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BHARAT COKING COAL LIMITED

FORM-1

(As per EIA Notification, 2006)

for

**PROPOSED
BHOJUDIH NLW COAL WASHERY (3-Products)
(2.0 MTPA)**

Bharat Coking Coal Limited

(April, 2013)

Prepared by

Regional Institute – II

Central Mine Planning & Design Institute Ltd.

(A Subsidiary of Coal India Ltd.)

Koylanagar, Dhanbad – 826005

FORM-I

(I) Basic Information

| S.No. | Item | Details |
|-------|---|--|
| 1 | Name of the Project | Bhojudih NLW Coal Washery (2.0 MTPA) |
| 2 | S. No. of the schedule | 2(a) |
| 3 | Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of wells to be drilled | Capacity-2.0 MTPA, Command area-15 ha, BCCL Lease area |
| 4 | New/Expansion/Modernization | New (Adjoining Existing Washery) |
| 5 | Existing capacity/Area etc. | Not Applicable |
| 6 | Category of Projects i.e., 'A' or 'B' | A |
| 7 | Does it attract the general condition? If yes, please specify. | Yes, Jharkhand-W.B. inter-state boundary is 2.0 Km -N from the proposed Bhojudih Coal Washery. |
| 8 | Does it attract the specific condition? If yes, please specify. | No |
| 9 | Location | Latitudes 23 ⁰ 37' 3" N Longitudes 86 ⁰ 28' 56 E |
| | Plot/Survey/Khasra No. | Plot No.- 1 [1/1000] , Khata No.-478 |
| | Village | Santhaldih |
| | Tehsil | Santhaldih |
| | District | Purulia |
| | State | West Bangal |
| 10 | Nearest railway station/airport along with distance in kms. | Railway station- Santhaldih 03 km approx Airport –Kolkata 300 km |
| 11 | Nearest Town, city, District Headquarters along with distance in kms. | Nearest town- Raghunathpur- 30 Km Appx. Purulia- 50 Km Approx. |

| S.No. | Item | Details |
|--------------|---|--|
| 12 | Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given) | Chelyama Gram Panchayat Vill. & Post- Chelyama, Dist.- Purulia W.B.-723146 Phone No.-03251-262214 |
| 13 | Name of the applicant | Sri R. P. Yadav |
| 14 | Registered Address | Bhojudih Coal Washery, PO- Santhaldih |
| 15 | Address for correspondence: | |
| | Name | Sri R. P. Yadav |
| | Designation (Owner/Partner/CEO) | Project Officer ,Bhojudih Coal Washery |
| | Address | P.O.- Santhaldih |
| | Pin Code | 723145 |
| | E-mail | Not Available |
| | Telephone No. | +91-9470597835 |
| | Fax No. | 0326-2230201 |
| 16 | Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet. | No, The Land for the proposed washery site is under possession of BCCL. |
| 17 | Interlinked Projects | None |
| 18 | Whether separate application of interlinked project has been submitted? | Not required |
| 19 | If yes, date of submission | Not Applicable |
| 20 | If no, reason | Not Applicable |
| 21 | Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980? | NIL |

| S.No. | Item | Details |
|-------|--|---------|
| | (b) The Wildlife (Protection) Act, 1972? (c) The C.R.Z Notification, 1991? | |
| 22 | Whether there is any Government Order/Policy relevant/relating to the site? | NIL |
| 23 | Forest land involved (hectares) | NIL |
| 24 | Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project. | NIL |

