TC1412125200002111F

Customer: Environment Department, Bharat Coking Coal Limited (BCL), Koyla Bhawan, Dhanbad (E-mail: gaurav.jac@bcl.co.in)

Project: Madhulband Washery Sample Ref. No: REM/BCCL/2025/12 Sampling Method: Station of Station: Buffer Zone

Sl. No.	Parameter	Hour / Time	Observed Values (in Log dB(A))	Observed Values (in Log dB(C))	Method of Station	Range of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 (CSR 742 E)	NAAQS, 2009
			First Footcandle	Second Footcandle					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1					
		11:00 - 12:00	18.1	18.1					
		12:00 - 13:00	18.1	18.1					
		13:00 - 14:00	18.1	18.1					
		14:00 - 15:00	18.1	18.1					
		15:00 - 16:00	18.1	18.1					
		16:00 - 17:00	18.1	18.1					
		17:00 - 18:00	18.1	18.1					
		18:00 - 19:00	18.1	18.1					
		19:00 - 20:00	18.1	18.1					
		20:00 - 21:00	18.1	18.1					
		21:00 - 22:00	18.1	18.1					
		22:00 - 23:00	18.1	18.1					
		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1					
		11:00 - 12:00	18.1	18.1					
		12:00 - 13:00	18.1	18.1					
		13:00 - 14:00	18.1	18.1					
		14:00 - 15:00	18.1	18.1					
		15:00 - 16:00	18.1	18.1					
		16:00 - 17:00	18.1	18.1					
		17:00 - 18:00	18.1	18.1					
		18:00 - 19:00	18.1	18.1					
		19:00 - 20:00	18.1	18.1					
		20:00 - 21:00	18.1	18.1					
		21:00 - 22:00	18.1	18.1					
		22:00 - 23:00	18.1	18.1					
		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
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		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1					
		11:00 - 12:00	18.1	18.1					
		12:00 - 13:00	18.1	18.1					
		13:00 - 14:00	18.1	18.1					
		14:00 - 15:00	18.1	18.1					
		15:00 - 16:00	18.1	18.1					
		16:00 - 17:00	18.1	18.1					
		17:00 - 18:00	18.1	18.1					
		18:00 - 19:00	18.1	18.1					
		19:00 - 20:00	18.1	18.1					
		20:00 - 21:00	18.1	18.1					
		21:00 - 22:00	18.1	18.1					
		22:00 - 23:00	18.1	18.1					
		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1					
		11:00 - 12:00	18.1	18.1					
		12:00 - 13:00	18.1	18.1					
		13:00 - 14:00	18.1	18.1					
		14:00 - 15:00	18.1	18.1					
		15:00 - 16:00	18.1	18.1					
		16:00 - 17:00	18.1	18.1					
		17:00 - 18:00	18.1	18.1					
		18:00 - 19:00	18.1	18.1					
		19:00 - 20:00	18.1	18.1					
		20:00 - 21:00	18.1	18.1					
		21:00 - 22:00	18.1	18.1					
		22:00 - 23:00	18.1	18.1					
		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1					
		11:00 - 12:00	18.1	18.1					
		12:00 - 13:00	18.1	18.1					
		13:00 - 14:00	18.1	18.1					
		14:00 - 15:00	18.1	18.1					
		15:00 - 16:00	18.1	18.1					
		16:00 - 17:00	18.1	18.1					
		17:00 - 18:00	18.1	18.1					
		18:00 - 19:00	18.1	18.1					
		19:00 - 20:00	18.1	18.1					
		20:00 - 21:00	18.1	18.1					
		21:00 - 22:00	18.1	18.1					
		22:00 - 23:00	18.1	18.1					
		23:00 - 24:00	18.1	18.1					
		24:00 - 01:00	18.1	18.1					
		01:00 - 02:00	18.1	18.1					
		02:00 - 03:00	18.1	18.1					
		03:00 - 04:00	18.1	18.1					
		04:00 - 05:00	18.1	18.1					
		05:00 - 06:00	18.1	18.1					
		06:00 - 07:00	18.1	18.1					
		07:00 - 08:00	18.1	18.1					
		08:00 - 09:00	18.1	18.1					
		09:00 - 10:00	18.1	18.1					
		10:00 - 11:00	18.1	18.1			</		



