EC COMPLIANCE REPORT

(April 2025 – September 2025)

Of

EXPANSION OF COAL WASHERY OF 2.5 MTPA TO 5.0 TPA(WET TYPE)

(IN EXISTING AREA: - 9.93 HA.)

Located At

Village - Ghutku, Tehsil -Takhatpur

District –Bilaspur, State - Chhattisgarh

Project Proponent:

M/s. Phil Coal Beneficiation Pvt. Ltd.

ANNEXURES

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INTRODUCTION

M/s. Phil Coal Beneficiation Pvt. Ltd. has obtained environmental clearance for expansion of coal washery from 2.5 MTPA to 5.0 MTPA (wet type) existing area of 9.93 ha. from Government of India, Govt. of India, Ministry of Environment, Forest and Climate Change (Impact Assessment Division), New Delhi vide their letter No. F. No. J-11015/418/2015-IA.II (M) dated 1st September 2022.

EC Conditions compliance status and Environmental monitoring reports for the period of **April 2025 – September 2025** are given below:

COMPLIANCE STATUS

Sr. No.	EC Conditions	Compliance Status
i.	PP to obtain the CTO for 5 MTPA capacity after grant of EC.	Complied We have obtained CTO from the Chhattisgarh Environment Conservation Board, Nava Raipur, File No. 3099/TS/CECB/2023 dated 26 July 2023 which is valid till 30th June 2026. Copy of CTO is attached as **Annexure-I.**
ii.	As committed by PP, 95% of washed coal and washery rejects to 5 MTPA capacity shall be transported through rail only 5% of capacity for road transportation shall be allowed.	Washed coal and washery rejects transportation through rail is not feasible for a project like ours as the wagon loading through silo is a system adopted in big integrated steel plant/Mega power plants having coal washery capacity of 10 MTPA to 15 MTPA or more. Wagon loading through silo is itself a big project with an investment of around Rs. 100 Crores whereas our total project cost itself is Rs. 25 Crores.
iii.	PP is to fulfill all the commitments made to address the public hearing issues in time time-bound manner as committed in	Complied We have done commitments as

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	the EIA/EMP report and the action taken report on non-compliances should be furnished to IRO within 3 months.	per the issue raised during public hearing. Green belt has been developed along the plant premises. All the conveyors have been covered. Only covered vehicles are being used for transportation having pollution under control. Local people are being employed as per the skilled.
iv.	The technology so chosen for ETP within washery should confirm to 'Zero Liquid Discharge'. No treated & untreated wastewater shall be discharged outside the boundaries of project area.	Complied 16 meter diameter high rated thickner and 3 meter width belt press having slurry handling capacity have been installed to treat the process water & reduce the requirement of fresh water for washery process. The effluent from the plant is sent to the thickener and flocculants are settlement of suspended solids and helps to give a clearer overflow. The settled solids are collected at the bottom cone of the thickener tank. The solids which are collected in the bottom of the thickener are pumped to the multirole belt press for reclamation of water. The solid dried cake is blended with rejects. The overflow of the thickener which is clear water is being recycled back in the process. A collection pond has been provided with stable liner to avoid ground water contamination. Zero effluent discharge is strictly followed and all the treated water is being fully re-used for washing of coal.
v.	PP to install one continuous ambient air quality monitoring stations at suitable locations preferably village side with	Complied We have installed continuous

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	consultation of SPCB by October 2022. The real time data so generated shall be uploaded on company website and linked it with website of CPCB & SPCB. In Addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.	ambient air quality monitoring station (CAAQMS) which is connected with online server. Display photograph of CAAQMS are attached as **Annexure-II**
vi.	Heavy metal content in raw coal, and washed coal shall be analyzed once in a year and records maintained thereof and it should be reported in IRO Report.	Complied Heavy metal content in raw coal, and washed coal is being analyzed annually. Coal Test reports are attached as **Annexure-III**
vii.	PP to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc. at coal washery plant for compliance of FC condition.	Complied A separate environmental management cell has been established. Copy of Environment Management Cell is attached as **Annexure-IV**
viii.	Thick green belt of 30-45 m width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads. A detailed action plan with budgetary provision should be submitted within 6 months to IRO. Areal images in this regard needs to be submitted in six monthly reports to IRO.	Complied We are maintaining good greenery within plant premises. A green belt has been developed, which is about 33% of the total acquired area with a native tree species in accordance with CPCB guidelines. The greenbelt covered the entire periphery of the plant. Third party Green Belt Verification report with photographs is attached as **Annexure-V**
ix.	Total fresh water requirement shall not exceed to 855 KLD as proposed to be met	Complied with the stipulated condition.

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	through groundwater withdrawal. PP must furnish the copy of renewal of NOC from CGWA and must explore the possibility to meet the 20% of water demand from surface water by seeking proper permission from competent authority by December 2024. Freshwater demand from groundwater shall be reduced accordingly.	We have applied for renewal groundwater abstraction. Application details of CGWA NOC renewal is attached as **Annexure – VI**
x.	PP shall develop 3 additional water harvesting pond in nearby villages of suitable area as suggested by EAC in consultation with Gram Panchayat within 1 year. Also desiltation of the already existing pond and surface body must also be carried out by the PP i.e. The beautification of 2 ponds located nearby the washery plants must be taken up by PP in consultation of competent authority.	Complied We have developed water harvesting pond in nearby villages.
xi.	The impact of the proposed project/activity on the hydrological regime of the area shall be assessed and a report to be submitted within six months and recommendations shall be implemented.	Complied We have prepared Groundwater impact assessment and modeling study report which has been submitted to the concerned authority. Groundwater impact assessment and modeling study report is attached as **Annexure - VII**
xii.	Effective measures shall be implemented by PP for raw coal transportation through road such as development of green belt tree plantation on either side of road (within 10 km radius of affected villages or project side), use of fixed mist sprayer near village side (not less than 12 nos. in one route near to village). The compliance status shall be submitted within 4 months to IRO.	Complied We have developed green belt tree plantation on either side of approach road. Photograph of plantation along approach road is attached as **Annexure-VIII**
xiii.	The ROM coal shall be washed to bring down the ash content to <34%, ensuring	Agreed with the stipulated condition.

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	more than 7% reduction in ash should be taken care off as committed by PP.	
xiv.	A proper housekeeping procedure shall be framed and implemented by PP. Action taken in this regard shall be provided to IRO within 3 months.	Being Complied We are maintaining good housekeeping practices in our plant.
xv.	Solar street light to be installed with its proper maintenance along the road of incoming raw coal to avoid an accident in nearby villages like Lokhandi, Turkdih, Ghutuku, Nirtu etc within 10 km study area and a record must be furnished to IRO with six monthly compliances.	Complied We have installed street light along the approach road.
xvi.	The fog cannon must be installed at periphery of the washery located near to the villages like Lokhadi side in order to suppress the dust.	Complied We have installed fog cannon in the washery. Photograph of fog cannon is attached as **Annexure-IX**
xvii.	No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc.	Complied We are not using the village roads transporting coal and no road transport route is adopted that passes through any sensitive places like schools or hospitals.
xviii.	Proper wages to be provided to the workers with incremental policy and PP shall pay to farmers of agricultural land if there is any loss due to pollution found by the concerned District Commissioner as per extent rules or norms.	Complied We have provided proper wages to be provided to the workers with incremental policy. We will pay farmers of agricultural land if there is any loss due to pollution found by the concerned District Commissioner as per extent rules or norms.
xix.	PP must also carry out plantation drive (fruit bearing trees, local species etc.) with its proper maintenance in nearby	Complied We have planted saplings near

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	villages by seeking consent of gram panchayat and villagers in coming monsoon and a proper record must be furnished to IRO with six monthly compliances.	Ghutku railway station.
xx.	The PP must provide the workers proper PPE and must also trained them and a record of training must be furnished to IRO.	Being Complied Mandatory PPEs for operational workforce engaged in dusty areas. Proper PPE is being provided to the workers. Photograph of workers wearing PPE is attached as **Annexure-X**
xxi.	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.	Being complied. All the employees undergo periodical medical examinations (PME) in the hospital every year. Records of the medical examination are being maintained properly as per the conditions stipulated. Occupational Health Record is attached as **Annexure - XI**
(a)	**Statutory Compliance:**	
i.	The project proponent shall obtain forest clearance under the provision of the Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purposes involved in the project.	Not Applicable
ii.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable
iii.	The project proponent shall prepare a site-specific conservation plan/Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendation of the approved Site-Specific Conservation Plan /Wildlife Management Plan shall be implemented	Not Applicable

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	in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (Incase of the presence of schedule-I species in the study area.	
iv.	The project proponent shall obtain Consent to Establish / Operate under the provision of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.	Complied We have obtained CTO from the Chhattisgarh Environment Conservation Board, Nava Raipur, File No. 3099/TS/CECB/2023 dated 26 July 2023 which is valid till 30th June 2026. Copy of CTO is attached as **Annexure-I.**
v.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority.	Complied with the stipulated condition. We have applied for renewal groundwater abstraction. Application details is attached as **Annexure – VI**
vi.	Solid waste/hazardous waste generated in the washery needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.	Complied All Solid waste/hazardous waste generated in the washery is being maintained as per the norms.
vii.	Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.	We are complying with the stipulated conditions.
(b) Air Quality Monitoring and Preservation		
i.	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO2, and NOx. Location of	Complied Ambient air quality is being monitored for monitoring of pollutants, namely particulates,

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	the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.	SO2, and NOx through NABL accredited laboratory regularly and the reports is being submitted to concerned authority along with six monthly compliance report. The Ambient Air Quality Monitoring report is attached as **Annexure – XII**
ii.	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone for monitoring of pollutants, namely PM10, PM2.5, SO2, and NOx. The 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. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	Complied We have installed continuous ambient air quality monitoring station (CAAQMS) which is connected with CPCB & SPCB server. Ambient air quality monitoring including heavy metals is also being carried out through NABL accredited laboratory. AAQ monitoring reports is attached as **Annexure-XII** and CAAQMS display board are attached as **Annexure-II**
iii.	Transportation of coal by road shall be carried out by covered truck/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as road, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution	Complied Transportation of coal by road is being carried out by covered vehicles only. Washed coal and washery rejects transportation through rail is not feasible for a project like ours as the wagon loading through silo is a system adopted in big integrated steel plant/Mega power plants having coal washery capacity of 10 MTPA to 15 MTPA or more. Wagon loading through silo is itself a big project with an

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	Control Board.	investment of around Rs. 100 Crores whereas our total project cost itself is Rs. 25 Crores. Fugitive emission monitoring is being carried out through NABL accredited laboratory. Fugitive emission monitoring reports are attached as **Annexure-XII**
iv.	All approach roads shall be black-topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.	Complied All the internal roads have been made pucca and all materials are being transported through covered vehicles only. Photographs of pucca internal road and covered vehicles are attached as **Annexure-XIII**
v.	Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.	Complied All materials are being transported through covered vehicles and only PUC-certified vehicles are being used for transportation. PUC certificate of vehicles is attached as **Annexure-XIV**
vi.	Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.	Complied We have provided adequate parking facilities for trucks within the unit. Photograph of truck parking area is attached as **Annexure-XV**
vii.	Vehicular emissions shall be kept under control and regularly monitored. The	Complied

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	vehicle having 'PUC' certificate from authorized pollution testing centers shall be deployed for washery operations.	We are using only PUC-certified vehicles for transportation. PUC certificates of vehicles are attached as **Annexure-XIV**
viii.	Hoppers of the coal crushing unit and other washery units shall be fitted with high-efficiency bag filters/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.	Complied Hoppers of the coal crushing unit have been installed with high-efficiency bag filters and mist spray water sprinkling system. All conveyors have been properly covered. Photograph of covered conveyors are attached as **Annexure-XVI**
ix.	The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breaker / shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.	Complied The raw coal, rejects and the washed coals are being stacked properly.
x.	The temporary rejects sites should appropriate planned and designed to avoid air and water pollution from such sites.	Agree to comply with the stipulated condition.
(c) Water Quality Monitoring and Preservation		
i.	The effluent discharge (mine wastewater, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.09.2000 and as amended from time to time by the Central Pollution Control Board.	Mine wastewater & workshop effluent are not applicable as our plant is a coal washery plant.
ii.	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by the Ministry of Environment, Forest and Climate Change shall also be referred in this	Complied The monitoring data is being submitted regularly to the concerned authority along with six monthly compliance report.

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	regard for compliance.	
iii.	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.	Complied The effluent so generated from the plant is being sent to the thickener and flocculants are settlement of suspended solids and helps to give a clearer overflow. The settled solids are collected at the bottom cone of the thickener tank. The solids which are collected in the bottom of the thickener are pumped to the multirole belt press for reclamation of water. The solid dried cake is blended with rejects. The overflow of the thickener which is clear water is being recycled back in the process. A collection pond has been provided with stable liner to avoid ground water contamination. We have installed online effluent monitoring system to monitor effluent quality. The treated water is also being monitored through NABL accredited laboratory to conform to the standards prescribed limit. Online effluent monitoring system photograph is attached as **Annexure-XVII** and Test Report of treated waste water is attached as **Annexure-XII**
iv.	The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimension	Complied. We have provided appropriate embankment along the side of the nallah flowing adjacent to the washery and critical patches has been strengthened by stone pitching on the nallah front side

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	and critical patches shall be strengthened by stone pitching on the river front side established with plantation so as to withstand the peak water pressure preventing any chance of inundation.	established with plantation.
v.	Heavy metal content in raw coal and washed coal shall be analyzed once in a year and records maintained thereof.	Complied Heavy metal content in raw coal, and washed coal is being analyzed annually. Coal Test reports are attached as **Annexure-III**
vi.	The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangements to avoid water pollution due to leachate from rejects and surface run of from rejects dumping sites.	Being Complied The rejects so generated from the coal washery is being sold to power plant. Sale Letter of Power Plant is attached as **Annexure - XVIII**
vii.	An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any / rivulet/ pond/ lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.	Not Applicable
viii.	Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.	Complied The effluent so generated from the plant is being sent to the thickener and flocculants are settlement of suspended solids and helps to give a clearer overflow. The settled solids are collected at the bottom cone of the thickener tank. The solids which are collected in the bottom of the thickener are pumped to

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		the multirole belt press for reclamation of water. The solid dried cake is blended with rejects. The overflow of the thickener which is clear water is being recycled back in the process. A collection pond has been provided with stable liner to avoid ground water contamination. The treated wastewater is used solely for washery operations and for watering green belts.
ix.	Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resource in consultation with Central Ground Water Board.	Complied To conserve groundwater resources, rainwater harvesting system has been implemented in Washery. Photograph of Rainwater Harvesting is attached as **Annexure-XIX**
x.	No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m^3/Tonne of raw coal.	Complied with the stipulated condition. We have applied for renewal groundwater abstraction. Application details is attached as **Annexure – VI**
xi.	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFFCC/RO.	Not Applicable as our plant is a coal washery plant. However, ground water quality of our coal washery is being monitored regularly through NABL accredited laboratory. Groundwater Monitoring reports are attached as **Annexure-XII**

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xii.	Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and a record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change / Regional Office.	Complied Monitoring of water quality upstream and downstream of nalla adjacent with the coal washery is being monitored regularly. Surface Water Quality Monitoring Report is attached as **Annexure-XII**
xiii.	The project proponent shall take all precautionary measures to ensure riverine / riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with irrigation / water resource department in the state government.	Not Applicable as our plant is a coal washery plant.
(d) Noise and Vibration monitoring and prevention		
i.	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	Complied Noise levels are being monitored regularly in our coal washery premises and reports is also being submitted to concerned authority along with six monthly compliance report. Noise Level Monitoring report is attached as **Annexure-XII**
ii.	Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. shall be provided with personal protective equipment (PPE) like ear plugs/muffs in conformity with	Not Applicable as our plant is a coal washery plant. However Mandatory PPEs for operational workforce engaged in noisy areas. As a safety measures, ear plugs are provided to workers working

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	the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.	in high noise zones.
(e) Coal beneficiation		
i.	Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.	Complied All raw coal, clean coal, middling and rejects are being stacked separately.
ii.	Efforts should be made to reduce energy consumption by conservation, efficiency improvement and use of renewable energy.	Complied We have provided LED lights in the plant premises to reduce energy consumption.
(f) Green Belt		
i.	Three-tier greenbelt comprising of a mix of native species of minimum 30-meter width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighboring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.	Complied We are maintaining good greenery within plant premises. A green belt has been developed, which is about 33% of the total acquired area with a native tree species in accordance with CPCB guidelines. The greenbelt covered the entire periphery of the plant. Third party Green Belt Verification report with photographs is attached as **Annexure-V**
ii.	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of the Hon'ble Supreme Court with regard	Not Applicable

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	to acquiring grazing land.	
(g) Public hearing and Human health issues		
i.	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry and its RO on six-monthly basis.	Not Applicable as our plant is a coal washery plant.
ii.	The project proponent shall undertake an occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. As amended time to time.	Not Applicable as our plant is a coal washery plant. However all the employees of coal washery undergo periodical medical examination (PME) in the hospital every year and records of the medical examination are maintained properly as per the conditions stipulated. Occupational Health Record is attached as **Annexure - XI**
iii.	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Not Applicable as our plant is a coal washery plant.
iv.	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government / Central Government, as applicable.	Complied We have done commitments as per the issue raised during public hearing. Green belt has been developed along the plant premises. All the conveyors have been covered. Only covered vehicles are being used for transportation having pollution under control. Local people are being employed as per the skilled. CSR activities has been done as per the commitments. CSR expenditure is attached as

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		Annexure-XX
v.	The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/57/2014-IA.II (M) dated 29th October 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	Not Applicable as our plant is a coal washery plant.
(h) Corporate Environment Responsibility		
i.	Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 30th September 2020 and based on a commitment made during the public consultation process for incorporating in EIA-EMP for deliberation of EAC.	Complied CER/CSR activities have been done as per the commitments made during public hearing. CSR expenditure is attached as **Annexure-XX**
ii.	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements /deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of he environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Complied We have set out an environmental policy approved by the Board of Directors. Environmental Policy is attached as **Annexure-XXI**
iii.	A separate Environmental Cell both at the project and company headquarters level, with qualified personnel, shall be set up under the control of the senior Executive, who will directly to the head of	Complied A separate environmental management cell has been established.

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	the organization.	Copy of Environment Management Cell is attached as **Annexure-IV**
iv.	Action plan for implementation EMP and environmental condition along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise fund earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.	Agreed with the stipulated condition. We have prepared an action plan for the implementation of EMP and environmental conditions along with the Company Responsibility Matrix which has been approved by the competent authority. The year-wise funds earmarked for environmental protection measures are kept in a separate account and we assure that the same will not be used for any other purpose. Year-wise progress of implementation of the action plan is reported to the Ministry/regional office along with six-monthly compliance reports.
v.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Agreed to comply with the stipulated condition.
(i) Miscellaneous		
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be	Complied We have published public notice of grant of Environment Clearance in English News Paper namely Central Chronicle, dated 07.09.2022 and Hindi News Paper Nai Duniya – Dated 06.09.2022.

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	displayed in the project proponent's website permanently.	Newspaper advertisements are attached as **Annexure - XXII**
ii.	The copies of the environmental clearance shall be submitted by the project proponent to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied The prescribed condition has been complied with. We have submitted a copy of the EC to the concerned offices.
iii.	The project proponent shall upload the status of compliance of the stipulated environmental clearance condition, including results of monitored data on their website and update the same on half-yearly basis.	Being Complied We are submitting the status of compliance with prescribed environmental clearance conditions including the results of monitored data to the concerned authority regularly.
iv.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Being Complied Ambient air quality is being monitored regularly through NABL accredited laboratory and the results are being submitted to the concerned authority along the six monthly compliance report. The AAQ Monitoring Reports are attached as **Annexure -XII**
v.	The project proponent shall submit six-monthly reports on the status of compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at the environment clearance portal.	Being Complied The status of compliance of the stipulated environmental conditions is being submitted regularly to the concerned authority.
vi.	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment	Being Complied Environmental statement for each financial year in Form-V is being

Sr. No.	EC Conditions	Compliance Status
	(Protection) Rules, 1986, as amended subsequently and put on the website of the company.	submitted to the concerned State Pollution Control Board regularly. Copy of Environmental Statement (Form V) is attached as **Annexure-XXIII**
vii.	The project authorities shall inform to the Regional Office of the MoEFCC regarding the commencement of mining operations.	Not applicable as our plant is coal washery plant.
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Agreed with the stipulated condition.
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed with the stipulated condition.
x.	No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.	Agreed with the stipulated condition. We will not change the coal beneficiation process and scope of work without obtaining prior approval from MoEFCC We will not change the maximum quantity of raw material per year against the approved washery capacity.
xi.	Concealing factual data or submission of false / fabricated data may result in revocation of this environmental clearance and attract action under the provisions of the Environment (Protection) Act, 1986.	Agreed with the stipulated condition.
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed with the stipulated condition.
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time-bound	Agreed with the stipulated condition.

Sr. No.	EC Conditions	Compliance Status
	manner shall implement these conditions.	
xiv.	The Regional Office shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Agreed with the stipulated condition.
xv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Agreed with the stipulated condition.

ANNEXURES

ANNEXURE – I: COPY OF CTO

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD
Paryavas Bhawan, North Block, Sector - 19,
Nava Raipur Atal Nagar, District - Raipur (C.G.)
e-mail - hocecb@gmail.com

No. 4819/TS/CECB/2025 Nava Raipur Atal Nagar, Dated: 30/07/2025

To,

M/s Phil Coal Benefication Private Limited,
Village – Ghutku, Tehsil- Takhatpur,
District – Bilaspur (C.G.)

Sub: - Renewal of the consent of the Board under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981.

Ref: -

1. Consent of the Board issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 3099/TS/CECB/2023 Nava Raipur Atal Nagar, dated: 26/07/2023 for Wet Type Coal Washery (Throughput capacity of Coal Washery) - 5.0 Million Tonne Per Year.
2. Last renewal of the consent issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 5214/TS/CECB/2024 Nava Raipur Atal Nagar, Dated: 17/09/2024.
3. Your online application no. 19316511, dated: 28/05/2025 and subsequent correspondence ending dated: 08/07/2025.

--:: oo ::--

With reference to your above application, consents under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 are hereby renewed for period of one year i.e. from 26/07/2025 to 30/06/2026, subject to the fulfillment of the terms and conditions incorporated in the water and air consent letter no. 3099/TS/CECB/2023 Nava Raipur Atal Nagar, dated: 26/07/2023 and subsequent renewal(s)/amendment(s) issued by the Board and additional conditions mentioned below.

This renewal of consent is valid for production capacity of : -

Product	Production Capacity
Wet Type Coal Washery (Throughput capacity of Coal Washery)	5.0 Million Tonne Per Annum (Five Point Zero Million Tonne Per Annum)

Additional Conditions

A. Water (Prevention and Control of Pollution) Act, 1974

1. Industry shall operate and maintain the effluent treatment system effectively and regularly. Industry shall ensure treated effluent quality within the standards prescribed by Board published in Gazette Notification dated: 25/03/1988. Industry shall not discharge any treated / untreated effluent in to the river or any surface water bodies. No effluent shall be discharged outside of the factory premises in any circumstances; hence, zero discharge condition shall be maintained all the time.
2. The industrial operations shall be taken up at the project site keeping a certain safe distance from the nearby railway track as per the regulations of the Ministry of Railway in this regard.
3. Industry shall ensure the compliance of guidelines issued by CPCB/MoEF & CC for coal washery (i.e. construction of boundary wall, installation of rain guns wind breaking screen, wheel washing system, CCTV Camera, pucca approach road, catch drains, settling pit etc).
4. Industry shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated.
5. Industry shall ensure transportation of clean coal and rejects by rail with wagon loading through silo. Industry shall ensure transportation of raw materials/fuel/dust generating products by properly covered vehicles. Vehicles used for transporting the wastes/sludge shall be covered with tarpaulins and optimally loaded. Vehicular emissions shall be kept under control and regularly monitored. Industry shall follow SOP issued vide order dated 26/06/2024 in this regard. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials, fuel, dust generating products.
6. Industry shall make arrangements like installation of digital water meter separately for underground as well as surface water, reuse of non potable water etc. as per NGT order dated 15/11/2022 on OA no. 392/2022 for use of water.
7. Industry shall install separate digital water meter for measurement of ground & surface water used in the mine.
8. Industry shall submit appraisal report for usage of water from competent authority.
9. Industry shall ensure maximum reuse of non-potable water.
10. All approach roads and internal roads shall be maintained pucca. Industry shall adopt good housekeeping practices. The roads shall be regularly cleaned. Avenue plantation shall be developed along the roads. Facilities for parking of vehicles shall be created within the unit premises. No public place shall be used for parking of vehicles.
11. Industry shall use fly ash brick, fly ash blocks or fly ash based products in their construction / repairing activities.
12. All the solid waste sludge, garbage, plastic etc shall be disposed of in environment friendly manner as per rule.
13. Industry shall comply with the provision of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 from the Board and comply with the rule.
14. Extensive tree plantation with broad leaf local species shall be developed covering at-least 33% area of total project area in and around project periphery.

At-least 30 - 45 meter wide green belt of local broad leaf species shall be developed all along the boundary of the plant premises. A 3- tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads. As far as possible maximum area of open spaces shall be utilized for plantation purpose. Industry shall abide by the decisions taken by Ministry of Environment, Forest and Climate Change, Government of India / Central Pollution Control Board / Government of Chhattisgarh / Chhattisgarh Environment Conservation Board from time to time in this regard.

15. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) amendment Rule, 1993 for the previous year ending 31st March on or before 30th September every year.
16. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937 dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Praveen Chandra Jha, Director, M/s Phil Coal Benefication Private Limited, Village – Ghutku, Tehsil-Takhatpur, District – Bilaspur (C.G.).
17. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.
18. In case, if the capital investment is increased by such amount that the total investment exceeds the range for which renewal fees has been paid, the industry shall have to pay the difference amount of renewal fees for the corresponding block years.
19. In case, the prescribed fee payable is amended in future, the industry shall be liable to pay the difference amount for corresponding block years.

B. Air (Prevention and Control of Pollution) Act, 1981

1. Industry shall operate and maintain the existing pollution control systems effectively and regularly. Industry shall ensure the emission of particulate matter less than prescribed limit of 50 mg/Nm3 in all circumstances. Industry shall maintain ambient air quality within the factory premises within prescribed limits. Chhattisgarh Environment Conservation Board may further stipulate stringent particulate matter emission limit depending upon environmental conditions.
2. The industrial operations shall be taken up at the project site keeping a certain safe distance from the nearby railway track as per the regulations of the Ministry of Railway in this regard.
3. Industry shall ensure the compliance of guidelines issued by CPCB/MoEF & CC for coal washery (i.e. construction of boundary wall, installation of rain guns wind breaking screen, wheel washing system, CCTV Camera, pucca approach road, catch drains, settling pit etc).
4. Industry shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated.
5. Industry shall ensure transportation of clean coal and rejects by rail with wagon loading through silo. Industry shall ensure transportation of raw materials/fuel/dust generating products by properly covered vehicles. Vehicles used for transporting the wastes/sludge shall be covered with tarpaulins and optimally loaded. Vehicular emissions shall be kept under control and regularly monitored. Industry shall follow SOP issued vide order dated 26/06/2024 in this regard. Industry shall also ensure use of mechanically covered vehicles for transportation of raw materials, fuel, dust generating products after 12/07/2025.

6. All approach roads and internal roads shall be maintained pucca. Industry shall adopt good housekeeping practices. The roads shall be regularly cleaned. Avenue plantation shall be developed along the roads. Facilities for parking of vehicles shall be created within the unit premises. No public place shall be used for parking of vehicles.
7. Industry shall use fly ash brick, fly ash blocks or fly ash based products in their construction / repairing activities.
8. All the solid waste sludge, garbage, plastic etc shall be disposed of in environment friendly manner as per rule.
9. Industry shall comply with the provision of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 from the Board and comply with the rule.
10. Extensive tree plantation with broad leaf local species shall be developed covering at-least 33% area of total project area in and around project periphery. At-least 30 - 45 meter wide green belt of local broad leaf species shall be developed all along the boundary of the plant premises. A 3- tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads. As far as possible maximum area of open spaces shall be utilized for plantation purpose. Industry shall abide by the decisions taken by Ministry of Environment, Forest and Climate Change, Government of India / Central Pollution Control Board / Government of Chhattisgarh / Chhattisgarh Environment Conservation Board from time to time in this regard.
11. Industry shall submit Environment Statement to this Board as per provision of Environment (Protection) amendment Rule, 1993 for the previous year ending 31st March on or before 30th September every year.
12. This renewal of consent is being issued under the "Scheme of Auto-Renewal of Consent" of the Board issued vide office order no. 5937 dated 29/01/2018 as per self certificate submitted by authorized signatory Mr. Praveen Chandra Jha, Director, M/s Phil Coal Benefication Private Limited, Village – Ghutku, Tehsil-Takhatpur, District – Bilaspur (C.G.)
13. Chhattisgarh Environment Conservation Board reserves the rights to revoke the consent / renewal of consent at any time for any violation/non-compliance.
14. In case, if the capital investment is increased by such amount that the total investment exceeds the range for which renewal fees has been paid, the industry shall have to pay the difference amount of renewal fees for the corresponding block years.
15. In case, the prescribed fee payable is amended in future, the industry shall be liable to pay the difference amount for corresponding block years.

Please acknowledge the receipt of this letter.

For & on behalf of
Chhattisgarh Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

Member Secretary
Chhattisgarh Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

Endt. No. 4820/TS/CECB/2025 Nava Raipur Atal Nagar, Dated: 30/07/2025

Copy to: -

Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Bilaspur (C.G.). Please ensure compliance and report, if any condition/conditions are violated by the industry.

Sd/-
Member Secretary
Chhattisgarh Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

ANNEXURE – II: DISPLAY PHOTOGRAPH OF CAAQMS

Photographs of CAAQMS Display Board

ANNEXURE – III: COAL TEST REPORTS

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.: BEPLTR20250214MISC004			Date of Issue:14.02.2025
Name and Address of Customer	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/MISC/20250207001/009	Customer Sample ID	--
Sample Description	Coal Sample (Raw Coal)	Sample Collected By	Customer
Sampling Location	--	Date of Sampling	--
Sample Quantity	1 Kg. Approx.		
Date of Sample Received	07.02.2025	Analysis Duration	07.02.2025 to 09.02.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Method Reference
1	Mercury (as Hg)	mg/kg	N.D.	ASTM D6357-11
2	Arsenic (as As)	mg/kg	N.D.	ASTM D6357-11
3	Nickel (as Ni)	mg/kg	0.01	ASTM D6357-11
4	Cadmium (as Cd)	mg/kg	0.004	ASTM D6357-11
5	Chromium (as Cr)	mg/kg	0.002	ASTM D6357-11

Remark: mg/kg- milligram per kilogram, N.D. - not detected

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these can affect the validity of results.*
- *Asterisk mark(*) provided by the customer*
- *This test report shall not be reproduced without the permission of Bhoomi Envirotech Pvt. Ltd. (BEPL)*
- *The test report will not be used for any publicity/legal purpose.*
- *Responsibility of the BEPL is limited to the invoiced amount only*

14/02/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

M Sinha 14-02-25

(Meman Kumar Sinha)
Authorized Signatory

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.: BEPLTR20250214MISC005			Date of Issue:14.02.2025
Name and Address of Customer	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/MISC/20250207001/010	Customer Sample ID	--
Sample Description	Coal Sample (Wash Coal)	Sample Collected By	Customer
Sampling Location	--	Date of Sampling	--
Sample Quantity	1 Kg. Approx.		
Date of Sample Received	07.02.2025	Analysis Duration	07.02.2025 to 09.02.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Method Reference
1	Mercury (as Hg)	mg/kg	N.D.	ASTM D6357-11
2	Arsenic (as As)	mg/kg	N.D.	ASTM D6357-11
3	Nickel (as Ni)	mg/kg	0.009	ASTM D6357-11
4	Cadmium (as Cd)	mg/kg	0.003	ASTM D6357-11
5	Chromium (as Cr)	mg/kg	0.002	ASTM D6357-11

Remark: mg/kg- milligram per kilogram, N.D. - not detected

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these can affect the validity of results.*
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- *This test report shall not be reproduced without the permission of Bhoomi Envirotech Pvt. Ltd. (BEPL)*
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- *Responsibility of the BEPL is limited to the invoiced amount only*

14/02/25
(Ritesh Kurhade)
Reviewed By

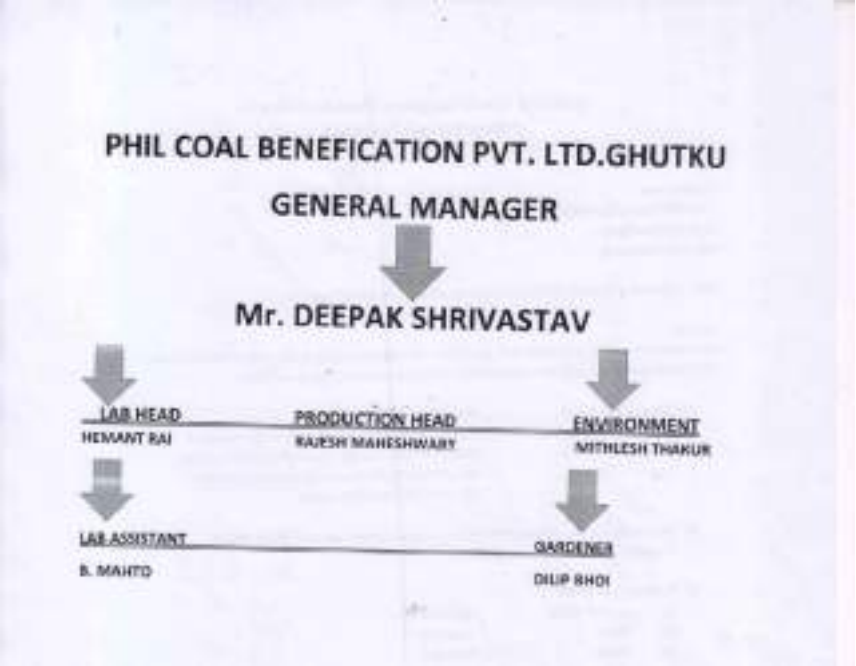
BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

M Sinha 14-02-25
(Meman Kumar Sinha)
Authorized Signatory

ANNEXURE – IV: COPY OF ENVIRONMENT MANAGEMENT CELL

ENVIRONMENTAL MANAGEMENT CELL



ANNEXURE – V: THIRD PARTY GREEN BELT VERIFICATION REPORT WITH PHOTOGRAPHS

Greenbelt Photographs

PHYSICAL VERIFICATION, MONITORING & EVALUATION OF PLANTATION

M/s Phil Coal Benefication Pvt. Ltd.

Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.)

Year – 2025

Evaluation & Verification done by -

ARIF ALI

Rtd. Dy. CF. (SFS) CONSULTANT
(ENVIRONMENT AND FOREST) RAIPUR

EVALUATION & VERIFICATION OF

GREEN BELT

M/s Phil Coal Benefication Pvt. Ltd.

Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.)

Year 2025

Evaluation & Verification by: -

ARIF ALI

Rtd. Dy. CF. (SFS) Consultant

(Environment and Forest) Raipur

Executive Summary

M/s Phil Coal Benefication Pvt. Ltd. located at Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.) is a wet type Coal Washery unit.

The permitted land of the factory is 9.93 hectares / 24.53 acres. Company has developed green belt in an area around 8.09 acres / 3.27 hectares of land which is around 33% of total factory area.

The environment clearance and permission granted by CECB Raipur as also direction received from the regional office from time to time require as that plantation should be done by the industrial units within plant premises and nearby areas with local species covering 33% or 1/3rd of area. The green belt helps to capture the fugitive emission and attenuate the noise apart from improving the aesthetics of the region. Trees are also helpful in improving ecological condition as well as bio diversity status of the area. Of total area 9.93hectares / 24.53 acres of the project site 33% area i.e. around 8.09 acres / 3.27 hectares is covered as green belt within the plant premises.

Physical verification and evaluation work has been done by our team in terms of number, girth of trees, height and survival percentage density and quality of plantation on 3rd week of June 2025.

INTRODUCTION

M/s Phil Coal Benefication Pvt. Ltd. located at Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.) is a wet type Coal Washery unit. and having following capacity: -

S. No.	Products	Capacity
01	Wet type coal washery (Through out capacity of coal washery)	5.0 Million Tonnes Per Annum

Area Statement:

Total plant Area : - 9.93 hectares / 24.53 Acres

Existing Green Belt Area : - 3.27 hectares / 8.09 acres

Need of Green Belt

Greenbelts are an effective mode of pollution and forming a sink of pollutants. Leaves with their vast area in a tree crown, sorbs pollutants on their surface, thus effectively reduce pollutants concentration in the ambient air, often the absorbed pollutants are incorporated in the metabolic pathway and the air is purified. Plant grown to function as pollution sink are collectively referred as green belts. An important aspect of a greenbelt is that the plants are living organisms with their varied tolerance limit towards the air pollutants. A green belt is effective as a pollutants sink only within the tolerance limit of constituent plants. Planting few, known pollutant sensitive species along with the tolerant species within a green belt however, do carry out an important function of indicator species.

Apart from function as pollution sink, green belt would provide the benefit like aesthetic improvement of the area and providing suitable habitats for animal and birds

Choosing Plants for Green Belts: - The main limitations for plants to function as scavenger of pollutants are plant interaction to air pollutants, sensivity to pollutants, climate condition and soil characteristics. While making choice of plant species for cultivation in greenbelts. Due consideration has to be given to the natural factors of bioclimate, Xerophytes plants are not necessary good for greenbelts they with their sunken stomata can with stand pollution by avoidance but are poor absorber of pollutants.

Character of plants mainly considered for affecting absorption of pollutants gases and removal of dust particles are as follows.

For Absorption of Gases: -

1. Tolerance towards pollutants in question, of concentration that are not high to be instantaneously lethal.
2. Longer duration of foliage.
3. Freely exposed foliage.
4. Adequate height of crown.
5. Openness of foliage in canopy.
6. Big leaves (long and broad laminar surface).
7. Large number of stomatal apertures.

For removal of suspended particulate matter: -

1. Height and spread of crown.
2. Leaves supported on firm petiole.
3. Abundance of surface on bark and foliage.
4. Roughness of bark.
5. Abundance of axillary hairs.
6. Hairs of scales on laminar surface

MoEFCC (Ministry of Environment Forest and Climate Change) guidelines regarding green belt for industries –

The environmental factors related to green belt with economic, social consideration are given below

Land acquired shall be sufficiently large to provide shape for appropriate treatment of waste water, the treated waste water left after maximum possible reuse and recycle should be used to raise green belt and to create water body for aesthetic, recreation and if possible for agriculture.

No forest land shall be converted into non forest activity for the sustenance or the industries.

The green belt between to adjoining large scale industries shall be 1km.

The green belt shall be 500 meters wide around the boundary limit of industry, for industry having odour problem it shall be 1 km wide.

In some environmental clearance issued for various types of projects by concerned regulatory authorities of central and state level, conditions reflected to green belt development of industrial projects mention that green belts of adequate width and density shall be provided 38% area to mitigate the effects off fugitive in emission all around the plant with local species in consultation with the DFO as per the CPB guidelines.

Development of green belt consisting of three tier along the periphery of the project with native species is most important. Guideline for any type of industry, green vegetation is beneficial many ways leading to conservation of biodiversity, retention of soil moisture, recharge of ground water and maintaining pleasant climate of the area. Providing possible habitat for birds and animal. Green belt minimizes the builds up pollution level in urban/industrial areas by acting as pollution sinks. The three tier green belt will absorb pollutant release from industrial activity into atmosphere helps in effective pollution control. The main advantages of green belt in and around the industry are to control air and noise pollution. Trees helps in trapping particulate matter, removing co2 and other pollutants from air and by release o2 into the air there by improving the air quality. Green belt reduce the intensity or should be reflect, refract or by absorb sound, if will function as barrier between industry and neighbourhood. The intensity reduction depends op on the distance sound has to travel from source and width as the green belt.

Green belt also helps in soil erosion control through improvement of soil, quality and binding soil particles. It also contain water run offs and improve ground water infiltration and improving ground water recharge capacity. The green belt species should be selected based on the type/category of the industry and climatic conditions. Setting trees around and industry may not serve the purpose of green belt without considering the above elements.

Physical Verification and Evaluation of Green Belt

For assessing the quality and quantity of green belt developed by M/s Phil Coal Benefication Pvt. Ltd. Our team visited the site on 3rd week of June 2025 and conduct all the necessary procedure to evaluate the green belt.

Tree Enumeration – Counting of all the trees and saplings carried out by direct field observation casualties were also recorded to calculate the survival percentage.

Assessment of Health of Plantation – Generally health of plantation is assessed by measuring height and grith of trees. Height is measuring approximately and grith is measuring on following basis

HEALTH	GIRTH
1.Upto 3year old tree	Girth is measuring 50 cm above the ground level
2.Upto 5year old trees	100 cm above the ground level
3.Older than 5 year	150 above the ground level

Survival percentage – The survival percentage of plantation is calculated on the basis of the formula i.e.

$$\frac{\text{No. of living plants}}{\text{Total no. of plant planted}} \times 100$$

Density - $\frac{\text{No of trees}}{\text{Area}}$

Grading of Plantation: -

A. Grading of project plantation on scale of 1 to 10

Qualitative	Survival	8.15
	Health of plantation	8.20
	Maintenance	8.60
	Sustainability	8.50

B. Grading of project plantation on scale of 1 to 10

Overall grading of plantation	Excellent	Very good	Good	Poor
	(8<10)	(5<8)	(3-5)	(>3)
		8.30		

Suggestion for Improvement

1. It is advice to adopt some fruit bearing and broad leaf trees.
2. The coal dust deposited in the leaves should be removed by washing the plants regularly.
3. Plant should be planted after one year age, Minimum 3' to 4' height.
4. Space between plants 2mx2m, 3mx3m and maximum 4mx4m according to maximum girth of trees after maturity.
5. Given priority to broader leaves plants.
6. Species – fast growing Species to be planted
7. Manure – Cow dung compost, Vermi compost for good edge Urea, DAP, Enzyme can be used.

M/s Phil Coal Benefication Pvt. Ltd.
PLANTATION EVALUATION & MONITORING REPORT

Enumeration Details of Tree Plantation in Premises of

M/s Phil Coal Benefication Pvt. Ltd.

Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.)

Year – 2025

1. Total area of the factory : - 9.93 Hectares / 24.53Acres
2. Total Green belt area : - 3.27 Hectares / 8.09 Acres
3. Total No. of Living Plants : - 7,989 Numbers
4. Survival percentage : - 85%
5. Site suitability : - Good
6. Density : - 987 Trees / acre

S.no.	Name of plant	Girth Class In CM			Total Number of Living plants
		0-20	21-40	41-60	
01	Karanj	645	00	00	**645**
02	Phycus	750	00	00	**750**
03	Palm	00	00	55	**55**
04	Neebu	86	00	00	**86**
05	Mahugani	996	12	00	**108**
06	Cassia siamia	1,828	18	00	**1,846**
07	Gulmohar	872	35	00	**907**
08	Maul Shree	92	00	00	**92**
09	Shisham	940	25	00	**965**
10	Conocarpus	643	00	00	**643**
	Peltaphorum	992	00	00	**992**
	Total	**7,844**	**90**	**55**	**7,989**

30.6.2025

Arif Ali
Retd. DY. C.F. (SFS)
Consultant Env. & Forest
Raipur (C.G.)

M/s Phil Coal Benefication Pvt. Ltd.
PLANTATION EVALUATION & MONITORING REPORT

ARIF ALI

Consultant Environment and Forest

K-6 Anupam Nagar Raipur Chhattisgarh (492001)

Ref. No: - RPR/100/2025

Date: - 30.06.2025

CERTIFICATE

This is to certify that **M/s Phil Coal Benefication Pvt. Ltd.** located at Vill – Ghutku, Tah – Takhatpur, Distt – Bilaspur (C.G.) has established its factory over an area of **9.93** hectares (**24.53** acres).

As per the environmental guidelines, the company has developed green belt within the plant premises, covering an area of around **8.09** acres (**3.27** hectares) in which around 7,989 numbers of trees has been planted. Which is covering around 33% of the factory land area, with a plantation density of 987 trees per acre.

The green belt developed by the management is found to be satisfactory and is in compliance with the applicable environmental parameters.

Place: Raipur (C.G.)

30.6.2025

Arif Ali
Retd. DY. C.F. (SFS)
Consultant Env. & Forest
Raipur (C.G.)

Plantation Photographs

Plantation Photographs

ANNEXURE – VI: APPLICATION DETAILS OF CGWA NOC RENEWAL

Welcome : Phil Coal [M/s Phil Coal Benefication Pvt. Ltd.]

Last Login : 28/05/2025 18:54:18

Note: For NOC obtained from NOCAP portal, first Import your Application from NOCAP by clicking the on Button below.