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|---|--------|---|
| 1.1 | Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan) | Yes | Temporary change in the land use due to construction of the washery. 15 Ha of total land is under BCCL lease hold. |
| 1.2 | Clearance of existing land, vegetation and buildings? | Yes | Land: Total land required is in possession with BCCL. Vegetation : There is no vegetation In the proposed area Habitation : Nil |
| 1.3 | Creation of new land uses? | Yes | Proposed washery construction and infrastructure development will change the present land use. |
| 1.4 | Pre-construction investigations e.g. bore houses, soil testing? | Yes | Bore holes will be drilled for indicative soil investigation. Detailed soil investigation will be done at the time of detailed design. |
| 1.5 | Construction works? | Yes | Construction of raw coal receiving |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|--------------|---|---------------|---|
| | | | arrangement, washery building, clean coal dispatch arrangement, service buildings, roads and culverts is proposed. |
| 1.6 | Demolition works? | No | Not Applicable |
| 1.7 | Temporary sites used for construction works or housing of construction workers? | Yes | Temporary site for construction activity will be maintained by BOM operator within the washery site. The housing needs will be arranged by BOM operator in the vicinity of the site. |
| 1.8 | Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations | Yes | Construction of semi-underground raw coal receiving arrangement with underground conveyor tunnel, washery building, clean coal dispatch arrangement, service buildings, roads and culverts is proposed. |
| 1.9 | Underground works including mining or tunneling? | Yes | Only minor in nature, like underground conveyor tunnel as envisaged in the report. |
| 1.10 | Reclamation works? | Yes | Reclamation including dismantling of unused infrastructure at the end of washery life. |
| 1.11 | Dredging? | No | Not applicable. |
| 1.12 | Offshore structures? | No | Not applicable. |
| 1.13 | Production and manufacturing processes? | Yes | Wet processing of coal beneficiation with closed water circuit system. |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|--|--------|---|
| 1.14 | Facilities for storage of goods or materials? | Yes | The proposed washery will receive (-) 200 mm crushed raw coal @ 2.0 MTPA by rail from North/South Tisra OCP of BCCL. The washed coal is proposed to be transported by conveyor belt to adjoining Railway Siding and Wagon loading of washed coal is proposed through fast loading system (3600 TPH) consisting of hopper & surge bunker. |
| 1.15 | Facilities for treatment or disposal of solid waste or liquid effluents? | Yes | The washery is expected to generate about 0.392 Mt of rejects per annum. The rejects will be dispatched to the consumers through railway. The wet processing of coal in the proposed washery is based on closed water circuit system. The water fed into the system will be collected after use and re-circulated and no effluent will be allowed to escape into the natural drainage system. No domestic effluent is expected to be generated as no residential colony is proposed to be constructed in core zone. |
| 1.16 | Facilities for long term housing of operational workers? | Yes | The residential and welfare facilities for BCCL personnel will be shared with the project facilities of existing Bhojudih |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|---|--------|--|
| | | | washery. However, for the manpower of BOM operator, separate arrangement will be made by operator. |
| 1.17 | New road, rail or sea traffic during construction or operation? | Yes | Existing road will be utilized after suitable widening and strengthening. In house roads will be constructed for internal traffic. Existing Railway siding will be suitably augmented/modified to cater receipt of raw coal and dispatch of product i.e. washed coal, middling & reject. |
| 1.18 | New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc? | No | As above. No alteration of existing routes is proposed. |
| 1.19 | Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements? | No | Not applicable. |
| 1.20 | New or diverted transmission lines or pipelines? | Yes | The substation of the existing washery is about 2.5 km from the proposed washery. The power shall be drawn from sub-station of the existing washery either through cable or overhead transmission |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|--|--------|--|
| | | | line (OHTL). New pipe line from Damodar river to proposed project site. |
| 1.21 | Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers? | No | Not applicable. |
| 1.22 | Stream crossings? | No | Not applicable. |
| 1.23 | Abstraction or transfers of water form ground or surface waters? | No | The water requirement of approx. 0.30 MGD is proposed to be made from adjacent Damodar river. The requirement includes loss of moistures with products, dust suppression and evaporation losses etc. |
| 1.24 | Changes in water bodies or the land surface affecting drainage or run-off? | No | Not applicable. |
| 1.25 | Transport of personnel or materials for construction, operation or decommissioning? | Yes | Transport of material for construction, operation will be done through tippers/trucks by road. Personnel will use their individual transport facility. |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|--|--------|--|
| 1.26 | Long-term dismantling or decommissioning or restoration works? | Yes | <p>The closure activities form an integral part of mine and washery plan. The residential quarters along with dispensary, sub-stations, pump house, filtration plant for providing basic amenities to workers will be maintained till the employees are required to stay.</p> <p>Service buildings namely, coal handling arrangement, washery, workshop, stores, office building etc will be demolished, if redundant, after mine and washery closure and all useable items will be shifted to area store. When a residential building is vacated, the same will be demolished to prevent any unauthorized occupation.</p> |
| 1.27 | Ongoing activity during decommissioning which could have an impact on the environment? | Yes | Solid waste generated during demolition of service and residential buildings after cessation of industrial activity will have an impact on the environment. Care will be taken to dump the solid waste in mine voids. |
| 1.28 | Influx of people to an area in either temporarily or permanently? | Yes | Influx of people has taken place due to direct and indirect employment opportunities. This will continue |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|--------------|--|---------------|--|
| | | | throughout the life of the washery. |
| 1.29 | Introduction of alien species? | No | Not Applicable. |
| 1.30 | Loss of native species or genetic diversity? | No | Not Applicable. |
| 1.31 | Any other actions? | No | Not Applicable. |