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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

CMPDI, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD - 826005
Phone: 0326-223-950
email: rdi2@cmpdi.coalindia.in

Month & Year	11/2025	Cluster	Cluster II	ULR No.		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in)			Date of Issue	12.01.2025	
Project	Madanband Washery	Sample Ref. No.	REM/RI-II/2025/11	Sampling Method	CMPDI/RI-II/LPM 11 (IS 5182)	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Footcandle	Date of Sampling	05.11.25	19.11.25
				Method of Analysis	Range of Testing	Zone Category of Station
1	Noise Level dB(A)eq - Day	06:00 - 07:30	62.5	CPCE Protocol for Ambient Level Noise Monitoring - 2015	35-40-135 dB	35 dB(A)
2		07:30 - 09:00	62.5			
3		09:00 - 10:00	62.5			
4		10:00 - 11:00	62.5			
5		11:00 - 12:00	62.5			
6		12:00 - 13:00	62.5			
7		13:00 - 14:00	62.5			
8		14:00 - 15:00	62.5			
9		15:00 - 16:00	62.5			
10		16:00 - 17:00	62.5			
11		17:00 - 18:00	62.5			
12		18:00 - 19:00	62.5			
13		19:00 - 20:00	62.5			
14		20:00 - 21:00	62.5			
15		21:00 - 22:00	62.5			
16		22:00 - 23:00	62.5			
1	Noise Level dB(A)eq - Night	00:00 - 01:00	62.5	CPCE Protocol for Ambient Level Noise Monitoring - 2015	35-40-135 dB	35 dB(A)
2		01:00 - 02:00	62.5			
3		02:00 - 03:00	62.5			
4		03:00 - 04:00	62.5			
5		04:00 - 05:00	62.5			
6		05:00 - 06:00	62.5			
7		06:00 - 07:00	62.5			
8		07:00 - 08:00	62.5			
		Leq NIGHT	62.5			

Sampling Assistant
ANU INDO RI

Signature: _____
(Gaurav Kant)
REVIEWED BY

Signature: _____
(Kumar Vaibhav)
Authorised Signatory

Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env), CMPDI RI-II.

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDI, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD - 826005
Phone: 0326-223-950
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Test Report for Ambient Air Samples								ULR No.	TC14321250000021871
Month & Year	10/2025	Cluster	Cluster II					Date of Issue	05.12.2025
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcl@coalindia.in)				CMPDI/RI-II/LPM 11 (IS 5182)				
Project	Madanband Washery	Sample Ref. No.	REM/BCCL/2025/10	Sampling Method					
Date of Sampling	06.10.25	21.10.25	Period of Analysis	06.10.2025 to 25.11.2025		Zone of Station	Buffer Zone		
Sl. No.	Parameter	Method Analysis	Observed Values (in µg/m³) A4631 A4709		Range Of Testing	LDL	MoEF Standards Notification dated 25th September, 2000 (GSR 742 E)	NAAQS, 2009	
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	77	80	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	37	44	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001, R-2017	<10	10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006, R-2017	24	30	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in µg/m³, 24 hourly Average * LDL indicates Lower Detection Limit

Signature: _____
(Gaurav Kant)
ANALYSED BY

Signature: _____
(Kumar Vaibhav)
Authorised Signatory

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

CMPDI, RI-II
KOLLA BHAWAN COMPLEX
CHANNarayana - 826005
Phone-0326-221-850
Email-rl2@cmpdi.co.in