Import Application from NOCAP

Applications for Renewal

SR NO.	APP CODE/APP NUMBER	NOC NUMBER/DATE	SELF INSPECTION	STATUS
1	9905 IND/CG/2025/7244/R-3	CGWA/NOC/IND/REN/2/2024/9766 26-05-2022 - 25-05-2025	Process	NOCAP_VERIFICATION
2	2267 IND/CG/2024/1532/R-2	CGWA/NOC/IND/REN/1/2022/6721 06-01-2022 - 05-01-2025	Process	NOC_ISSUED

ANNEXURE – VII: GROUNDWATER IMPACT ASSESSMENT AND MODELING STUDY REPORT

REPORT ON

GROUNDWATER IMPACT ASSESSMENT AND MODELLING STUDIES FOR

M/S PHIL COAL BENEFICATION PVT LTD, VILLAGE GHUTKU, BLOCK TAKHATPUR, DISTRICT BILASPUR, CHHATTISGARH

Prepared by

Upendra Srivastava

Senior Hydrogeologist (Retd), Central Ground Water Board

& Accredited Groundwater Professional

The "Report on Groundwater Impact Assessment for PHIL COAL BENIFICATION PRIVATE LIMITED, VILLAGE- GHUTKU, TEH- TAKHATPUR, DISTT-BILASPUR C.G." has been prepared by undersigned as per the norms of Central Ground Water Authority Guidelines 24.9.2020. The undersigned is retired Hydrogeologist from Central Ground Water Board and has been Accredited as Ground Water Professional by Central Ground Water Authority (http://www.cgwanoc.gov.in/LandingPage/UserAssistance/Results_Accreditation_with_Contact_Details%2017-03-_2021.pdf#ZOOM=100). Undersigned is qualified for preparation of Impact Assessment Reports and Ground Water Modelling studies.

The report has been prepared based on primary hydrogeological data collected during field surveys and the secondary data collected from various Central and State govt. departments. The analysis of spatial and temporal variations in ground water regime are based on long term ground water level data collected regularly by State Ground Water Department, Govt. of Chhattisgarh, through the permanent monitoring stations. The detailed information about vertical and horizontal disposition of aquifers and its characteristics has been obtained from various reports of Central Ground Water Board. The entire data and its analysis has been compiled in the report to bring out the impacts of ground water abstraction by the industry and also by the water conservation measures adopted by the industry, on the ground water regime in the buffer area around the plant. Impacts of ground water abstraction on the socio-economic conditions of inhabitants in the surrounding areas have also been studied based on land use and livelihood of the people in the buffer zone.

1. Sh Pavan Singh Patel, Hydrogeologist who carried out hydrogeological surveys in the study area and was actively involved in preparation of Impact Assessment report.
2. Sh Dhananjay Kumar, Geologist and Geophysicist, analysis of secondary geological and geophysical information collected from different sources.

(UPENDRA SRIVASTAVA)
Retired Hydrogeologist,
Central Ground Water Board
Ministry of Jal Shakti, Govt of India
Accredited Ground Water Professional by CGWA

CONTENTS

REPORT ON GROUNDWATER IMPACT ASSESSMENT FOR M/S PHIL COAL BENEFICATION PVT. LTD., VILLAGE GHUTKU, BLOCK TAKHATPUR, DISTRICT BILASPUR, CHHATTISGARH

1. SALIENT FEATURES OF THE PROPOSEL

S.NO	PARTICULARS	DETAILS
1.1	Application NO.	*21-4/365/CT/IND/2017*
1.2	Accredited BY	CGWA_RGTI
1.3	Date Of Accreditation	30.11.2021
1.4	Validity Upto	1.10.2021 TO 30.09.2026
1.5	New/ Existing Project	EXISTING PROJECT
1.6	Alluvium/ Non-Alluvium	Non-ALLUVIUM
1.7	Block Name & Category (GWRA, 2020)	Block- Takhatpur *CATEGORY – SAFE*
1.8	Ground Water Requirement	855 KLD
1.9	Ground Water Modelling Required (Yes/No)	Yes
1.10	In Case the Report Is Prepared Jointly By Accredited Institute And Individual Consultant, Name/Details Of Chapters Prepared By The Individual Consultant	IMPACT ASSESSMENT REPORT WITH GROUND WATER MODELING PREPARED BY Upendra Srivastava
1.11	Signature Of the Consultant	

2. BRIEF ABOUT THE PROPOSED PROJECT

PCBPL (Phil Coal Benefication Pvt. Ltd.) is Flagship Company of Phil Group in Chhattisgarh having wide interest in coal washing, trading, handling, logistics and transportation. Today Phil Group is one of dominant player in coal operating in mineral which state of Chhattisgarh. Company has fully integrated model of total fuel solution for Power, Metal and Cement Plants etc. It provides all coal services at a single window forty securing linkage of coal up to delivery of coal i.e. allotment of coal, long term fuel supply agreement, procurement of coal directly from SECL mines and Foreign Coal from Indonesia, Australia etc. quality and control, transportation, washing, logistics and delivery at the plant by road and by rail at the plant of the consumer in schedule time.

PCBPL is a company involved in the business of Coal Washing, Coal Trading and Coal Transportation both by Road & Rail in the States of Chhattisgarh & Madhya Pradesh. They are operating a Coal Washery of 2.5 Mtpa capacity at Ghutku village of Dist. Bilaspur (C.G.), 0.96Mtpa Coal Washery in Raigarh District, Chhattisgarh and 2.4 Mtpa Coal Crushing and Screening at Lokhandi Village, Dist-Bilaspur, Chattisgarh.

PCBPL (Phil Coal Benefication Pvt. Ltd.) has applied for renewal of NOC for withdrawing ground water **855 m3/day or 273600 m3/**year quantity of ground water for industrial, domestic and green belt development purposes, through three existing Borewells and four proposed Borewells.

The CGWA has asked the industry to submit the report on Impact Assessment of Ground Water based on Ground water Modeling studies. The present study has been taken up in pursuance of this requirement by the Gazette Notification of the Ministry of Jal Shakti (Department of Water Resources, River Development and Ganga Rejuvenation) (Central Ground Water Authority), published on dated 24 September 2020.

➢ OBJECTIVES AND SCOPE

The present study has been taken up within the premises of M/s PCBPL plant and buffer zone around the industry with following objectives:

a. Study the hydrogeological, geological, climate, landuse, topography, drainage and geomorphological conditions of the study area
b. Regional hydrogeological characteristics and its bearing on the ground water regime in plant area and buffer zone. Long term trend analysis of ground water levels observed at hydrograph monitoring stations of State Ground Water Department.
c. To assess the impact of ground water withdrawal by the industry for various purposes and efficacy of procedures adopted for recycling and reuse of water within the industry.

d. Ground water modelling studies for assessing the impacts of ground water abstraction and future predictions under different stress conditions.

An approach adopted included Compilation of generated data, existing data collected from different sources and agencies and spatial and temporal analysis of collected information. Based on generated and existing data various thematic layers and maps have been prepared in GIS environment. At few strategic locations geophysical surveys were also conducted to get an idea of sub-surface lithology and aquifer disposition. The ground water levels were collected from select monitoring stations within the premises and stations established and regularly monitored by CGWB and depth to water level and water table contours were drawn for the study area for detailed analysis of ground water regime. The findings of the study are discussed chapter wise in the report. Time series analysis of water level data collected was done to infer the historical changes in ground water regime of the area. Entire data- collected or generated was compiled and integrated to prepare this impact assessment report.

Socio economic impacts over the time were also studied and analysed for suggesting suitable management options.

➢ LOCATION AND EXTENT:

The study area falls in the company premises of **"PCBPL (Phil Coal Benefication Pvt. Ltd.)"** located at VILLAGE- GHUTKU, TEH- TAKHATPUR, DISTT- BILASPUR C.G., about 5 km in the west of Bilaspur-Ratanpur Road(NH-130), 6 km Towards the North direction from Uslapur and about 15 km northwest of Bilaspur District. The coordinates of the plant are 22.155625° N and 82.092386° E. The area falls in the interfluve area of Arpa River.

The area under investigation lies in between 22.122104°N to 22.186267° N and 82.056467° E to 82.127315° E Longitudes. Location maps of study area are given in Fig 1 to Fig 3. The layout of the factory premises is given in Fig 4. For the purpose of study, the surrounding buffer area has also been considered and being referred as study area.

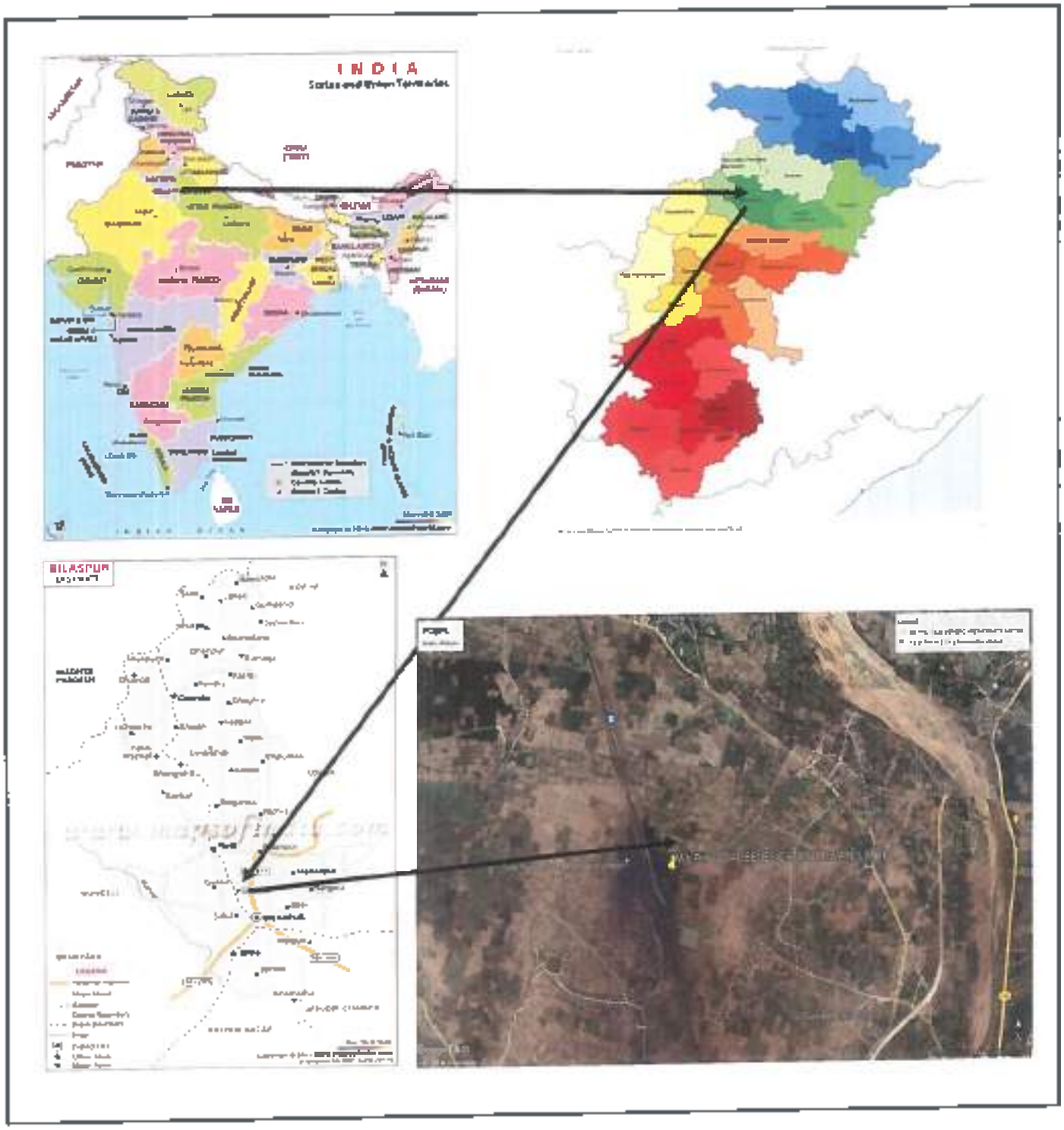


Figure 1 Index map of PCBPL (Phil Coal Benefication Pvt. Ltd.), Ghutku, Bilaspur

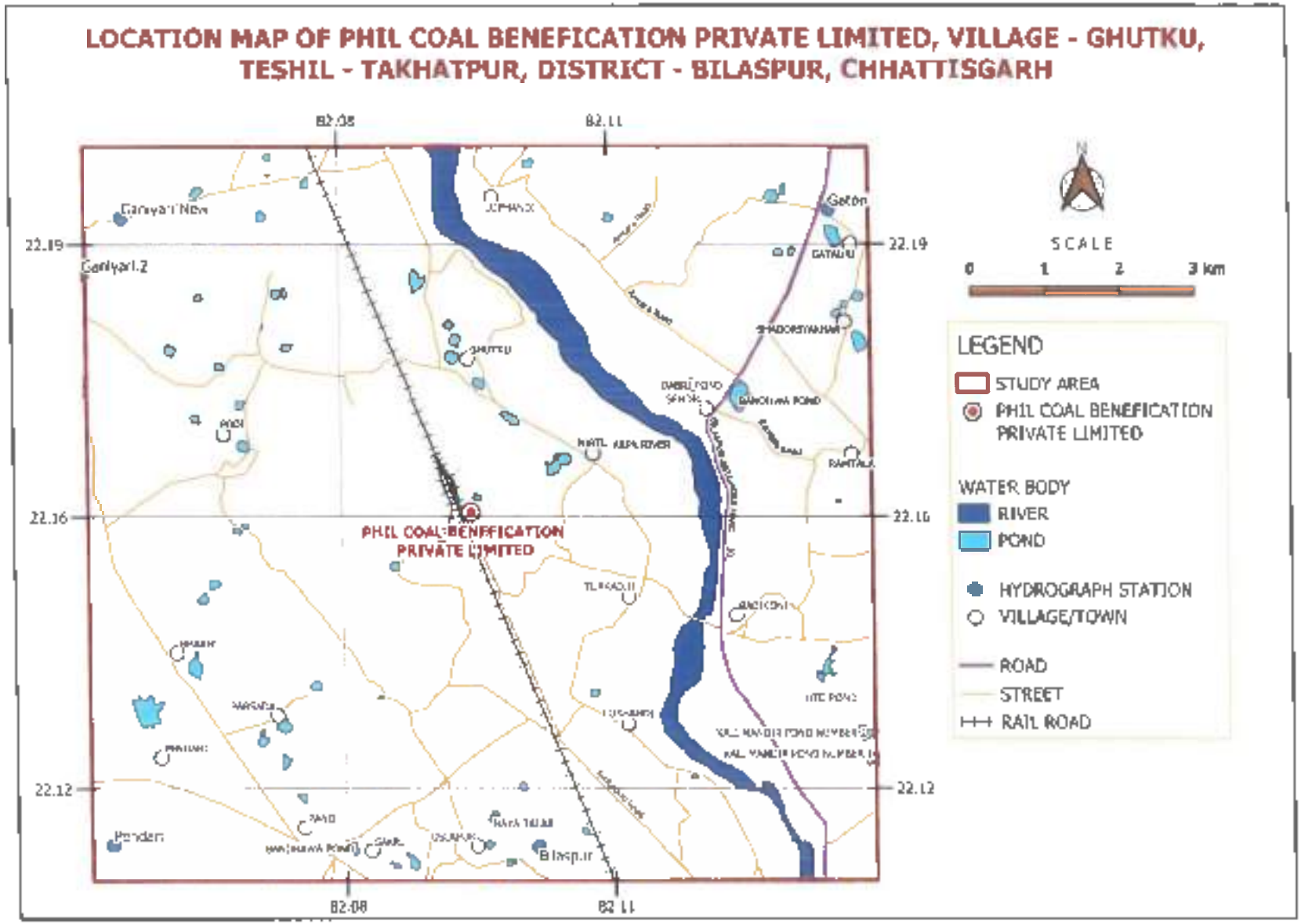


Figure 2 Location Map of PCBPL

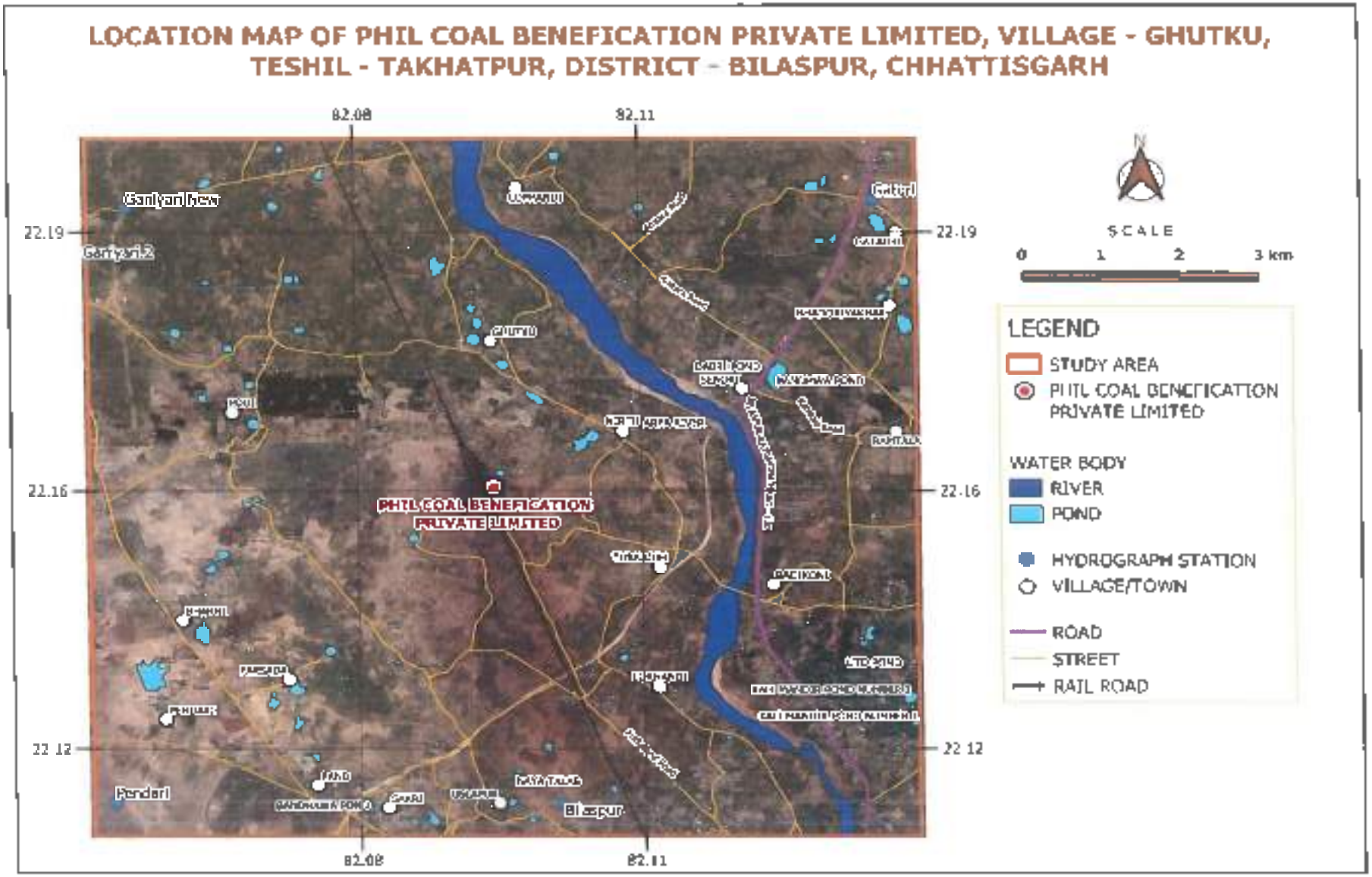


Figure 3 Google image of study area showing location of PCBPL

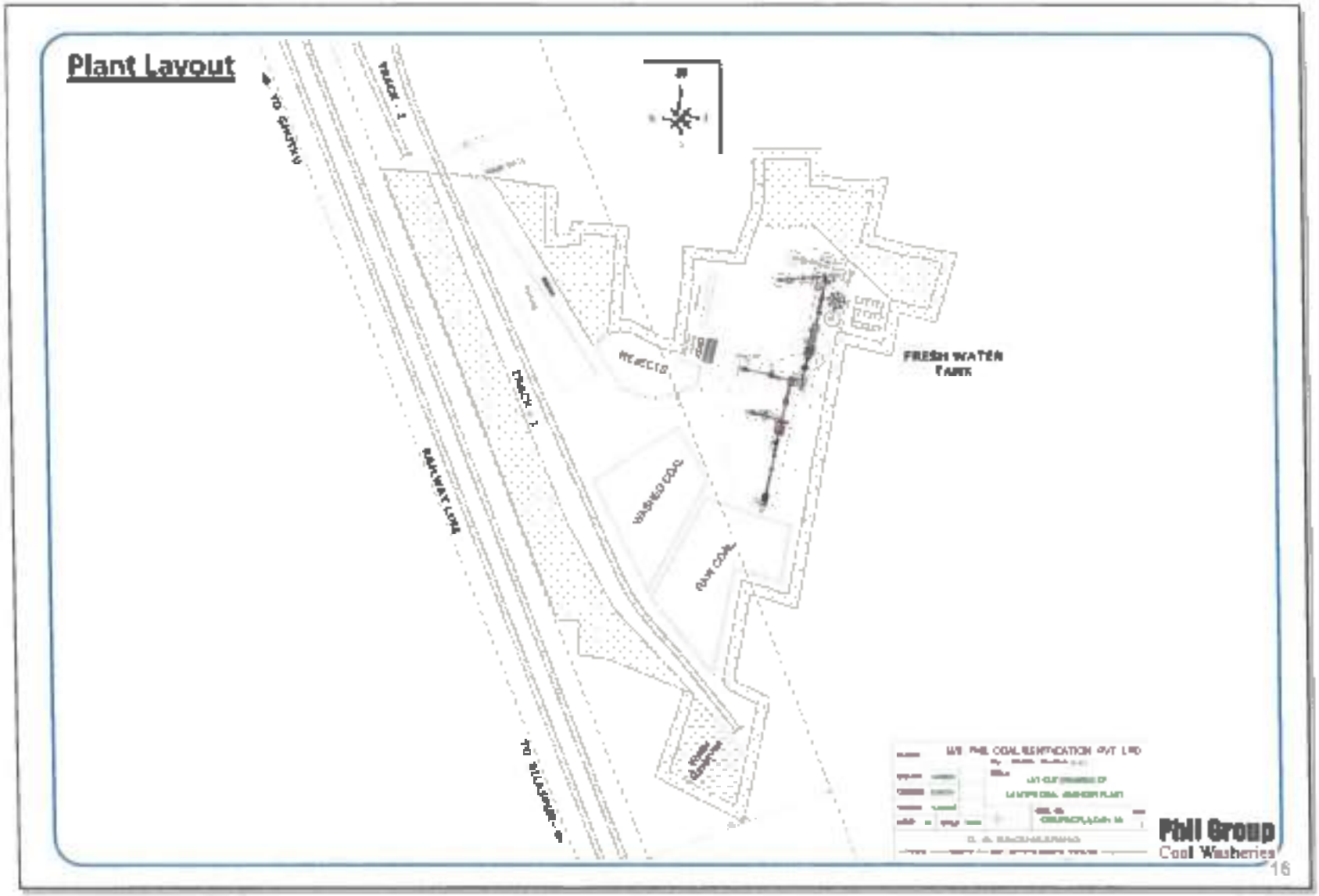


Figure 4The layout of the factory premises of *PCBPL*

2.1. LAND USE/ LAND COVER OF STUDY AREA

The land use pattern in the entire study area covering about 109.50 sq km has also been analyzed based on information gathered from satellite images and its different modules. It is observed that major part of the buffer zone is covered by cropped area as shown in Table-1, which constitutes 73.03% of total area. This is followed by rural/ urban areas which together covers 13.39 sq km (~12.17 % of total area) and fallow land & plantations which together cover 1.56 sq km (1.42%). The land use of the study area is shown graphically in Fig-5 and map is shown in Fig-6. The 73.03% coverage of area by cropped area, which is dominated by water intensive cropping pattern such as paddy, sugarcane and wheat, indicating excessive withdrawal of ground water. But at the same time return seepage from irrigation is very high in these areas.

Table 1 LANDUSE PATTERN IN STUDY AREA, BILASPUR

LANDUSE	AREA IN SQ KM	% age
BARREN	5.77	5.25
CROP LAND	80.32	73.03
FALLOW	1.08	0.98
FOREST, DECIDUOS	2.24	2.04
GRASS/GRAZING	0.12	0.11
PLANTATION	0.48	0.44
RURAL	7.7	7.00
URBAN	5.69	5.17
WATER BODY - POND/RESERVOIR	1.67	1.52
TOTAL AREA (sq km)	**109.98**	**100**

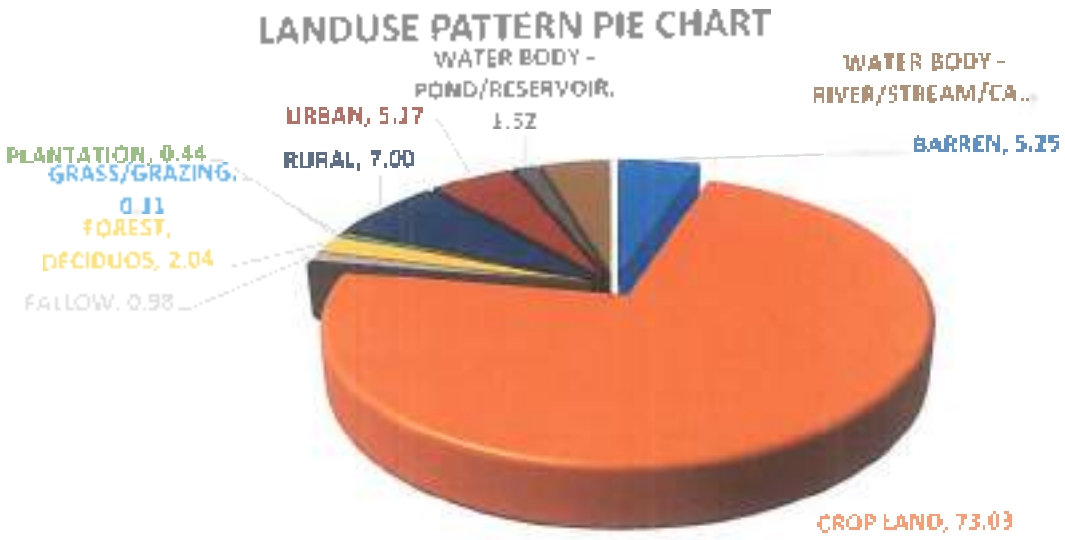


Figure 5 LAND USE PATTERN CHART

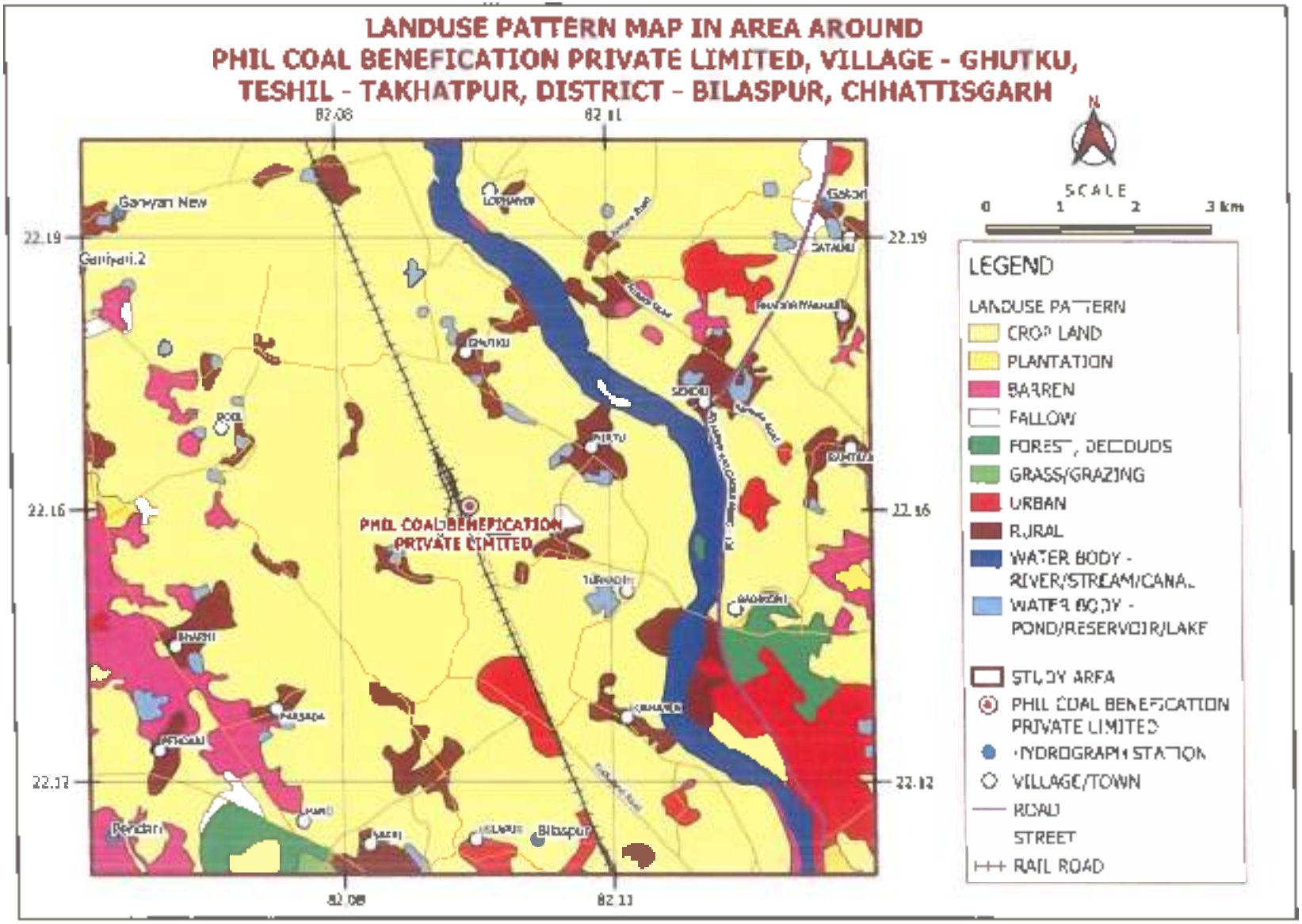


Figure 6Land Use Map showing buffer zone

2.2. DEM/TOPOGRAPHY

Takhatpur District is a part of Mahanadi River Basin and represented by high slopes in the north which gradually flattens out towards south to southwest. The Study area covered by gentle sloping plains. The Arpa River flows in the middle of the study area. The slopping pattern is also gradually flattening towards the river form west and east direction towards the river course. The highest altitude in the study area is located in the north around Ganiyari and in the east in Gatauri which is 292 metres above mean sea level and lowest in the southern parts around Uslapur and Bilaspur around 272 metres above mean sea level. The average slope of the land surface varies from 1.00 to 2.00 m/km, towards southeast direction. As seen in Fig 7 the ground elevation in the study area varies from 272 mamsl in the northern parts to 292 mamsl in the southern parts.

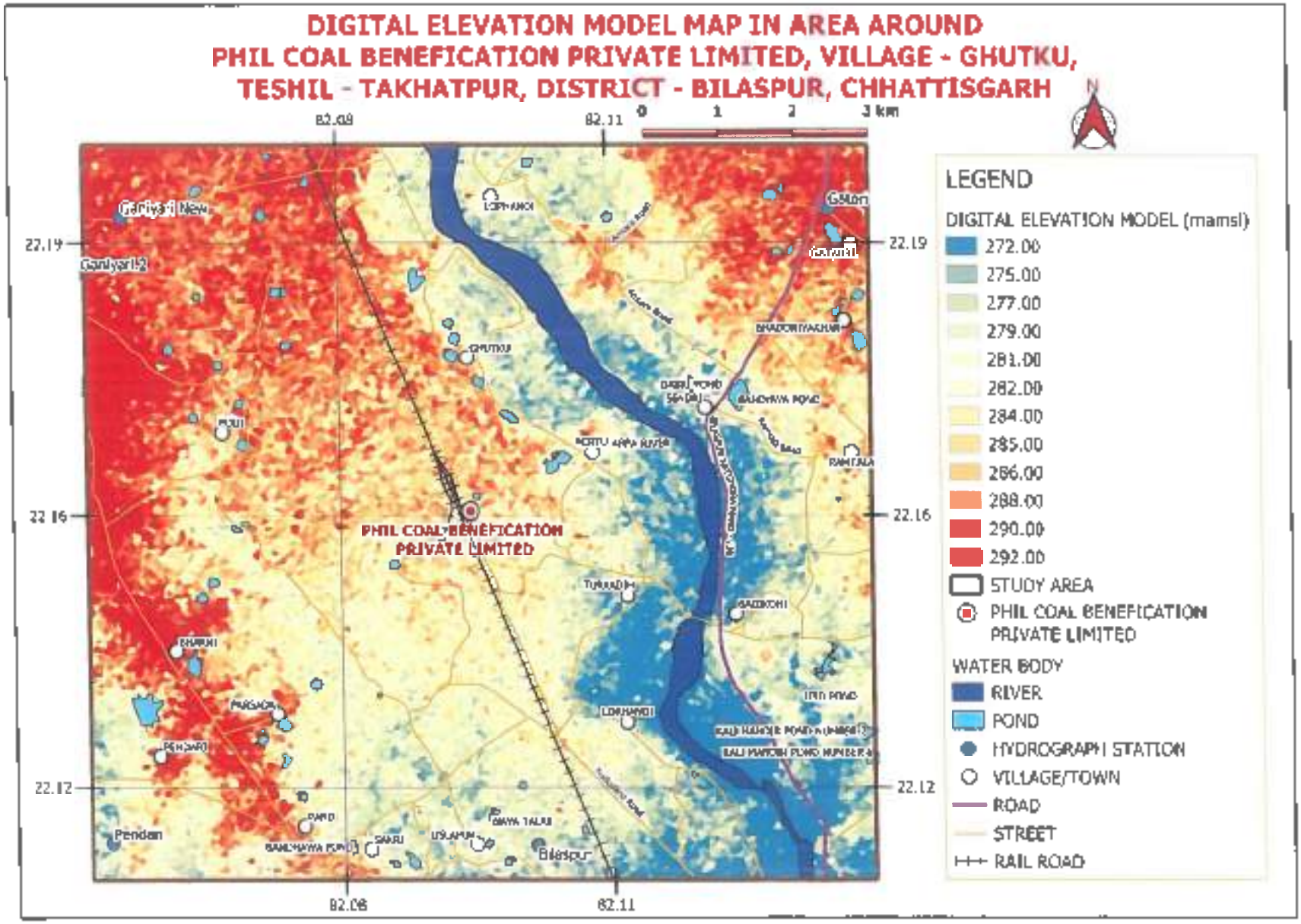


Figure 7 DIGITAL ELEVATION MODEL Map

2.3 GEOMORPHOLOGY AND DRAINAGE 5KM (RADIUS/SQUARE)

2.3.1 GEOMORPHOLOGY

Physiographically the Bilaspur district can be divided into two parts. The first part consists high plateau area covering north and central part of the district (separated by the intermittent narrow valleys and steeply slopping plains. The second part is the gently sloping plain land covering southern parts of the district. The study area have been classified as Pediment Pediplain complex land of Denudational origin. which is classified as structural plain on Proterozoic rocks. The geomorphic features are shown in Fig- 8.

The study area shows end stage of cycle of erosion. The land form is controlled by fractures and joints, having gently sloping smooth surface of erosional bedrock between hill and plain with veneer of detritus. The Pediment pediplain complex is developed in the major parts of the study area. It is formed by deposition and weathering of fluvial material having very gentle slopes and smooth surfaces. It is resultant product of polycyclic erosional and depositional processes. It is concealed and covered under thin soil cover. Younger alluvium plain is of recent origin and is restricted to river courses.

2.3.2 DRAINAGE

River Arpa is main tributary of Mahanadi River and the major river of the district. The Arpa River flows in the Centre of the study area. The river is semi ephemeral seasonal rivulets which carry enormous runoff during monsoon period. The drainage pattern is sub dendritic in nature. As shown in fig 8 The Arpa River on the study area flows from north to south. Drainage density is moderate in the study area The study area is marked by several first to second order streams. Most of the monsoon rainfall flows out of the area as run-off through these rivers or rivulets.

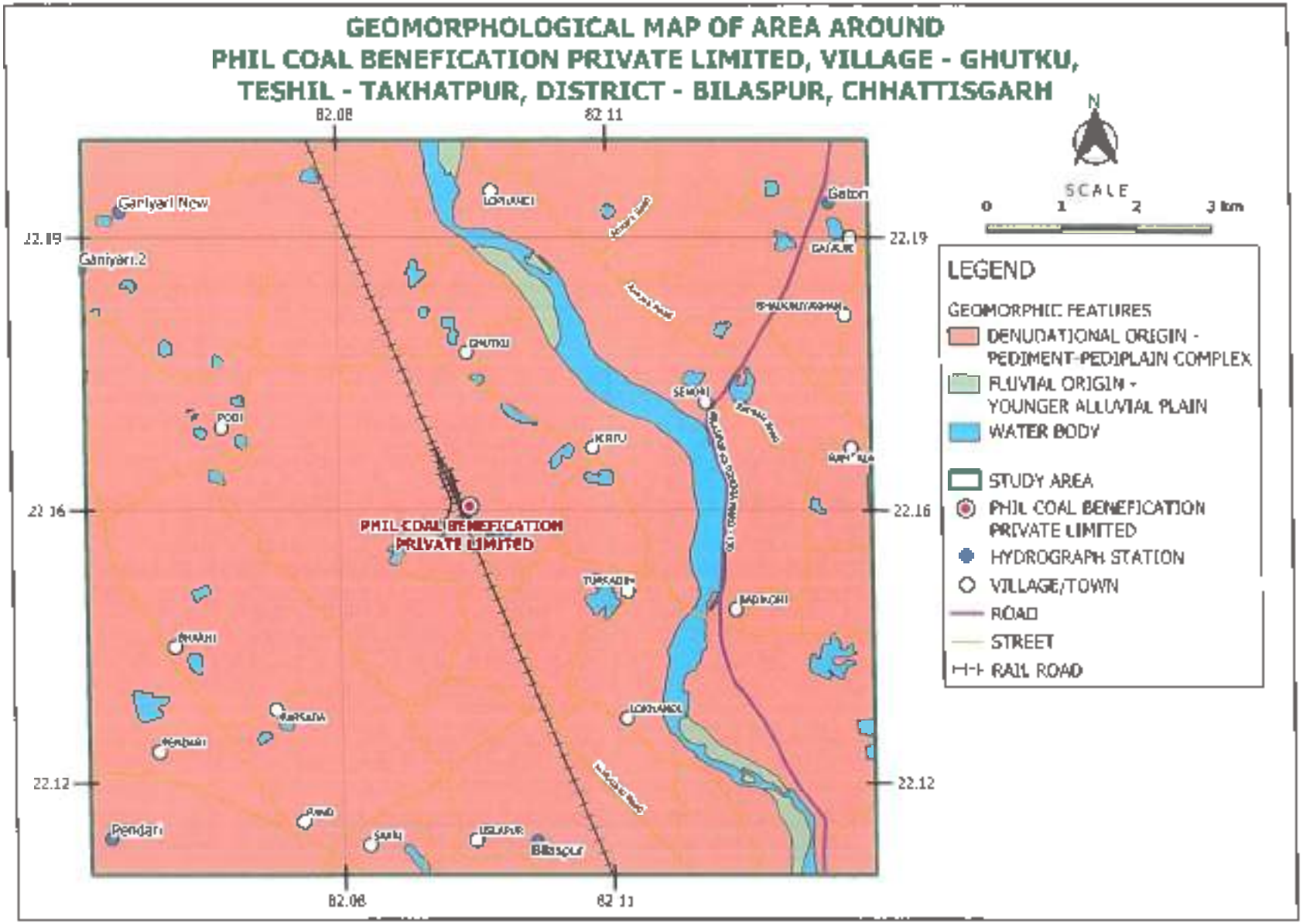


Figure 8 Geomorphology and Drainage Map

2.3.3 Soil Type

The vertisol are mostly found in the study area. They range from grey/red to deep black colour and are almost impermeable when saturated. They are sticky in wet season and are very hard in dry season.

The ultisol types of soil are also found in the study area and is red to yellow in colour. This colour is attained mainly due to accumulation of iron oxide, which is highly insoluble in water. Inceptisol soils occupy mostly hill slopes and are found along the western boundary of the district.

2.3.4 HYDROMETEOROLOGY:

The BILASPUR DISTRICT experiences a hot and semi-humid climate. The climate is characterized by a hot summer and biting cold, winter is associated with general dryness. The rainy season extends from end of June to September. The annual temperature varies from 10° C to 45° C. The hottest months are May and June and the minimum temperature is observed in the months of December and January.

There is significant rainfall throughout the year in Bilaspur as shown in Table 2. Even the driest month has a lot of rainfall. According to Köppen and Geiger, this climate is classified as Cfa. The average annual rainfall is 1025.7 mm. the average monthly rainfall is shown in Fig 9.

Table 2 CLIMATE OF BILASPUR (AVERAGES)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AVERAGE ANNUAL RAINFALL (mm)	AVERAGE ANNUAL MONSOON RAINFALL (mm)
Precipatation / Rainfall mm (mm)	23.32	9.85	20.56	32.19	303.75	144.99	242.58	194.67	220.91	100.38	59.76	20 61	1172.91	803.15
Rainy days (d)	5	3	6	8	12	15	27	25	16	7	4	2	130	

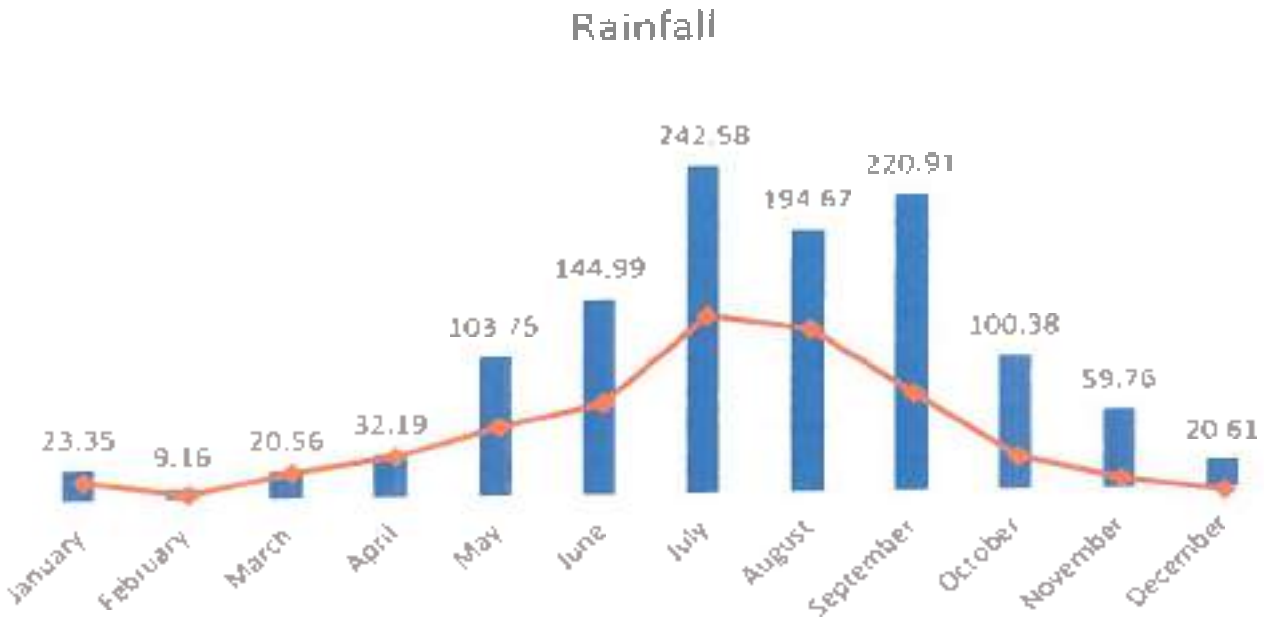


Figure 9 Average Rainfall Graph of Bilaspur District

2.4 DETAILS OF WETLANDS/ MAJOR WATER BODIES

There is no any wetland site which has been listed under the Ramsar Convention that aims to conserve it and promote sustainable use of its natural resources is called a Ramsar Site. As per as Ramsar Site there is no Wetlands in Chhattisgarh.Therefore, certificate regarding the same is not applicable for the particular proposal.

There is no wetlands near the Study area. This chapter is not applicable.

3. HYDROGEOLOGY:

3.1. GEOLOGY:

Study area which is a part of Bilaspur district occupies a part of Mahanadi Basin. The area mainly covers the rocks of Meso to Neo Proterozoic age, represented by Maniari Formation of Raipur groups occupy almost 95% of the total study area. The Raipur group sediments of the Chhattisgarh Supergroup mainly consist of sandstone, limestone, shale, and dolomites.

Table 3 Geological succession in Bilaspur district

Age	Super-Group	Group	Formation	Lithology
QUATERNARY	Recent to sub-recent		Alluvium and Laterite	Sand, Silt, Clay and lateritic Soil
PROTEROZOIC	Chhattisgarh Supergroup	Raipur Group	Maniyari Formation (>300m)	Gypsiferous purple shale and dolomite
			Hirri Formation (150 m)	Stromatolitic dolomite and black shale
			Tarenga Formation (>300 m)	Belha member argillaceous dolomite, Dagauri member tuff and Kusmi member shale
			Chandi Formation (670 m)	Stromatolitic limestone-dolomite with Deodongar Member sandstone-shale
			Gunderdehi Formation (>300 m)	Calcareous shale with Dotapar Member sandstone
			Charmuria Formation (260 m)	Flaggy limestone shale with Sirpur Member tuff and Raidhar Member cherty limestone
			Kanspalhar Fm	Quartz Arenite
			Choparadih Fm	Glauconitic Sandstone/siltstone and black shale
			Lohardi Fm	Subarkose with basal Conglomerate.
----------UNCONFIRMITY----------				
ARCHAEAN	Basement crystallines- Granite, gneisses, granulite and Amphibolite			

3.1.1 LOCAL GEOLOGY

In the study area Maximum part of the study area is exposed by **Manlyari Formation** as shown in fig 10 and there is Hirri Formation & Tarenga Formation of Chhattisgarh Super group is also exposed in patches which is described below.

Maniyari Formation represents the closing phase of deposition in Chhattisgarh basin and consists of lower gypsiferous grey siltstone and shale followed by reddish brown calcareous and non-calcareous shale with limestone and dolomite. The alternate silt and clay define the laminated character. The red shale is less fissile and is both calcareous and noncalcareous containing gypsum lenses and veins. The thickness of this formation varies from 75 to 240 m and rarely up to 300 m.

Hirri Formation consists dominantly of greyblack dolomite and black shale. It is stromatolitic and gypsiferous at places. A 1–2 m thick arenite unit is found around Saida (adjacent to Bilaspur). The thickness of this formation is found to be 150 m, more than twice the earlier estimate of 70 m.

Tarenga Formation consists dominantly of silty to very fine mudstone with minor calcareous, cherty and dolomitic beds. The total thickness of the Tarenga Formation is found to be more than 300 m.

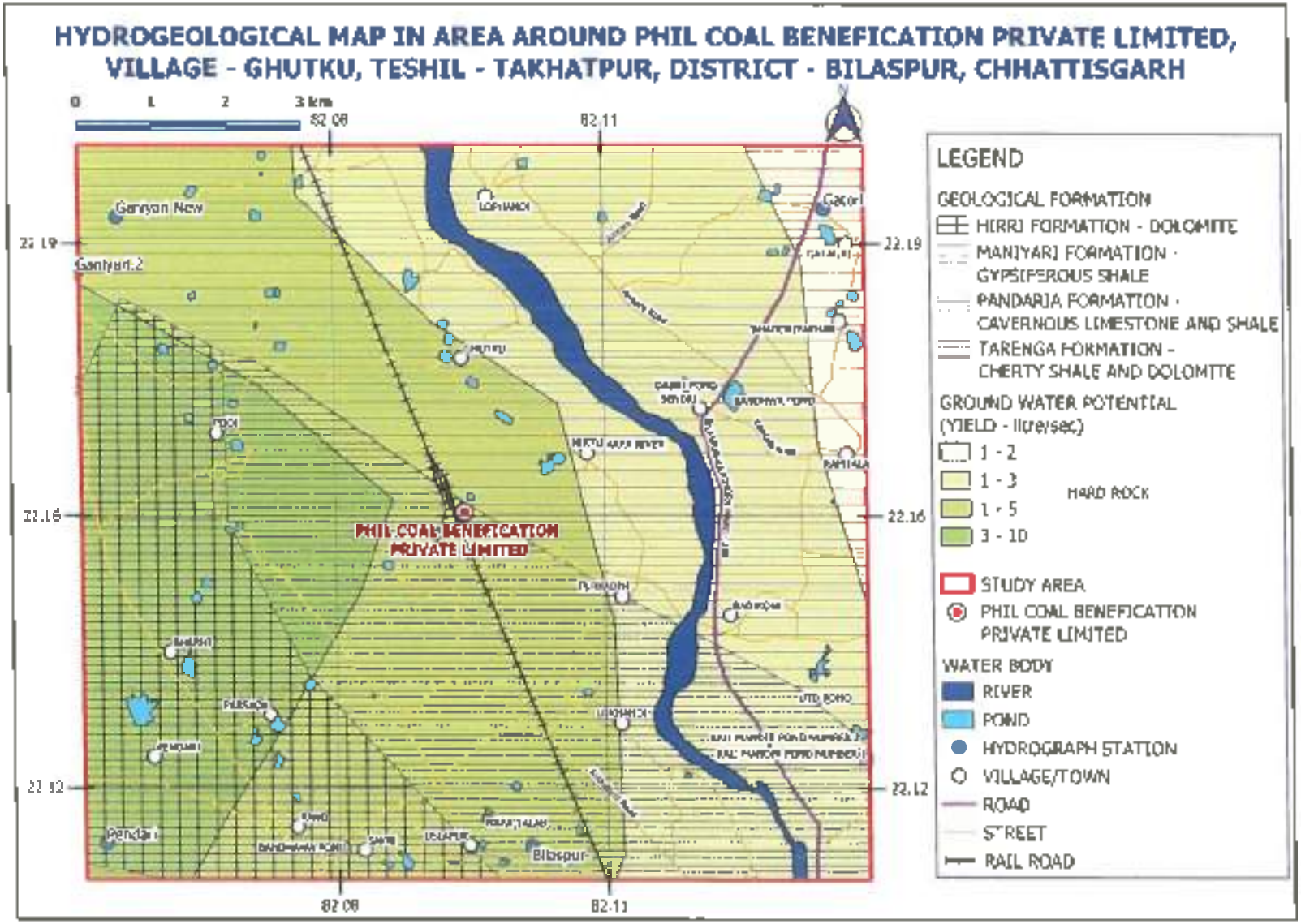


Figure 10 Geology Map in and Around PCBPL

3.2. HYDROGEOLOGY:

The hydrogeological framework is essentially controlled by geological setting as circulation and movement of groundwater is controlled by the interconnected primary and secondary porosity of the geological formations constituting the aquifers.

Maximum Part of the study area lies over Tarenga and Pandaria Formations of the Proterozoic age. There are major aquifer groups present in the area down to 150 mbgl (Table 4).

3.2.1. Aquifer Characteristics

In the study area around the PCBPL, in this region ground water occurs in the in phreatic condition In the weathered mantle of these rocks. The Shaly limestone and dolomite are the main aquifers system of the region. All these rocks by nature are not water bearing as they are dense and compact and consequently are impermeable. They are almost horizontally disposed and hence their structure is also not suitable for any large-scale groundwater storage. Due to the absence of any significant primary porosity in the rocks of the area, general hydrological principles cannot be applied in arriving at any regional groundwater picture. The ground water in these formations occurs under water table, semi confined and confined conditions. The weathered and the cavernous part of the formation and also the fractured zones constitute the aquifers in the area. These formations are most potential in the district and are well developed. The maximum thickness of the weathered formation in the area is around 30 m. The cavernous zones are occurring mostly in the depth range of 10 to 70 m The fractures are productive even at depths of 150 to 200 m.

The aquifer in the study area can be divided into two zones shallow and deeper aquifers. The. Depth of shallow aquifer is upto 20 m and that of deeper aquifer is upto 150-200 m.

3.2.2.1 Shallow Aquifer

The shallow aquifers are mostly being tapped by dug wells, dug- cum- bore wells or shallow bore wells drilled up to depth of 20 m. The weathered mantle and shallow fractures mainly constitute the shallow aquifer.

3.2.2.2 Deeper Aquifer

The Deepar Aquifer are mostly being tapped by Borewells drilled up to depth of 180 m. The fractures and the cavernous part mainly constitute the Deeper aquifer.

Table 4 AQUIFER GROUP & ITS DEPTH RANGE			
SL No.	Aquifer Group	Depth Range	Maximum Discharge (lpm)
1.	Shallow Aquifer	9 to 20	1500 – 3000 lpm
2.	Deeper Aquifer	40 - 200	2500 lpm

3.2.2. GROUND WATER FLOW AND INTERACTIONS WITH SURFACE WATER BODIES

The ground water in the area occurs under semi confined and confined state in. To study the dynamics of ground water over the study area, water level and water table contour maps were drawn based on historical data recorded at shallow wells/piezometers established by Central Ground Water Board (CGWB), Govt of India. These monitoring stations range in depth of about 30 mbgl (meters below ground level). The water table maps indicate regional ground water flow from north to south. The slope of water table is steeper in the northern part of the area (1 to 2 m/km.) while in the west and south it is relatively flatter (0.5 to 1.5 m/km).

The total depth of dugwells generally ranges from 8 to 15 mbgl A large number of dugwells in the area have become obsolete due to construction of handpumps and borewells. As such borewells and handpumps have become more popular for domestic needs and irrigational purposes. Ground water in this zone occurs under water table conditions. The flow of ground water in this area is interconnected with surface water bodies but the effect is insignificant as per the ground water level and water table data of last 10 years.

3.2.3. DEPTH TO WATER LEVEL

The water level is dependent on Static or time independent topographical features and also on Dynamic or time- dependent variables. The data have immense utility in implementing the legal provisions of groundwater regulation, and for providing expert advice in legal issues arising out of conflicting interests of ground water users. Depths to water level have been described for unconfined as below. The historical data recorded at monitoring stations of CGWB in Bilaspur district have been utilized for depth to water level and fluctuation analysis. Few monitoring stations, such as Bilaspur, Pendari, Gatori, Karghikhurud and Khamhariya, are in close vicinity of the study area. The water level data for pre and post monsoon period of 2015 and 2020 have been discussed here. The water levels within and around the premises of PCBPL was also monitored during the field

visits at the borewells. But this water level data is mostly pumping water level, which varies from 0.50 to 10.50 mbgl. This indicates that drawdown in the area due to pumping varies from 2 to 5 m. Since this data is not the static water level data and moreover it was collected during February, 2022, it has not been used for pre and post monsoon water level analysis below.

3.2.3.1. DEPTH TO WATER LEVEL DURING PREMONSOON PERIOD (MAY) 2015

The depth to water level map has been prepared based on ground water monitoring around the area collected during May 2015 i.e., premonsoon period and presented in the Fig. 11. The depth to water level in the study area around Phil Coal Benefication Pvt Ltd ranges from 0.5 to more than 10 mbgl. Depth to water level in the premises ranged from 0.5 to 1.50 mbgl. Depth to water level is shallower in the centre part of the study area around plant premises and gradually decreases towards Chakarbhata and Pendari in the south. The maximum water level was observed at Pendari in southwest direction during 2015. The maximum part of study area fell under depth to water range of 1 to 3 mbgl.

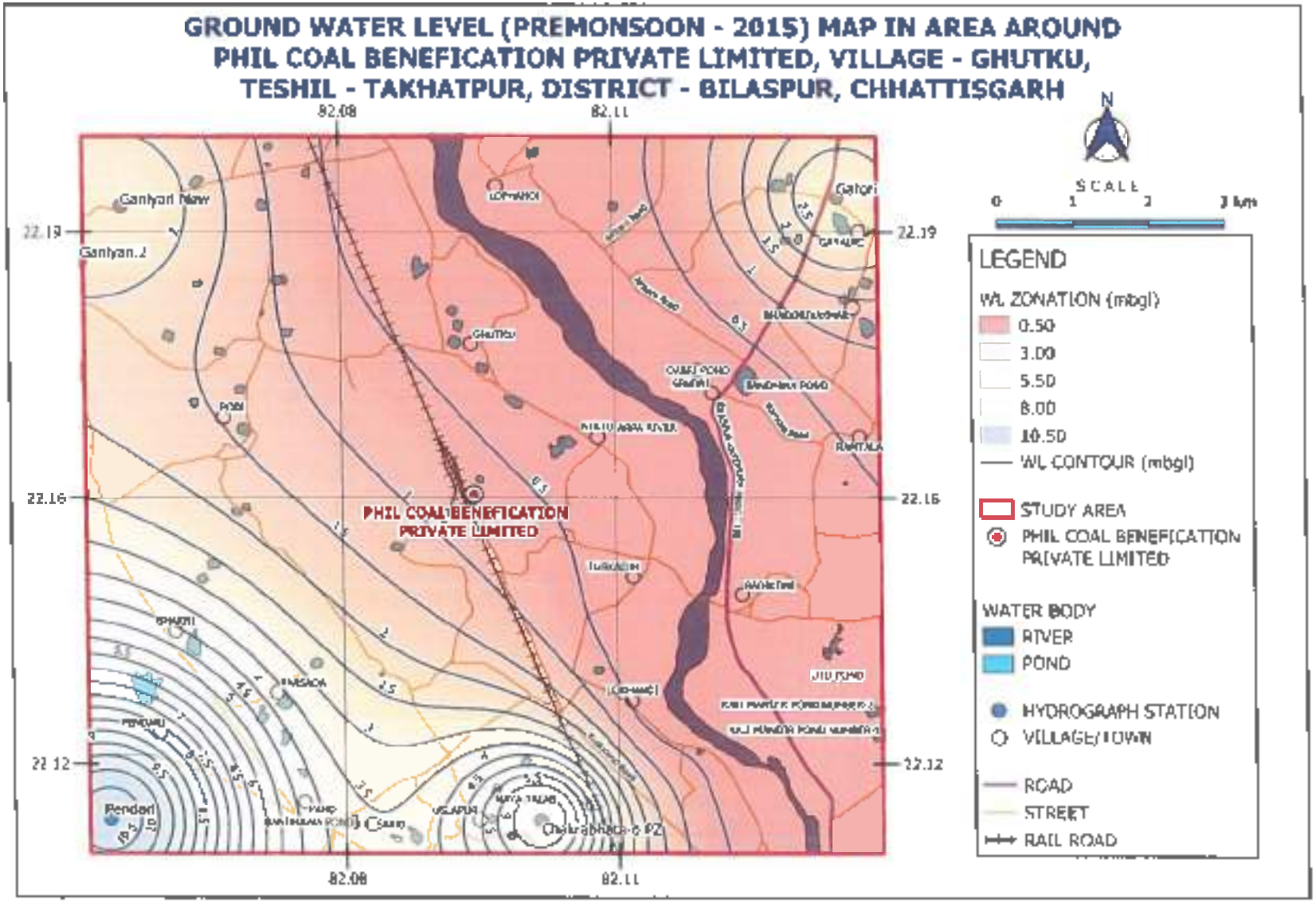


Figure 11 Depth To Water Level Map (May 2015)

3.2.3.2. DEPTH TO WATER LEVEL DURING PREMONSOON PERIOD (MAY) 2020

Depth to water level map for premonsoon period 2020, has been prepared based on ground water level data of CGWB and the map is shown in Fig 12. The depth to water level varies from 0.50 to 7.00 mbgl. Maximum part of study area shows water level in the range of 0.50 to 3.00 mbgl. The area around PCBPL shows a range of 0.5 to more than 1.50 mbgl also the ground water level becomes shallower towards the plant premises and towards Gatori in northeast and Ganiyari towards northwest direction. The water level gradually deepens towards Pendari and Chakarbhata in south direction. It is observed that water levels around the industry are gradually shallower than surrounding areas.

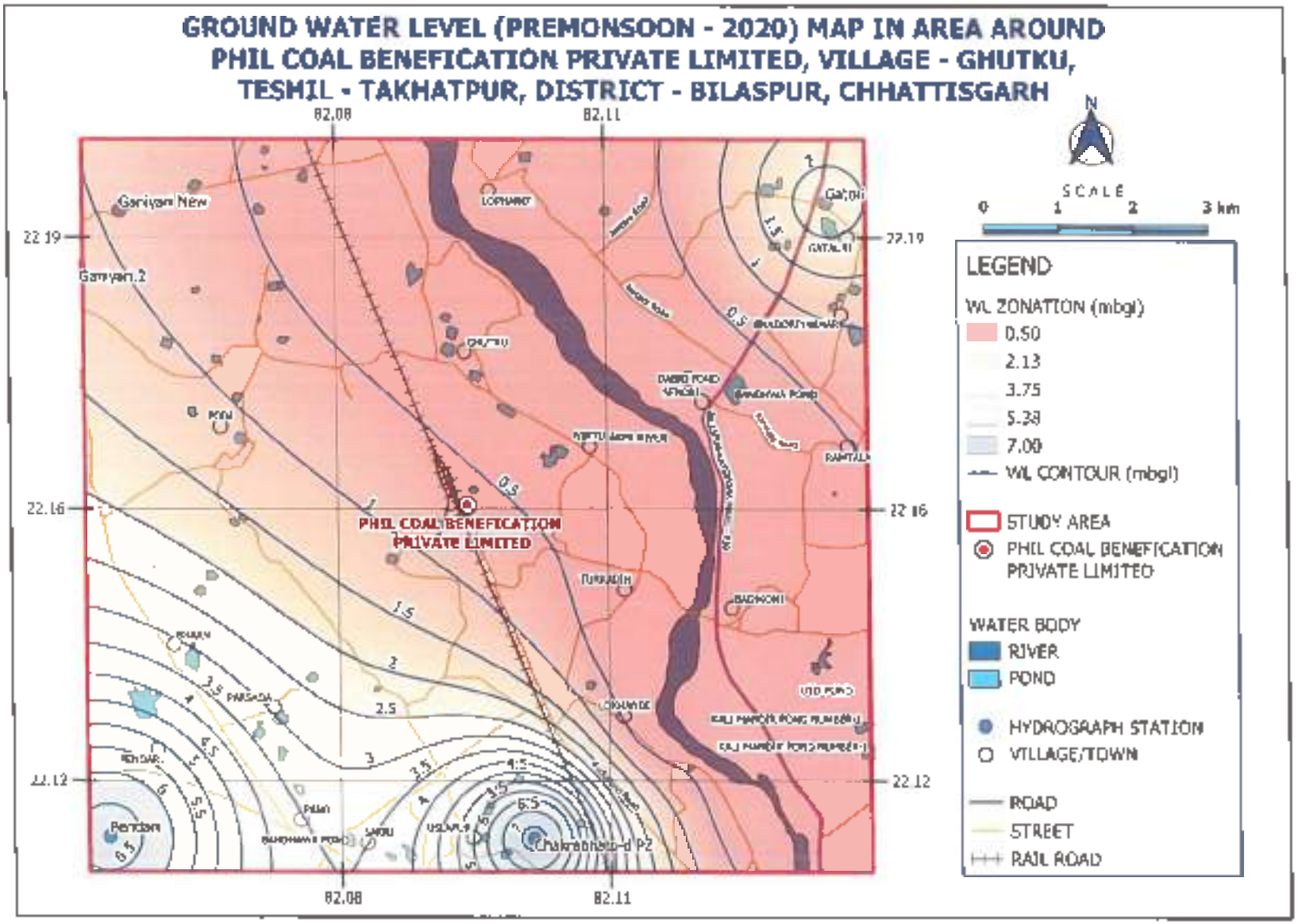


Figure 12 Depth To Water Level Map (May 2020)

3.2.3.3. DEPTH TO WATER LEVEL DURING POST MONSOON PERIOD (NOV, 2015)

Depth to water level map for post monsoon period for 2015, has been prepared based on ground water level data of CGWA and the map is shown in Fig 13. The depth to water level varies from 0.50 to 5.00 mbgl. Maximum part of study area shows water level in the range of 0.5 to 1.5 mbgl. The area around PCBPL shows a range of 0.5 mbgl. The ground water level becomes shallower all over the study area, whereas it Riseases towards Chakarbhata in south where it is recorded as 5.0 mbgl. During post monsoon period depth to water level exhibits simllar pattern as premonsoon period.

3.2.3.4. DEPTH TO WATER LEVEL DURING POST MONSOON PERIOD (NOV, 2020)

Depth to water level map for post monsoon period for 2020, has been prepared based on ground water level data of CGWA and the map is shown in Fig 14. The depth to water level varies from 0.5 to 9.00 mbgl. Maximum part of study area shows water level in the range of 0.5 to 3.00 mbgl. The area around PCBPL shows a range of 0.5-1.00 mbgl. The ground water level becomes shallower all over the study area, whereas it increases towards Chakarbhata and Pendari in south direction where it is recorded as 9.0 and 6.5 mbgl respectively. During post monsoon period depth to water level exhibits similar pattern as premonsoon period.

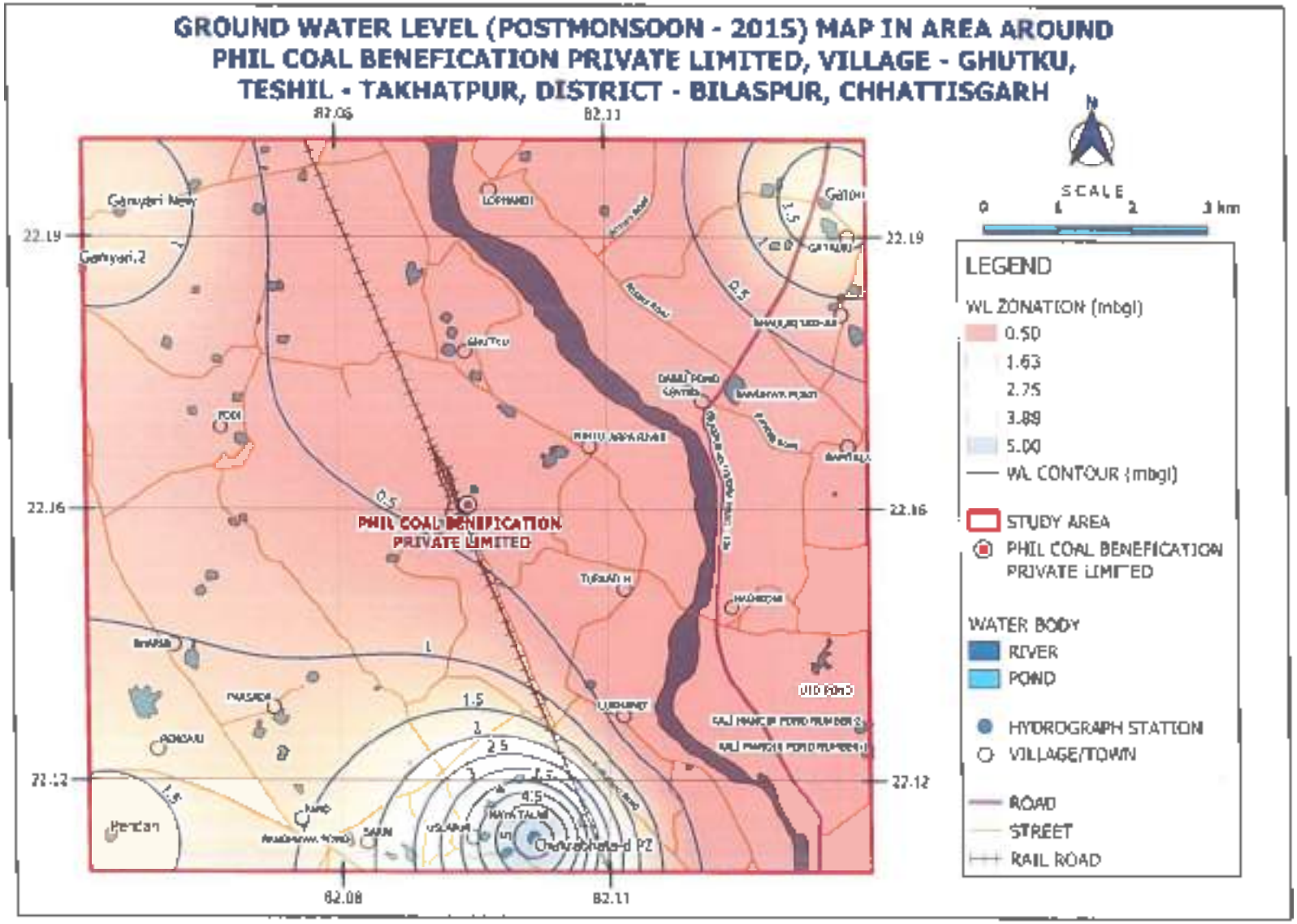


Figure 13 Depth To Water Level Map (Nov 2015)

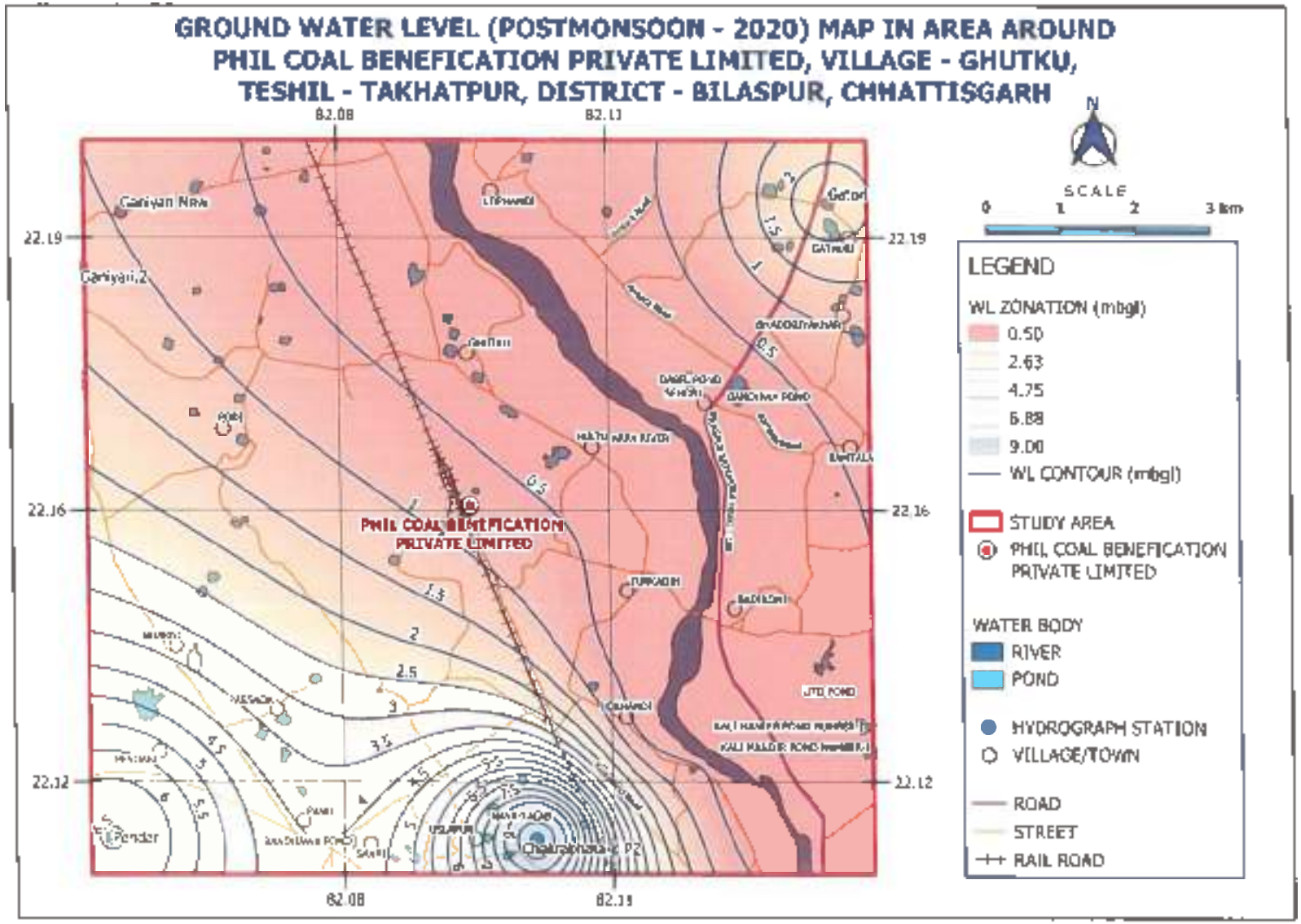


Figure 14Depth To Water Level Map (Nov 2020)

3.2.3.5.COMPARISON OF PRE AND POST MONSOON PERIOD WATER LEVELS OF 2015 WITH THAT OF 2020

As observed from the maps for premonsoon period of 2015 and 2020, it is evident that over last five years the pattern of water levels has not changed. The only change is observed that depth to water levels during premonsoon period of 2020 in the south and northeastern parts of the study area have slightly Riseased by about 0.5-3.5 m.

Similarly for post monsoon period it is observed that the water levels in the southern have shown slight fall in water levels by 1.5 m. However, in the north-western, northern, northeastern and eastern parts of the study area water levels have shown stabillty in water levels.

3.2.3.6.GROUND WATER FLOW AND AQUIFER INTERACTION

Ground water movement is derivative of various functions of slope, topography, geology, climate, water yielding and water beanng properties of rocks in the zones of aeration and saturation and micro-geomorphology of the area. The upper surface of the zone of saturation is the water table. Usually it follows the topographic slope of the area.

In the area close to the PHIL COAL BENEFICATION PVT LTD site, ground water movement has been deciphered on the basis of water table elevations monitored at hydrograph stations of CGWB in Bilaspur district and detailed analysis has been done. Gridding of the water table elevation gives the movement direction, which is being followed by ground water. Movement can be categorized as short-term movement.

3.2.3.6.1 GROUND WATER FLOW DURING MAY 2015

Water Table for the period of May 2015 of the study area is shown in Fig 15. Water table in the study area is ranges from 264 m to 291 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is north to south direction.

There are two crests formed at Ganiyari (289 mamsl) in northwest; Gatori (290 mamsl) in the northeastern of study area. The ground water flows in southerly directions from these crests.

Gradient of groundwater flow is around 1 to 2 m/km in the northern parts of study area. Near the premises of factory ground water table gradient is ranges between 2 to 3 m/km. There is trough formed at Badikoni along the river course where water table contour is 267mamsl. Thus the area in central parts of the study area act as sink, where inflow is high but outflows are relatively low.

3.2.3.6.2 GROUND WATER FLOW DURING MAY 2020

Water Table for the period of May 2020 of the study area is shown in Fig 16. Water table in the study area is ranges from 264 m to 291 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is north to south direction.

As observed during May, 2015, there are one crest formed at Gatoni (290 mamsl) in northeast of study area. The ground water flows in southerly directions from this crest.

Gradient of groundwater flow is around 1.5 to 2 m/km in the northern parts of study area. Near the premises of factory ground water table varies between 272 and 273 mamsl and the gradient ranges between less than 1 to 2 m/km. There are two troughs formed at Badikoni (267 mamsl) as observed during 2015 also. Another trough is seen in the south eastern most part of the study area, where water table contour is also 264 mamsl. Therefore, the area in the central and southern parts of the study area acts as a sink during 2020 too, the reason being the same that the inflow is high but outflows are relatively low.

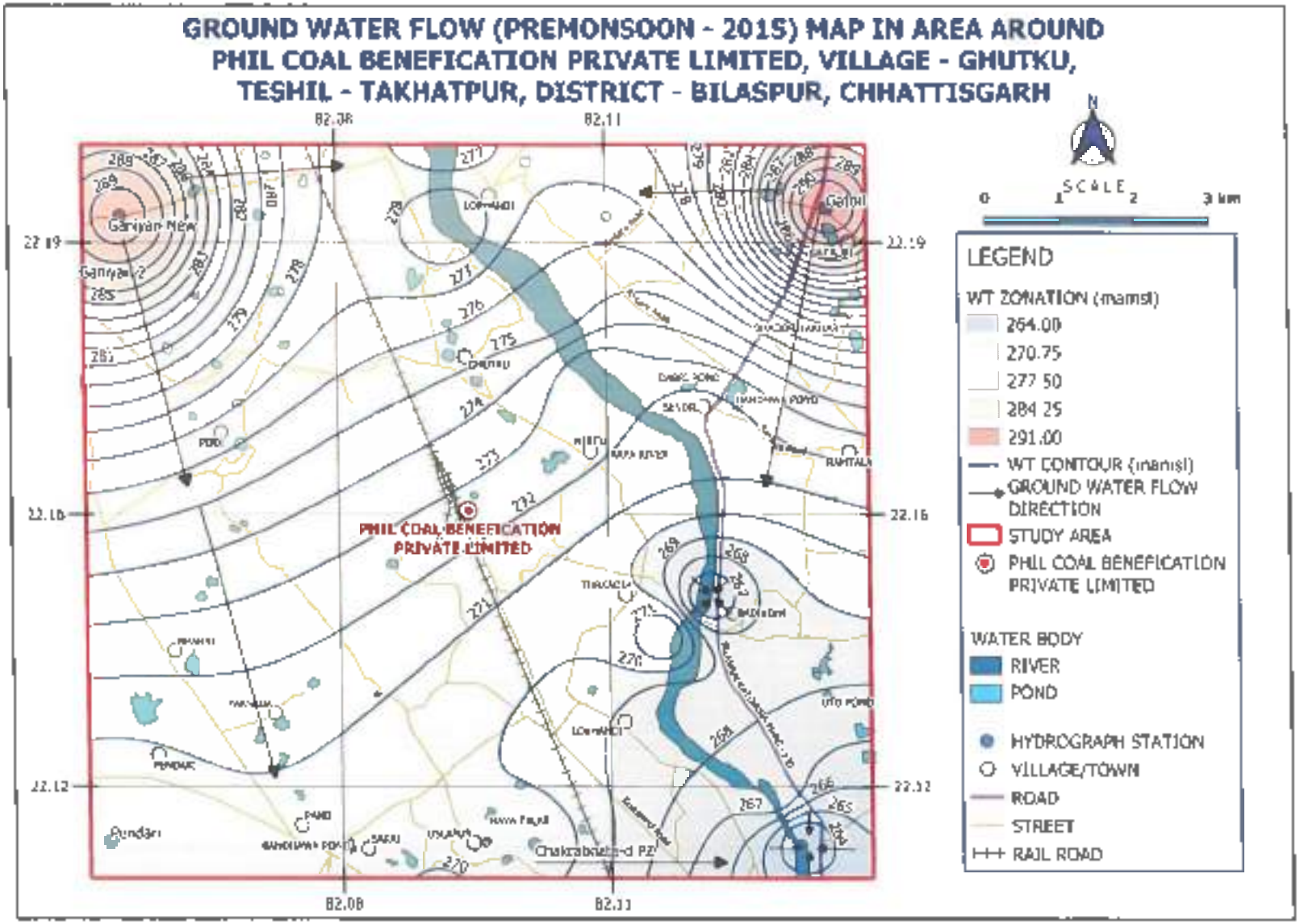


Figure 15 Ground Water Flow Direction Map (May 2015)

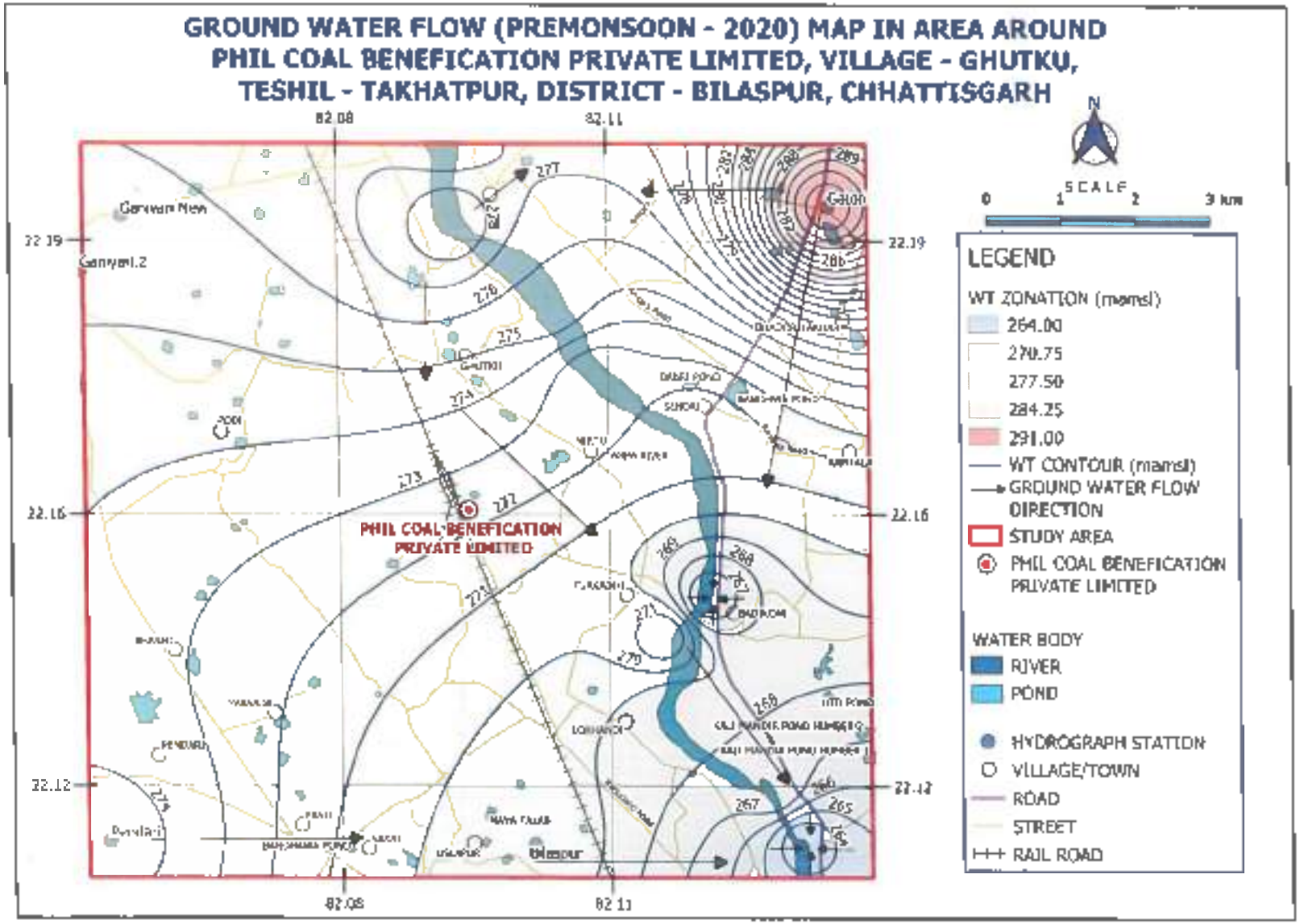


Figure 16 Ground Water Flow Direction Map (May 2020)

3.2.3.6.3 GROUND WATER FLOW DURING NOVEMBER 2015

Water Table for the period of Nov 2015 of the study area is shown in Fig 17. Water table in the study area is ranges from 264 m to 292 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is north to south direction.

There are three crests formed at Ganiyari (290 mamsl) in northwest; Gatori (291 mamsl) in the northeast and Pendari (279 mamsl) in the southwest of study area. The ground water flows in south to southeast directions from these crests.

Gradient of groundwater flow is around 1 to 2 m/km in the northern parts of study area. Near the premises of factory ground water table gradient is ranges between 1.5 to 2.5 m/km. There are two troughs formed at Badikoni and south of Badlkoni, where water table contour is 267 and 264 mamsl respectively.

3.2.3.6.4 GROUND WATER FLOW DURING NOVEMBER 2020

Water Table for the period of Nov 2020 of the study area is shown in Fig 18. Water table in the study area is ranges from 264 m to 291 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is north to south direction.

There are two crest formed during Nov, 2020, at Gatori (290 mamsl) in northeast study area and at Pendari (274 mamsl) in southwest direction . The ground water flows in southerly directions from these crests.

Gradient of groundwater flow is around 1 to 2 m/km in the northern parts of study area. Near the premises of factory ground water table varies between 272 and 273 mamsl and the gradient ranges between less than 1.5 to 2.5 m/km.

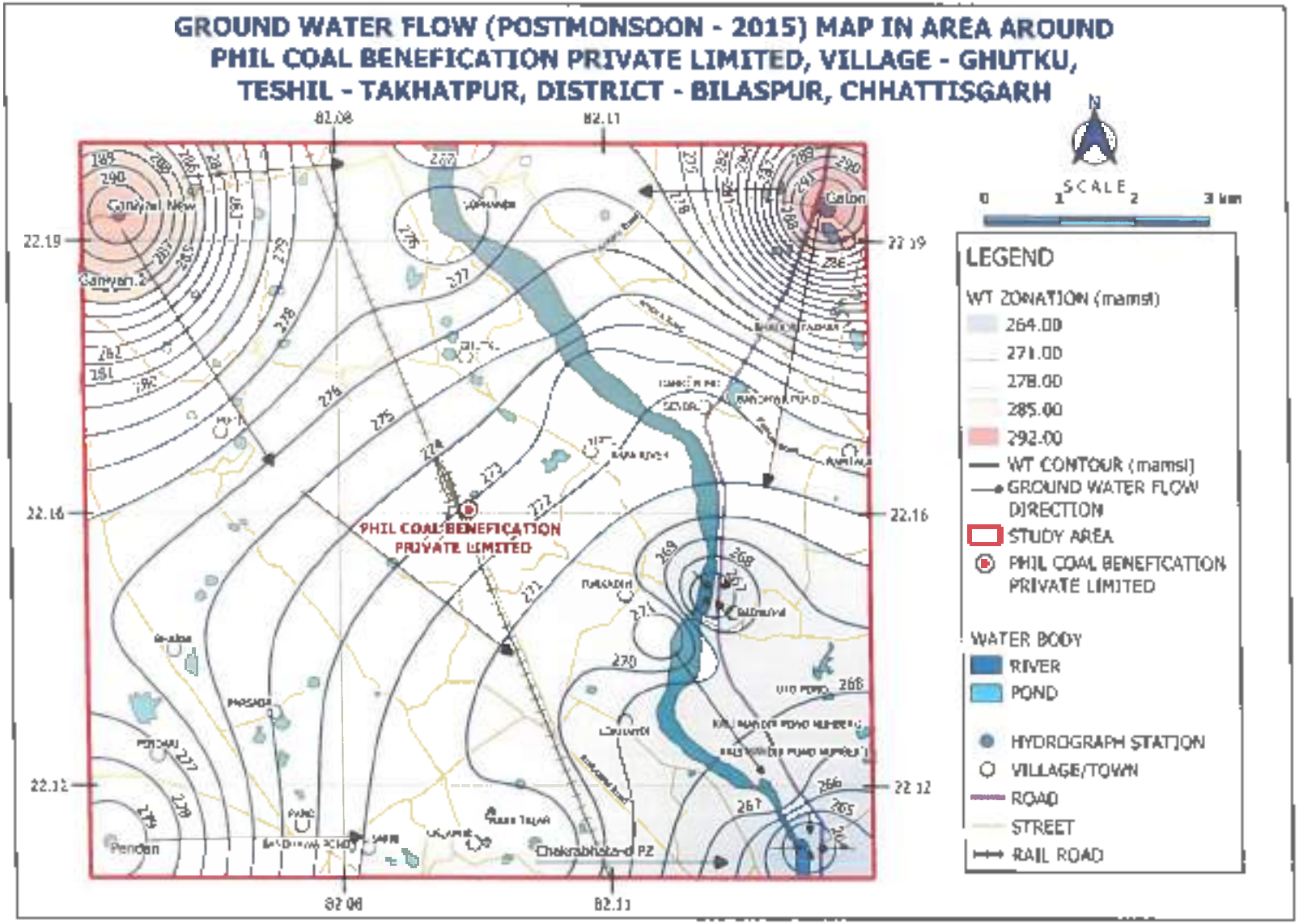


Figure 17 Ground Water Flow Direction Map (Nov 2015)

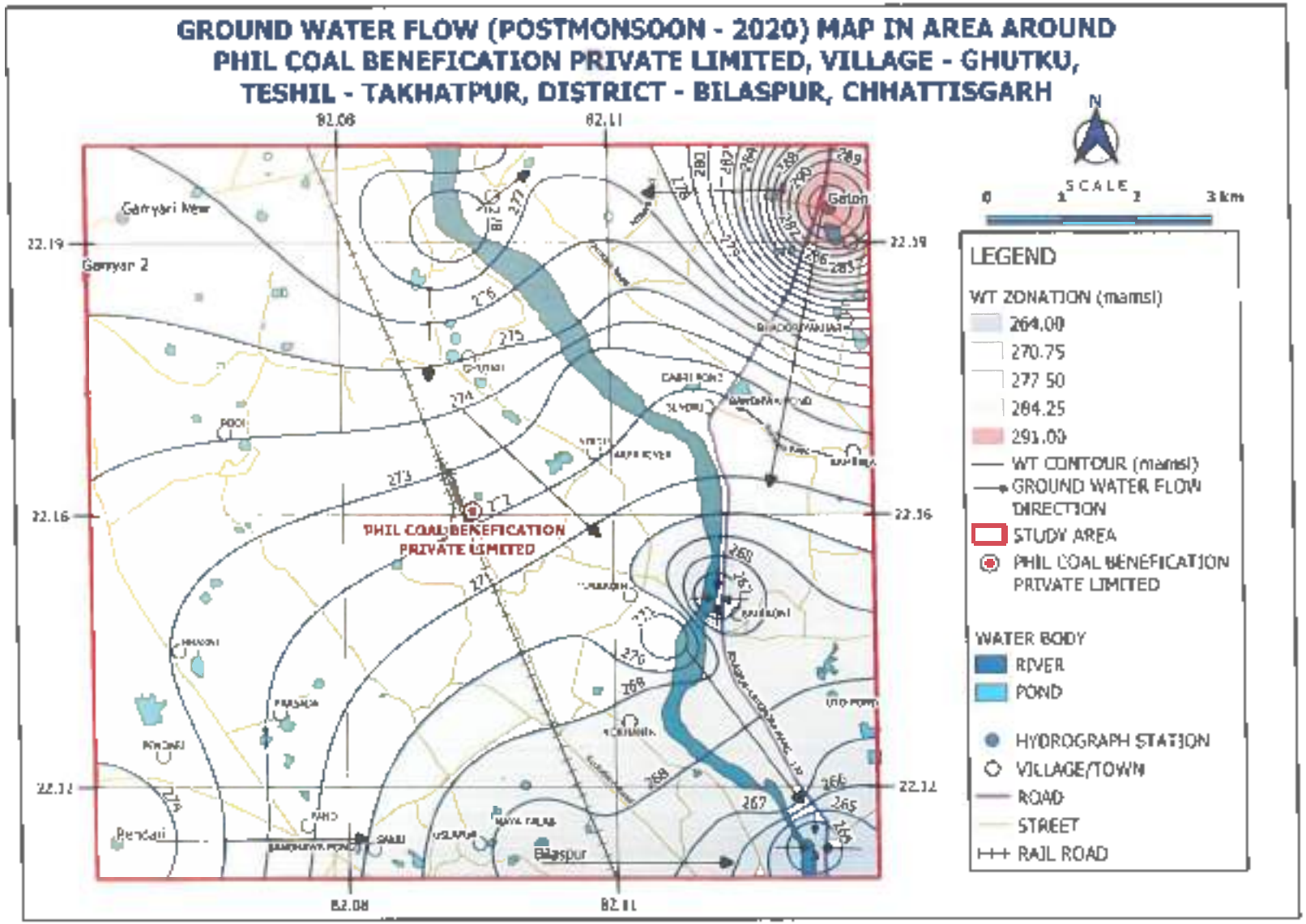


Figure 18 Ground Water Flow Direction Map (Nov 2020)

3.2.3.7 COMPARISON OF PRE AND POST MONSOON PERIOD GROUND WATER FLOW CONDITIONS DURING 2015 AND 2020

As observed from the maps for premonsoon period of 2015 and 2020, it is evident that over last five years the pattern of water levels has not changed remarkably. The only change is observed that ground water flow gradient during pre as well as post monsoon period of 2020 has become steeper by 1 to 2 m/km, in the north-eastern and northern part of the study area. Similarly pattern of changes are observed for pre and post monsoon period water table conditions. Therefore in last 5 years ground water conditions have not shown a significant change despite excessive utilization of ground water for irrigation as well as for industrial purposes.