Month & Year: 10/2025		Cluster: Cluster II		Customer: Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (J. No. 1, Green Sector, Dhanbad)		Job No: 701432125000022210	
Project: Madhuband Washery		Sample Ref. No.		SEM/BCCL/2025/10		Date of Issue: 05.12.2025	
				Sampling Method		CMPDI/RI-II/LPM-22	

Sl. No.	Parameter	Date / Time of Day	Observed Values (in Leq dB(A))	Date of Sampling	Observed Values (in Leq dB(A))	Method of Analysis	Range of Testing	LEL	Noise Pollution (REGULATION AND CONTROL)	
									First Reading	Second Reading
1	Noise Level dBA Leq - Day	10.00 - 11.00	54.2	05.10.25	54.2	CPCB Protocol for Ambient Level Noise Monitoring - 2013	35 dB - 135 dB	35 dBA	Industrial/Commercial/Residential	75
2		11.00 - 12.00	53.9	05.10.25	53.9					
3		12.00 - 13.00	53.3	05.10.25	53.3					
4		13.00 - 14.00	52.7	05.10.25	52.7					
5		14.00 - 15.00	52.3	05.10.25	52.3					
6		15.00 - 16.00	51.8	05.10.25	51.8					
7		16.00 - 17.00	51.3	05.10.25	51.3					
8		17.00 - 18.00	50.7	05.10.25	50.7					
9		18.00 - 19.00	50.2	05.10.25	50.2					
10		19.00 - 20.00	49.6	05.10.25	49.6					
11		20.00 - 21.00	49.2	05.10.25	49.2					
12		21.00 - 22.00	48.8	05.10.25	48.8					
13		22.00 - 23.00	48.3	05.10.25	48.3					
14		23.00 - 24.00	47.8	05.10.25	47.8					
15	Noise Level dBA Leq - Night	00.00 - 01.00	47.8	05.10.25	47.8	CPCB Protocol for Ambient Level Noise Monitoring - 2013	35 dB - 135 dB	35 dBA	Industrial/Commercial/Residential	80
16		01.00 - 02.00	47.3	05.10.25	47.3					
17		02.00 - 03.00	46.8	05.10.25	46.8					
18		03.00 - 04.00	46.3	05.10.25	46.3					
19		04.00 - 05.00	45.8	05.10.25	45.8					
20		05.00 - 06.00	45.3	05.10.25	45.3					
21		06.00 - 07.00	44.8	05.10.25	44.8					
22		07.00 - 08.00	44.3	05.10.25	44.3					
23	Leq DAY		54.2		54.2					
24	Leq NIGHT		47.8		47.8					

Sampled By: (Signature)

ANALYST: (Signature)

Checked By: (Signature)

APPROVED BY: (Signature)

Date of Report: 05.12.2025

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JOB NO. 200316028 Cluster – II, BCCL Environmental Monitoring Report

Heavy Metal Analysis report of Ambient Air Quality

SAMPLE	Cadmium(Cd) (µg/m3)	Mercury(Hg) (µg/m3)	Arsenic(As) (ng/m3)	Chromium(Cr) (µg/m3)	Nickel (Ni) (ng/m3)	Lead (Pb) (µg/m3)
Karmatand village (A1)	<0.001	<0.001	<0.005	0.02	0.1	0.101
Damoda (A2):	<0.001	<0.001	<0.005	0.01	<0.1	0.05
Madhuband washery (A3)	<0.001	<0.001	<0.005	<0.01	<0.1	0.048
Block II OCP (A4):	<0.001	0.004	<0.005	<0.01	<0.1	0.092
Regional Hospital Baghmara (A42):	<0.001	<0.001	<0.005	0.03	<0.1	0.098

Analysed By: JSA/SA/SSA

Checked By: Lab In Charge
RI-2, CMPDI, Dhanbad

Approved By: HOD(In-charge) Environment
RI-2, CMPDI, Dhanbad