3.2.4 HYDROGRAPH ANALYSIS AND GROUND WATER LEVEL TREND ANALYSIS

3.2.4.6 LONG TERM WATER LEVEL TRENDS

PCBPL will be withdraw ground water from three borewells constructed within the premises on roaster basis. To assess the impact of withdrawal of ground water through these borewells on ground water regime is one of the major objectives of the study. Since sufficient number of hydrograph monitoring stations of CGWB were available and the historical data was also available, these were considered for studying long term water level fluctuation/ trends. Hydrographs of 5 such stations BILASPUR, PENDARI, GATORI, KARGIKHURUD, KHAMHARIA, existing in the study area or in near vicinity were prepared and analysed for long term impacts of ground water withdrawal and recharge on ground water levels. The hydrographs are shown in Fig 19 to 23 from 2011-20 and in fig 24-28 from 2016-20.

3.2.4.7 Pre-monsoon Water Level trends

The variation in ground water level recorded systematically for a water year can be plotted in the form of graph (hydrograph) and a regression line may be fitted to observe the long-term trend in water level. This trend is also depicted from the individual hydrographs of monitoring stations.

Five monitoring stations located in the buffer zone or adjacent areas, for which long term water level data was available, were considered for long term analysis of ground water levels. The premonsoon and post monsoon trends were estimated separately using hydrographs.

Pre monsoon water level trends as shown in Table 8 indicate that 2 out of 5 stations, namely PENDARI and GATORI show a declining trend of water levels from 0.023 m/yr (at Gatori) to 0.309 m/yr (at Pendari) rest of the stations Bilaspur 0.193 m/year, Kargikhurud 0.486 m/year and Khamhariya 0.365 m/year shows declining trends as shown in hydrographs below.

The hydrograph study of last 5 years from 2016-2020 shows the rising trend of Three monitoring stations Bilaspur 0.037 m/year, Pendari 0.352 m/yr and Gatori 0.247 m/yr while Kargikhurud 0.4869 m/year and Khamhariya 0.599 m/year shows declining trends as shown in hydrographs below in Fig- 24-28.

3.2.4.8 POST-MONSOON WATER LEVEL TRENDS

During post monsoon period all the five stations showing declining trends of ground water levels in the range from 0.123 to 1.147 m/yr. It is observed that during post monsoon period the declining trends are relatively high than the trends during premonsoon period.

It is seen that as observed in premonsoon trend, the southern part around Bilaspur, western part around Khamhariya and northwestern part around Kargikhurud shows declining trends of water levels are ranging from 0.20 to more than 0.25 m/year. The trends gradually change towards southeast, where rising trends of more than 0.2 m/year are observed. The post monsoon water level trends around the Phil Coal Beneficiation Pvt. Ltd ranges between -0.5 to +0.5 m/yr.

Table 5 LONG TERM WATER TRENDS

AS OBSERVED FROM 2011-20 IN AREA BUFFER AREA AROUND Phil Coal Benefication Pvt. Ltd., Ghutku, Bilaspur

(Source: Central Ground Water Board)

MONITORING STATIONS	PREMONSOON PERIOD WATER LEVEL TRENDS		POSTMONSOON PERIOD WATER LEVEL TRENDS	
	RISE / FALL	(IN M/YEAR)	RISE / FALL	(IN M/YEAR)
BILASPUR	F	0.193	F	0.449
PENDARI	R	0.309	F	1.147
GATORI	R	0.023	F	0.096
KARGIKHURD	F	0.486	F	0.123
KHAMHARIYA	F	0.365	F	0.338
TOTAL COUNT (5)	RISE – 2; FALL - 3		RISE – 0; FALL - 5	

Table 6 LONG TERM WATER LEVEL DATA

(Source: CGWB & STATE GROUND WATER DEPARTMENT)

DISTRICT	BLOCK	HYDROGRAPH STATION	PERIOD	RL	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
BILASPUR	BILASPUR	BILASPUR	Pre	277			5.56	6.35	6.5	7.26	7.15	7.1	7.1	7.1
			Post				6.35	4.86	5.25	3.95	4.08	7.1	7.1	9.33
BILASPUR	TAKHATPUR	PENDARI	Pre	281					10.85	8.6	11.17	12.54	11.47	6.69
			Post					2.65	1.6	2.2	4.19	12.54	6.69	6.52
BILASPUR	BELHA	GATORI	Pre	294	3.15	5	3.3	2.75	2.95	3.34	3.68	5.68	3.53	2.18
			Post		1.22	1.6	1.9	1.59	1.84	2.15	1.86	2.5	2	2.22
BILASPUR	KOTA	KARGIKHURUD	Pre	302			9.5	4.9	6.9	13	13	9.6	13	8.4
			Post				6.12	3	3.5	4.21	6.81	8.4	4.18	4.29
BILASPUR	MASTURI	KHAMHARIYA	Pre	285	6.27	5.72	5.7	1.52	4.51	4.84	6.65	6.32	15	3.66
			Post		0.52	2.84	4.48	2.02	2.72	4	2.66	1.75	5.9	5.51

Figure 19 HYDROGRAPH BILASPUR

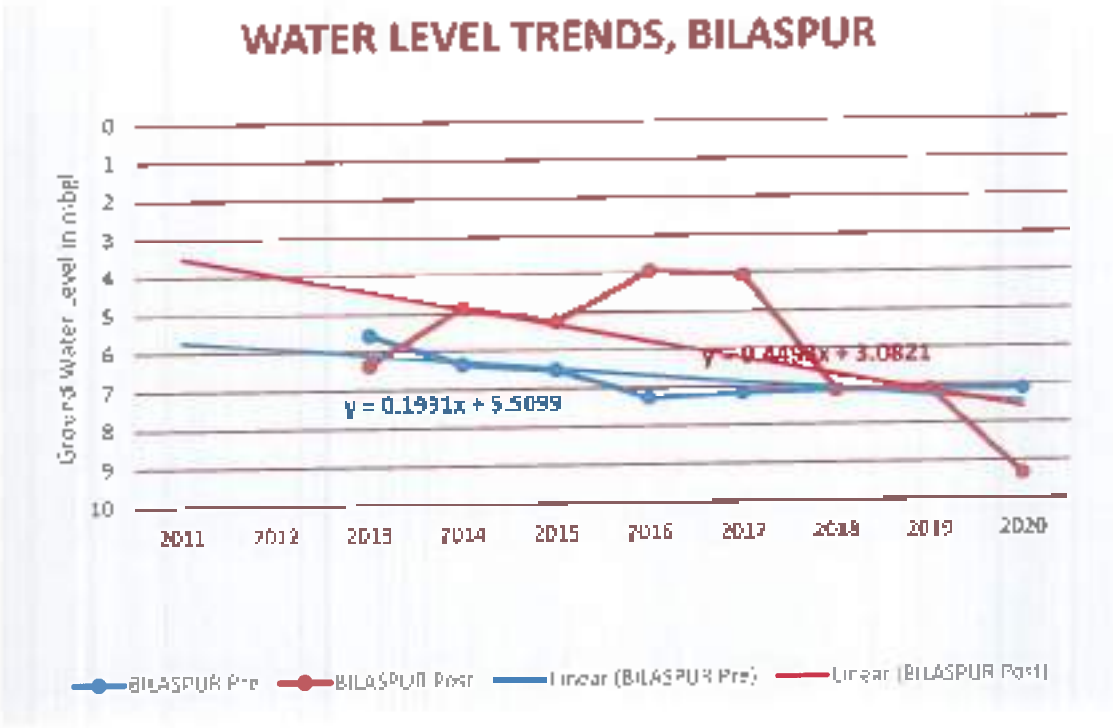


Figure 20 HYDROGRAPH PENDARI

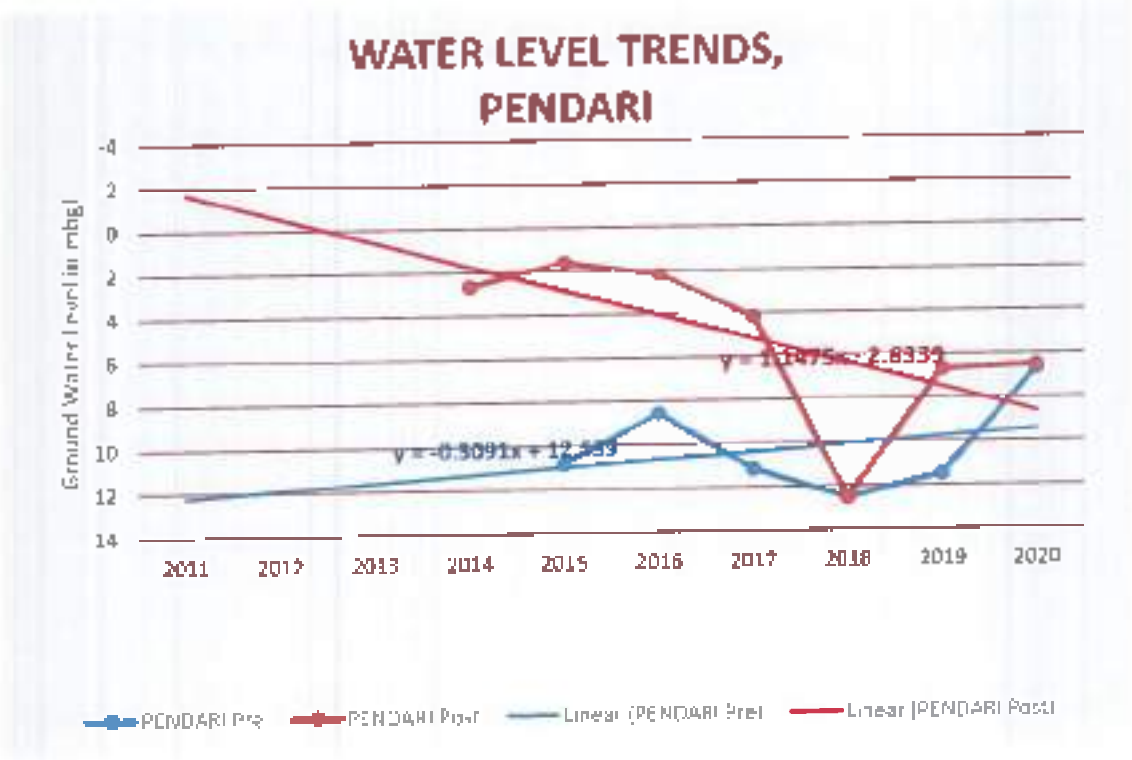


Figure 21 HYDROGRAPH GATORI

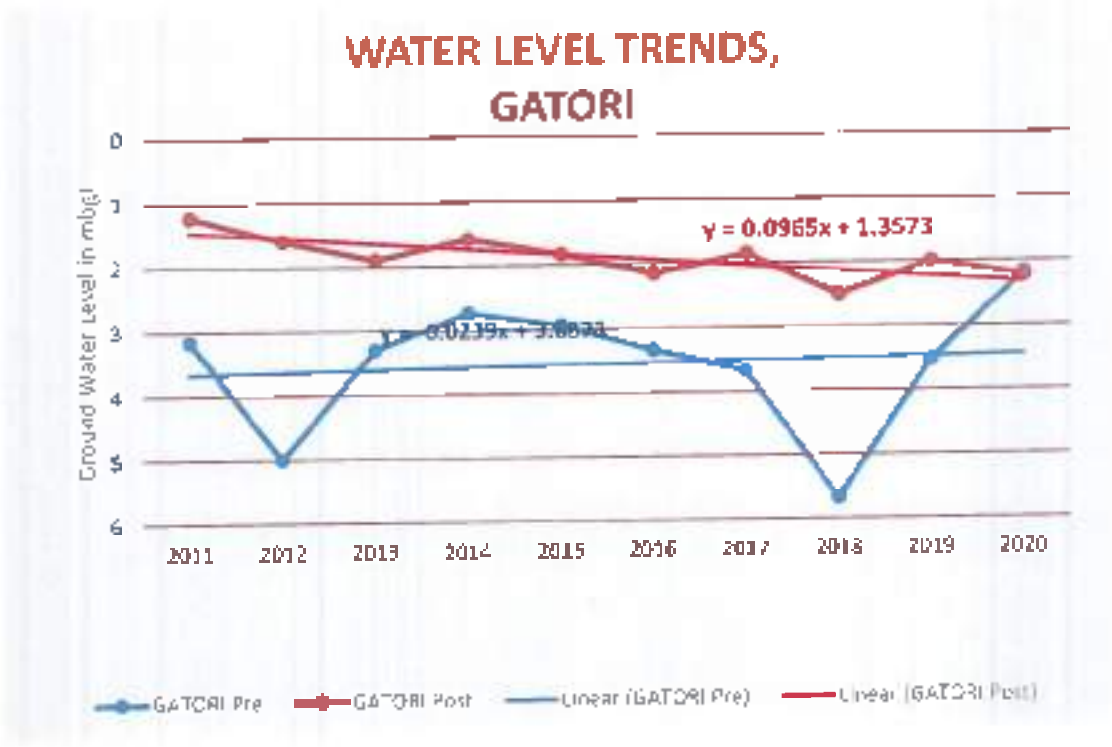


Figure 22 HYDROGRAPH KARGIKHURID

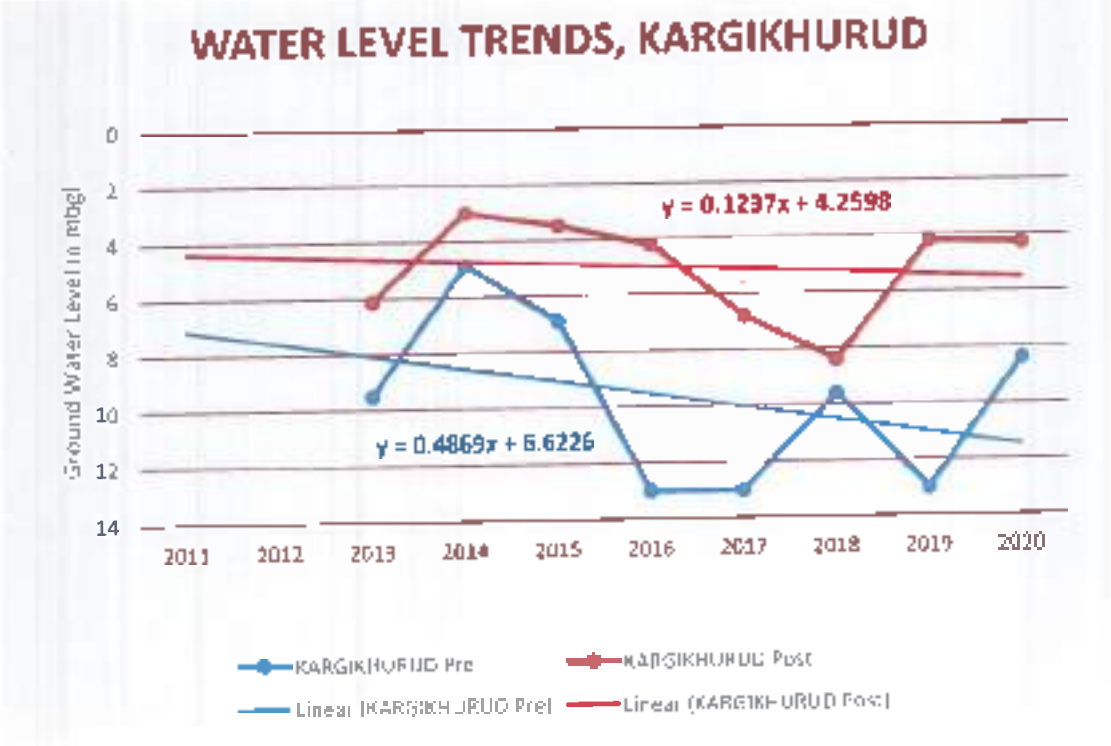


Figure 23 HYDROGRAPH KHAMHARIYA

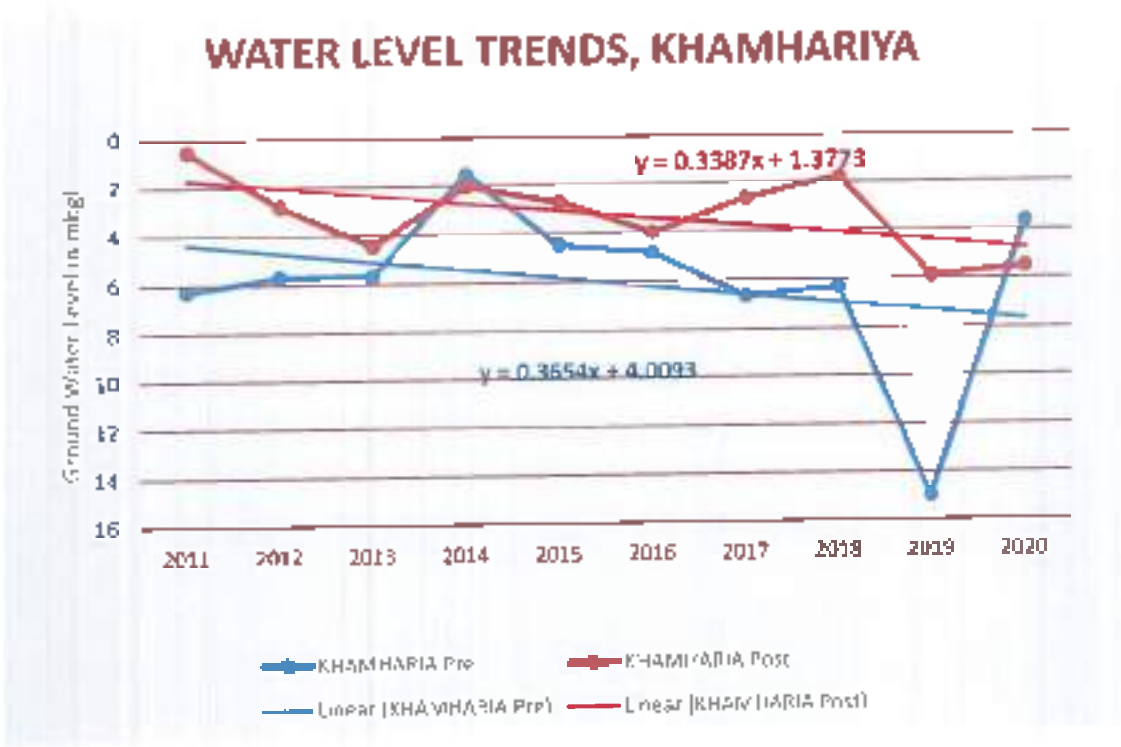


Figure 24 HYDROGRAPH BILASPUR (2016-20)

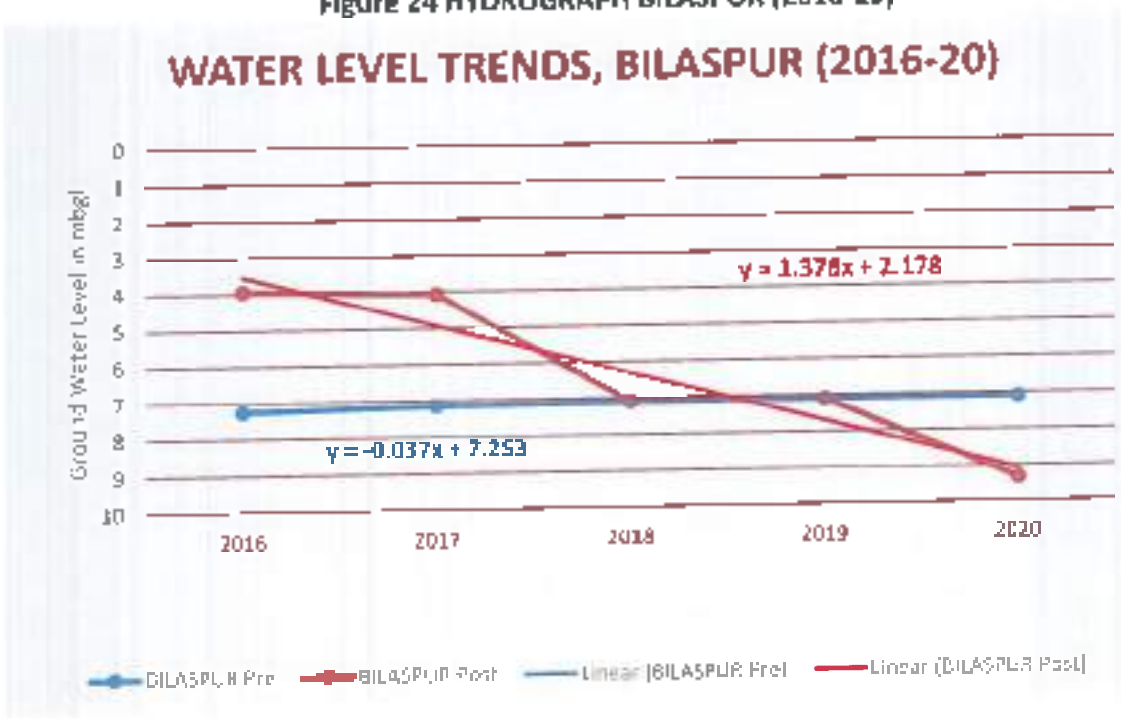


Figure 25 HYDROGRAPH PENDARI (2016-20)

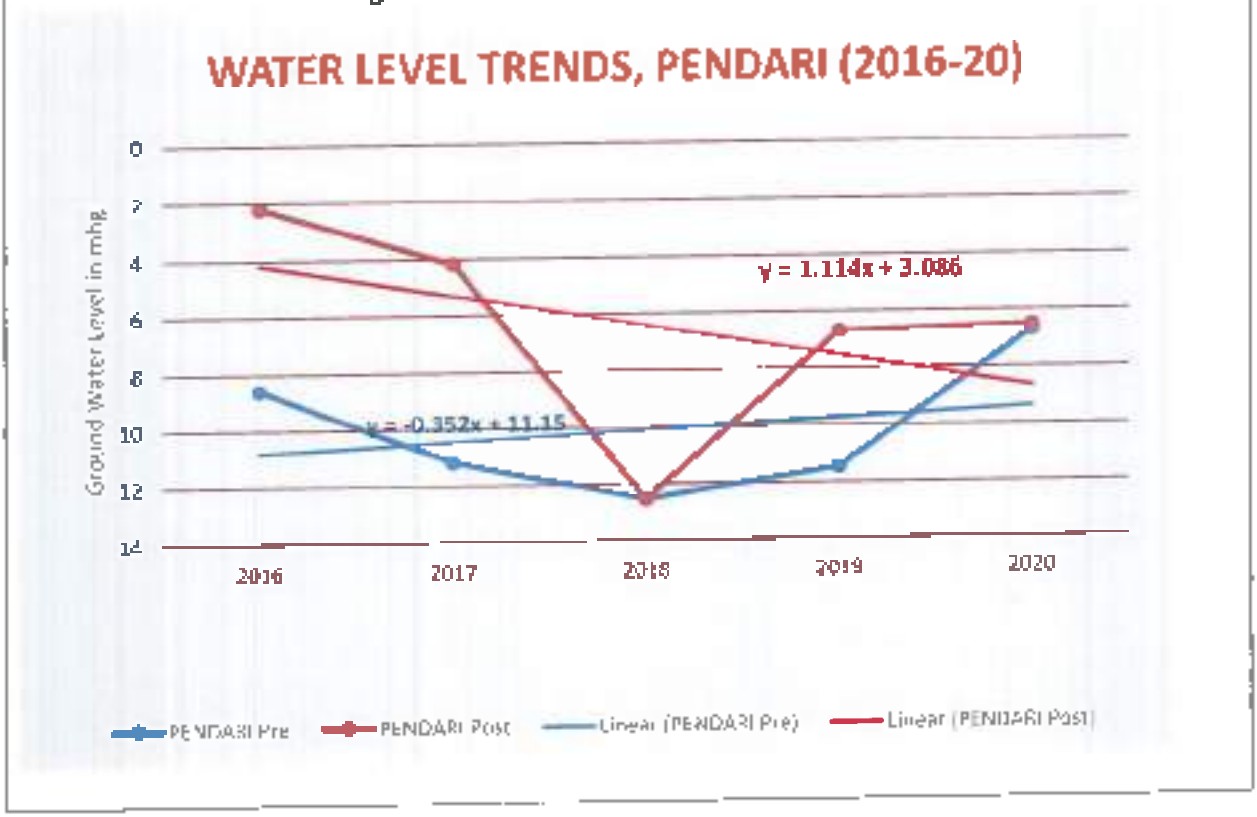


Figure 26 HYDROGRAPH GATORI (2016-20)

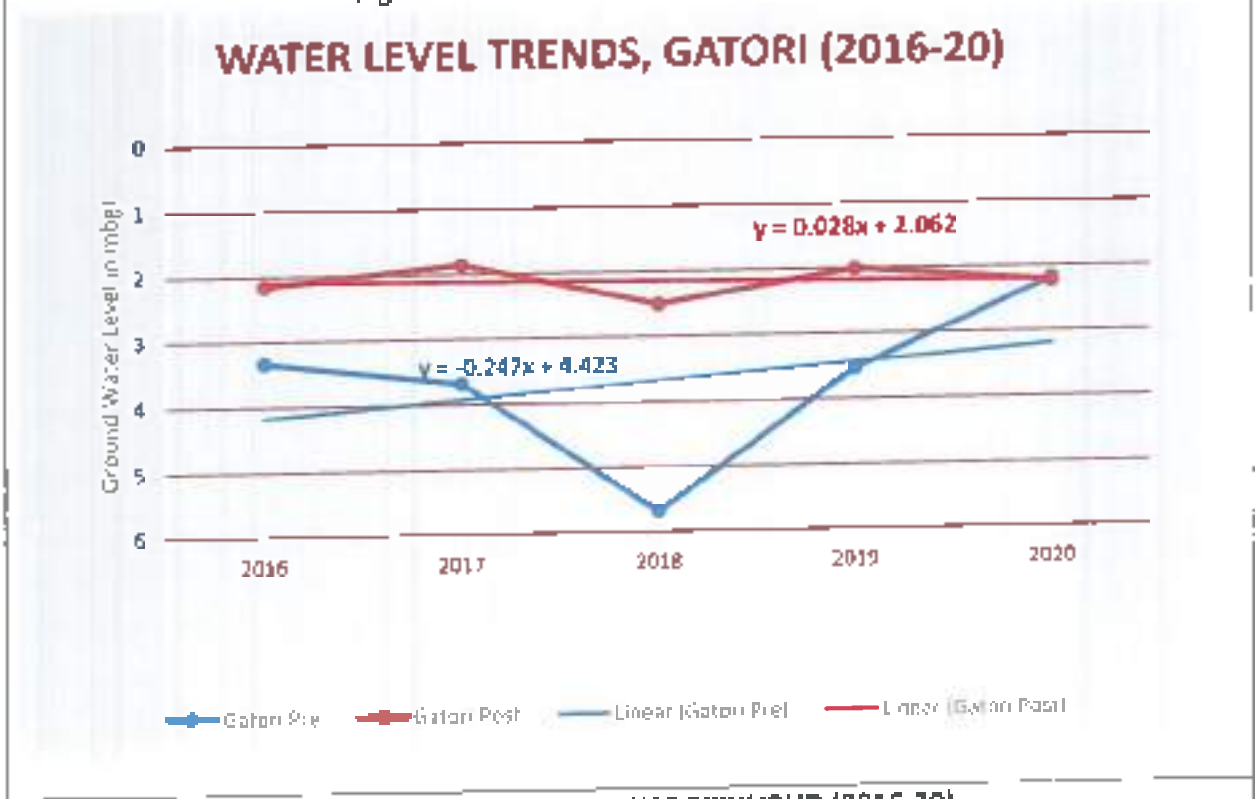


Figure 27 HYDROGRAPH KARGIKHURUD (2016-20)

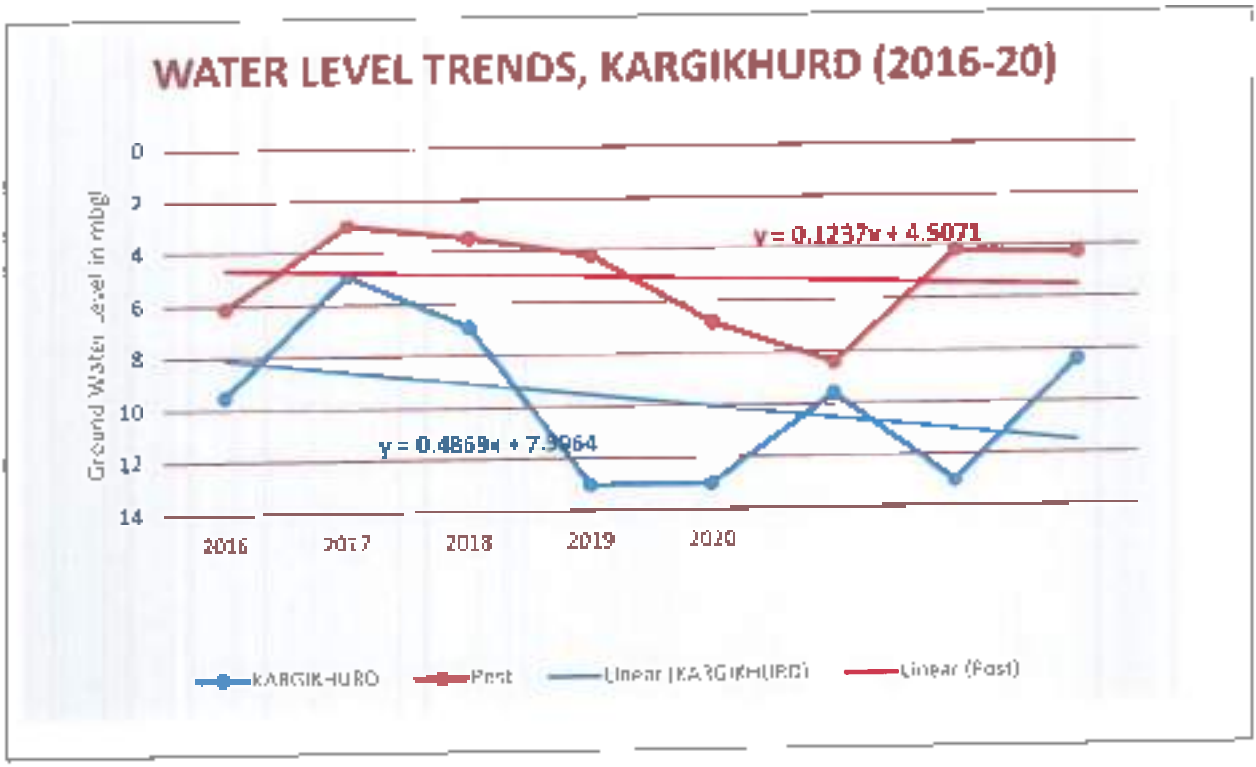
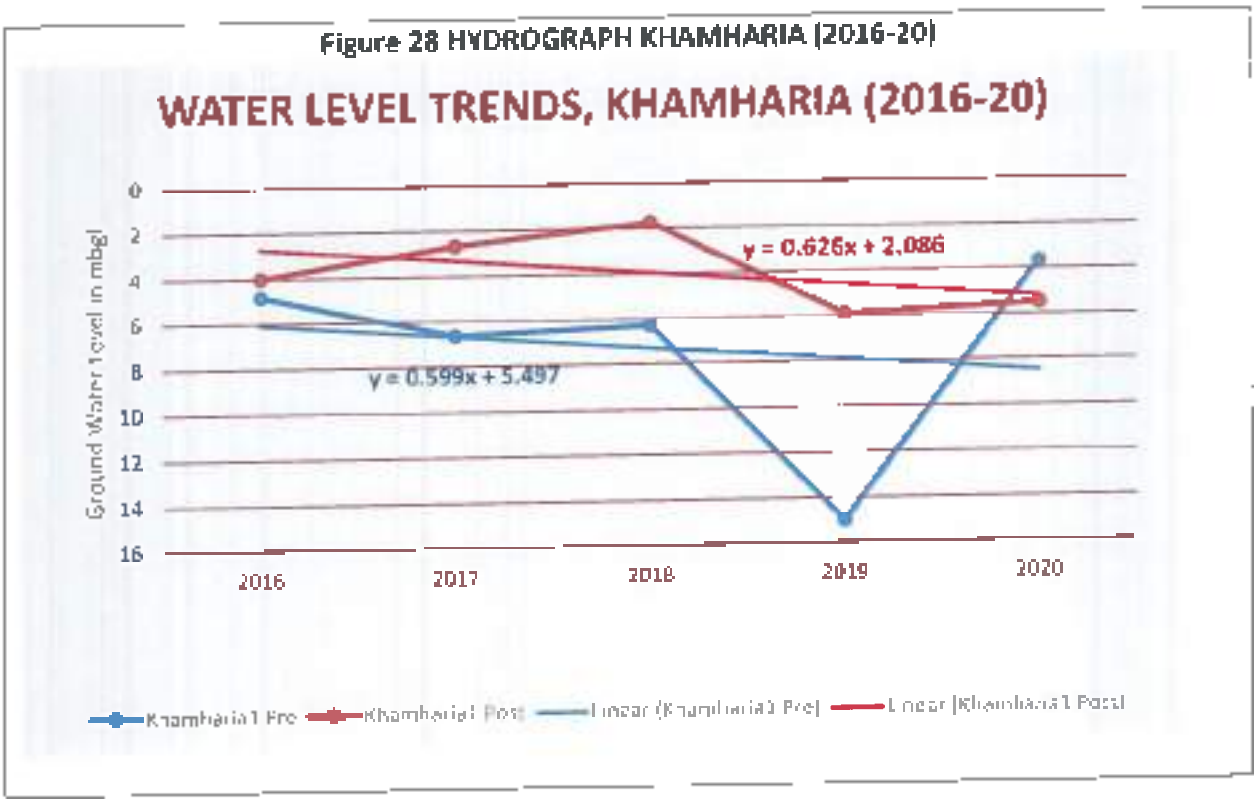


Figure 28 HYDROGRAPH KHAMHARIA (2016-20)



3.2.4.9 GROUND WATER RESOURCE ESTIMATES AND STATUS OF GW

EXTRACTION

3.2.4.9.1 Ground Water Resources Estimation as on 2020

Ground Water Resource estimation of Ground Water Assessment units (blocks in case of Chhattisgarh) has been carried out by Central Ground Water Board in coordination with State Govt Departments, and its corresponding field divisions according to the methodology recommended by the Ground Water Estimation Committee, 2020 constituted by Government of India (Groundwater Estimation Committee, 2020).

3.2.4.9.2 Dynamic Ground Water Resources

Dynamic Ground Water Resource Estimation as on 02.08.2021 has been carried out with administrative blocks as ground water assessment units by CGWB. Due to lack of data on command, non-command and poor ground water quality areas, the resources could not be estimated separately and the administrative unit (block) as a whole without sub-dividing it into sub-units has been considered. The precise estimation of ground water reserves and irrigation potential is prerequisite for proper planning and execution for socio-economic development in the area. The ground water recharge has been estimated on the basis of water level fluctuation method which has been evaluated by significant change in water level during pre and post monsoon periods. Estimation of ground water resources for Takhatpur Block of Bilaspur district has been discussed below. **(Source: Dynamic Ground Water Resource Estimation as on 02.08.2021 and 31.03.2017 prepared Jointly by Govt of CG and CGWB, Govt of India).**

3.2.4.9.3 Ground Water Draft:

The ground water draft is the quantity of water withdrawn from ground water reservoirs. The principal ground water development structures for utilization of ground water in the district are open wells, dug cum borewells, private tubewells/ government tubewells/ government tubewells constructed under minor irrigation works and by other state government departments. On the basis of statistical data available on the number of various ground water structures, the block wise annual gross draft has been computed by multiplying its average discharge and annual working hours. As per the GWRA 2020.

Table 7 Annual GW Draft and Stage of GW Development							
Sl. No.	Assessment Units/ Blocks	Annual Replenishable Groundwater Resources (Total)	Natural Discharge During Non-Monsoon Season	Net Groundwater Availability	Irrigation Draft	Domestic and Industry Draft	Total Draft
		(ham)					
1	2	3	4	5		6	7
1	Takhatpur (2020)	9027.84	532.16	8495.68	4117.34	1075.33	5192.67
2	Takhatpur (2017)	9420.88	855.67	8595.21	5933.54	1006.29	6939.84

3.2.4.9.4 Stage of Ground Water Extraction and Categorization of Blocks

The level of ground water extraction in Takhatpur Block has been worked out as the ratio of gross annual draft to Annual Extractable Ground Water Recharge.

$$\text{Stage of Ground Water Extraction (\%)} = \frac{\text{Gross Annual Ground Water Draft}}{\text{Annual Extractable Ground Water Recharge}} \times 100$$

The Takhatpur Block shows the stage of Ground water extraction during 2017 as 81.02 % and during 2020 as 61.12%, as shown in the Table 11. This block has been categorized as "SAFE". Due to decrease in annual extractable ground water recharge during 2020 with respect to 2017 figures, the stage of ground water extraction has improved from 81.02 to 61.12% [Table 10 and Fig 50].

Table 8 Groundwater resources in ham of Takhatpur Block, District BILASPUR,					
BLOCK	Year	Annual Extractable Ground Water Recharge (ham)	Existing Gross Ground Water Draft for All Uses (ham)	Stage of Ground Water Withdrawal (%) (4/3)*100	Category of Block
1	2	3	4	5	6
Takhatpur	2020	9027.84	5192.67	61.12	SAFE

Takhatpur	2017	9420.88	6939.84	81.02	SEMI CRITICAL
PCBPL			**27.36 (0.52%)**		

The ground water for domestic & Industrial use is about 20% of total annual ground water draft for the Takhatpur Block and 80% is utilized for irrigation purposes.

The total annual ground water withdrawal within the premises of Phil Coal Beneficiation Pvt. Ltd is **27.36 ham** (0.27 MCM). This is about **0.52%** of total ground water draft for entire Takhatpur Block. Hence, this withdrawal in not likely to have any significant adverse impact on ground water regime of the area.

3.2.5 GROUND WATER QUALITY

Ground water quality plays an important role in the development. The quality of ground water is as important as its quantity. The most extensive use of ground water is for irrigation of crops and a part of the ground water potential is for domestic and industrial uses. With the advent of industrialization and inadequate attention paid to protect the environment degradation in water quality one of the challenges of modern time. Sometimes the excess mineralization exceeds the maximum permissible limit for human consumption. Followings are the factors affecting the chemical quality of ground water.

- Physiochemical characteristics of the rocks through which ground water is circulating.
- Geological environment of the area.
- Climate of the area.
- Role of microorganism.
- Chemical physical and mineralogical characteristic of the soil through which Meteoric water percolate to the underground reservoir.
- Topography of the area.
- Mixing of connate water.
- Manmade pollution due to excessive use of manure, pesticides, harmful disposal of Industrial and sewerage of urban area etc.

3.2.5.1 RESULTS OF BASIC CONSTITUENTS

To study the chemical quality of ground water, sample from Ground water sources around the plant premise and within the premises of PCBPL, have been collected and analysed. These samples represented the ground water from first aquifer group down to about 60 mbgl. The summarized result of basic constituents, for these samples are given in Table 9.

Table 9 Ground Water Quality – Ranges of Basic Parameters

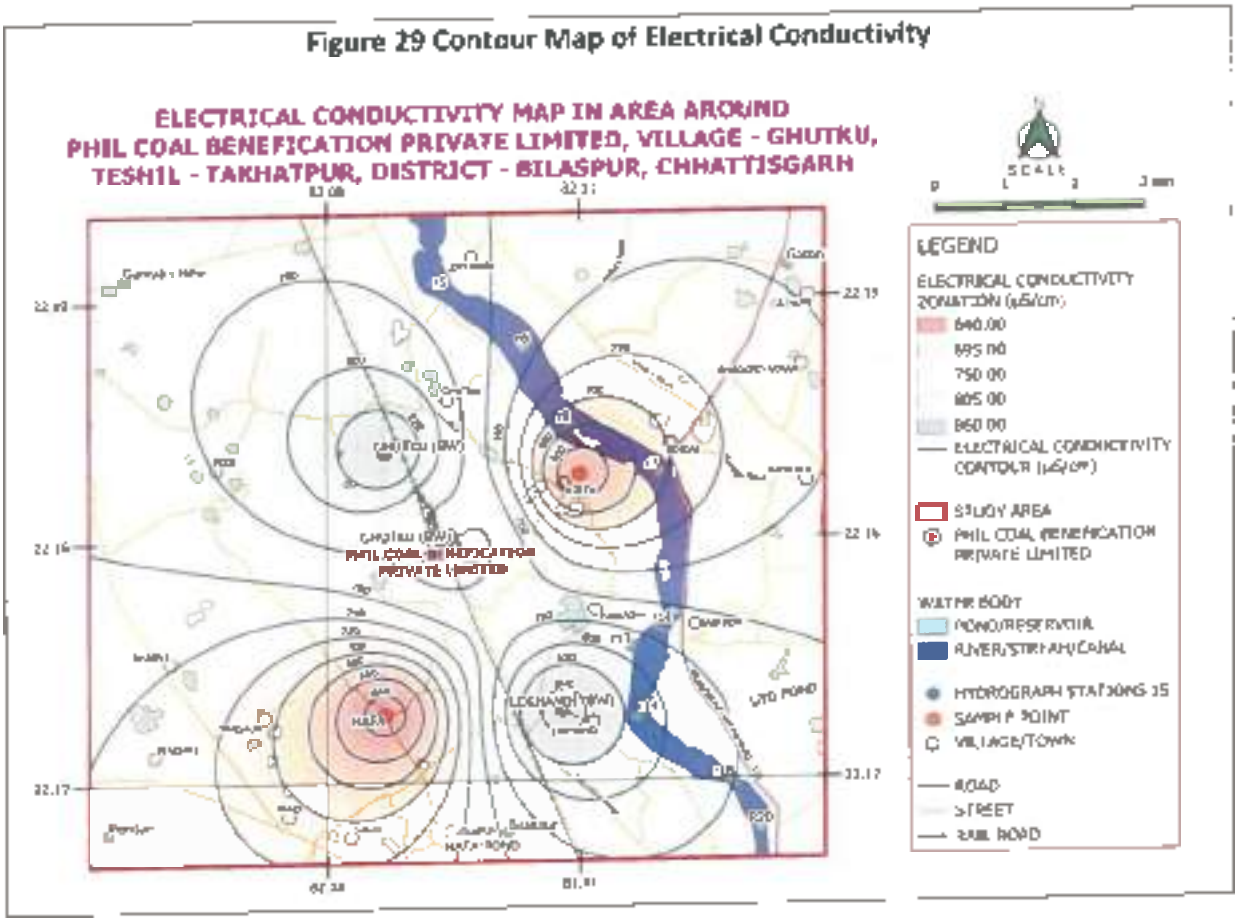
S. No.	Parameters	Unit	Ground Water Sample from Borewells from different locations around plant premises						BIS Standard IS 10500: 2012	
			PCBPL Borewell 01	Ghutku BW	Lokhandi BW	Nitru BW	Ghutku BW 2	Hafa BW	Requirement (Acceptable limit)	Permissible limit in the absence of alternate source
1.	pH	-	6.87	7.72	7.42	7.26	6.98	7.16	6.5-8.5	No relaxation

Table 9 Ground Water Quality – Ranges of Basic Parameters										
S. No.	Parameters	Unit	Ground Water Sample from Borewells from different locations around plant premises						BIS Standard IS 10500: 2012	
			PCBPL Borewell 01	Ghutku BW	Lokhandi BW	Nitru BW	Ghutku BW 2	Hafa BW	Requirement (Acceptable limit)	Permissible limit in the absence of alternate source
2.	Turbidity	NTU	<1	0.24	0.68	0.87	0.64	1.1	1	5
3.	Electrical conductivity	µS/cm	863.7	839.6	846	648	706	633	>1000	3200
4.	Total dissolve solids	mg/l	1093.7	511.8	512	392	428	384	500	2000
5.	Total hardness	mg/l	1442.2	384	198	120	168	148	200	600
6.	Calcium as Ca	mg/l	468.9	116.23	36.4	28.4	46.8	32.4	75	200
7.	Magnesium as Mg	mg/l	66.45	22.84	6.8	12.6	11.3	12.6	30	100
8.	chloride	mg/l	30	74.9	16.9	18.9	42.9	39.9	250	1000
9.	Total alkallnity	mg/l	726.8	234	88	96	148	124	200	600
10.	Fluoride as F	mg/l	0.29	0.02	0.11	0.12	0.11	0.06	1	1.5
11.	Sulphate as SO4	mg/l	170.6	75.93	24.6	20.6	32.6	26.3	200	400
12.	Iron	mg/l	0.11	0.01	0.06	0.08	0.18	0.18	0.3	No relaxation
13.	Nitrate	mg/l	0.02	9.74	0.82	1.62	1.34	1.22	45	No relaxation

3.2.5.1.1 ELECTRICAL CONDUCTIVITY

the Electrical Conductivity in water samples varies between 633 and 863.7 µS/cm on the buffer zone of the plant premises. Electrical Conductivity is high but within acceptable limits, hence the quality of ground in the area with reference to Electrical Conductivity is fit for human consumption. The spatial distribution of Electrical Conductivity values has been given below in its contour map fig 29.

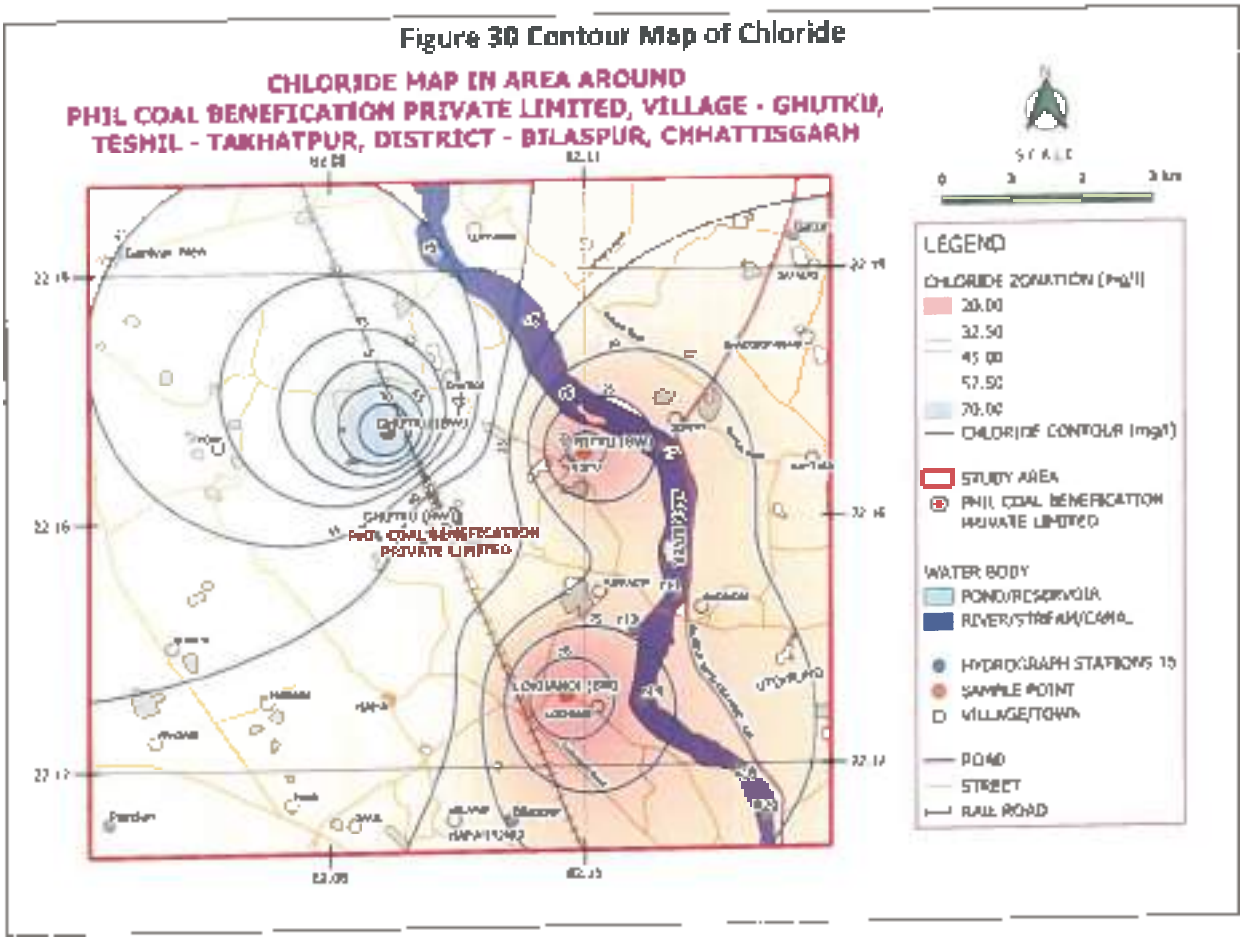
Figure 29 Contour Map of Electrical Conductivity



3.2.5.1.2 CHLORIDE

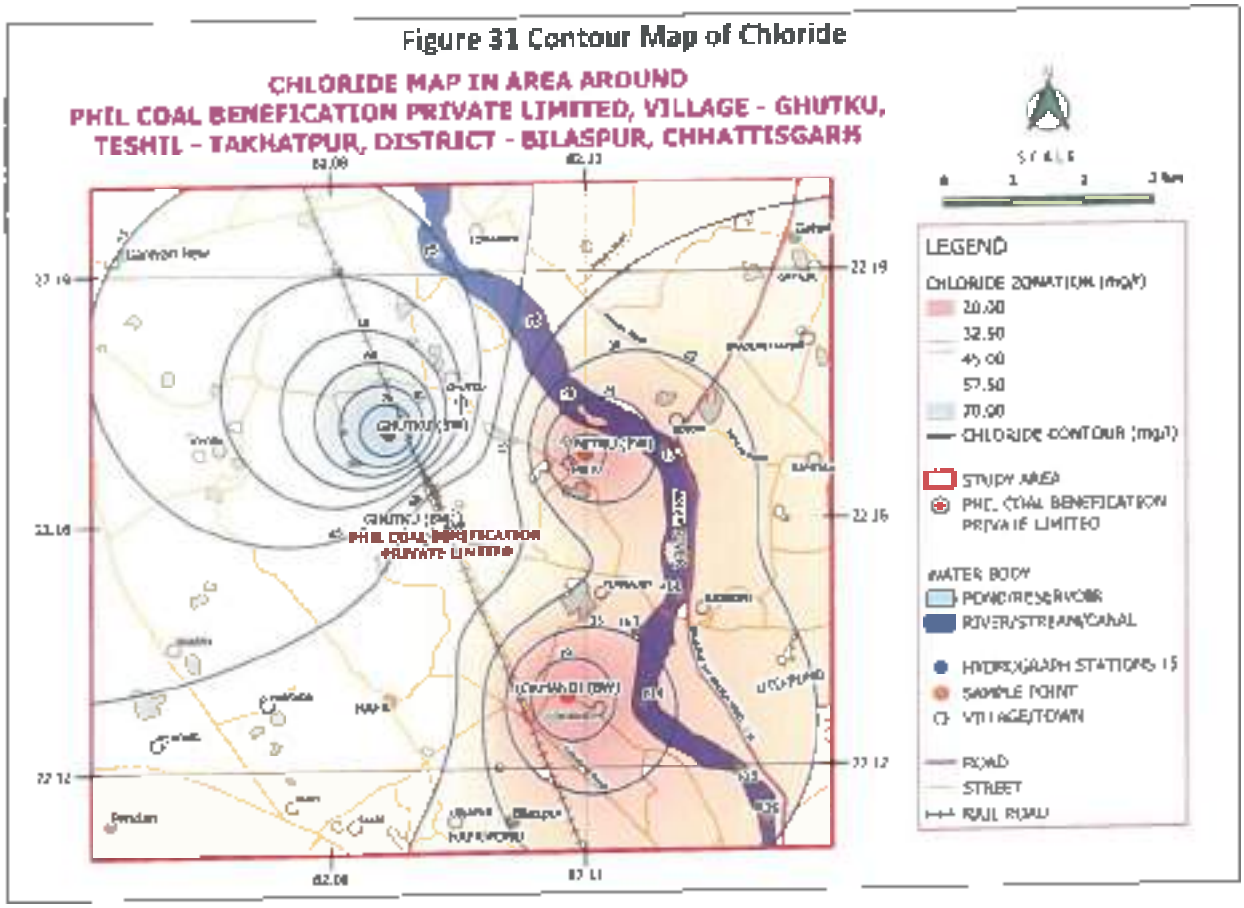
the Chloride in water samples varies between 16.9 and 74.9 mg/l on the buffer zone of the plant premises. Chloride is very low and well within acceptable limits, hence the quality of ground in the area with reference to Chloride is fit for human consumption. The contour map of Chloride has been given below in fig 30.

Figure 30 Contour Map of Chloride



the Chloride in water samples varies between 16.9 and 74.9 mg/l on the buffer zone of the plant premises. Chlorride is very low and well within acceptable limits, hence the quality of ground in the area with reference to Chloride is fit for human consumption. The contour map of Chloride has been given below in fig 31.

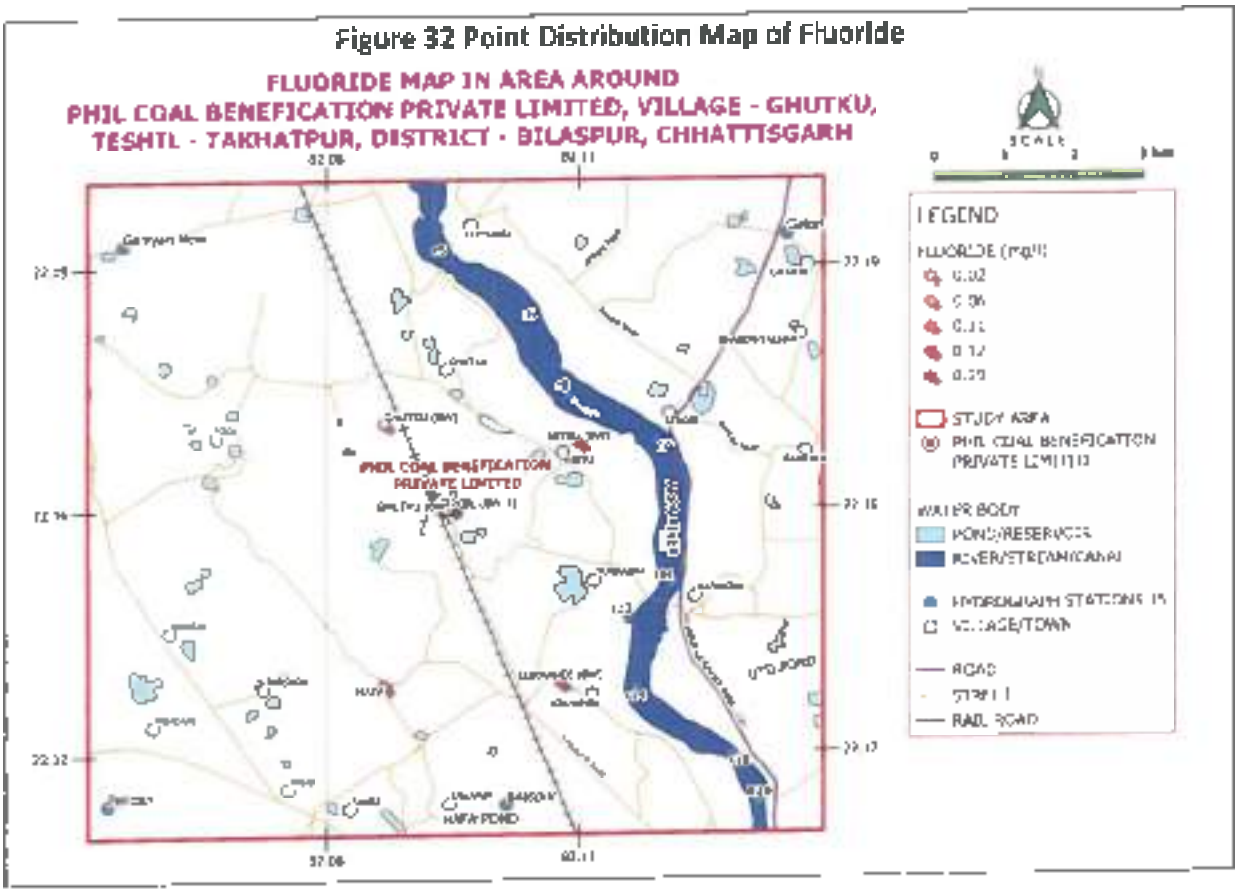
Figure 31 Contour Map of Chloride



3.2.5.1.3 FLUORIDE

The Fluoride in water samples varies between 0.02 and 0.29 mg/l on the buffer zone of the plant premises. Fluoride is very low and well within acceptable limits, hence the quality of ground in the area with reference to Fluoride is fit for human consumption. The point distribution map of Fluoride has been given below in fig 32.

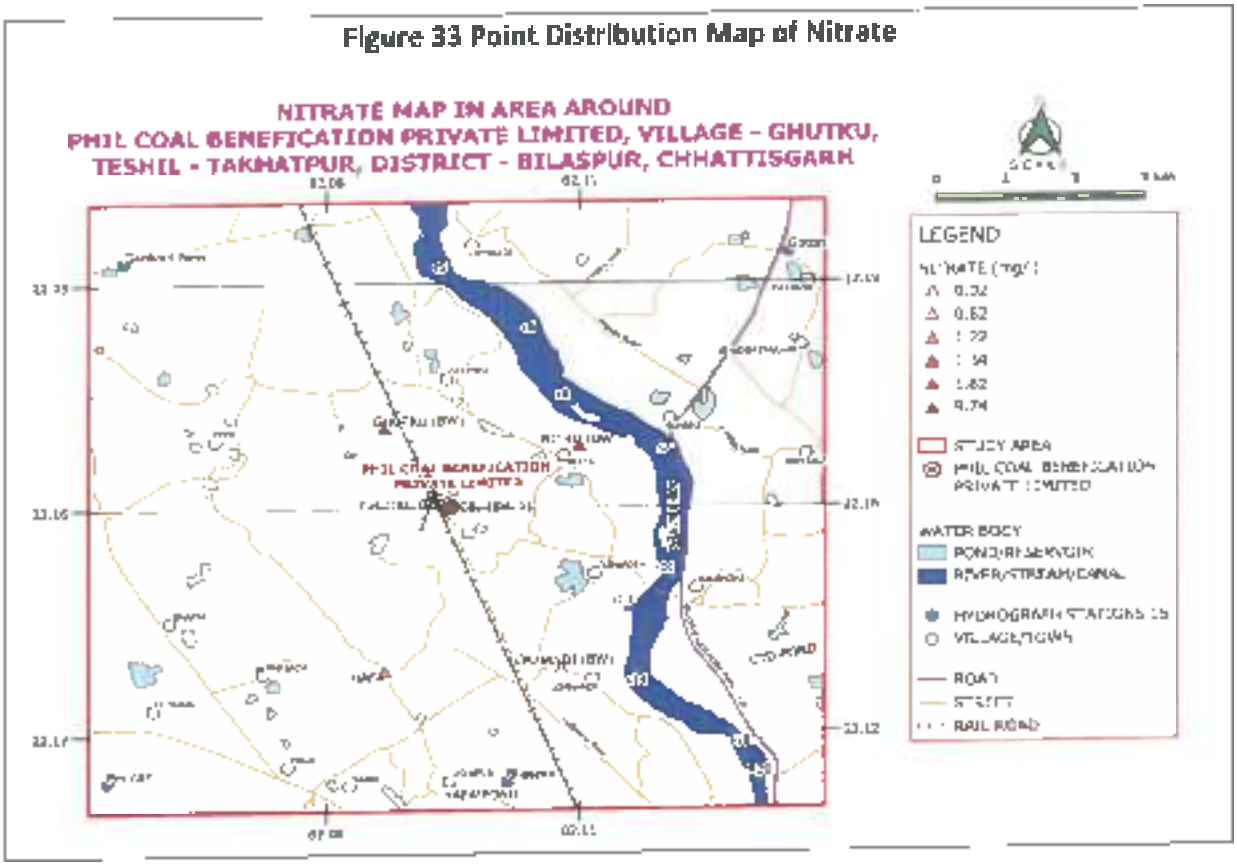
Figure 32 Point Distribution Map of Fluoride



3.2.5.1.4 NITRATE

the Nitrate in water samples varies between 0.02 and 9.74 mg/l on the buffer zone of the plant premises. Nitrate is very low and well within acceptable limits, hence the quality of ground in the area with reference to Nitrate is fit for human consumption. The point distribution map is given in fig 33

Figure 33 Point Distribution Map of Nitrate



3.2.6 Water Quality of nearby water bodies

As per the directives of CGWA the water sample was collected from the nearby surface water bodies- two ponds and Sendri river. The data is given below which shows the parameters are within drinking water standard. The parameters analysed are well within the acceptable limits.

Table 10 Surface Water Quality – Ranges of Basic Parameters

S. No.	Parameters	Unit	Ground Water Sample from Borewells from different locations around plant premises			BIS Standard IS 10500: 2012	
			Podi Pond water	Sendri River Water	Jonki Pond water	Requirement (Acceptable limit)	Permissible limit in the absence of alternate source
1.	pH	-	8.37	8.59	6.90	6.5 8.5	No relaxation
2.	turbidity	NTU	17.23	1.35	6.20	1	5
3.	conductivity	µS/cm	748.1	454.3	392	>1000	3200
4.	Total dissolved solids	mg/l	153.2	310.3	238	500	2000
5.	Total hardness	mg/l	114	194	107	200	600
6.	Calcium as Ca	mg/l	28.05	20.04	54.2	75	200

Table 10 Surface Water Quality – Ranges of Basic Parameters							
S. No.	Parameters	Unit	Ground Water Sample from Borewells from different locations around plant premises			BIS Standard IS 10500: 2012	
			Podi Pond water	Sendri River Water	Jonki Pond water	Requirement (Acceptable limit)	Permissible limit in the absence of alternate source
7.	Magnesium as Mg	mg/l	10.69	27.7	12.8	30	100
8.	chloride	mg/l	11.9	72.9	18.4	250	1000
9.	M-alkalinity	mg/l	120	164	102	200	600
10.	Fluoride as F	mg/l	0.06	0.08	0.12	1	1.5
11.	Sulphate as SO4	mg/l	12.35	25.47	18.4	200	400
12.	Iron	mg/l	0.06	0.04	0.16	0.3	No relaxation
13.	Nitrate	mg/l	0.21	1.73	2.68	45	No relaxation

4 DETAILS OF PRPOSED/EXISTING TUBEWELLS/BOREWELLS IN THE PREMISES:

The Industry has an average of 855 cum/day groundwater abstracting for the industrial and domestic use. The groundwater will be abstracted from 03 (three) existing borewells. All the borewells has installed with flow meters for monitoring of ground water abstraction as per the CGWA norms. Details of the existing borewells are given below This includes the aquifer parameters, drilling depth, diameter, lithological log, details of pump to be lowered, H.P. of pump, tentative discharge of tube wells/ bore wells, etc are given below.

Table 11 Details of the Ground water abstraction structures within the premises of PCBPL , Bilaspur

Type of structure name	Depth (m)/ Dia (mm)	Depth to water level (mbgl)	Discharge (m3/Hr)	Operational hours (Day)/ Days (Year)	Pump Capacity (HP)	Mode of lift name
Bore well/2006	100/152	7.00	2.50	16/365	5.00	Submersible pump
Bore well/2017	98/152	8.00	9.00	16/365	5.00	Submersible pump
Bore well/2017	95/152	10.00	9.00	16/365	5.00	Submersible pump

5 PROPOSED DEWATERING PLAN INCASE OF INFRASTRUCTURE DEWATERING PROJECTS

The Project is Existing Industry at Takhatpur Block. This Chapter is Not applicable.

5.1 PLAN OF DEWATERING

The Project is Existing Industry at Takhatpur Block. This Chapter is Not applicable.

5.2 USAGE OF PUMPED WATER

The Project is Existing Industry at Takhatpur Block. This Chapter is Not applicable.

6 IMPACT ASSESSMENT

PCBPL (Phil Coal Benefication Pvt. Ltd.), Ghutku, Bilaspur, is abstracting the groundwater for industrial, domestic and other purposes, through three borewells. **Phil Coal Benefication Pvt. Ltd.** has applied for renewal of CGWA NOC, through the online portal of NOCAP. As per the guidelines since the industry is withdrawing **855 KLD** of ground water, it is required to submit a comprehensive report on Impacts of ground water abstraction on ground water regime of the premises and buffer area around it.

6.1 IMPACT ON THE GROUND WATER REGIME

- The PCBPL occupies a small part of Takhatpur Block of Bilaspur district. The total area of Takhatpur Block is 714 sq km (Dynamic Ground Water Resource Estimation as on 2020). The stage of Ground water extraction in Takhatpur Block is 61.12 %, as discussed earlier. The block has been categorized as "Safe". There is an improvement in category of the block as compared to 2017 categorization. During 2017 estimation Takhatpur block was categorized as "Semi Critical" with stage of ground water withdrawal as 81.02%.
- The ground water levels in the study area vary from 0.5 to 7 mbgl during premonsoon period. The long-term water level trends show the regularly falling trend during post monsoon period while 3 stations falling and 2 stations rising trend is observed during pre-monsoon period since 2011-20. A total of 5 stations were analyzed for annual, pre monsoon and post monsoon water level trends.
- The water level trend analysis shows that 2 out of 5 stations at premonsoon period shows Riseasing trend ranging from 0.023 m/yr (Gatora) to 0.309 m/year (Pendari).
- It is seen that as observed in premonsoon trend, the southern part around Bilaspur, western part around Khamhariya and northwestern part around Kargikhurud shows declining trends of water levels are ranging from 0.20 to more than 0.25 m/year. The trends gradually change towards southeast, where rising trends of more than 0.2 m/year are observed.
- It is observed that the post monsoon declining trends are relatively higher than the trends during premonsoon period. This indicates that despite the stress on ground water during premonsoon period for various purposes causing significant decline in water levels, the

replenishment during the monsoon period is sufficient to restore the premonsoon water levels.

- The study of the buffer zone indicated that entire area is dominated by agricultural land. As per land use pattern 73.03% of study area is covered by crop land. Hence the farmers form the majority of stakeholders in the area. Being open and relatively flat area the crop land is good source of ground water recharge through rainfall infiltration and also through return seepage from surface and ground water irrigation. Since the ground water aquifers down to 60 or 70 mbgl are being tapped in the area, any recharge of phreatic zone benefits these zones also being same aquifer.
- The surrounding area as discussed above is principally cropped area and farmers are the main stake holders, followed by industries.
- Despite the withdrawal of ground water by water intensive industries, such as PCBPL there is no adverse effect on ground water regime as established in earlier chapters. Except a very insignificant depletion of ground water resources in the northern part of the study area, there is no indication of depletion in other parts.
- Farmers too, adopt multi cropping system and are growing water intensive crops such as sugar cane, paddy, wheat etc. But since surface water irrigation sources are available there is reduced dependency of ground water. Farmers are tapping ground water through shallow tubewell wells down to a depth of 20 to 30 mbgl, which is replenished quickly through ground water inflow from the northern part of study area, as evident from ground water flow conditions.
- As per resource estimation GWRA 2020 the extractable ground water resource is 80% of ground water extraction for irrigation purposes in the block (as on 2020) which is 4117.34 ham.
- The ground water structures constructed by farmers or industries are sustainably functioning over the years, without any need of replacement or deepening of borewells. This is also an indication of balanced ground water usage in the area.

6.2 IMPACT ON SURFACE WATER SOURCES

- In the study area around the PCBPL, ground water occurs in the weathered and the

cavernous part of the formation and also the fractured zones in the area. The top soil and shallow aquifer existing down to the depth of about 20 metres below ground level generally supports the dugwells which is used for domestic purpose only.

- There are several water bodies including ponds and tanks, which are natural water conservation structures and also augment the ground water resources through natural recharge. Presence of river and canals running from north to south are additional water sources in the area. The availability of surface water through rivers and ponds etc, release the stress on ground water resources.
- Thus, a good annual rainfall along with favourable features such as landuse, water bodies, rivers, canals etc. makes the area excellent repository of ground as well as surface water sources.
- As per the water level trend analysis from the year 2011-2020 in the study area indicate the declining trend. Ground water in this zone occurs under water table conditions. As per the ground water conditions, The total depth of the dugwells generally ranges from 8 to 15 mbgl. As such dugwells have become more popular for domestic use only, but due to constructions of handpumps and borewells, the dugwells have become defunct. For irrigational purposes the deeper aquifer is being taped upto depth of 150-200 m.

6.3 IMPACT ON WATER QUALITY

Since this is an existing project with 855 m3/day water requirement as per the NOC. The minor impact can be in water quality for which chemical analysis of water samples is regularly carried out for major parameters like pH, TDS (Total Dissolved Solid), Total Hardness (CaCO3), Fluoride, Nitrate, Magnesium (Mg), Chloride (Cl), Iron (Fe) etc. to evaluate impact of ground water quality in investigated area. As per IS: 10500 drinking water norms to evaluate impact of ground water quality in investigated area as per IS: 10500 drinking water norms. The chemical analysis of water samples for major parameters indicates that there is no visible or significant adverse impact on groundwater quality of buffer zone due to Plant activities. All the parameters are under permissible limit of as per drinking water norms IS: 10500

From chemical analysis of ground water collected in the study area it is evident that ground water quality is well within permissible limits for domestic as well as irrigation purposes.

6.4 MITIGATION MEASURES

From the well inventory data, it can be clearly established that most of the villages have good ground water source and the water level is also shallow. In general, the hydrogeological condition varies depending on the geological and climatological setting of the project site. Hydrogeological consequences of plant area are governed by the nature and duration of rainfall. And it can be seen from the hydrographs that there is a declining trend which creates the potential zone for recharging. The PCBPL is extracting ground water through three borewells constructed within the premises of the industry. As per the directives of CGWA, the industry has to adopt measures for recharging ground water within the premises and adopting suitable water conservation techniques such as recycling and reuse. Through RWH recharging the rainwater in to aquifer has been undertaken in the premises of the plant. During monsoon rain water in the plant is stored, used and re-circulated for industrial use. Since, plant is operating above water table and zero discharge; there will not be any adverse effect on local water body due to plant activity.

6.4.1 RAIN WATER HARVESTING IN PLANT PREMISES

RAIN WATER HARVESTING IN PLANT PREMISES

As per the nature of project, the Industry is advised not to recharge ground water within the plant premises. Industry has adopted 3 no of ponds to recharge the ground water outside the plant premises.

DETAILS OF RAINWATER HARVESTING STRUCTURES OUTSIDE THE PLANT PREMISES:

Adoption of ponds near plant premises to recharge ground water shall ensure the balance between the discharge vis-à-vis recharge relationships of the aquifer system and improve in the ground water quality. The normal annual rainfall for the said area has been taken as 1172.91 mm. as per the data of IMD. Based on the area of ponds the computation of water adoption capacity for each pond has been worked out and the details are tabulated below in Table -12.

Table 12 STORAGE CAPACITY OF PONDS

S.N.	POND NO	TOTAL AREA (m^2)	TOTAL DEPTH (m)	STORAGE CAPACITY OF POND (M^3)
1.	Pond-1	9830	4	39,320
2.	Pond-2	33178	4	132,712

3.	Pond-3	17856	4	71,424
Total Storage Capacity of all 3 ponds				2,43,456

The natural ground water recharge through these ponds has been estimated based on rainfall pattern and ground water percolation rates. It has been estimated that about 20% of water filled in the pond is recharged naturally to ground water (for one filling). Based on rainfall pattern and monsoon period it is observed that in the Bilaspur district three fillings can result during monsoon period. Expected annual ground water recharge calculation is given below (Table- 13)

Table 13 EXPECTED ANNUAL GW RECHARGE

S.N.	POND NO	STORAGE CAPACITY OF POND (M^3)	MULTIPLICA TION FACTOR FOR GW RECHARGE	EXPECTED ANNUAL GW RECHARGE (M^3/YR)
1.	Pond-1	39,320	0.60	23,592
2.	Pond-2	1,32,712	0.60	79,627
3.	Pond-3	71,424	0.60	42,854
TOTAL EXPECTED ANNUAL GW RECHARGE				1,46073 M^3/YR

Annual Ground water Recharge= Storage capacity of pond (in m3) x 0.6 [for natural recharge in 3 fillings]

The total annual ground water recharge has been estimated for all 3 ponds. Which is **1,46,073** m3/year.

Total Annual withdrawal of ground water by 3 borewells is **2,73,600** and total annual ground water recharge through 3 ponds is about **1,46,073** m3/year. Industry comes in safe block, hence need to recharge 50% of total annual withdrawal which is **1,36,800 m3/year.**

Industry is recharging **9,273 m3/year** more than its compliance.

6.5 SALINE WATER DISPOSAL STRATEGIES (IN CASE OF SALINE WATER ABSTACTION)

The Project is Existing Industry at Takhatpur Block Withdrawing fresh water only. This Chapter is Not applicable.

7 GW MODELLING

7.1 BRIEF ABOUT THE MODEL AREA

This report describes the result of groundwater modelling study to predict the impact of ground water abstraction as per regulatory requirement by CGWA. This model simulates the regional effects of pumping for rural domestic, irrigation purposes through borewells (down to a depth of 98 mbgl) on ground water levels. To predict decline in ground water level in affected aquifer groundwater modelling has been carried out using MODFLOW code (USGS). As mentioned earlier groundwater is being drawn from dolomitic aquifer. Modeling study has been taken up for watershed covering an area of 61.52 Sq. KM. In watershed five observation wells were established for modelling purpose.

7.2 CONCEPTUAL MODEL

For the purpose of groundwater modelling watershed boundary has been considered. The model area covered for modelling is 61.52 sq. km. Lithologically, the study area is occupied by shale and dolomite as layered sequences. The water table ranges from 266 to 276 m amsl. The general trend of groundwater flow direction is towards south east direction. Groundwater in the watershed is primarily recharged from rainfall and exits the site via wells and baseflow discharge to nala and rivers. Groundwater recharge occurs from rainfall during the Monsoon season. Hydrographs indicate that recharge processes are rapid and effective with some parts of the site showing strong correlation between rainfall events and rises in groundwater levels across all aquifers. Groundwater generally flows from north west to south east across the site and discharges via wells and as baseflow. The hydraulic parameters of aquifers are assumed to be uniform in the groundwater flow model. As a result, the simpler model will forecast a more consistent flow zone.

For the creation of this groundwater flow model, the following assumptions were made:

(1) To adapt a complicated physical world into a simple usable numerical model, simplifications to geological heterogeneity have been made.

(2) The numerical model was created as a conservative tool for assessing the impact. The conceptual model was created using geological and hydrogeological data that was readily available.

(3) The hydraulic parameters of each hydrostratigraphic layer or zone are assumed to be uniform in the groundwater flow model. The hydraulic parameters of a given hydrogeological unit will vary dramatically in the field. As a result, the simplified model predicts a more consistent zone of groundwater level variation.

Nine MODFLOW packages are used in this model:

- Basic (BAS) package,
- Layered Property Flow (LPF) package,
- Discretization (DIS) package
- General Head Boundary (GHB) package,
- Recharge (RCH) package,
- Well (WEL) package,
- Pre-conditioned Conjugate Gradient (GMG) package

7.3 MODEL DESIGN

A numerical model was created based on the conceptual model described above. Following are descriptions of the model code, input parameter values, and relationship to the conceptual model.

The entire aquifer of watershed was represented by a single layer unconfined aquifer due to paucity of aquifer wise hydrogeological data. In order to produce a numerically efficient model, the grid is rotated 15 degrees anticlockwise (Figure 34) relative to the UTM (WGS 44N) to minimise its overall size. The grid cells falling outside the model boundaries and outcrop areas are designated as inactive. Data pertaining to the model grid are summarised in Table 15. A model grid with 42 rows, 43 columns, and 1 vertical layer has been used to establish the regional hydrogeologic framework of the project area. There are active 1412 cells in total, with each cell measuring 220 m by 222 m (Fig. 34). SRTM data have been used for assigning top elevations for this investigation (Fig.35). The aquifer top elevations over the site ranged from 294 to 267 metres above mean sea level.

7.4 Model Boundary

Model boundary conditions are factors that control the inflow and outflow of groundwater in a numerical model. We assigned model boundary conditions for (1) recharge, (2) pumping,

(3) outer model boundaries, and (4) initial head conditions Figure 37 shows the spatial distribution of the major boundary conditions used in the model domain.

No flow boundary conditions, which means that no groundwater flow occurs across these boundaries, are specified, east and west boundaries (except some part as shown in figure 37.) and at the base of the model. General head boundary has been assigned in part of north, south and west side of the model domain based on water table contour for pre-monsoon, 2018. The justification for considering it as General head boundary is that location of these boundaries are far from the project site and it will not have any impact on the head fluctuation at project site. The water table for the year May 2021 has been taken as initial head (Fig.36). The first numerical time step was set up as a steady state simulation to prepare the initial water level to start the model transient simulation in 2021.

7.5 AQUIFER PARAMETERS

The hydraulic conductivity and recharge rate for the entire model domain have been assumed to be uniform for simplification. The hydraulic conductivity has been estimated to be 5 m/d based on available data from nearby pumping tests. The initial specific yield value of 0.15 percent is used since the domain specific yield has been assumed to be uniform across the model. This figure was then modified to 0.12% during the calibration process.

Recharge from rainfall and return flow from irrigation was simulated using the Recharge packages in MODFLOW. This recharge was initially applied as spatially uniform time-averaged net infiltration recharge to this layer and was assumed to occur at a constant rate in the steady-state model, whereas in the transient model it was assumed to vary with time. Later gross variable recharge rate was applied to the model. Single recharge zones have been assigned based on land use data. Initial value for recharge has been estimated from Dynamic groundwater assessment, 2020 and apportioned to watershed accordingly subsequently same has been altered to match the field observed head. The recharge rate has been set at 13% of annual rainfall.

Groundwater pumping was simulated using the Well Package of MODFLOW. In order to simulate pumping in the model it was necessary to derive monthly usage patterns from the yearly usage data by applying a specified percentage distribution. The draft of the of block has been apportioned to watershed accordingly Assumed pumping schedule is shown in

table 14. However, the actual pattern of usage may vary with the purpose of the borewell This groundwater model simulates monthly stress periods and requires monthly frequency for data. For the purpose of estimation of groundwater draft in watershed Dynamic groundwater assessment, 2020 has been used and same has been further calibrated to match hydraulic head. Variable pumping rates were established per model stress period to reflect variable abstraction rates during Rabi and kharif crops.

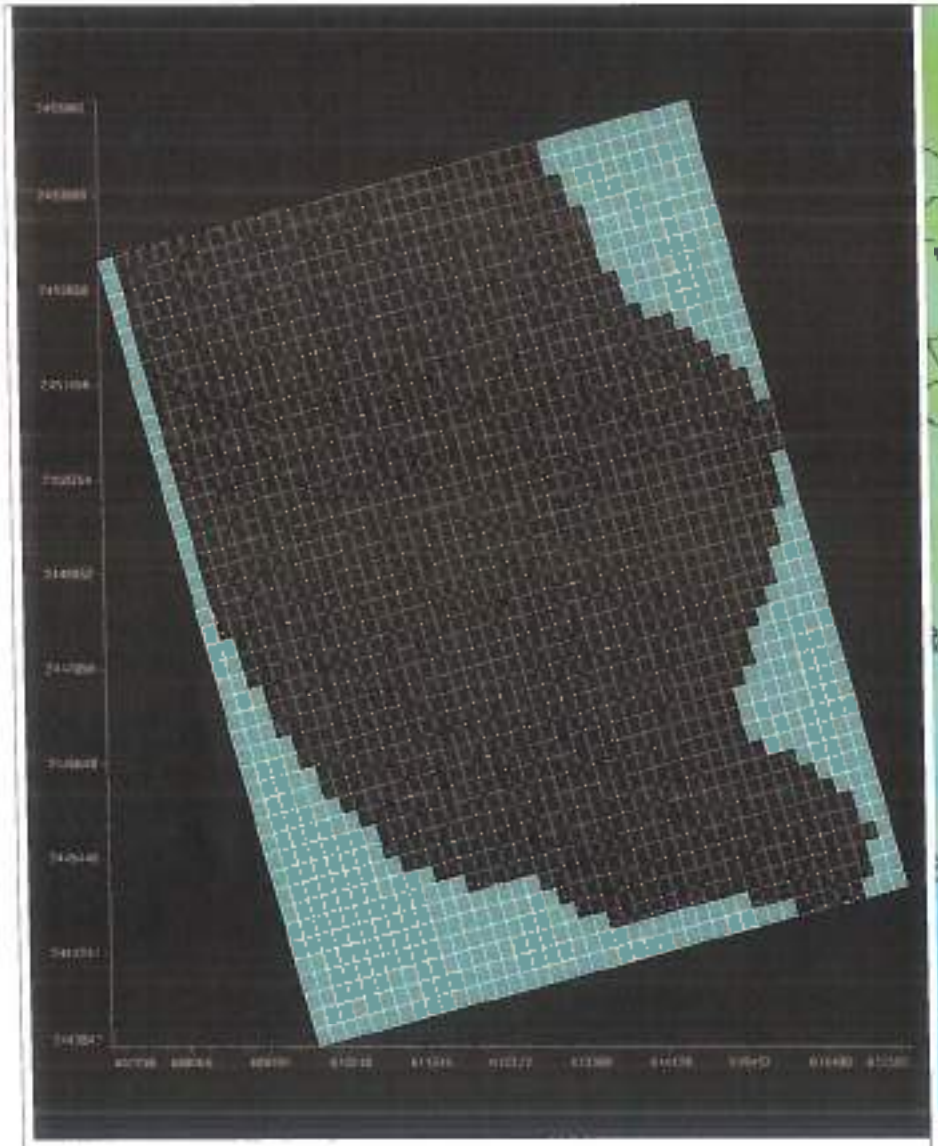


Figure 34 Model Area and Grid design

Figure 35 Aquifer Top Elevation above mean sea level (SRTM data)

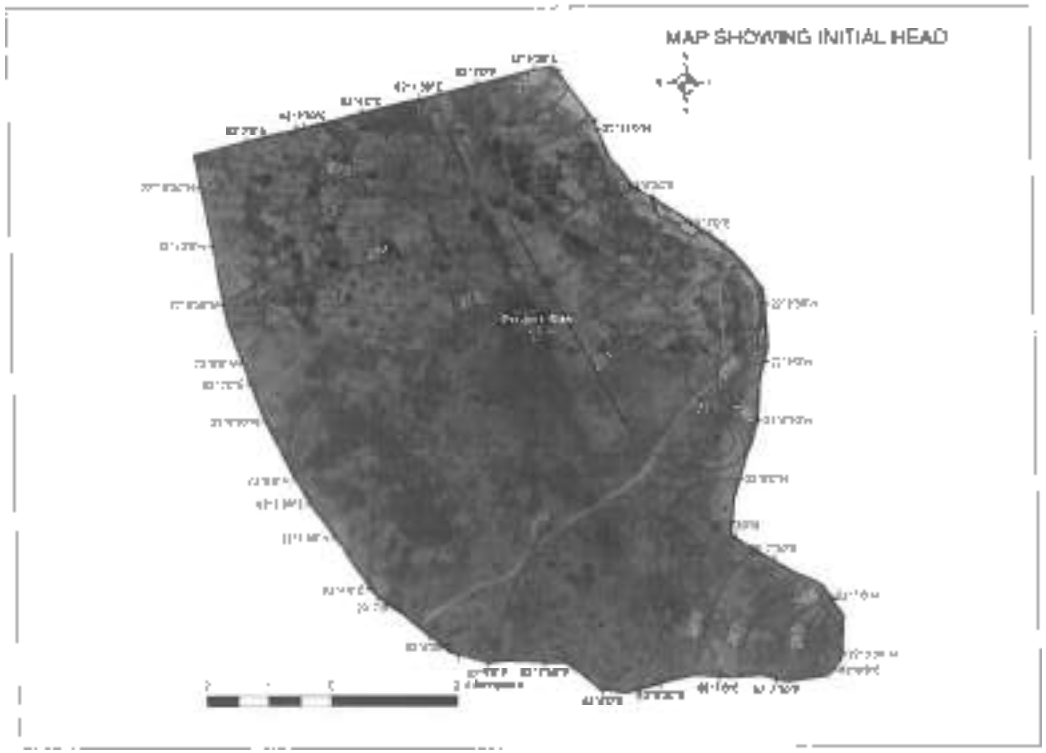


Figure 36 Initial Head along with flow direction (Water Table-May, 2018)

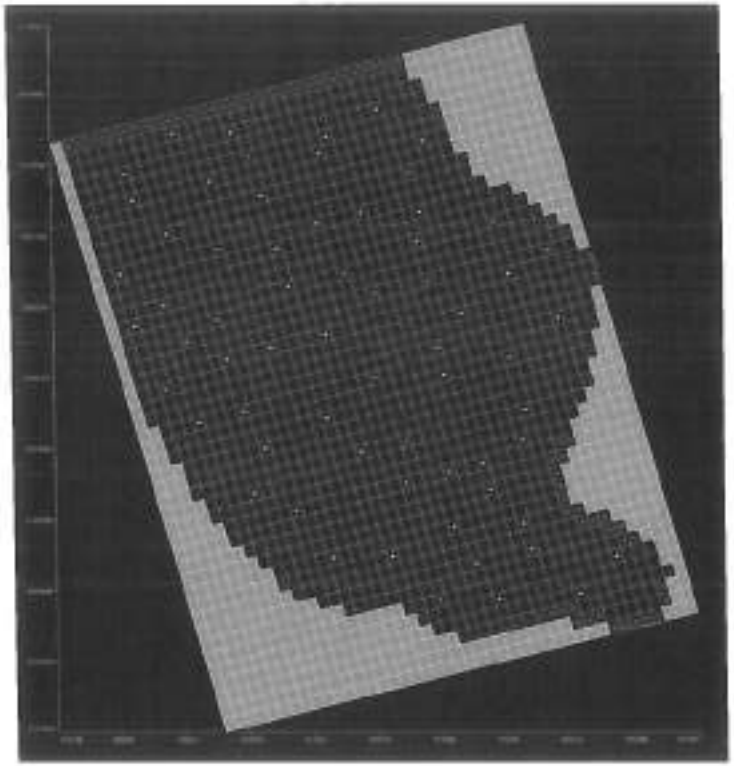


Figure 37 Model Boundary Pumping Well and Observation wells (GHB – green colour, Wells -pink colour, Observation wells- grey colour)

Table 14 Summary of Model input

S. No.	Parameter	Value
1.	Grid	Nos of Column 43 X Nos of Rows 45 Size of Grid 220 m x 222 m Nos of active grid and 1412 Nos of Inactive grid 523
2.	Top of aquifer (m) range of elevation	Top elevation taken from SRTM data 294- 267 amsl
3.	Bottom of aquifer (m) range of elevation	Uniform vertical layer thickness of 200 mbgl. 94 - 67 amsl
4.	Initial Piezometric Heads	Layer 1 Pre Mon-2018
5.	Aquifer Type	Layer 1: Unconfined
6.	Boundary Conditions Used	GHB (Shown in Fig4). No Flow in the west & east side and bottom of aquifer
7.	K (m/ Day)	5
8.	Specific yield (%)	0.12
9.	Storage Parameters	0.00005
10.	Recharge applied	0.000239 m/day SS and variable for transient
11.	Draft applied	As per Groundwater Resource assessment, 2020
12..	Solver	PCG Head Closure criterion 0.01 Max Iterations 25
13.	Calibration	Steady State only
14.	Key wells	5
15.	Model Run	Steady state condition and transient
16.	RMS error	2.49 m
17.	Proposed Draft applied for the firm (NOC)	855 m^3/day

7.6 CALIBRATION AND VALIDATION

The calibration of the model is required to replicate heads and hydraulic gradient observed in the field. Calibration involved making minor adjustments to the aquifer parameters and sometime conceptualization also until the steady state model was calibrated to a reasonable satisfaction. Hydraulic conductivity and recharging were employed to alter these parameters in order to achieve a good match between the observed and predicted head with respect to space and time in this study

Steady state conditions are usually pre stressed conditions that existed in the aquifer before significant development has occurred (i e., inflow is equal to outflows and there is no change in aquifer storage). In Indian context head matching for purpose of calibration is difficult because location of each individual pumping wells and abstraction are not known which directly affects groundwater level In observation wells. However, in this model, steady state calibration comprised the matching of observed heads in the aquifer with hydraulic heads simulated by MODFLOW. The present calibration targets are observed head in key wells and flow directions and flow gradients. The error in the model head solution was also quantified by determining the mean error, mean absolute error, standard deviation, and sum of squares for the model residuals (target head – model head). The calibrated steady-state head solution has a residual mean of -0.88 m, an absolute residual mean of 2.14 m, a standard error of estimate 1.77 m, and a Root mean Square is 2.49 m. A complete listing of the target water levels In the steady-state calibration data set, and the model head solutions, residuals and calibration statistics Is given in Fig 38. A comparison of the steady-state head solution and the observed water levels is presented in Table 15. The residual error in the steady-state head solution is shown in Table 15. A comparison of the contoured target water levels and steady-state head solutions is shown in Fig 39. The statistical measurements and the contoured water level maps show that the calibrated steady-state head solution reasonably matches the water levels in the monitoring wells.

Table 15 Observed head vs simulated head and RMS error

S. No.	Monitoring station				Residual		

		Observed Head	Simulated head		Sq. residual	RMSE (in mts)
1	Podi Takhatpur-Obs1	277.98	273.68	4.30	18.49	2.49
2	Nitru Sakari-Obs2	269.80	271.4	-1.60	2.56	
3	Turkadih Takhatpur-Obs4	268.00	269.55	-1.55	2.40	
4	Hafa Takhatpur-Obs6	271.30	268.58	2.72	7.40	
5	Jonki Takhatpur-Obs7	271.70	271.16	0.54	0.29	

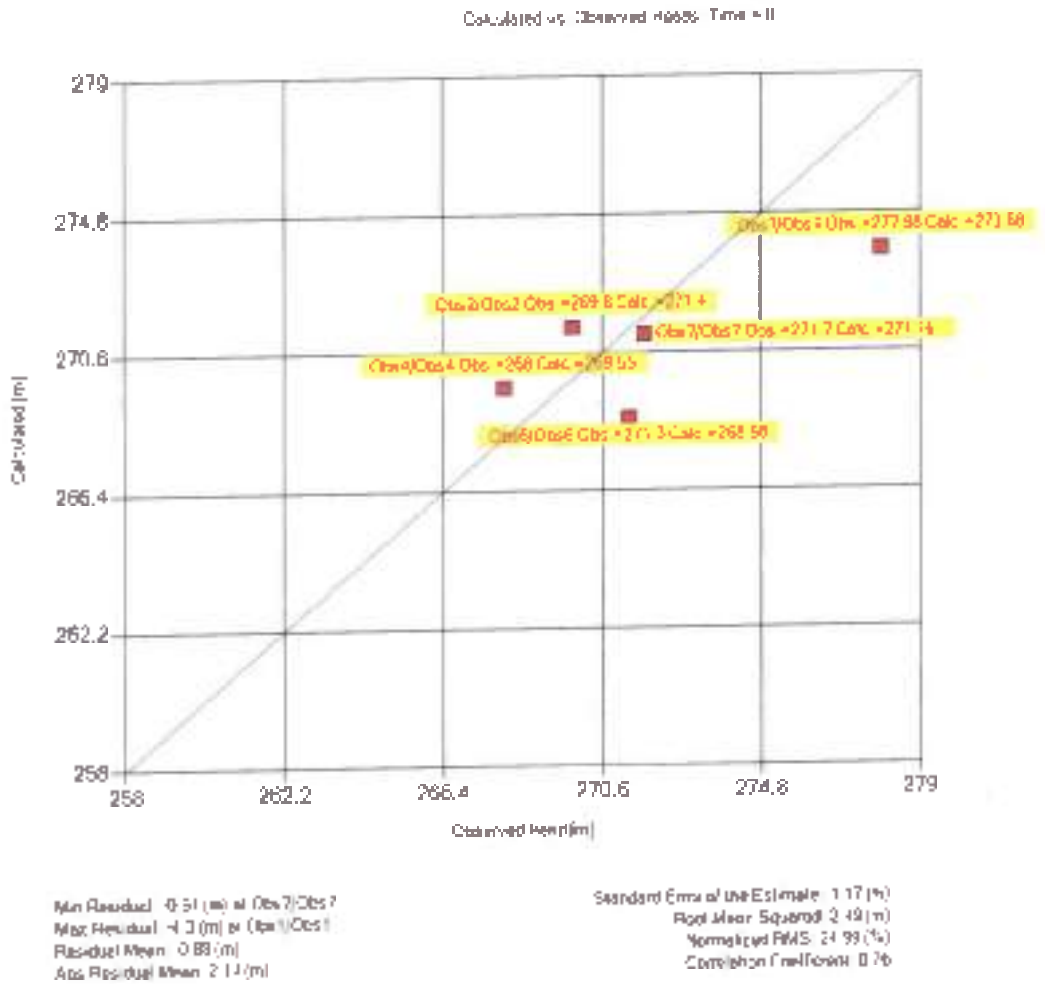


Figure 38 Steady state Calibration

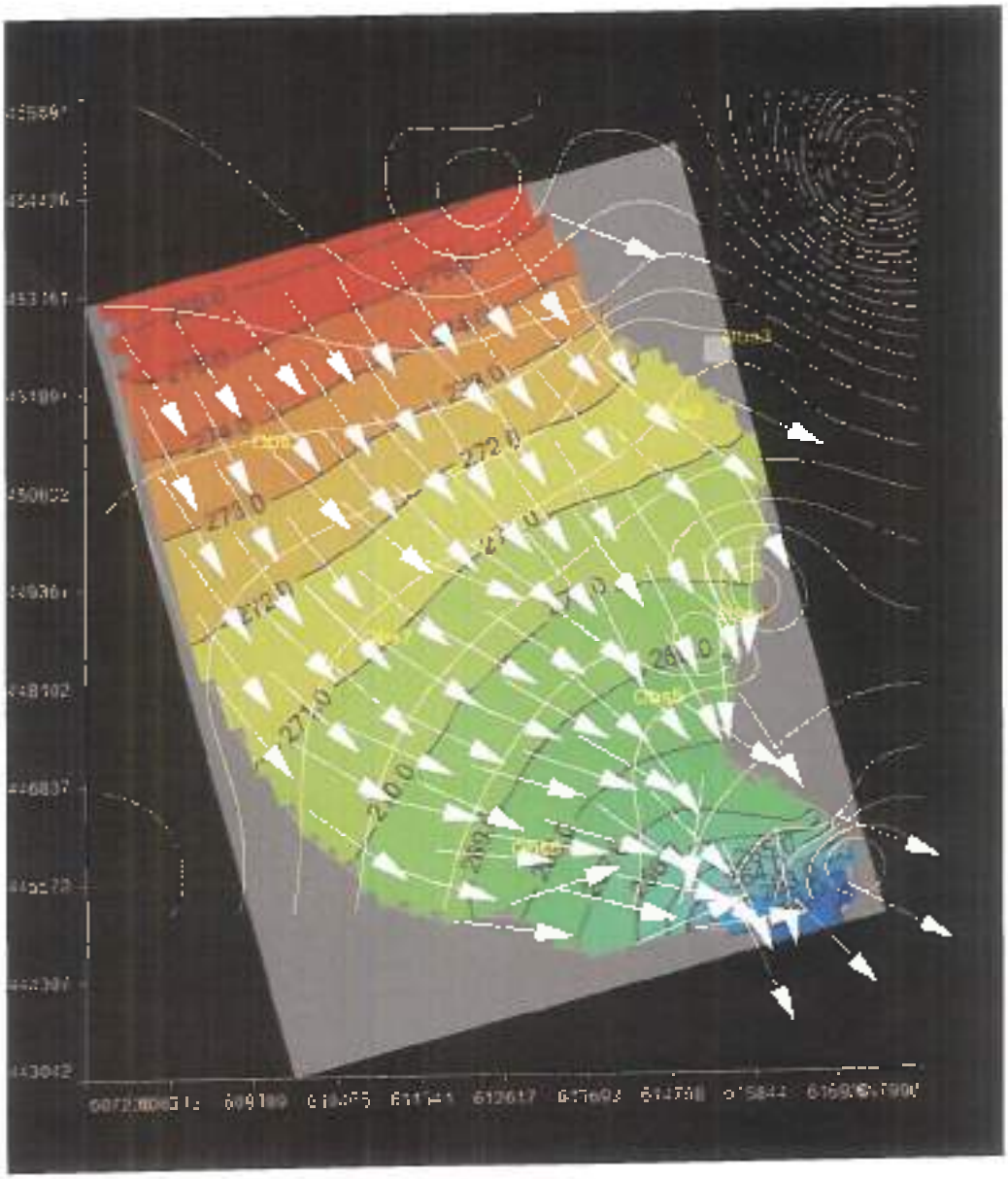


Figure 39 Simulated water table along with initial head contour

VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP 1 IN STRESS PERIOD

CUMULATIVE VOLUMES	L**3	RATES FOR THIS TIME STEP	L**3/T
IN:		IN:	
STORAGE =	0.0000	STORAGE =	0.0000
CONSTANT HEAD =	0.0000	CONSTANT HEAD =	0.0000
WELLS =	0.0000	WELLS =	0.0000
HEAD DEP BOUNDS =	13280.3332	HEAD DEP BOUNDS =	13280.3332
RECHARGE =	14170.6633	RECHARGE =	14170.6633
TOTAL IN =	27450.9965	TOTAL IN =	27450.9965
OUT:		OUT:	
STORAGE =	0.0000	STORAGE =	0.0000
CONSTANT HEAD =	0.0000	CONSTANT HEAD =	0.0000
WELLS =	15400.0000	WELLS =	15400.0000
HEAD DEP BOUNDS =	12050.9965	HEAD DEP BOUNDS =	12050.9965
RECHARGE =	0.0000	RECHARGE =	0.0000
TOTAL OUT =	27450.9965	TOTAL OUT =	27450.9965
IN - OUT =	-2.8376E-10	IN - OUT =	-2.8376E-10
PERCENT DISCREPANCY =	-0.00	PERCENT DISCREPANCY =	-0.00

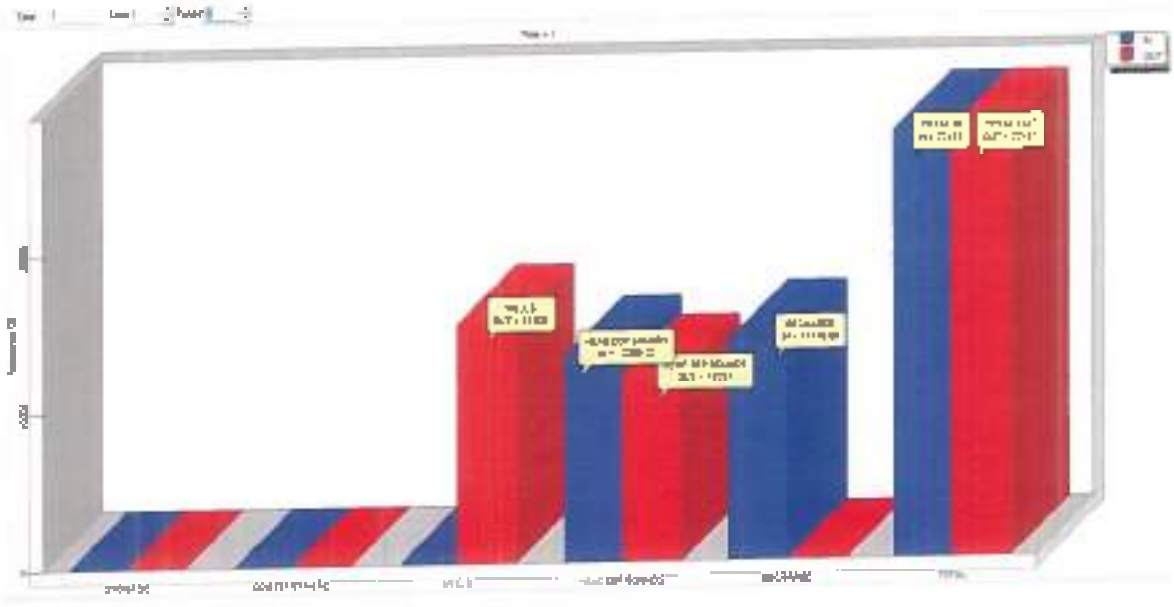


Figure 40 Water budget steady State

7.7.3.1 MODEL RESULT-SCENARIO GENERATED FOR 5 YRS (WATER LEVEL MAP, WATER BUDGET)

Prediction of groundwater level has been done assuming current ground water abstraction continues at the same rate. The predicted water table map for year 2025 and 2030 has been

shown in Fig. 41 and Fig 42 respectively.

Water table map for year 2025 and 2030 do not show much variation (Figs. 41 & 42). Which also matches with field condition as the area is having stage of development about 48 %. Contour maps of head indicate that the majority of water is leaving the model domain along the south eastern boundary of the model area. Time series water table data is shown in Fig 42 which reveals that there is no perceptible change in water table even in the year 2030.

Results of water-budget calculations (Fig. 43 &44) indicate that there is significant inflow to the dolomitic aquifer from northern boundary other than recharge from top. Water-budget calculations also show that a majority of this flow exits the model through general -head nodes in the south east side where watershed meets Arpa River (Fig. 41 & 42), which is consistent with the conceptual model for the area. In the southern part of the model domain areas within stream valleys, groundwater flows downward from the dolomitic aquifer, indicating that the aquifer contributes to streamflow. Due to heads in GHB cells, predicted heads in these aquifers. Water-budget results indicate that the GHB cells on the edges of the model domain are the primary source of water for the aquifer rather than inflow from Arpa River (Figs. 41 and 42).

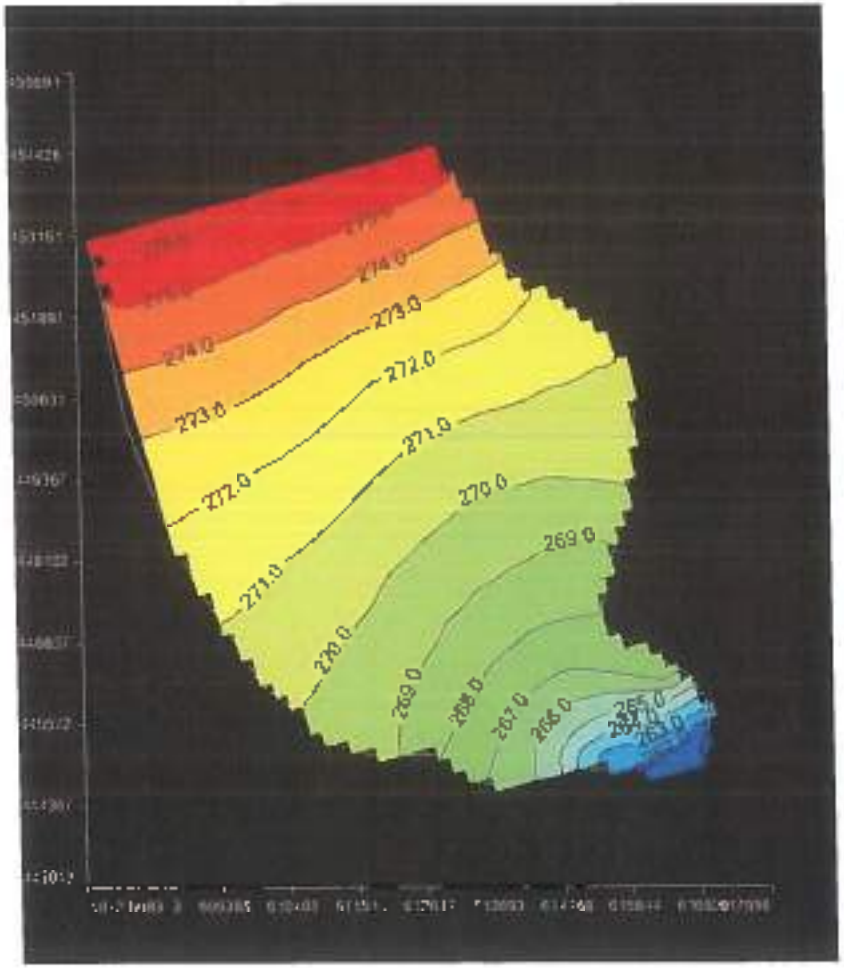


Figure 43 Water Table contour 2025

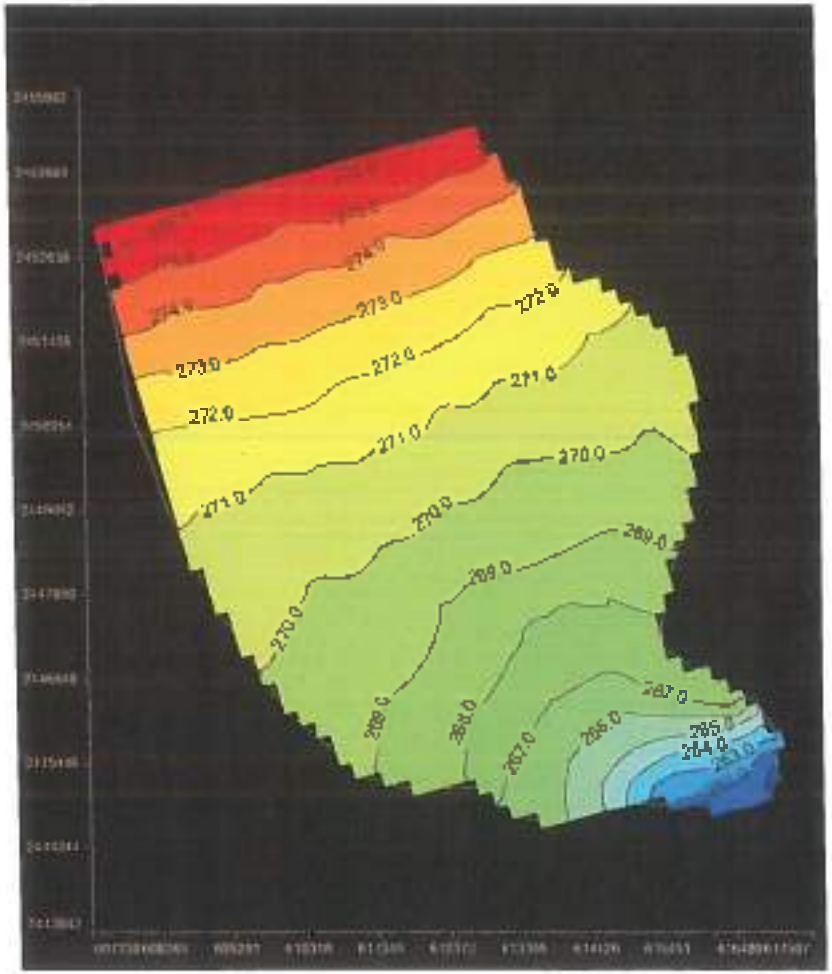
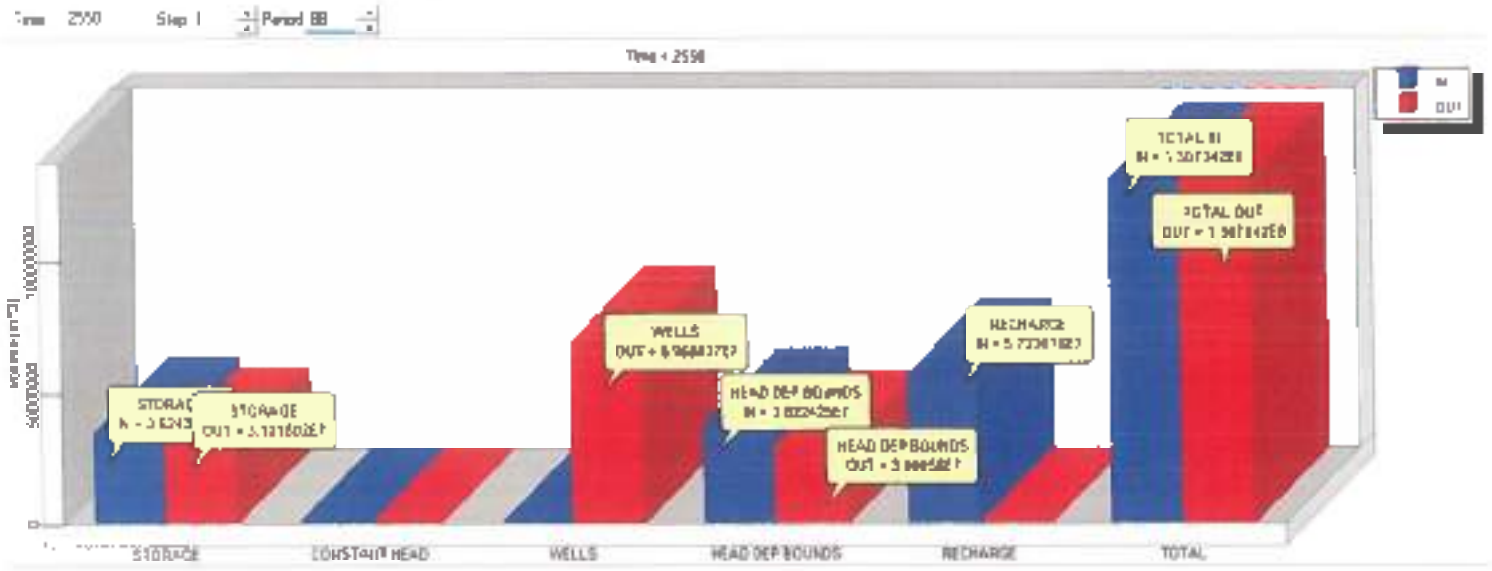


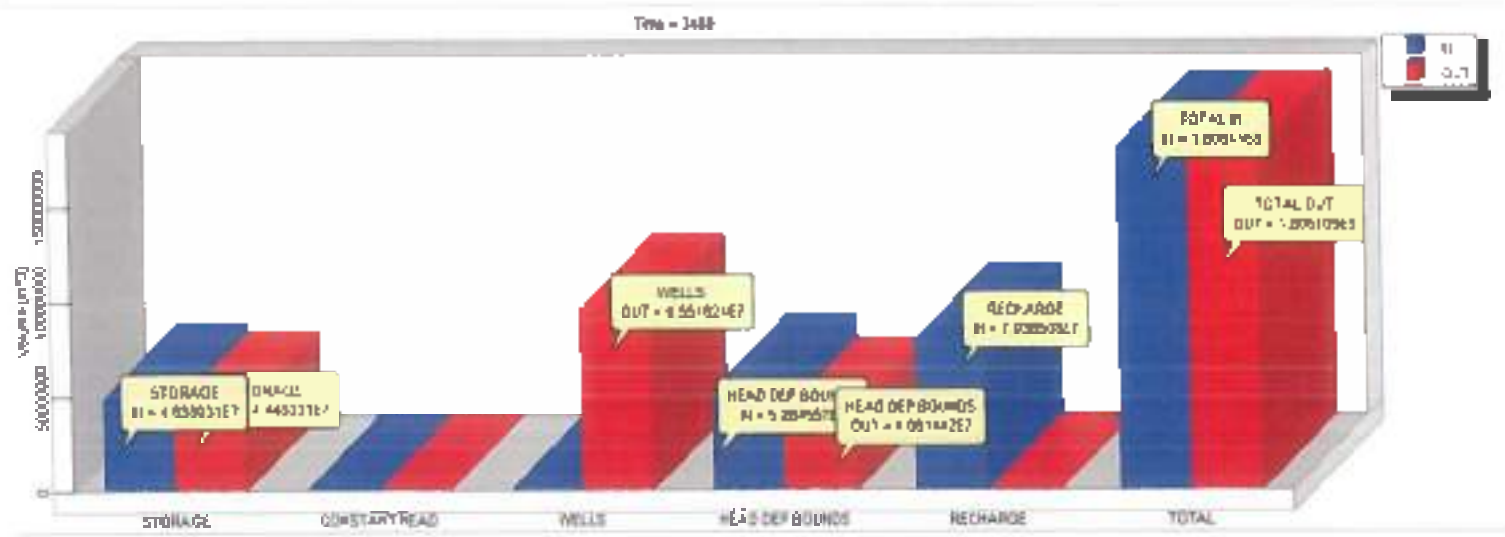
Figure 42 Water Table contour 2030


Time 2550 Step 1 Period 88
Time = 2550
IN
OUT
STORAGE
CONSTANT HEAD
WELLS
HEAD DEP BOUNDS
RECHARGE
TOTAL

VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP 1 IN STRESS PERIOD 80

CUMULATIVE VOLUMES	L**3	RATES FOR THIS TIME STEP	L**3/T
IN:		IN:	
STORAGE =	3524317[illegible]6 9916	STORAGE =	388.6643
CONSTANT HEAD =	0.0000	CONSTANT HEAD =	0.0000
WELLS =	0.0000	WELLS =	0.0000
HEAD DEP BOUNDS =	3[illegible]224251.4434	HEAD DEP BOUNDS =	16673.3302
RECHARGE =	9[illegible]2367[illegible].1527	RECHARGE =	14624.7914
TOTAL IN =	130704783.5476	TOTAL IN =	31686.7909
OUT:		OUT:	
STORAGE =	31018622.4552	STORAGE =	3144.7846
CONSTANT HEAD =	0.0000	CONSTANT HEAD =	0.0000
WELLS =	6968[illegible]71.5000	WELLS =	17720.0370
HEAD DEP BOUNDS =	30[illegible]5798.7093	HEAD DEP BOUNDS =	10832.4689
RECHARGE =	0.0000	RECHARGE =	0.0000
TOTAL OUT =	130704192.6646	TOTAL OUT =	31686.7905
IN - OUT =	20.9230	IN - OUT =	4.5002E-04
PERCENT DISCREPANCY =	[illegible]	PERCENT DISCREPANCY =	0.00

Figure 43 Water budget Transient State Year 2025



```
VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP    1 IN STRESS PERIOD 117
------------------------------------------------------------------------------

  CUMULATIVE VOLUMES      L**3       RATES FOR THIS TIME STEP      L**3/T
  ------------------                 ------------------------

        IN:                                     IN:
        ---                                     ---
             STORAGE =    48380313.0863                  STORAGE =       43985.7343
       CONSTANT HEAD =           0.0000            CONSTANT HEAD =           0.0000
               WELLS =           0.0000                    WELLS =           0.0000
     HEAD DEP BOUNDS =    52845570.0677          HEAD DEP BOUNDS =       16644.6583
            RECHARGE =    79385081.3250                 RECHARGE =       14624.7914

            TOTAL IN =   180610964.4790                 TOTAL IN =       75255.1841

       OUT:                                    OUT:
       ----                                    ----
             STORAGE =    44480305.3902                  STORAGE =           0.0000
       CONSTANT HEAD =           0.0000            CONSTANT HEAD =           0.0000
               WELLS =    95516210.8800                    WELLS =       64501.0000
     HEAD DEP BOUNDS =    40614419.1562          HEAD DEP BOUNDS =       10754.1733
            RECHARGE =           0.0000                 RECHARGE =           0.0000

           TOTAL OUT =   180610935.4263                TOTAL OUT =       75255.1733

            IN - OUT =          29.0527                 IN - OUT =       8.8038E-03

 PERCENT DISCREPANCY =             0.00      PERCENT DISCREPANCY =             0.00
```

Figure 44 Water budget Transient State Year 2030

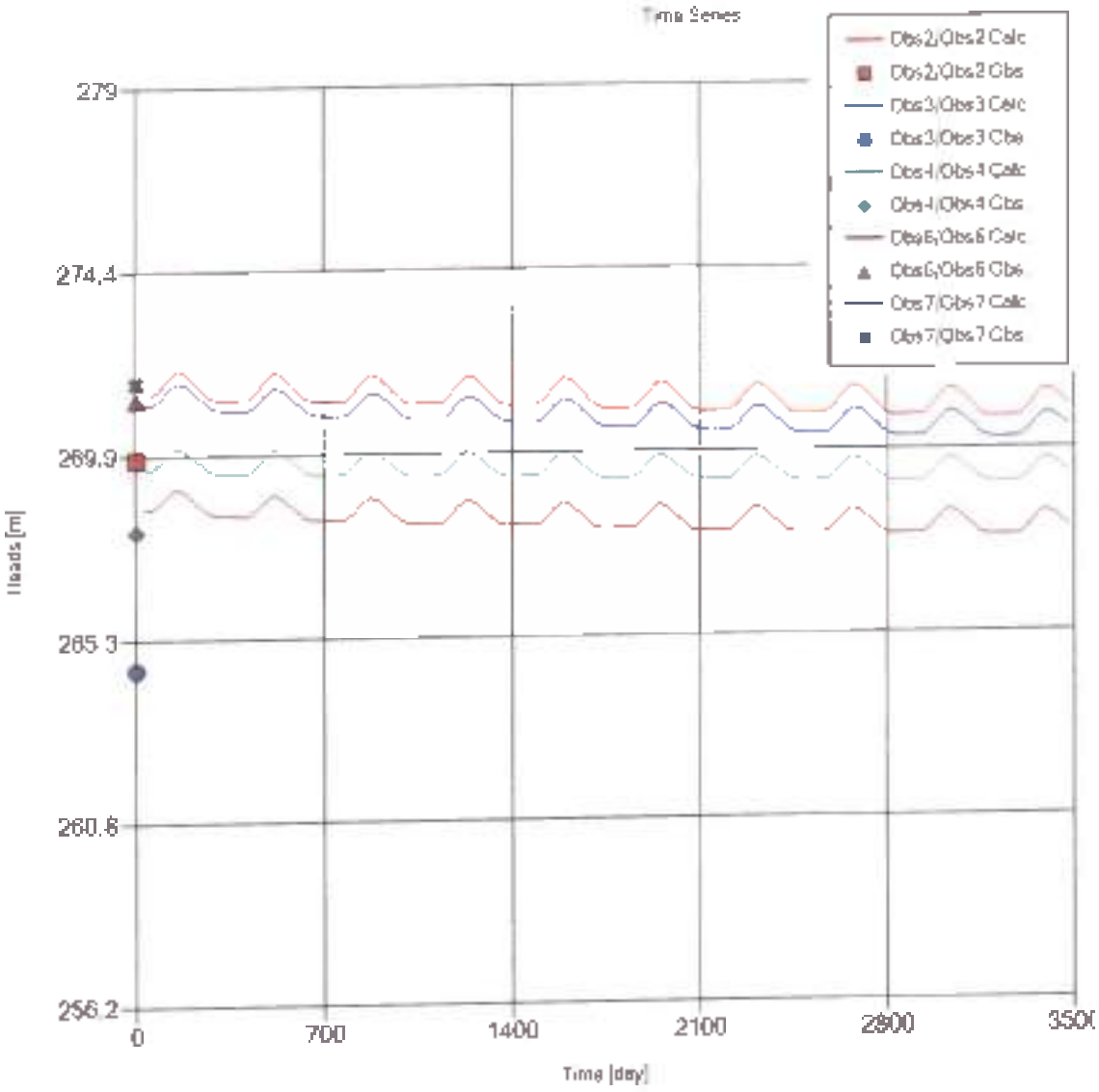


Figure 45 Time series of predicted water table from transient model

7.8 MODEL LIMITATION

This model was created to determine how the water level in the area will react in the future. This model is based on the fact that little data is available. This model was developed on a regional scale and can only predict aquifer conditions on a regional scale. This model can be applied to assess regional aquifer conditions if the present groundwater draft continues over a ten-year period.

Based on analysis of flow direction and water table contour pattern watershed has been delineated. Accordingly, boundary conditions were assigned. No flow boundary has been assigned except north, south and some part of south east of watershed.

7.9 CONCLUSION AND RECOMMENDATION

The existing groundwater withdrawal is about 855 m3/d from 3 tubewells tapping dolomitic aquifers. As per model result groundwater level shows there is no change in water table in study area even in year 2030 if the present ground water draft pattern remains the same by year 2030. Also, as per Dynamic Ground Water Resource Assessment Report, 2020 the area falls under the Safe Category. Hence there is still further scope of ground water development.

8 WATER BALANCE, RECYCLE AND REUSE

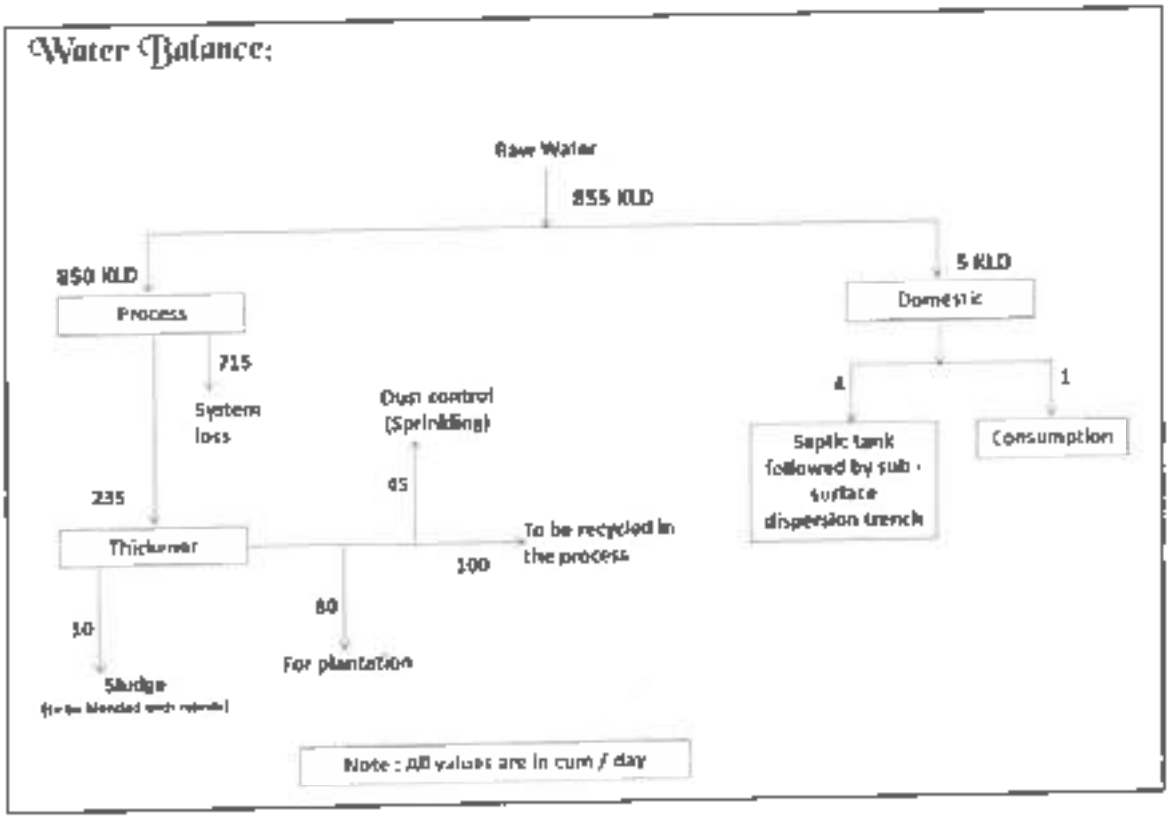
Industry has been adopted state of art technology for recycling/ reuse of waste water generated within the premises. As shown in table 16, **net water requirement for the industry is 855 KLD (273600 KL/year).** The total waste water generated within the premises is 235 KLD, out of which **100 KLD is being recycled** and reused for industrial process (Table 16). The waste water reutilization is done through efficient ETP installed in the premises. The total waste water generated within the premises is being recycled and reused completely, which is a remarkable contribution.

Table 16 Water Utilization Pattern and Recycling/ Reuse of Waste Water, PCBPL, Bilaspur

ACTIVITY	EXISTING REQUIREMENT (M3/DAY)	PROPOSED REQUIREMENT (M3/DAY)	TOTAL REQUIREMENT (M3/DAY) (b + c)	NO OF WORKING DAYS PER YEAR	TOTAL ANNUAL REQUIREMENT OF WATER (M3/YEAR) (d x e)
a	b	c	d	e	f
INDUSTRIAL USAGE	995		995	320	318400
GREEN BELT/ ENVIRONMENTAL MAINTENANCE	80	-	80	320	25600
DOMESTIC/ RESIDENTAL	5		5	320	1600
TOTAL WATER REQUIREMENT	**1080**		**855**	**320**	**345600**
RECYCLING/ REUSE					
TOTAL WASTE WATER GENERATED	235	-	235	320	75200
QUANTITY OF TREATED WATER AVAILABLE	225	-	225	320	72000
REUSE IN INDUSTRIAL ACTIVITY	100	-	100	320	32000
REUSE IN GREENBELT DEVELOPMENT	80	-	80	320	25600
REUSE IN DUST SETTLING, OTHER ACTIVITIES	45	-	45	320	14400
TOTAL TREATED WATER REUSED	**225**	-	**225**	**320**	**75200**

Table 16 Water Utilization Pattern and Recycling/ Reuse of Waste Water, PCBPL, Bilaspur					
ACTIVITY	EXISTING REQUIREMENT (M3/DAY)	PROPOSED REQUIREMENT (M3/DAY)	TOTAL REQUIREMENT (M3/DAY) (b + c)	NO OF WORKING DAYS PER YEAR	TOTAL ANNUAL REQUIREMENT OF WATER (M3/YEAR) (d x e)
NET FRESH WATER REQUIREMENT	855	-	855	320	273600

Figure 46 Water Balance Flow Chart PCBPL, Bilaspur



9 CONCLUSIONS SALINE WATER DISPOSAL STRATEGIES (IN CASE OF SALINE GW ABSTRACTION)

Not applicable.

10 ANY OTHER DETAILS PERTAINING TO THE PROJECT

Not Applicable.

11 SUMMARY AND CONCLUSIONS

- M/S PCBPL (Phil Coal Benefication Pvt. Ltd.), Ghutku, Bilaspur has been applied the No Objection Certificate (NOC) from CGWA through NOCAP for withdrawing **855 m^3/day or 273600 m3/year** (Table 17) quantity of ground water for industrial/ domestic and other uses, through three borewells.

- The study area falls in the company premises of **PCBPL** and a buffer zone of about 109.50 sq km around the industry. The study forms a part of Takhatpur block of district Bilaspur, which is mainly rural area and cropped area constitutes 73.03% of the total area. Total annual average rainfall is 1172.91 mm and average annual monsoon rainfall is 803.15 mm which forms 70% of annual average rainfall.

- Physiographically, the study area is characterized by gentle slopes and smooth surfaces, interrupted by Arpa River flowing across the study area from north to south. Major part of the study area is covered by the fluvial origin pediment-pediplain complex which are dissected at places.

- Maximum Part of the study area lies over Maniyari Formation of the Meso to Neo Proterozoic age. These comprise sand, silt and clays in various proportions. There are major aquifer groups present in the area down to 150 mbgl produce discharge of 1500-2500 lpm.

- During May, 2020, the depth to water level varies from 0.50 to 7.00 mbgl. Maximum part of study area shows water level in the range of 0.5 to 3.00 mbgl. Depth to water level map for post monsoon period for 2020, shows that the depth to water level varies from less than 0.50 to 9.00 mbgl. Maximum part of study area shows water level in the range of 0.50 to 3.00mbgl. The area around PCBPL shows a range of 0.5-1.00 mbgl.

- Comparison of the maps for premonsoon period of 2016 and 2020, shows that over last five years the pattern of water levels has not changed. The only change is observed that water levels during premonsoon period of 2020 in the south, northeastern part of the study area have slightly increased by about 0.5-3 5 m. Similarly for post monsoon period it is observed that the water levels in the southern have shown slight fall in water levels by 1-5 m.

- Water Table for the period of May 2020 of the study area ranges from 264 m to 291 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is north to south direction. There is one crest formed at Gatori (290 mamsl) in northeast of study area. The ground water flows in southerly directions from these crest
- Water Table for the period of Nov 2020 ranges from 264 m to 291 mamsl and gradient of water level is following the surface topography of the area. Gradient of flow is from north to south direction. During Nov, 2020, there are two crests formed during Nov, 2020, at Gatori (290 mamsl) in northeast study area and at Pendari (274 mamsl) in southwest direction. The ground water flows in southerly directions from these crests
- Over last five years the pattern of ground water flows has not changed remarkably. The only change is observed that ground water flow gradient during pre as well as post monsoon period of 2020 has become steeper by 1 to 2 m/km, in the northern part of the study area. Therefore, in last 5 years ground water conditions have shown a little significant change despite excessive utilization of ground water for irrigation as well as for industrial purposes.
- Pre monsoon water level trends indicate that 2 out of 5 stations PENDARI, GATORI show a declining trend of water levels from 0.023 m/yr (at Gatori) to 0.309 m/yr (at Pendari) rest of the stations Bilaspur 0.193 m/year, Kargikhurud 0.486 m/year and Khamhariya 0.365 m/year shows declining trends.
- During post monsoon period all the five stations showing declining trends, during period ground water levels in the range of 0.123 to 1.147 m/yr respectively. It is seen that as observed in premonsoon trend, the southern part around Bilaspur, western part around Khamhariya and northwestern part around Kargikhurud shows declining trends of water levels are ranging from 0.20 to more than 0.25 m/year. The trends gradually change towards southeast, where rising trends of more than 0.2 m/year are observed. The post monsoon water level trends around the Phil Coal Benefication Pvt. Ltd ranges between -0.5 to +0.5 m/yr.
- Apart from analysing water level trends separately for pre and post monsoon period from 2015 to 2020, as discussed earlier, the long-term trends for entire yearly data for last five to six years was also analysed. It is observed that water levels at monitoring stations are showing the declining trend in water levels

- As per Dynamic ground water resource estimation for Takhatpur Block as on GWRA 2020, the total annual extractable ground water recharge for the block has been estimated as 9027.84 ham. The total annual ground water draft during 2019-2020 was 5192.67 ham. The Takhatpur Block shows the stage of Ground water extraction as 61.12 %, and block has been categorized as **"SAFE"**. A slight improvement in stage of ground water extraction is observed from 81.02% as on 31.03.2017 to 61.12% as per estimation for 2020.
- Chemical analysis of ground water samples collected in the study area shows that ground water quality is well within permissible limits for domestic as well as irrigation purposes.
- Industry has adopted ground water recharge measures through ponds.
- Water conservation measures have also been taken through recycle/ reuse of about **225 m3/day** (which is 20% of total water requirement) of total waste water generated, through latest technologies of recycling and reuse.
- The existing groundwater withdrawal is about 855 m3/d from 3 tubewells tapping dolomitic aquifers. As per model result groundwater level shows there is no change in water table in study area even in year 2030 if the present ground water draft pattern remains the same by year 2030. Also, as per Dynamic Ground Water Resource Assessment Report, 2020 the area falls under the Safe Category. Hence there is still further scope of ground water development.
- The study of hydrogeological conditions in the premises of PCBPL and also in the buffer zone, indicate that ground water abstraction by the industry is not having any adverse impact presently. The extractable ground water availability for future use is also sufficient to meet the future need of ground water.

---x---x---

12 ACCREDITATION CERTIFICATE

Accreditation Board of CGWA

Certificate of Accreditation

Mr. Upendra Shrivastava

Has been accredited as Ground Water Professional to prepare reports in the Functional Areas of

- *Impact Assessment of Existing / Proposed GW Extraction*
- *GW Modelling*

Valid from : 15.02.2021

Valid thru : 14.02.2026

Certificate No. : CGWA/RGI/003

Dated : 07.07.2021

क्षेत्रीय निदेशक
Regional Director
आरजीएनजीडब्ल्यूटीआरआई
RGNGWT&RI

सदस्य
Member
आरजीएनजीडब्ल्यूटीआरआई
RGNGWT&RI

ANNEXURE – VIII: PHOTOGRAPH OF PLANTATION ALONG APPROACH ROAD

Photographs of plantation along approach road

ANNEXURE – IX: PHOTOGRAPH OF FOG CANNON

Photographs of Fog Cannon

ANNEXURE – X: PHOTOGRAPH OF WORKERS WEARING PPE

Photographs of Workers Wearing PPE

ANNEXURE – XI: OCCUPATIONAL HEALTH RECORD

Reg. No. – C.G. State 1004

PRAKRITI SEWA SANSTHAN

Off. : H. No. 18/257, Sarju Bagicha Road, Azad Nagar, Bilaspur (C.G.)
Mob. : 9926979506, 9300350506
E-mail : prakritisewa2@gmail.com

Date – 15/02/2025

प्रति,

फिल कोल बेनिफिकेशन
घुटकू बिलासपुर (छ.ग.)

विषय : सी.बी.एस. के माध्यम से एच.आई.व्ही. स्क्रीनिंग व स्वास्थ्य जनरल चेकअप करने बाबत्।

महोदय,

विषयान्तर्गत विदित हो कि छ.ग. राज्य एड्स नियंत्रण समिति रायपुर के द्वारा प्रकृति सेवा संस्थान बिलासपुर में ट्रांसपोर्टर वर्कर के लिए एच.आई.व्ही. एड्स पर कार्य किया जा रहा है। जिससे प्रतिमाह में ड्राइवर, हेल्पर व कम्पनी के समस्त स्टॉफ का (यौन रोग) के परामर्श हेतु एच.आई.व्ही स्क्रीनिंग किया जाना है। साथ ही जनरल चेकअप में ब्लड प्रेशर, शुगर, सिफलिस आदि जांच किया जाता है।

अतः आपसे अनुरोध है कि अपने कंपनी में हमें स्क्रीनिंग करने की अनुमति प्रदान करें।

धन्यवाद
सहयोग की अपेक्षा के साथ

डॉ राजीव अवस्थी
प्रोजेक्ट डायरेक्टर

M. & E.
Prakriti Sewa Sansthan
Bilaspur (C.G.)

Reg. No. – C.G. State 1004

PRAKRITI SEWA SANSTHAN

Off. : H. No. 18/257, Sarju Bagicha Road, Azad Nagar, Bilaspur (C.G.)
Mob. : 9926979506, 9300350506
E-mail : prakritisewa2@gmail.com

Date – 15/02/2025

फिल कोल बेनिफिकेशन के स्टाफों की जांच व नाम :–

एच.आई.वी, सिफलिस, ब्लड प्रेशन, शुगर, वजन जनरल जांच

नाम	पद	जांच रिपोर्ट
1. सुखदास मानिकपुरी	लोडर ऑपरेटर	Check-up done
2. कमलेश साहू	लोडर ऑपरेटर	Check-up done
3. दुर्गेश कुमार ध्रुव	लोडर ऑपरेटर	Check-up done
4. उमाशंकर नेताम	लोडर ऑपरेटर	Check-up done
5. महादेव केंवट	लोडर ऑपरेटर	Check-up done
6. शिवबाग यादव	सुपरवाइजर	Check-up done
7. मनीष भार्गव	सुपरवाइजर	Check-up done
8. अंकित प्रजापति	सिक्योरिटी गार्ड	Check-up done
9. ईश्वर निर्मलकर	सिक्योरिटी गार्ड	Check-up done
10. हरीश केंवट	लैब टेक्निशियन	Check-up done
11. मुकेश कुमार पटेल	लैब वर्कर	Check-up done
12. अजय कुमार विश्वकर्मा	लैब टेक्नीशियन	Check-up done
13. दीपक कौशिक	लैब टेक्नीशियन	Check-up done
14. सुनील भार्गव	सुपरवाइजर	Check-up done
15. प्रदीप कुमार कश्यप	फिल्टर मैकेनिक	Check-up done
16. राम कुमार साहू	लैब वर्कर	Check-up done
17. अजय सूर्यवंशी	वर्कर	Check-up done
18. अशोक सूर्यवंशी	वर्कर	Check-up done
19. कौशल विश्वकर्मा	वर्कर	Check-up done
20. प्रफुल कुमार कश्यप	इलेक्ट्रिशियन	Check-up done
21. दिपनारायण लोनिया	वर्कर	Check-up done
22. दिनेश पटेल	वर्कर	Check-up done
23. पुरूषोत्तम लोनिया	लैब टेक्नीशियन	Check-up done
24. किशोर देशमुख	सुपरवाइजर	Check-up done

25. सूरज चंद्राकर	लैब टेक्नीशियन	Check-up done
26. राहुल मरावी	सुपरवाइजर	Check-up done
27. संजय कुमार यादव	लैब वर्कर	Check-up done
28. मनमोहन पटेल	ऑपरेटर	Check-up done
29. दिलराज सिंह	वर्कर	Check-up done
30. तोषन पाली	वर्कर	Check-up done
31. कृष्णा साहू	सुपरवाइजर	Check-up done
32. लकेश्वर साठिया	सुपरवाइजर	Check-up done
33. भुवनेश्वर कश्यप	वर्कर	Check-up done
34. केशव यादव	कीपर	Check-up done
35. रज्जू यादव	कीपर	Check-up done
36. प्रमोद कुमार	सुपरवाइजर	Check-up done
37. परमेश पटेल	लैब चालक	Check-up done
38. खगेश पटेल	सेम्पलर	Check-up done
39. रोशन पटेल	गार्ड	Check-up done
40. पूंज चंद्राकर	टाइम कीपर	Check-up done

M. & E.
Prakriti Seva Sansthan
Bilaspur (C.G.)

ANNEXURE – XII: ENVIRONMENT MONITORING TEST REPORT

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526AAQ001			Date of Issue:26.05.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025052201/001	Customer Sample ID*	AAQ-01
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Main Gate	Date of Sampling	20.05.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling	Temp.(°C) Min.- 29°C | Max.- 40°C Humidity(% RH) Min.- 43 % | Max.- 72 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 23.05.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	81.00	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	36.28	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	20.49	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	29.77	80	IS 5182(P-6) RA 2022

Note:

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26/05/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

MSinha 26-05-25

(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526AAQ002			Date of Issue:26.05.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025052201/002	Customer Sample ID*	AAQ-02
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near MCC Area	Date of Sampling	20.05.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling	Temp.(°C) Min.- 29°C Max.- 40°C Humidity(% RH) Min.- 43 % Max.- 72 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 23.05.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	84.90	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	38.25	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	18.06	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	28.90	80	IS 5182(P-6) RA 2022

Note:

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For, Bhoomi Envirotech Pvt. Ltd.

(Ritesh Kurhade)
Reviewed By

(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526AAQ003			Date of Issue:26.05.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025052201/003	Customer Sample ID*	AAQ-03
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Store Room	Date of Sampling	20.05.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling	Temp.(°C) Min.- 29°C Max.- 40°C Humidity(% RH) Min.- 43 % Max.- 72 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 23.05.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	76.59	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	35.73	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	16.98	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	25.17	80	IS 5182(P-6) RA 2022

Note:

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26/05/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

MSinha 26-05-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526AAQ004			Date of Issue:26.05.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025052201/004	Customer Sample ID*	AAQ-04
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Weighing Bridge Area	Date of Sampling	20.05.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling	Temp.(°C) Min.- 29°C | Max.- 40°C Humidity(% RH) Min.- 43 % | Max.- 72 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 23.05.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	87.14	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	41.11	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	22.51	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	31.70	80	IS 5182(P-6) RA 2022

Note:

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26/05/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

M Sinha 26-05-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526N005			Date of Issue:26.05.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/N/2025052201/005-008	Customer Sample ID*	N-01-04
Sample Description*	Ambient Noise	Monitoring Done By	BEPL Staff
Monitoring Procedure	As Per IS 9989 & CPCB Guidelines		
Weather Condition	Sunny	Environment Condition During Sampling	Temp.(°C) Min.- 29°C | Max.- 40°C; Humidity(% RH) Min.- 43 % | Max.- 72 %
Date of Sampling	20.05.2025	Duration of Sampling	24 hr.

MONITORING RESULT OF NOISE LEVEL

Sr. No.	Location	Observed Value dB(A)	
		Day Time	Night Time
1	Near Main Gate	73.0	60.9
2	Near MCC Building	69.5	58.0
3	Near Crusher Area	74.1	62.7
4	Near Store Room	71.4	60.3
Limit as per CPCB Standard (Industrial Area)			
Day Time - 75		Night Time - 70	

Note:

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26/05/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**

26-05-25

Meman Kumar Sinha
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526FE006			Date of Issue:26.05.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/FE/2025052201/009-012	Customer Sample ID*	FE-01-04
Sample Description*	Fugitive Emission Monitoring	Sample Collected By	BEPL Staff
Date of Sampling	20.05.2025	Duration of Sampling	4 hr.
Environment Condition for Laboratory Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling	Temp.(°C) Min.- 29°C | Max.- 40°C Humidity(% RH) Min.- 43 % | Max.- 72 % Weather Condition- Sunny
Sample Quantity Received	SPM (F.P. x 01 Nos.) Each Location		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 23.05.2025

ANALYSIS RESULT

Sr. No.	Sampling Location	Unit	Test Method	Suspended Particulate Matter (SPM)
1	Steering Point Area	µg/m3	IS : 5182 (Part-4)	870.0
2	Coal Yard Area			934.9
3	Crusher Area			977.3
4	Coal Washery Area			791.5
			CPCB Standards	**2000**

Remark:

Note:

- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these can affect the validity of results.*
- *Asterisk mark(*) provided by the customer*
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26/05/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**
M Sinha 26-05-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TEST REPORT

Report No.:BEPLTR20250526WW007			Date of Issue:26.05.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/WW/2025052201/013	Customer Sample ID*	WW-01
Sample Description*	Waste Water	Sample Collected By*	Customer
Sampling Location*	Settling Pond	Date of Sampling*	20.05.2025
Environment Condition During Testing	Temp. (°C) - 25.1°C Humidity (% RH)- 51 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received*	5 Ltr. FVC Bottle & 1 Ltr. Glass Bottle		
Date of Sample Received	22.05.2025	Analysis Duration	22.05.2025 to 25.05.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per CPCB for Discharge of Effluents		Method Reference
				Inland Surface Water	Public Sewer	
1	pH at 25°C	-	7.09	5.5 to 9.0	5.5 to 9.0	IS 3025(P-11) RA 2022
2	Total Suspended Solids (TSS)	mg/Lit	39.20	100	600	IS 3025(P-17) RA 2022
3	Chemical Oxygen Demand (COD)	mg/Lit	95.04	250	--	IS 3025(P-58) RA 2023
4	Biochemical Oxygen Demand (BOD 3 Days 27°C)	mg/Lit	21.53	30	350	IS 3025(P-44) RA 2023
5	Oil & Grease	mg/Lit	7.20	10	20	IS 3025(P-39) RA 2021

Remark: mg/Lit - milligram per liter,

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
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24/05/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt.Ltd.**
26-05-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TC-13412

Format No. - BEPL/QF/7.8/02

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	0	1	3	4	5	F

Report No.:BEPLTR20250927AAQ001		**Date of Issue:27.09.2025**	
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025090702/001	Customer Sample ID*	AAQ-01
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Main Gate	Date of Sampling	05.09.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp.(°C) Min.- 25°C / Max.- 32°C Humidity(% RH) Min.- 66 % / Max.- 96 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	77.57	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	38.00	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	11.59	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	20.94	80	IS 5182(P-6) RA 2022

Note:

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27/09/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, Bhoomi Envirotech Pvt. Ltd.

MSinha 27-09-25

(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

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ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.:BEPLTR20250927AAQ001A			Date of Issue:27.09.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID.	BEPL/AAQ/2025090702/001	Customer Sample ID*	AAQ-01
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Main Gate	Date of Sampling	05.09.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp.(°C) Min.- 25°C | Max.- 32°C Humidity(% RH) Min.- 66 % | Max.- 96 % Weather Condition- Sunny
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Mercury (as Hg)	mg/m^3	N.D.	--	AAS/ ICP Method
2	Arsenic (as As)	mg/m^3	N.D.	6	AAS/ ICP Method
3	Nickel (as Ni)	mg/m^3	N.D.	20	IS 5182(P-26)
4	Cadmium (as Cd)	mg/m^3	N.D.	--	AAS/ ICP Method
5	Chromium (as Cr)	mg/m^3	N.D.	--	AAS/ ICP Method

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt. Ltd.**
27-09-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

BEPL

TC-13412

Format No. - BEPL/QF/7.8/02

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	1	3	4	6	F

Report No.:BEPLTR20250927AAQ002		Date of Issue:27.09.2025	
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025090702/002	Customer Sample ID*	AAQ-02
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near MCC Area	Date of Sampling	05.09.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp.(°C) Min.- 25°C / Max.- 32°C Humidity(% RH) Min.- 66 % / Max.- 96 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	78.13	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	35.86	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	14.80	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	21.18	80	IS 5182(P-6) RA 2022

Note:

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27/09/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, Bhoomi Envirotech Pvt. Ltd.

MSinha 27-09-25

(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

BEPL

TC-13412

Format No. - BEPL/QF/7.8/02

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	1	3	4	7	F

Report No.:BEPLTR20250927AAQ003 | **Date of Issue:27.09.2025**

Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025090702/003	Customer Sample ID*	AAQ-03
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Store Room	Date of Sampling	05.09.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp. (°C) Min.- 25°C | Max.- 32°C Humidity(% RH) Min.- 66 % | Max.- 96 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	73.86	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	34.21	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	10.29	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	18.65	80	IS 5182(P-6) RA 2022

Note:

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27/09/25

(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, Bhoomi Envirotech Pvt. Ltd.

MSinha 27-09-25

(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

TC-13412

Format No. - BEPL/QF/7.8/02

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	0	1	3	4	8	F

Report No.:BEPLTR20250927AAQ004 — **Date of Issue:27.09.2025**

Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID.	BEPL/AAQ/2025090702/004	Customer Sample ID*	AAQ-04
Sample Description*	Ambient Air Sample	Sampling Done By	BEPL Staff
Sampling Location*	Near Weighing Bridge Area	Date of Sampling	05.09.2025
Sampling Method	As Per CPCB Guideline (Vol.1)	Duration of Sampling	24 hr.
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp.(°C) Min.- 25°C | Max.- 32°C Humidity(% RH) Min.- 66 % | Max.- 96 % Weather Condition- Sunny
Sample Quantity Received	PM10 (F.P. x 03 Nos.), PM 2.5 (F.P. x 01 Nos.),SO2 x 01 PVC Bottle , NO2 x 01 PVC Bottle,		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limit (As per NAAQS)	Method Reference
1	Particulate Matter (PM_{10})	$\mu g/m^3$	81.78	100	IS 5182(P-23) RA 2022
2	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	40.10	60	IS 5182(P-24) RA 2024
3	Sulphur Dioxide (SO_2)	$\mu g/m^3$	15.74	80	IS 5182(P-2/Sec 1) RA 2023
4	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	23.48	80	IS 5182(P-6) RA 2022

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt. Ltd.**
27-09-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

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TEST REPORT

Report No.:BEPLTR20250927N001		**Date of Issue:27.09.2025**	
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/N/20250907002/001-004	Customer Sample ID*	N-01-04
Sample Description*	Ambient Noise	Monitoring Done By	BEPL Staff
Monitoring Procedure	As Per IS 9989 & CPCB Guidelines		
Weather Condition	Sunny	Environment Condition During Sampling	Temp.(°C) Min.- 25°C | Max.- 32°C; Humidity(% RH) Min.- 66 % | Max.- 96 %
Date of Sampling	05.09.2025	Duration of Sampling	24 hr.

MONITORING RESULT OF NOISE LEVEL

Sr. No.	Location	Observed Value dB(A)	
		Day Time	Night Time
1	Near Main Gate	71.3	60.5
2	Near MCC Building	69.0	59.0
3	Near Crusher Area	73.5	62.1
4	Near Store Room	70.7	58.6
Limit as per CPCB Standard (Industrial Area)			
Day Time - 75		**Night Time - 70**	

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt. Ltd.**
MSinha 27-09-25
Meman Kumar Sinha
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

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Web Site: www.bhoomienvirotech.co.in

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TEST REPORT

Report No.:BEPLTR20250927FE002			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District – Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/FE/20250907002/005-008	Customer Sample ID*	FE-01-04
Sample Description*	Fugitive Emission Monitoring	Sample Collected By	BEPL Staff
Date of Sampling	05.09.2025	Duration of Sampling	4 hr.
Environment Condition for Laboratory Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling	Temp.(°C) Min.- 25°C | Max.- 32°C Humidity(% RH) Min.- 66 % | Max.- 96 % Weather Condition- Sunny
Sample Quantity Received	SPM (F.P. x 01 Nos.) Each Location		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Sampling Location	Unit	Test Method	Suspended Particulate Matter (SPM)
1	Steering Point Area	µg/m3	IS : 5182 (Part-4)	780.6
2	Coal Yard Area			855.0
3	Crusher Area			895.3
4	Coal Washery Area			712.9
			CPCB Standards	**2000**

Remark:

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27/09/25
(Ritesh Kurhade)
Reviewed By

For, Bhoomi Envirotech Pvt. Ltd.
27-09-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

BEPL

TC-13412

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	0	1	3	4	9	F

Report No.:BEPLTR20250927GW005			Date of Issue:27.09.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/GW/2025090702/005	Customer Sample ID*	GW-01
Sample Description*	Ground Water (Borewell Water)	Sample Collected By*	Customer
Sampling Location*	Near Main Gate	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per IS 10500:2012,RA 2023		Method Reference
				Acceptable	Permissible	
1	pH at 25°C	-	7.02	6.5 - 8.5	No Relaxation	IS 3025(P-11)RA 2022
2	Total Dissolved Solid (TDS)	mg/Lit	972.0	500	2000	IS 3025(P-16)RA 2023
3	Total Hardness (as $CaCO_3$)	mg/Lit	724.0	200	600	IS 3025(P-21)RA 2023
4	Calcium (as Ca)	mg/Lit	189.20	75	200	IS 3025(P-40)RA 2024
5	Magnesium (as Mg)	mg/Lit	29.28	30	100	IS 3025(P-46)RA 2023
6	Total Alkalinity	mg/Lit	164.0	200	600	IS 3025(P-23)RA 2023
7	Chloride (as Cl)	mg/Lit	46.96	250	1000	IS 3025(P-32)RA 2019
8	Sulphate (as SO_4)	mg/Lit	62.39	200	400	IS 3025(P-24/Sec 1) RA 2022

Remark: mg/Lit - milligram per liter,

Note:

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(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, Bhoomi Envirotech Pvt.Ltd.

27-09-25

Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

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TEST REPORT

Report No.:BEPLTR20250927GW005A			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/GW/2025090702/005	Customer Sample ID*	GW-01
Sample Description*	Ground Water (Borewell Water)	Sample Collected By*	Customer
Sampling Location*	Near Main Gate	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per IS 10500:2012,RA 2023		Method Reference
				Acceptable	Permissible	
1	Colour	Hazen	<1	5	15	IS 3025(P-4)
2	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025(P-7&8)
3	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025(P-5)
4	Turbidity	NTU	<1	1	5	IS 3025(P-10)
5	Free Residual Chlorine	mg/Lit	N.D.	0.2	1	IS 3025(P-26)
6	Nitrate (NO3)	mg/Lit	0.41	45	No Relaxation	IS 3025(P-34)
7	Ammonia(as Total Ammonia-N)	mg/Lit	N.D.	0.5	No Relaxation	IS 3025(P-34)
8	Iron (as Fe)	mg/Lit	0.025	0.3	No Relaxation	IS 3025(P-53)
9	Fluoride (as F)	mg/Lit	0.19	1	1.5	IS 3025(P-60)
10	Manganese (as Mn)	mg/Lit	N.D.	0.1	0.3	IS 3025(P-59)
11	Lead (as Pb)	mg/Lit	N.D.	0.01	No Relaxation	IS 3025(P-47)
12	Zinc (as Zn)	mg/Lit	0.05	5	15	IS 3025(P-49)
13	Copper (as Cu)	mg/Lit	N.D.	0.05	1.5	IS 3025(P-42)
14	Cadmium (as Cd)	mg/Lit	N.D.	0.003	No Relaxation	IS 3025(P-41)
15	Chromium (as Cr)	mg/Lit	N.D.	0.05	No Relaxation	IS 3025(P-52)
16	Total Coliforms	CFU/ 100ml	Absent	Shall not be detectable in 100 ml		APHA 22nd Ed. 2012,9921-B & C, 9-66 & 69

Remark: mg/Lit - milligram per liter, N.D. - Not Detected, CFU- Coliform Unit.

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt. Ltd.**
27-09-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

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TC-13412

Format No. - BEPL/QF/7.8/01

TEST REPORT

ULR	TC	1	3	4	1	2	2	5	0	0	0	0	0	1	3	5	0	F

Report No.:BEPLTR20250927GW006 | **Date of Issue:27.09.2025**

Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/GW/2025090702/006	Customer Sample ID*	GW-02
Sample Description*	Ground Water (Borewell Water)	Sample Collected By*	Customer
Sampling Location*	Near Coal Search Banker	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per IS 10500:2012,RA 2023		Method Reference
				Acceptable	Permissible	
1	pH at 25°C	-	7.48	6.5 - 8.5	No Relaxation	IS 3025(P-11)RA 2022
2	Total Dissolved Solid (TDS)	mg/Lit	1086	500	2000	IS 3025(P-16)RA 2023
3	Total Hardness (as $CaCO_3$)	mg/Lit	668.0	200	600	IS 3025(P-21)RA 2023
4	Calcium (as Ca)	mg/Lit	202.0	75	200	IS 3025(P-40)RA 2024
5	Magnesium (as Mg)	mg/Lit	40.02	30	100	IS 3025(P-46)RA 2023
6	Total Alkalinity	mg/Lit	199.0	200	600	IS 3025(P-23)RA 2023
7	Chloride (as Cl)	mg/Lit	54.79	250	1000	IS 3025(P-32)RA 2019
8	Sulphate (as SO_4)	mg/Lit	71.00	200	400	IS 3025(P-24/Sec 1) RA 2022

Remark: mg/Lit - milligram per liter,

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt.Ltd.**

27-09-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
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TEST REPORT

Report No.:BEPLTR20250927GW006A			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/GW/2025090702/006	Customer Sample ID*	GW-02
Sample Description*	Ground Water (Borewell Water)	Sample Collected By*	Customer
Sampling Location*	Near Coal Search Banker	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 08.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per IS 10500:2012,RA 2023		Method Reference
				Acceptable	Permissible	
1	Colour	Hazen	<1	5	15	IS 3025(P-4)
2	Taste	-	Agreeable	Agreeable	Agreeable	IS 3025(P-7&8)
3	Odour	-	Agreeable	Agreeable	Agreeable	IS 3025(P-5)
4	Turbidity	NTU	<1	1	5	IS 3025(P-10)
5	Free Residual Chlorine	mg/Lit	N.D.	0.2	1	IS 3025(P-26)
6	Nitrate (NO3)	mg/Lit	0.47	45	No Relaxation	IS 3025(P-34)
7	Ammonia(as Total Ammonia-N)	mg/Lit	N.D.	0.5	No Relaxation	IS 3025(P-34)
8	Iron (as Fe)	mg/Lit	0.029	0.3	No Relaxation	IS 3025(P-53)
9	Fluoride (as F)	mg/Lit	0.18	1	1.5	IS 3025(P-60)
10	Manganese (as Mn)	mg/Lit	N.D.	0.1	0.3	IS 3025(P-59)
11	Lead (as Pb)	mg/Lit	N.D.	0.01	No Relaxation	IS 3025(P-47)
12	Zinc (as Zn)	mg/Lit	0.05	5	15	IS 3025(P-49)
13	Copper (as Cu)	mg/Lit	N.D.	0.05	1.5	IS 3025(P-42)
14	Cadmium (as Cd)	mg/Lit	N.D.	0.003	No Relaxation	IS 3025(P-41)
15	Chromium (as Cr)	mg/Lit	N.D.	0.05	No Relaxation	IS 3025(P-52)
16	Total Coliforms	CFU/ 100ml	Absent	Shall not be detectable in 100 ml		APHA 22nd Ed. 2012,9921-B & C, 9-66 & 69

Remark: mg/Lit - milligram per liter, N.D. - Not Detected, CFU- Coliform Unit.

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt. Ltd.**
27-09-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

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TEST REPORT

Report No.:BEPLTR20250927SW003			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/SW/2025090702/009	Customer Sample ID*	SW-01
Sample Description*	Surface Water	Sample Collected By*	Customer
Sampling Location*	Nalla (Up Stream)	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Tolerance Limits as per IS 2296 Class C	Method Reference
1	pH at 25°C	-	7.18	8.5	IS 3025(P-11)RA 2022
2	Total Dissolved Solid (TDS)	mg/Lit	212.0	1500	IS 3025(P-16)RA 2023
3	Total Hardness (as $CaCO_3$)	mg/Lit	114.0	--	IS 3025(P-21)RA 2023
4	Calcium (as Ca)	mg/Lit	30.46	--	IS 3025(P-40)RA 2024
5	Magnesium (as Mg)	mg/Lit	9.23	--	IS 3025(P-46)RA 2023
6	Total Alkalinity	mg/Lit	76.0	--	IS 3025(P-23)RA 2023
7	Chloride (as Cl)	mg/Lit	38.16	600	IS 3025(P-32)RA 2019
8	Sulphate (as SO_4)	mg/Lit	7.20	400	IS 3025(P-24/Sec 1) RA 2022

Remark: mg/Lit - milligram per liter,

Note:

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27/09/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt.Ltd.**
27-09-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.:BEPLTR20250927SW003A			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/SW/2025090702/009	Customer Sample ID*	SW-01
Sample Description*	Surface Water	Sample Collected By*	Customer
Sampling Location*	Nalla (Up Stream)	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Tolerance Limits as per IS 2296 Class C	Method Reference
1	Colour	Hazen	<1	300	IS 3025(P-4)
2	Taste	-	Agreeable	--	IS 3025(P-7&8)
3	Odour	-	Agreeable	--	IS 3025(P-5)
4	Turbidity	NTU	<1	--	IS 3025(P-10)
5	Free Residual Chlorine	mg/Lit	N.D.	--	IS 3025(P-26)
6	Nitrate (NO3)	mg/Lit	0.27	50	IS 3025(P-34)
7	Ammonia(as Total Ammonia-N)	mg/Lit	N.D.	--	IS 3025(P-34)
8	Iron (as Fe)	mg/Lit	0.022	50	IS 3025(P-53)
9	Fluoride (as F)	mg/Lit	0.19	1.5	IS 3025(P-60)
10	Manganese (as Mn)	mg/Lit	N.D.	--	IS 3025(P-59)
11	Lead (as Pb)	mg/Lit	N.D.	0.1	IS 3025(P-47)
12	Zinc (as Zn)	mg/Lit	0.04	15	IS 3025(P-49)
13	Copper (as Cu)	mg/Lit	N.D.	1.5	IS 3025(P-42)
14	Cadmium (as Cd)	mg/Lit	N.D.	0.01	IS 3025(P-41)
15	Chromium (as Cr)	mg/Lit	N.D.	0.05	IS 3025(P-52)
16	Total Coliforms	CFU/ 100ml	Absent	5000	APHA 22nd Ed.2012,9921-B & C, 9-66 & 69

Remark: mg/Lit - milligram per liter,

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these can affect the validity of results.*
- *Asterisk mark(*) provided by the customer*
- *This test report shall not be reproduced without the permission of Bhoomi Envirotech Pvt. Ltd. (BEPL)*
- *The test report will not be used for any publicity/legal purpose.*
- *Responsibility of the BEPL is limited to the invoiced amount only.*

27/09/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIRO TECH PVT. LTD.

For, **Bhoomi Envirotech Pvt.Ltd.**

27-09-25
Meman Kumar Sinha
(Authorized Signatory)

End of test report

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.:BEPLTR20250927SW004			Date of Issue:27.09.2025
Name and Address of Customer*	**M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.**		
Lab Sample ID	BEPL/SW/2025090702/010	Customer Sample ID*	SW-02
Sample Description*	Surface Water	Sample Collected By*	Customer
Sampling Location*	Nalla (Down Stream)	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Tolerance Limits as per IS 2296 Class C	Method Reference
1	pH at 25°C	-	7.51	8.5	IS 3025(P-11)RA 2022
2	Total Dissolved Solid (TDS)	mg/Lit	234.0	1500	IS 3025(P-16)RA 2023
3	Total Hardness (as $CaCO_3$)	mg/Lit	106.0	--	IS 3025(P-21)RA 2023
4	Calcium (as Ca)	mg/Lit	28.06	--	IS 3025(P-40)RA 2024
5	Magnesium (as Mg)	mg/Lit	8.75	--	IS 3025(P-46)RA 2023
6	Total Alkalinity	mg/Lit	64.0	--	IS 3025(P-23)RA 2023
7	Chloride (as Cl)	mg/Lit	33.27	600	IS 3025(P-32)RA 2019
8	Sulphate (as SO_4)	mg/Lit	11.05	400	IS 3025(P-24/Sec 1) RA 2022

Remark: mg/Lit - milligram per liter,

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these can affect the validity of results.*
- *Asterisk mark(*) provided by the customer*
- *This test report shall not be reproduced without the permission of Bhoomi Envirotech Pvt. Ltd. (BEPL)*
- *The test report will not be used for any publicity/legal purpose.*
- *Responsibility of the BEPL is limited to the invoiced amount only.*

27/09/25
(Ritesh Kurhade)
Reviewed By

For, **Bhoomi Envirotech Pvt.Ltd.**
27-09-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.:BEPLTR20250927SW004A			Date of Issue:27.09.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/SW/2025090702/010	Customer Sample ID*	SW-02
Sample Description*	Surface Water	Sample Collected By*	Customer
Sampling Location*	Nalla (Down Stream)	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp. (°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received	5 Ltr.PVC Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 09.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Tolerance Limits as per IS 2296 Class C	Method Reference
1	Colour	Hazen	<1	300	IS 3025(P-4)
2	Taste	-	Agreeable	--	IS 3025(P-7&8)
3	Odour	-	Agreeable	--	IS 3025(P-5)
4	Turbidity	NTU	<1	--	IS 3025(P-10)
5	Free Residual Chlorine	mg/Lit	N.D.	--	IS 3025(P-26)
6	Nitrate (NO3)	mg/Lit	0.33	50	IS 3025(P-34)
7	Ammonia(as Total Ammonia-N)	mg/Lit	N.D.	--	IS 3025(P-34)
8	Iron (as Fe)	mg/Lit	0.020	50	IS 3025(P-53)
9	Fluoride (as F)	mg/Lit	0.15	1.5	IS 3025(P-60)
10	Manganese (as Mn)	mg/Lit	N.D.	--	IS 3025(P-59)
11	Lead (as Pb)	mg/Lit	N.D.	0.1	IS 3025(P-47)
12	Zinc (as Zn)	mg/Lit	0.05	15	IS 3025(P-49)
13	Copper (as Cu)	mg/Lit	N.D.	1.5	IS 3025(P-42)
14	Cadmium (as Cd)	mg/Lit	N.D.	0.01	IS 3025(P-41)
15	Chromium (as Cr)	mg/Lit	N.D.	0.05	IS 3025(P-52)
16	Total Coliforms	CFU/ 100ml	Absent	5000	APHA 22nd Ed.2012,9921-B & C, 9-66 & 69

Remark: mg/Lit - milligram per liter,

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
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27/09/25
(Ritesh Kurhade)
Reviewed By

For, Bhoomi Envirotech Pvt.Ltd.
MSinha 27-09-25
Meman Kumar Sinha
(Authorized Signatory)

.....End of test report.....

Bhoomi Envirotech Pvt. Ltd.

D-1, Sector-3, Priydarshini Nagar,
Behind Vijeta Complex, Raipur-492006
Email- info.bhoomienvirotech@gmail.com
Web Site: www.bhoomienvirotech.co.in

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
Certified Company

TEST REPORT

Report No.:BEPLTR20250927WW005			Date of Issue:27.09.2025
Name and Address of Customer*	M/s. Phil Coal Beneficiation Pvt. Ltd. Village - Ghutku, Tehsil -Takhatpur District - Bilaspur, State - C.G.		
Lab Sample ID	BEPL/WW/2025090702/011	Customer Sample ID*	WW-01
Sample Description*	Waste Water	Sample Collected By*	Customer
Sampling Location*	Settling Pond	Date of Sampling*	05.09.2025
Environment Condition During Testing	Temp. (°C) - 24.9°C Humidity (% RH)- 52 %	Environment Condition During Sampling*	Temp.(°C) -- Humidity(% RH) -- Weather Condition- --
Sample Quantity Received*	5 Ltr. PVC Bottle & 1 Ltr. Glass Bottle		
Date of Sample Received	07.09.2025	Analysis Duration	07.09.2025 to 10.09.2025

ANALYSIS RESULT

Sr. No.	Parameter	Unit	Result	Limits as per CPCB for Discharge of Effluents		Method Reference
				Inland Surface Water	Public Sewer	
1	pH at 25°C	-	7.22	5.5 to 9.0	5.5 to 9.0	IS 3025(P-11) RA 2022
2	Total Suspended Solids (TSS)	mg/Lit	38.30	100	600	IS 3025(P-17) RA 2022
3	Chemical Oxygen Demand (COD)	mg/Lit	91.08	250	--	IS 3025(P-58) RA 2023
4	Biochemical Oxygen Demand (BOD 3 Days 27°C)	mg/Lit	25.33	30	350	IS 3025(P-44) RA 2023
5	Oil & Grease	mg/Lit	8.00	10	20	IS 3025(P-39) RA 2021

Remark: mg/Lit - milligram per liter,

Note:

- *The sample has been provided by the customer there for the result applied as per the sample recieved*
- *The results given above are related to the tested sample, as received & mentioned parameters.*
- *The customer asked for the above tests only.*
- *When the information is supplied by the customer these con affect the validity of results.*
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- *Responsibility of the BEPL is limited to the invoiced amount only*

27/09/25
(Ritesh Kurhade)
Reviewed By

BHOOMI ENVIROTECH PVT. LTD.

For, **Bhoomi Envirotech Pvt.Ltd.**
MSinha 27-09-25
(Meman Kumar Sinha)
Authorized Signatory

.....End of test report.....

ANNEXURE – XIII: PHOTOGRAPHS OF PUCCA INTERNAL ROAD AND COVERED VEHICLES

Photograph of Internal Pucca Road

Photograph of Covered Vehicles

ANNEXURE – XIV: PUC CERTIFICATE OF VEHICLES

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**15:16:16 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009765
Registration No.	:	CG10BT0895
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:56:15 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009760
Registration No.	:	CG10BT0904
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**15:18:01 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009766
Registration No.	:	CG10BT0905
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 3O 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:43:06 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009755
Registration No.	:	CG10BT0907
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:54:41 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009759
Registration No.	:	CG10BT0920
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:52:58 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009758
Registration No.	:	CG10BT0925
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:50:04 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009757
Registration No.	:	CG10BT0926
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**04/07/2025**
Time	:	**12:46:51 PM**
Validity upto	:	**03/07/2026**

Certificate SL. No.	:	CG01000230009756
Registration No.	:	CG10BT0937
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**05/07/2025**
Time	:	**11:26:44 AM**
Validity upto	:	**04/07/2026**

Certificate SL. No.	:	CG01000230009786
Registration No.	:	CG10BT0897
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**05/07/2025**
Time	:	**12:46:51 PM**
Validity upto	:	**04/07/2026**

Certificate SL. No.	:	CG01000230009793
Registration No.	:	CG10BT0923
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 3O 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**05/07/2025**
Time	:	**11:31:01 AM**
Validity upto	:	**04/07/2026**

CG10BT0924

Certificate SL. No.	:	CG01000230009787
Registration No.	:	CG10BT0924
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**05/07/2025**
Time	:	**12:48:37 PM**
Validity upto	:	**04/07/2026**

Certificate SL. No.	:	CG01000230009794
Registration No.	:	CG10BT0927
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**05/07/2025**
Time	:	**11:34:20 AM**
Validity upto	:	**04/07/2026**

Certificate SL. No.	:	CG01000230009788
Registration No.	:	CG10BT0928
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**07/07/2025**
Time	:	**17:02:32 PM**
Validity upto	:	**06/07/2026**

Certificate SL. No.	:	CG01000230009819
Registration No.	:	CG10BT0918
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 3O 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**07/07/2025**
Time	:	**12:14:55 PM**
Validity upto	:	**06/07/2026**

Certificate SL. No.	:	CG01000230009804
Registration No.	:	CG10BT0930
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 3O 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

(C-4)

Date	:	**09/07/2025**
Time	:	**14:17:18 PM**
Validity upto	:	**08/07/2026**

Certificate SL. No.	:	CG01000230009839
Registration No.	:	CG10BT0915
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL observation	:	No

Vehicle Photo with Registration plate
60 mm x 3O 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**09/07/2025**
Time	:	**14:22:57 PM**
Validity upto	:	**08/07/2026**

CG10BT0922

Certificate SL. No.	:	CG01000230009842
Registration No.	:	CG10BT0922
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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
60mm x 20 mm

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Chhattisgarh

Date	:	**09/07/2025**
Time	:	**16:13:25 PM**
Validity upto	:	**08/07/2026**

Certificate SL. No.	:	CG01000230009844
Registration No.	:	CG10BT0935
Date of Registration	:	16/May/2024
Month & Year of Manufacturing	:	April-2024
Valid Mobile Number	:	******8200
Emission Norms	:	BHARAT STAGE VI
Fuel	:	DIESEL
PUC Code	:	CG0100023
GSTIN	:	
Fees	:	Rs.300.00
MIL 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 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.64

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 0perator
60mm x 20 mm

ANNEXURE – XV: PHOTOGRAPH OF TRUCK PARKING AREA

Photographs of Vehicle Parking Area

ANNEXURE – XVI: PHOTOGRAPH OF COVERED CONVEYORS

Photograph of Covered Conveyors

ANNEXURE – XVII: ONLINE EFFLUENT MONITORING SYSTEM PHOTOGRAPH

Photographs of Online Effluent Monitoring System

ANNEXURE – XVIII: SALE LETTER OF POWER PLANT

HIRA

GODAWARI POWER & ISPAT

Great Place To Work. Certified

Date: 22.02.2022

To,
PHIL COAL BENEFICATION PVT LTD
Vill- Ghutku, Tehsil- Takhatpur
District - Bilaspur (CG)

SUB: Requirement of **0.2 MTPA** washery rejects coal.

Dear Sir,

This has reference to our discussion regarding supply of reject coal, we need **0.2 MTPA** reject coal for our plant.

Please send your offer for the same.

Thanking you,

Yours Faithfully,
For, Godawari Power and Ispat Limited

(AUTHORISED SIGNATORY)

GODAWARI POWER & ISPAT LTD. HIRA RAIPUR (C.G.)

HIRA

JAGDAMBA POWER & ALLOYS

Date : 23.02.2022

To,

Phil Coal Benefication Pvt. Ltd
Vill.- Ghutku, Tehsil- takhatpur
District - Bilaspur (C.G.)

Sub: - Requirement of 0.2 MTPA Washery Rejects Coal.

Dear sir,

This has reference to our discussion regarding supply of Reject coal; we need 0.2 MTPS reject coal for our Plant.

Please send your offer for the same.

Thanking you,

Yours faithfully,
For,Jagdamab Power & Alloys Ltd

JAGDAMBA POWER & ALLOYS LTD. RAIPUR

(Authorized Signatory)

TOR # xvii	Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

- Rejects are the main solid waste from the proposed coal washery.
- Washery will generate 0.5 MTPA rejects.
- Letters from M/s. Hira Ferro Alloys Ltd. (122 Kms.), M/s. INDSIL Energy & Electrochemicals Pvt. Ltd. (123 Kms.), M/s. Drolia Electrosteels Pvt. Ltd. (112 Kms.), M/s. Chhattisgarh Steel & Power Ltd. (90.0 Kms.), M/s. Prakash Industries Ltd. (80.0 Kms.) for utilisation of washery rejects is shown in subsequent slides for your kind perusal..
- Rejects will be transported to the power plant in covered trucks by road .

DROLIA ELECTROSTEELS (P) LTD.

B-5, Anupam Nagar, Raipur - 492 007 (C.G.)
Ph.: +91 - 771 - 4080189, 4070948 • Fax : +91 - 771 - 2283215
E-mail : depl@drolia.com
CIN : U27100MH1995PTC148382

Ref: DEPL/2016-17/001

Dt. 04/11/16

To,

M/S Phil Coal Benefaction Pvt. Ltd.
Ghutku Village,
Takhatpur Tehsil,
Dist: Bilaspur (C.G.)

Sub: Requirement of 4000-5000 MT (approx) Washery rejected Coal per month.

Dear Sir,

We have our own 11 MW Captive Power Plant at the premises at siltara, Raipur (C.G). The electrical energy produced in our Power Plant is consumed for in house operational purpose.

We agree to purchase Washery rejected Coal of approx 5000 Mt per month from you for consumption in our above Captive Power Plant of 11 MW at mutually agreed prices.

Thanking You,

Yours Faithfully,
For Drolia Electrosteels Pvt. Ltd

Anand Choudhary
(Director)

HIRA

HIRA FERRO ALLOYS

Ref: ___/HFAL/2015-16/___

Date 05.01.2016

To
M/s Phil Coal Beneficiation Pvt. Ltd
Ghutku Village
Takhatpur Tehsil
District - Bilaspur (C.G.)

Sub : Requirement of 10000 MT (approx.) Washery rejected Coal per month.

Dear Sir

We introduce ourselves as a Member of prestigious HIRA GROUP OF COMPANIES of Raipur, Chhattisgarh and well reputed and Quality producer of Ferro Alloys.

We have our own 20 MW Captive Power Plant at the premises of our Ferro Alloys Plant at Raipur (C.G.). As you may be aware that Electricity is one of the major cost components in manufacturing process of Ferro Alloys. The electrical energy produced in our Power Plant is consumed for in-house operational purpose in which we consume approx. 15000 MT per month Coal.

We agree to purchase Washery rejected Coal of approx. 10000 MT per month from you for consumption in our above Captive Power Plant of 20 MW at mutually agreed prices.

Thanking you.

Yours faithfully,
For, HIRA FERRO ALLOYS LTD

CH. JAGANNADHA RAO
A.G.M (Raw Materials)
Mobile : +91-99819-95411
Email : rm@hfal.in

CHHATTISGARH STEEL & POWER LTD.

Works: Village - Amjhar Teh. - Champa, Distt. - Janjgir Champa (C.G.)
Address of Commination: E-1, First Floor, Krishna Shopping Complex, Chaitanya Nagar, Distt. - Raigarh (C.G.)
E-mail: cspl@rediffmail.com
CIN: U27109CT2003PLC016284

Ref. CSPL/16-17/PCBPL/216

Date: 04.11.2016

To,
M/s Phil Coal Benefication Pvt. Ltd.
Gutku Village
Takhatpur, tehsil
Dist- Bilaspur (C.G.)

Subject- Requirement of 10000MT (approx) Washery rejected Coal per month

Dear Sir,

We introduce ourselves as M/s Chhattisgarh Steel & Power Pvt. Ltd., at Vill- Amjhar Champa, Dist- Janjgir-Champa (C.G.) and we are well reputed and quality producer of Ferro Alloys.

We have our own 30 MW Captive Power Plant at the premises of our Ferro Alloys plant at Champa (C.G.). As you may be aware that electricity is one of the major cost components in manufacturing of Ferro Alloys. The electrical energy produced in our Power Plant is consumed for in house operational purpose in which we consume approx. 15000MT per month Coal.

We agree to purchase washery rejected Coal of approx 10000MT per month from you for consumption in our above Captive Power Plant of 30 MW at mutual agreed Price.

Thanking You

Regards
For Chhattisgarh Steel & Power Ltd.

Authorized Signatory

INDSIL ENERGY AND ELECTROCHEMICALS PRIVATE LTD

Ref:INDSIL/2016-2017/004

Dt:06/01/16

To,

M/s.Phil Coal Beneficiation Pvt Ltd.

Ghutku Village,

Takhatpur Tehsil,

District Bilaspur (C.G)

Dear Sir,

<u>Sub: Requirement Of 2000 Mt (approx.) Washery reject Coal per Month.</u>

We would like to inform you that we would be requiring 2000mt (approx) quantity of washery reject coal per month for our 12MW captive power plant.

The purchase order will be released from time to time on mutually agreed price considering the prevailing market price.

This is for your kind information.

Regards,

G.JOSEPH AMIRDARAJ

GM PROJECTS & PROCUREMENT

Mobile :+91 9360927077
Email : joseph.g@indsil.com

Prakash Industries Limited

(An ISO 9001, 14001 and OHSAS 18001 Certified Company)
Champa - 495 671, Distt. Janjgir Champa (Chhattisgarh)
Phone :07819-283000, 283650, Fax : 07819-283594
Web : www.prakash.com

PIL:SID:SI:2016-17

29-10-16

M/s. PHIL Coal Benefication Pvt Ltd

Ghutku Village, Thakatpur Tehsil

Dist. Bilaspur (Cg)

Dear Sirs,

This has reference to our discussion regarding supply washed and reject coal.

We every month need 25000 Tons of Washed / reject coal for our plant. Please send your offer for the same.

Thanking you,

Yours faithfully,

For PRAKASH INDUSTRIES LTD.,

29/10/16

(AUTHORISED SIGNATORY)

HIRA

HIRA POWER & STEELS

Ref.: 1473/HPSL/2015-16/1518 Date: 05.01.2016

To,

M/s. Phil Coal Beneficiation Pvt. Ltd Email philmineralsbspur@rediffmail.com
Ghutku Village
Takhatpur Tehsil
District Bilaspur (C.G.)

Sub : Requirement of 10000 MT (approx.) Washery rejected Coal per month.

Dear Sir,

We introduce ourselves as a Member of prestigious HIRA GROUP OF COMPANIES of Raipur, Chhattisgarh and Well-reputed & Quality producer of Ferro Alloys.

We have our own 20 MW Captive Power Plant at the premises of our Ferro Alloys Plant at Raipur (C.G.). As you may be aware that Electricity is one of the major cost components in manfacturing process of Ferro Alloys. The electrical energy produced in our Power Plant is consumed for Inhouse operational purpose in which we consume approx. 15000 MT per month Coal.

We agree to purchase Washery rejected Coal of approx. 10000 MT per month from you for consumption in our above Captive Power Plant of 20 MW at mutually agreed prices.

This is for your kind information and necessary action, please.

Thanking you,

Yours faithfully,
For, HIRA POWER AND STEELS LTD.

(RAJESH GOYAL)
Sr. Manager (Raw Materials)
Mobile : +91-99819-21144
Email : rajesh.agrawal@hpslindia.com

Hira Power & Steels Limited
An ISO 9001:2008 certified company
CIN : U24117CT1994PLC002312
Registered Office: Plot No. 557, 563 & 564, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India
Works & Corporate Office: Khasra No. 511/1, 512/2, Urla Industrial Complex, Raipur - 492003, Chhattisgarh, India
T : +91 771 4082500, 4082600, F : +91 771 4082501, 2324393, E : admin@hpslindia.com
www.hpslindia.com www.hirapowersteels.com

Coal washeri

ANNEXURE – XIX: PHOTOGRAPH OF RAINWATER HARVESTING

Photographs of Rain Water Harvesting Structure

ANNEXURE – XX: CSR EXPENDITURES

Phil Coal Benefication Pvt Ltd - 2023-24

Reg.Office : B-10,Sai Plaza
Opp.CMD College,Bilaspur.
Corporate Office : 3rd Floor, Mahima Trade Centre
Hansa Vihar,Shrikant Verma Marg,Bilaspur
E-Mail : account.support@philgroup.co.in

C.S.R. (Social Welfare)

Ledger Account

26-Jul-23 to 31-Mar-24

Date		Particulars	Vch Type	Vch No.	Debit
26-Jul-23	By	**Opening Balance**			**1079365.76**
04-Aug-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164567	**100000.00**
		Being Amount Paid to Sarsawati Bal Kalyan Samiti Birkona Vide Chq.no.164567 Date-04-08-2023(for Library Openin Birkona Bilaspur & Discuss By Praveen Sir)			
14-Aug-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164569	**169000.00**
		Being Amount Paid to Gram Panchayat Turkadih Vide Chq.no.164569 Date-14-08-2023 (Discuss By Pradeep Sir)			
14-Aug-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164568	**24000.00**
		Being Amount Paid to Kedar Prasad Patel Vide Chq.no.164568 Date-14-08-2023 (Discuss by Pradeep Sir)			
24-Aug-23	To	**Radheshyam Benishyam Kesary & Co**	Journal	197	**25762.68**
		Being Cost of R.C.C. Hume Pipe Class Vide Bill no.197 Date-10-08-2023 (For New Road Karhi Para)			
04-Sep-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164570	**15200.00**
		Being Amount Paid to Chhattisgarh Viklang Tairaki Sangh Bilaspur Rs.11004.72 /- & Abhay Madhukar Rs.2102.36/- & Pawan Yadav Rs.2102.36/- Vide Chq.no.164570 Date-04-09-2023 (Discuss by Pradeep Sir)			
04-Sep-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164571	**2100.00**
		Being Amount Paid to Radhe Shyam Suryawanshi Vide Bill no.164571 Date-04-09-2023 (Discuss by Pradeep Sir)			
11-Sep-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164572	**300000.00**
		Being Amount Paid to Pradhannacharya, Sarswati Shishu Mandir Vide Chq.no.164572 Date-11-09-2023			
14-Sep-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164573	**150000.00**
		Being Amount Paid to Saraswati Bal Kalyan Samita Birkona Vide Chq.no.164573 Date-14-09-2023 (Discuss by Praveeen Sir)			
30-Sep-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164574	**130000.00**
		Being Amount Paid to Ram Nath Suryavanshi for Gram Panchayat Nirtu(Suryavanshi Community Building) Vide Chq.no.164574 Date-30-09-2023			
23-Oct-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164575	**50000.00**
		Being Amount Paid to Gagaram Logiya Vide Chq.no.164575 Date-23-10-2023 (Gram Panchayat Nirtu)			
31-Oct-23	To	**Singhania Minerals**	Journal	SM/SUP/37	**1030585.50**

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Cost of Stone Chop's (Incude Roy) Vide Bill no.SM/SUP/37 Date-02-10-2023			
06-Nov-23	To	**State Bank of India CSR A/C-41840578116**	Payment	164576	**240000.00**
		Being Amount Paid to Krishna Traders & Pyarelal Madhukar (for Construction of Jai Stambh) Vide Chq.no.164576 Date-06-11-2023			
07-Nov-23	To	**Sanjay Agrawal Gitti Khadan**	Journal	/23-24/017/O	**1654950.00**
		Being Cost of Stone Aggregate Vide Bill no.SAGK/23-24/017/O Date-06-11-2023 (Discuss by Mithlesh sir)			
29-Nov-23	To	**State Bank of India CA A/c No: 31856447692**	Payment	377474	**65340.00**
		Being Amount Paid to Roop Varsha Vide Chq.no.377474 Date-29-11-2023 (Discuss by Pradeep Sir)			
04-Dec-23	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559832	**5100.00**
		Being Amount Paid to Nilam Bai Vide Chq.no.559832 Date-04-12-2023			
21-Dec-23	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559868	**200000.00**
		Being Amount Paid to Sarswati Shiksha Santhan Chhattisgarh Vide Chq.no.559868 Date-21-12-2023 (Discuss by Komal Mam)			
21-Dec-23	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559869	**200000.00**
		Being Amount Paid to CBMD Proposal for Swadeshi Mela Bilaspur Vide Chq.no.559869 Date-21-12-2023 (Discuss by Komal Mam)			
28-Dec-23	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559881	**25400.00**
		Being Amount Paid for C.S.R. Social Welfare(Ramnarayan Loniya, Sahil Lonia, Ramnarayan Patel, Sagar Yadav, Namada Prasad Loniya & Staff Salary Advance (Venkatesh Kishor) Per Month Salary Deducted Rs.1000/- Vide Chq.no.559881 Date-28-12-2023			
23-Jan-24	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559725	**3100.00**
		Being Amount Paid to Gangaram Loniya (C.S.R) & Paid to Nand Lal Lahorani Vide Chq.no.559725 Date-23-01-2024			
27-Jan-24	To	**Raja Nursery**	Journal	1086	**135000.00**
		Being Cost of Plants Vide Bill no.1086 Date-27-01-2024 (Discuss By Komal Mam)			
31-Jan-24	To	**B H Saree**	Journal	-GSCTI-4833	**26094.00**
		Being Cost of Kambal Vide Bill no.HO-GSCTI-4833 Date-29-01-2024			
02-Feb-24	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment	559742	**4200.00**
		Being Amount Paid Against Bill & Pi Adv. Pi no.2308460 Dt-01-02-2024(Krishna Auto Riders 100% Paid) & Paid to Surya Engineering Works (Discuss By Diwan Ji) & Amt. Paud to Devcharan & Mukhi Ram Loniya (C.S.R.) Vide Chq.no.559742 Date-02-02-2024			
28-Mar-24	To	**Axis Bank Ltd Current A/c-164010200023384**	Payment		**17000.00**
		Being Amount Paid to Deepa Soni, Bachan Bai Yadav, Bhagwat Prasad Madhukar, Rahul Kumar Surywanshi & Amount Paid Against Bill Vide Chq.no.559671 Date-28-03-2024 & Amount Paid to Shubham Gupta on Behalf of Yusuf Khan.			

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

30-Mar-24	To	**Sanjay Agrawal Gitti Khadan**	Journal	GK/23-24/037	**1124609.00**
		Being Cost of Stone Chips Vide Bill no.SAGK/23-24/037 Date-29-03-2024			
30-Mar-24	To	**Singhania Minerals**	Journal	SM/SUP/72	**652848.00**
		Being Cost of Stone Chips(Include Roy) Vide Bill no.SAGK/23-24/072 Date-20-03-2024			
31-Mar-24	To	**CSR Payable**	Journal		**31275138.00**
					38704792.94

Pill Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

Phil Coal Benefication Pvt Ltd

Reg.Office : B-10,Sai Plaza
Opp.CMD College,Bilaspur.
Corporate Office : 3rd Floor, Mahima Trade Centre
Hansa Vihar,Shrikant Verma Marg,Bilaspur
E-Mail : account.support@philgroup.co.in

C.S.R. (Social Welfare)

Ledger Account

1-Apr-24 to 31-Mar-25

Date		Particulars	Vch Type	Vch No.	Debit
01-Apr-24	To	**Shradha Mahila Mandal Welfare**	Journal		**15000.00**
		Being F.Y.23-24 Amount Adj. Date-01-04-2024 (Discus by Kedia Sir)			
02-Apr-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164579	**100000.00**
		Being Amount Paid to Nishu Singh for Mount Everest Expendition in Spring 2024 Vide Chq.no.164579 Date-02-04-2024			
05-Apr-24	To	**Cash**	Payment		**10000.00**
		Being Cash Paid For Police Ground Rent From Ram Lila Darshna Yatra amt -30,000/-			
05-Apr-24	To	**Cash**	Payment		**10000.00**
		Being Cash Paid For Police Ground Rent From Ram Lila Darshna Yatra amt -30,000/-			
05-Apr-24	To	**Cash**	Payment		**10000.00**
		Being Cash Paid For Police Ground Rent From Ram Lila Darshna Yatra amt -30,000/-			
10-Apr-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164581	**13000.00**
		Being Amount Paid to Amit Sales for Voltas Cooler (Model Virat 85) for Thana Prabhari Vide Chq.no.164581 Date-10-04-2024			
11-Apr-24	To	**Raj Enterprises**	Journal	24-25/022	**201649.00**
		Being Cost of AC & Installation Commissioning Service Vide Bill no.RE/2024-25/022 Date-10-04-2024 (for SP Banglow)			
29-Apr-24	To	**Cash**	Payment		**7750.00**
		Being Cash Paid For gram panchayat nirtu Providing for Food Exp. From Marriage Purpose dt-22.04.2024			
29-Apr-24	To	**Cash**	Payment		**7750.00**
		Being Cash Paid For gram panchayat nirtu Providing for Food Exp. From Marriage Purpose dt-22.04.2024			
30-Apr-24	To	**Singhania Minerals**	Journal	M/SUP/03	**545553.00**
		Being Cost of Stone Chip's (Include Roy) Vide Bill no.SM/SUP/03 Date-11-04-2024 (for Road Near Ghutku Plant)			
30-Apr-24	To	**CGST Receivable (Ineligible)**	Journal		**27277.66**
		Being gst amount adjusted Dtd-11-04-24 (Singhania Minerals)			
08-May-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164583	**93000.00**

Phil Coal Benefication Pvt. Ltd. BILASPUR (C.G.)

		Being Amount Paid to Goretal, Honlal Soni, Nirmala Bai (for Mariage Gift) & Amount Paid to Al Infratch Vide Chq.no.164583 Date-08-05-2024			
08-May-24	By	**State Bank of India CSR A/C-41840578116**	Receipt		
		Being transfer to 3199304041773			
14-May-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164585	**65000.00**
		Being Amount Paid to Mona Khandey (Temple Construction Work At Lamer) Vide Chq.no.164585 Date-14-05-2024			
31-May-24	To	**Al Infratech (Biswajit Sarkar)**	Journal	L/24-25/2	**7946990.00**
		Being Construction of Road From Phil Coal to Lokhandi Bridge Vide Bill no.AI/PCBL/24-25/2 Date-06-05-2024 (Under CSR A/C) & All Ready TDS Deducted in Advance Payment Rs.50000+10000+60000+40000=160000-79470=80530/- Excess			
31-May-24	To	**CGST Receivable (Ineligible)**	Journal	L/24-25/2	**1430458.20**
		Being GST Amt. Adj. on Date-31-05-2024 (Al Infratech)			
31-May-24	To	**Al Infratech (Biswajit Sarkar)**	Journal	L/24-25/1	**10915027.00**
		Being Construction of Road From Phil Coal to Lokhandi Bridge Vide Bill no.AI/PCBL/24-25/2 Date-06-05-2024 (Under CSR A/C) & All Ready TDS Deducted in Advance Payment Rs.50000+10000+60000+40000 (80530 - 109150 = 28620/- Basic Amt.2862000/-			
31-May-24	To	**CGST Receivable (Ineligible)**	Journal	L/24-25/1	**1964704.86**
		Being GST Amt. Adj. on Date-31-05-2024 (Al Infratech)			
04-Jun-24	To	**Cash**	Payment		**6660.00**
		Being Cash Paid For Purchase Tree For Ghutku Plant			
10-Jun-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164588	**5100.00**
		Being Amount Paid to Ranjeeta Bhaskar for Marriage Gift Vide Chq.no.164588 Date-08-05-2024			
13-Jun-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164590	**100000.00**
		Being Amount Paid to Rungta College of Engineering And Technology Vide Chq.no.164590 Date-13-06-2024 (Discuss by Pradeep Sir)			
13-Jun-24	To	**Cash**	Payment		**10000.00**
		Being Cash Paid For Purchase 10 Pcs Ceiling Fan For School .			
22-Jun-24	To	**Al Infratech (Biswajit Sarkar)**	Journal	L/24-25/3	**2737983.05**
		Being Construction of Road From Phil Coal to Lokhandi Bridge Vide Bill no.AI/PCBL/24-25/3 Date-22-06-2024 (Under CSR A/c) & All Ready TDS Deducted in Advance Payment Rs.40000/- (40000-27380=12620/- Excess)			
22-Jun-24	To	**CGST Receivable (Ineligible)**	Journal	L/24-25/3	**492836.94**

Phil Coal Beneification Pvt. Ltd. BILASPUR (C.G.)

		Being GST Amt. Adj. on Date-22-06-2024 (Al Infratech)			
24-Jun-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164591	**5100.00**
		Being Amount Paid to Bachan Bai (Under CSR) Vide Chq.no.164591 Date-24-06-2024			
26-Jun-24	To	**A T Powerways**	Journal	16	**1117562.71**
		Being All Charges for Electrification of HT Lines Upto 11KV With Material(LT3 Phase 5 Wire , Street Light Complete Assembly, & Pcc pole 3 Hole Clamp) Vide Bill no.16 Date25-06-24 & All Redy TDS Deducted in Adv.Paymet Rs.10000/-(10000-11176=1176/-)			
26-Jun-24	To	**CGST Receivable (Ineligible)**	Journal	16	**201161.28**
		Being GST Amt. Adj. on Date-26-06-2024 (A T Powerways)			
05-Jul-24	To	**Avinash Buildcom Infrastructure Pvt Ltd**	Journal	/24-25/21	**4500000.00**
		Being Construction of BT Road 1157 Mtrs at Coal Washery Plant Site of Village-Ghutku, Vide Bill no.ABIPL/WC/24-25/17 Date-29-06-2024 (Under CSR)			
05-Jul-24	To	**CGST Receivable (Ineligible)**	Journal		**810000.00**
		Being GST Amt. Adj. on Date-29-06-2024 (Avinash Buildcon Infrastructure)			
31-Jul-24	To	**Shri Sharda Enterprises**	Journal	-25/0637	**12711.90**
		Being Cost of Almira (Office Color) for Nabharat Temple Vide Bill no.SSE/2024-25/0637 Date-08-07-2024 (Discuss by Praveen Sir)			
09-Aug-24	To	**State Bank of India CA A/c No: 3185644769**	Payment	884776	**3100.00**
		Being Amount Paid Against Bill & Amont Paid to Shivkumari Loniya (C.S.R) Vide Chq.no.884776 Date-09-08-2024			
16-Aug-24	To	**State Bank of India CA A/c No: 3185644769**	Payment	884801	**11000.00**
		Being Amount Paid Against Bill & Amoun Paid to Chhattisgarh Vikdang Tairaki Sangh Bilaspur(C.S.R) Vide Chq.no.884801 Date-16-08-2024			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/72	**47250.00**
		Being Cost of Stone Chips (Include Roy) Vide Bill no.SM/SUP/72 Date-07-07-2024 (for Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/72	**2362.50**
		Being GST Amt.Adj. on Date-17-08-2024(Singhania Minerals)			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/73	**45900.00**
		Being Stone Chips's (Include Roy) Vide Bill no.SM/SUP/73 Date-08-07-2024 (For Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/73	**2295.00**
		Being GST Amt. Adj. On Date-08-07-2024 (Singhania Minerals)			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/74	**47250.00**

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Cost of Stone Chips (Include Roy) Vide Bill no.SM/SUP/72 Date-07-07-2024 (for Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/74	**2362.50**
		Being GST Amt.Adj. on Date-17-08-2024(Singhania Minerals)			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/75	**45900.00**
		Being Stone Chips's (Include Roy) Vide Bill no.SM/SUP/75 Date-09-07-2024 (For Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/75	**2295.00**
		Being GST Amt. Adj. On Date-08-07-2024 (Singhania Minerals)			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/77	**45900.00**
		Being Stone Chips's (Include Roy) Vide Bill no.SM/SUP/77 Date-10-07-2024 (For Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/77	**2295.00**
		Being GST Amt. Adj. On Date-10-07-2024 (Singhania Minerals)			
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/78	**45900.00**
17-Aug-24	To	**CGST Receivable (Ineligible)**			Journal
17-Aug-24	To	**Singhania Minerals**	Journal	M/SUP/79	**24691.50**
		Being Stone Chips's (Include Roy) Vide Bill no.SM/SUP/79 Date-11-07-2024 (For Rod Near Ghutku Plant)			
					17-Aug-24
		Being GST Amt. Adj. on Date-17-08-2024 (Singhania Minerals)			
					17-Aug-24
		Being Cost of Stone Chips (Include Roy) Vide Bill no.SM/SUP/76 Date-09-07-2024 (for Rod Near Ghutku Plant)			
17-Aug-24	To	**CGST Receivable (Ineligible)**	Journal	M/SUP/76	**2362.50**
		Being GST Amt.Adj. on Date-17-08-2024(Singhania Minerals)			
22-Aug-24	To	**State Bank of India CA A/c No: 31856447692**	Payment	884818	**7500.00**
		Being Amount Paid Against Bill & Amount Paid to Vikas Goyal for Travelling Exp. & Amount Paid to Awadhesh Gupta for CSR Exp. Vide Chq.no.884818 Date-22-08-2024			
24-Aug-24	To	**HDFC Bank CA- A/c- 59251234560006**	Payment		**4200.00**
		Being 414810471 / Techcomissioner welfa			
31-Aug-24	To	**Krishi Udyan Kendra**	Journal	741	**8811.23**
		Being Cost of fertmax, Locker, Marino 500ML., Potash White 50 KG Etc. Vide Bill no.741 Date-16-08-2024			
13-Sep-24	To	**HDFC Bank CA- A/c- 59251234560006**	Payment	18123779	**3100.00**
		Being Amount Paid to Raja Loniya for Health Issue Vide Ref.no.425718123779 Date-13-09-2024 (Online Paid)			

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

23-Sep-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	377630	**100000.00**
		Being Amount Paid Against Bill & Staff Salary Adv.(Abhijeet Kale) & Per Month Deducted Rs.3000/- & Amount Paid to Shreya Traders on Behalf of Gram Panchayat Ghutku (C.S.R) Vide Chq.no.377630 Date-23-09-2024			
30-Sep-24	To	**Sawanni Local Transport**	**Journal**	-25/0020	**348090.00**
		Being Cost of Stone Chips(Lime Stone Mix Matrial) Under CSR Vide Bill no.SLT/24-25/0020 Date-25-09-2024 (for Road)			
01-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	377640	**20000.00**
		Being Amount Paid to Shradha Mahila Mandal (Elfare) for Full Peg Advertisement Under CSR Vide Chq.no.377640 Date-01-10-2024			
03-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	377648	**35000.00**
		Being Amount Paid Against Bill & Durga Chanda(Navratri Samiti Rs.10000/- & Manoj Gupta Rs.25000) & Staff Salary Adv.(Avdhesh Gaurav) & Per Month Deducted Salary-1000/-& Dt-26-09-24(S.S. Tools) & Pl no.33/24-25(Indigenous) Vide Chq.no.377648 Dt-3-			
03-Oct-24	To	**HDFC Bank CA- A/c- 59251234560006**	**Payment**	17199814	**3100.00**
		Being Amount Paid to Shivkumar Yadav Under CSR Vide Ref.no.427717199814 Date-03-10-2024 (Online Paid)			
04-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	377652	**15000.00**
		Being Amt. Paid Against Bill & Pl Adv.Pl.no.PRO/103-A(Jai Bharat)Staff Salary (Shashank Diwan) & Per Month Deducted Salary Rs.2000/- & Amt. Paid to Lovely Traders(Office Exp.) & Amt.Paid to Awadhesh Gupt(C.S.R Exp.) Vide Chq.no.377652 Dt-4-10-24			
09-Oct-24	To	**State Bank of India CSR A/C-41840578116**	**Payment**	164597	**25000.00**
		Being Amount Paid to Indian Red Cross Society Under CSR Vide Chq.no.164597 Date-09-10-2024			
11-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	676647	**3100.00**
		Being Amount Paid Against Bill & Amount Paid to Sanjana Kumari Suryawanshi Under C.S.R Vide Chq.no.676647 Date-11-10-2024			
11-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	676646	**34100.00**
		Being Amount Paid Against Bill & Amount to Rashmi Bhoi & Awadhesh Gupta & Amount Paid to Madhu Yadav Rs.3100/- & Ramdhun Kaushik Rs.31000/- Under CSR Vide Chq.no.676646 Date-11-10-2024			
21-Oct-24	To	**State Bank of India CA A/c No: 3185644769**	**Payment**	676671	**150000.00**
		Being Amount Paid Against Bill & Amount Paid to Ram Kumar Yadav Under CSR Vide Chq.no.676671 Date-21-10-2024			
21-Oct-24	To	**Light Zone (P & M)**	**Journal**	2147	**108600.00**

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Cost of Led 45W Street Light IP66 KL6 S50 Surya, Clamp 25MM Tee Bend Strret Light, PG 1MM Wire Polygems, Nat Bolt With Wiser Etc. Vide Bill no.2147 Date-12-10-2024(for CSR Village- Lokhandi)			
30-Oct-24	By	**Light Zone (P & M)**	**Journal**	No.SR63	
		Being Credit Note Against Bill no.2147 DAte-12-10-2024 Vide Bill no.CR.Note No.SR63 Date-22-10-2024(Return Goods)			
30-Oct-24	To	**Light Zone (P & M)**	**Journal**	2308	**3392.06**
		Being Cost of AL Wire 6MM MS Kent/RK & Clamp 32MM Tee Bend Street Ligh Black Vide Bill no.CR.Note No.SR63 Date-24-10-2024 (for CSR Village Ghutku)			
30-Oct-24	To	**Light Zone (P & M)**	**Journal**	2247	**8778.90**
		Being Cost of AL Wire 6MM MS Kent/R K, MCB ISO DP 40A Polycab, MCB Box 2Way PVC Vendor & Tape PVC 17MM X 6MDeon Etc. Vide Bill no.2247 Date-22-10-2024 (for CSR Village Lokhandi)			
30-Oct-24	By	**Light Zone (P & M)**	**Journal**	No.SR55	
		Being Credit Note Against Bill no.2147 Date-14-10-2024 Vide Bill no.CR.Note No.SR55 Date-14-10-2024(Return Goods)			
31-Oct-24	To	**Light Zone (P & M)**	**Journal**	2149	**6375.00**
		Being Cost of Clamp 32MM Tee Bend Street Light Black & Push Connector Vendor Vide Bill no.2149 Date-13-10-2024 (For CSR Village Ghutku)			
12-Nov-24	To	**HDFC Bank CA- A/c- 59251234560006**	**Payment**	16193707	**2000.00**
		Being Amount Paid to Raja Loniya on Behalf of Beenu Loniya Under CSR Vide Ref.no.431716193707 Date-12-11-2024 (Online Paid)			
21-Nov-24	To	**Sawanni Local Transport**	**Journal**	-25/0023	**394370.00**
		Being Cost of Stone Chips (Lime Stone Mix Material) Under CSR Vide Bill no.SLT/24-25/0023 Date-09-11-2024(for Plant Out Side Road)			
23-Nov-24	To	**Krishi Udyan Kendra**	**Journal**	1241	**7276.81**
		Being Agrolife, Sulfer, Lethal Super , Mida, Sarso Khali, Bio Vita Etc. Vide Bill no.1241 Date-19-11-2024(F.H)			
23-Nov-24	To	**Krishi Udyan Kendra**	**Journal**	1019	**4807.59**
		Being Agrolife, Sulfer, Lethal Super , Mida, Sarso Khali, Bio, Mancozeb , Neem Khali, Organic Manure , Pest Seal, Tricel,Saaf Vita Etc. Vide Bill no.1019 Date-06-10-2024(F.H)			
23-Nov-24	To	**Krishi Udyan Kendra**	**Journal**	1036	**8049.78**
		Being Cost of Marino 500ML, Plant Nutrient, Anmol Khad 40KG, Bonerich, Neem Khali & Combo Etc. Vide Bill no.1036 Date-09-10-2024(F.H)			
23-Nov-24	To	**Prince Nursery**	**Journal**	95	**10400.00**

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Pituniy,Mairegod, (Gurdning Items Purchase) Vide Bill no.95 Date-22-11-2024(F.H)			
23-Nov-24	To	**Nursary Paryavaran**	Journal	16620	**12000.00**
		Being Cost of Plastic Pot Vide Bill no.16620 Date-20-11-2024 (F.H.)			
25-Nov-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164603	**125000.00**
		Being Amount Paid to Loknath Choudhary for School Bus Insurance,RTO & GPS Under CSR & Amount Paid to Shiv Kumar Soni for Machhali Palan Village Nirtu Under CSR Vide Chq.no.164603 Date-25-11-2024			
26-Nov-24	By	**State Bank of India CSR A/C-41840578116**	Receipt		
		Being Amount Retum Dt -26-11-24			
27-Nov-24	To	**Shri Ram Ad Agency**	Journal	186	**25000.00**
		Being Navbharat Press All India Football Torna ment -2024 Vide Bill no.186 Date-25-11-2024			
29-Nov-24	To	**Vishwa Bharti Automobiles Pvt. Ltd.**	Journal	24000922	**432557.05**
		Being New Maruti EECO Ambulance - VRRPKAF Purchased Vide bill no.1/VSL/24000922 Dt-29-11-24 Registration no.CG04QA7698 Insurance policy no.460100312403000008143 Chassis no./Engine no. MA3JDT08WRKD97222/K12NN4338234 (MARUTI EECO AMBULANCE (CG04QA7698)			
29-Nov-24	To	**Vehicle Compensation Cess Receivable (In**	Journal		**4325.57**
		Being Ineligible liability ITC adjusted MARUTI EECO AMBULANCE (CG04QA7698)			
30-Nov-24	To	**SGST Receivable (Ineligible)**	Journal		**121115.96**
		Being Expense booked 121115.96 belongs to MARUTI EECO AMBULANCE (CG04QA7698)			
10-Dec-24	To	**Centre for Bharatiya Marketing Developmer**	Journal	SPO-001	**300000.00**
		Being Sponsorship Charges Swadeshi Mela-2024 Bilaspur From :-15-11-2024 to 21-11-2024 Vide Bill no.15-21 NOV/SM-24/BSP/SPO-001 Date-27-11-2024			
23-Dec-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164607	**7000.00**
		Being Amount Paid to Dutiya Ram Lodha for Under CSR Vide Chq.no.164607 Date-23-12-2024			
23-Dec-24	To	**State Bank of India CSR A/C-41840578116**	Payment	164608	**354200.00**
		Being Amt. Paid to Kiran Kuree for Bore Bels (S .K. Borbels At Nirtu Rs.200000/-) & Karhipara Nirtu Rs.150000/- & Amt. Paid to Chandrashekhar Shrivas Rs.2100/- Under CSR & Amt. Paid to Daras Ram Kariyare Rs.2100/- Under CSR Vide Chq.no.164608 Dt-23-			
23-Dec-24	By	**State Bank of India CSR A/C-41840578116**	Receipt		
		Being Amount Return Dt-23-12-24			
28-Dec-24	To	**B H Saree**	Journal	STI-9098	**242500.00**

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Cost of Kambal Under CSR Vide Bill no.HO-GSTI-9098 Date-28-12-2024			
31-Dec-24	To	**Shri Ram Ad Agency**	**Journal**	187	**25000.00**
		Being Advetisement Exp.(All India Football) Tournament-2024 Vide Bill no.187 Date-25-11-2024			
31-Dec-24	To	**Sawanni Local Transport**	**Journal**	-25/0030	**150455.00**
		Being Cost of Stone Chips(Lime Stone) Under CSR Vide Bill no.SLT/24-25/0030 Date-06-12-2024(for Plant Outside Road Ghutku)			
31-Dec-24	To	**Sawanni Local Transport**	**Journal**	-25/0031	**94297.00**
		Being Cost of Stone Chips(Lime Stone) Under CSR Vide Bill no.SLT/24-25/0031 Date-07-12-2024(for Plant Outside Road Ghutku)			
04-Jan-25	To	**State Bank of India CA A/c No: 31856447692**	**Payment**	188410	**25000.00**
		Being Amount Paid Against Bill & Amount Paid to V Prabhakar for Vehicle Repairing Charges & PI Adv. PI no.2425 Dt-28-12-24 (Equipguard 100% Paid) & Amount Paid to Dilip Sing for Vehicle Repairing & Amount Paid to Deep Soni(CSR) Vide Chq.no.188410			
06-Jan-25	To	**State Bank of India CA A/c No: 31856447692**	**Payment**	188413	**82717.00**
		Being Amount Paid to Deepa Soni & Amount Paid to Chhat Lal Yadav Under CSR At Nirtu Village Construction Work Vide Chq.no.188413 Date-06-01-2025			
31-Jan-25	To	**HDFC Bank CA- A/c- 59251234560006**	**Payment**	18125793	**50000.00**
		Being Amount Paid to Mahamaya Dairy Sweets for Republic Day(Ghutku Plant) Vide Ref.no.503118125793 Date-31-01-2025			
01-Feb-25	To	**HDFC Bank CA- A/c- 59251234560006**	**Payment**	17121099	**8340.00**
		Being Amount Paid to Mahamaya Dairy And Sweets for Ghutku Village(Republic Day 26 January) Vide Ref.no.503217121099 Date-01-02-2025			
10-Feb-25	To	**Pranab Kumar Mazumdar(Imprest A/c)**	**Journal**		**11000.00**
		Being Amount Paid to Shri Shri Asthprahari Naam Yagya (Tenda Nawapara Raigarh) Under CSR Date-10-02-2025(Paid by Pranab Ku. Mazumdar Raigarh)			
13-Feb-25	To	**Haryana Car Gairag (Omprakash Sahu)**	**Journal**	561	**110000.00**
		Being Abulance Complete Repairing & Fitting Charges Under CSR Ambulance no.CG04QA7698 Date-13-02-2025(Discuss by Kedia sir)			
13-Feb-25	To	**Sanjay Agrawal Gitti Khadan**	**Journal**	/24-25/26	**826200.00**
		Being Cost of Stone Chips Vide Bill no.SAGK/24-25/26 Date-13-02-2025(for Plant Outside Road)			
07-Mar-25	To	**Raj Enterprises**	**Journal**	24-25/235	**53735.42**
		Being Cost of Daikina -INDu 2Ton 7.1 KW INV & Voltage Stabilize Vide Bill no.RE/2024-25/235 Date-24-08-2025 Under CSR (for Thana)			
17-Mar-25	To	**State Bank of India CA A/c No: 31856447692**	**Payment**	931611	**51000.00**

Pihu CSR Beneficiation Pvt. Ltd. BILASPUR (C.G.)

		Being Amount p[aiod to Chaattisgarh Vishwa Hindu Parishaad Vide Chq.no.931611 Date-17-03-2025(Under CSR)			
26-Mar-25	To	**State Bank of India CA A/c No: 31856447692**	**Payment**	931618	**55000.00**
		Being Amount Paid Against Bill & Amount Paid to Mahamaya Dairy And Sweets for Sweets Purchase(Staff Welfare) & Staff Salary Advance(Mohar Singh) Per Month Deduicted Salary Rs.5000/- & Amount Paid to Chhat Lal Yadav Under CSR for Construction Work in Village & Staff Salary Adv.(Jitendra Kumar Sahu) & Per Month Deducted Salary Rs.2000/- & Staff Salary Adv.(Surendra Singh) & Per Month Deducted Salary Rs.2000/- & PI Adv. PO no.150 Dt-25-12-24(Steel Craft of India 100% Paid) & PI no.SUP/2024-25/43 & PO no.248 Dt-20-3-25(Industrial Solutions 100% Paid) & PO no.244 Dt-17-03-25(Light Zone 100% Paid) & PO no.247 Dt-20-03-25(Nalco Water 100% Paid) & PI no.SI/PI/001 & PO no.223 Dt-21-02-25(Screen India 100% Paid) & PI no.699 & Po no.245 Dt-19-03-25(Yash Raj Electronics 100% Paid) & PI no.FGT/T109 & PO no.246 Dt-20-03-25(Futur Generation 100% Paid) Vide Chq.no.931618 Date-26-03-2025			
31-Mar-25	To	**Sanjay Agrawal Gitti Khadan**	**Journal**	/24-25/40	**1461720.00**
		Being Cost of Stone Chips Vide Bill no.SAGK/24-25/40 Date-28-03-2025(for Plant Out Side Road Under CSR)			
31-Mar-25	To	**Gram Panchayat Ghutku**	**Journal**		**2000000.00**
		Being Construction Work At Ghutku Under CSR Date-08-02-2025(As Per Details Attech)			
31-Mar-25	To	**GST Expenses**	**Journal**		**268535.00**
					41867968.55

Phil Coal Beneficiation Pvt. Ltd. BILASPUR (C.G.)

ANNEXURE – XXI: ENVIRONMENTAL POLICY

Phil Coal Benefication Pvt. Ltd.

Corporate Office : 3rd Floor, Mahima Trade Centre, Hansa Vihar, Shrikant Verma Marg, Bilaspur (C.G.) PIN 495 001 Tel. : 07752-426006
CIN : U10101CT2006PTC020155
E-mail : philmineralsbsp@yahoo.co.in, phl@philgroup.co.in, Website : www.philgroup.co.in

CORPORATE ENVIRONMENTAL POLICY

The **"Phil Coal Beneficiation Pvt. Ltd."** is committed for its contribution to the upliftment of the Society, is forever committed to protect and save the Environment, keeping in mind the Sustainable Development.

Resolution:**"Phil Coal Beneficiation Pvt. Ltd."** on **1"February2022**, the Management has taken a decision on Environment Policy, that it is committed to operate the Plant at *Ghutku Village, Takhatpur Tehsil, Bilaspur District, Chhattisgarh*with the following objectives.

Quality Policy

- Delivering the required products at the right place at the right time at the right cost from our Plant form the very backbone of our Principles of Manufacturing.
- We view improvement as a continuous process. We are constantly aspiring to achieve betterment of our core processes, be it manufacturing, quality control, sales or delivery. There is a joint effort to achieve Manufacturing Excellence.
- Strict monitoring and compliance of the conditions stipulated in Environmental clearance & Environment Protection Act & Rules
- Strict monitoring and compliance of the conditions stipulated in Consent for Establishment issued by Chhattisgarh Environment Conservation Board (CECB).
- Ensuring Implementation and regular operation of air emission control measures.
- Periodical monitoring of all environmental parameters such as Ambient air quality, water quality, noise levels, soil quality, etc. and submission of the same to statutory authorities periodically.
- Maintaining good housekeeping practices.
- The compliance of the EC conditions / SPCB norms will be reported to the Board of Directorsevery Six (6) months.
- Appropriate corrective measures will be taken along with sanction of the budget.

Corporate Environment Responsibility Policy

As a Corporate Organization we believe that it is our primary purpose to give back to society. Giving and sharing what we have received is embedded deeply in us. We will actively pursue to raise the quality of life of the people around us. We hold hands in our joint effort to create better tomorrows.

Occupational Health & Safety Policy

We follow the occupational health and safety policy as below

- Create an environment which is safe and secure for everyone in its vicinity, be it a worker, contractor, visitor and even the local community. All identifiable risks and hazards are treated with the gravest concern.
- To constantly endeavour towards the highest level of health and safety such that injuries, waste and emissions are reduced to the bare minimum.
- Train all employees to work safely and responsibly thus preventing injury to themselves and others.
- Ensure that optimum conditions exist for the proper execution of all the stipulated health and safety norms.

Hierarchy to implement Environment Policy

An Environmental Officer will be appointed to look after all environmental issues and ensure compliance with Environmental Clearance conditions / SPCB norms and will report to Unit Head who ultimately will report to Managing Director and the Board of Directors. Subsequently it will be discussed in the Board meeting and it will be made aware of the Environmental Policy and compliance on Environmental Clearance / SPCB norms to all. Any non-compliance / deviations will be brought to the notice of the Managing Director& Board of Directors.

Review of compliance on Environmental Clearance / SPCB norms at Six-monthly frequency.

The following will be the communication chart for flow of theinformation pertaining to Environment Policy.

Place: Bilaspur
Date :01.02.2022

For: Phil Coal Beneficiation Pvt. Ltd.

Phil Coal Beneficiation Pvt. Ltd.

Praveen Chandra Jha
DIRECTORDirector

ANNEXURE – XXII: NEWSPAPER ADVERTISEMENTS

नईदुनिया 13
बिलासपुर, मंगलवार 06 सितंबर, 2022

सूचना

[illegible] प्राइवेट लिमिटेड [illegible], ग्राम – [illegible], जिला – बिलासपुर (छ.ग.) [illegible] 2.5 [illegible] जलवायु परिवर्तन मंत्रालय, [illegible] J-11015/4[illegible]/2015 -IA.II(M) [illegible] 2022 [illegible] नई दिल्ली-3 [illegible] जलवायु परिवर्तन मंत्रालय, भारत सरकार [illegible] (parivesh.nic.in) [illegible] बिलासपुर (छ.ग.) [illegible]

हेतु, [illegible] प्राइवेट लिमिटेड
([illegible])

36GARH

CENTRAL CHRONICLE, BILASPUR, WEDNESDAY, SEPTEMBER 07, 2022

Phil Coal Beneficiation Pvt. Ltd.

Corporate Office: [illegible] Floor, [illegible] Trade Centre, [illegible] Vihar, [illegible] Marg, Bilaspur (C.G.) [illegible] Tel: [illegible]

CIN: [illegible]

E-mail: [illegible] Website: www.philgroup.co.in

Notice

This is to inform all the concerned people that M/s. Phil Coal Beneficiation Private Limited has accorded Environmental Clearance by Ministry of Environment Forest and Climate Change, Government of India vide its File No. J-11015/[illegible]/2015-IA-II(M) and EC Identification No. - EC22A[illegible] dated [illegible].08.2022 for Expansion of Coal Washery from 2.5 MTPA to 5.0 MTPA at Village: [illegible], Tehsil [illegible], District Raigarh (C.G.). The accorded Environment Clearance letter is available on website of Ministry of Environment Forest & Climate Change, Government of India: [illegible] and copies are also available at Head Office of Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Nava Raipur Atal Nagar, District Raipur and Regional Office Chhattisgarh Environment Conservation Board [illegible], Bilaspur (C.G.).

For, M/s Phil Coal Beneficiation Private Limited,

(Signature)

ANNEXURE – XXIII: COPY OF ENVIRONMENTAL STATEMENT (FORM V)

Phil Coal Benefication Pvt. Ltd.

Corporate Office : 3rd Floor, Mahima Trade Centre, Hansa Vihar, Shrikant Verma Marg, Bilaspur (C.G.) PIN 495 001 Tel. : 07752-426006
CIN : U10101CT2006PTC020155
E-mail : philmineralsbsp@yahoo.co.in, phil@philgroup.co.in, Website : www.philgroup.co.in

To,

The Regional Officer
Environmental Department
Bilaspur, Chhattisgarh.

Subject: Submission of Environmental Statement for the Financial Year ending 31st March 2025

Respected Sir,

With due respect, I am submitting herewith the Environmental Statement for the financial year ending on 31st March 2025 for your kind perusal and necessary action. The statement pertains to the unit operated by M/s Phil Coal Beneficiation Pvt. Ltd., Ghutku.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours sincerely,

Phil Coal Benefication Pvt. Ltd. BILASPUR (C.G.)

M/s Phil Coal Beneficiation Pvt. Ltd.
Ghutku, Bilaspur (C.G.)

Encl :- Environmental statement- form-V

08/09/25

Environmental Statement:

FORM-V

(See rule 14)

Environmental Statement for the financial year

ending with 31st March 2025

PART-A

i.	*Name and address of the owner/ occupier of the industry*	:	**M/s Phil Coal Benefication Private Limited, through Mr. Praveen Chandra Jha, Director** **Address: (Factory)** Vill-Ghutku Teh.-Taskhatpur, Dist-Bilaspur (C.G.) **Address: (City Office)** Mahima Trade Center, 3rd Floor, Hansa Vihar, Shrikant Verma Marg Bilsapur (C.G.)		
	Operation or Process	:	Operation		
ii.	*Industry category* *Primary - (STC Code)* *Secondary- (STC Code)*	: : :	Medium Scale Industry		
iii.	*Production Category*	:	Coal Washery	:	5.0 MTPA
iv.	*Year of establishment*	:	Coal Washery	:	05.01.2023
v.	*Date of the last environmental statement submitted*	:	---		

PART – B

Water and Raw Material Consumption:

i. Water consumption in M^3/ day : 425.0 m^3/Day

Domestic : 5.0 m^3/Day
Process : 400.0 m^3/Day
Other Plantation : 20.0 M^3/Day

Sr. No	Name of the Products	Process water consumption per unit of products	
		During the 2023-24	During the 2024-25
1.	*Coal Washery*	0.0435 m^3/ Tons	0.043 m^3/ Tons

ii. Raw material consumption

Sr. No	Name of Products	Name of Raw Materials *	Consumption of raw material per unit of output	
			During the 2023 – 24	During the 2024 – 25
1.	*Coal Washery*	*Coal*	1.211 Tons/ Ton	1.207 Tons/ Ton

* *Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.*

PART-C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Sr. No	Pollutants	Quantity of Pollutants discharged (Mass/ Day)		Concentration of pollutants discharged (Mass/ Volume)	Percentage of variation from Prescribed Standards with Reasons
a.	Water	BOD	< 30 mg/ NM^3	---	---
		COD	< 100 mg/ NM^3	---	---
		TS	< 100 mg/ NM^3	---	---
		O&G	< 10 mg/ NM^3	---	---
		We are maintaining ZERO Discharge Condition all the time, as stipulated by the Honorable Board.			
b.	Air	SPM	< 250 µg/ NM^3	---	---
		SO_2	< 30 µg/ NM^3	---	---
		NO_x	< 50 µg/ NM^3	---	---
		CO	BDL	---	---

PART - D

HAZARDOUS WASTES

[As specified under Hazardous Wastes (Management, Handling and TB) Rules, 2016]

No Hazardous waste is being generated from the Plant

PART - E

SOLID WASTES:

Sr. No	Hazardous Wastes	Name of the solid wastes	Total Quantity	
			During the 2023 – 24	During the 2024 – 25
a.	From Process	Middling/Rejects	471312 Tons/ Year	482910 Tons/ Year
b.	From Pollution Control Facilities	Bag Filter Dust	Nil, being utilized back in process.	Nil, being utilized back in process.

PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1. There is no hazardous waste generation either due to operation of plant or due to ancillary activities.

2. Rejects generated are sold out as fuel to nearby power generating units.

PART – G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

Nil.

PART – H

Additional measures/investment proposal for environmental protection including abatement of pollution.

Nil

PART – I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution

Nil