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

| S.No. | Information/checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|--------------|---|---------------|--|
| 2.1 | Land especially undeveloped or agricultural land (ha) | Yes | Approximately 15 Ha of land for the washery has already been under possession of BCCL. |
| 2.2 | Water (expected source & competing users) unit: KLD | Yes | The water requirement of approx. 1350 KLD is proposed to be made from Damodar river. |
| 2.3 | Minerals (MT) | Yes | 2.0 MTPA of Raw Coal |
| 2.4 | Construction material, stone, aggregates and soil (expected source – MT) | Yes | Construction material for roads, culverts, railway lines and service buildings is required. The same will be brought by existing road network. |
| 2.5 | Forests and timber (source – MT) | No | Not Applicable |
| 2.6 | Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW) | Yes | The requirement of power is about 3.0 MVA for operation & maintenance of the proposed washery and shall be made available from the substation of the existing Bhojudih Washery (33/11kV and 33/6.6kV) through Overhead transmission line (OHTL). This network is exclusively for use of BCCL and there are no competing users. |

| S.No. | Information/checklist confirmation | Yes/No | Details thereof (with approximate quantities /rates, wherever possible) with source of information data |
|-------|--|--------|---|
| 2.7 | Any other natural resources (use appropriate standard units) | No | Not Applicable |

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------------|--|---------------|---|
| 3.1 | Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies) | No | Not Applicable. |
| 3.2 | Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases) | No | Not Applicable. |
| 3.3 | Affect the welfare of people e.g. by changing living conditions? | No | Not Applicable. |
| 3.4 | Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc., | No | Not Applicable. |
| 3.5 | Any other causes | No | Not Applicable. |

4. Production of solid wastes during construction or operation or decommissioning (MT/month):

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------------|--|---------------|---|
| 4.1 | Spoil, overburden or mine wastes | Yes | Solid waste in form of washery rejects is estimated to be generated @ 0.392 Mtpa. The reject will be dispatched to the consumer through rail. |
| 4.2 | Municipal waste (domestic and or commercial wastes) | No | No domestic effluent is expected to be generated as no residential colony is proposed to be constructed in core zone. |
| 4.3 | Hazardous wastes (as per Hazardous Waste Management Rules) | Yes | Old batteries and used engine oil are expected to be generated. These shall be recycled through authorized recycling agents. |
| 4.4 | Other industrial process wastes | No | Not Applicable. |
| 4.5 | Surplus product | No | Not Applicable. |
| 4.6 | Sewage sludge or other sludge from effluent treatment | No | Not Applicable. |
| 4.7 | Construction or demolition wastes | No | Not Applicable. |
| 4.8 | Redundant machinery or equipment | Yes | Old equipment and machinery will become redundant after the end of useful life and will be surveyed off and sold as scrap. |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------------|---|---------------|---|
| 4.9 | Contaminated soils or other materials | No | Not Applicable. |
| 4.10 | Agricultural wastes | No | Not Applicable. |
| 4.11 | Other solid wastes | No | Not Applicable. |

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|-------|--|--------|---|
| 5.1 | Emissions from combustion of fossil fuels from stationary or mobile sources | Yes | Emission from Stacks/Cimneys of DG Sets. |
| 5.2 | Emissions from production processes | Yes | Wet beneficiation of 50-13 mm coal fraction and direct mixing of -13 mm coal fraction for further beneficiation will lead to minimal dust emission. Still, adequate measures shall be taken for dust suppression to mitigate the impacts. |
| 5.3 | Emissions from materials handling including storage or transport | Yes | Dust emissions from coal storage, handling and transportation will take place. Adequate measures shall be taken for dust suppression to mitigate the impacts. |
| 5.4 | Emissions from construction activities including plant and equipment | Yes | Adequate measures shall be taken to mitigate the impacts due to dust emission during construction activity. |
| 5.5 | Dust or odours from handling of materials including construction materials, sewage and waste | Yes | Dust will be generated during transportation of raw coal which will be taken care by sprinkling water. |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------------|---|---------------|---|
| 5.6 | Emissions from incineration of waste | No | Not Applicable. |
| 5.7 | Emissions from burning of waste in open air (e.g. slash materials, construction debris) | No | Not Applicable. |
| 5.8 | Emissions from any other sources | No | Not Applicable. |

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data |
|-------|---|--------|---|
| 6.1 | From operation of equipment e.g. engines, ventilation plant, crushers | Yes | Noise is generated during coal loading, unloading, crushing, handling and transportation. However, the ambient noise level at different locations inside washery premises is not likely to exceed the permissible limit for industrial area. |
| 6.2 | From industrial or similar processes | Yes | Noise is generated during coal processing due to operation of jigs, bucket elevators, cyclones, pumps, screens, belt conveyors etc. Proper maintenance with suitable packing, liners etc will keep the equipment minimum noise generating. As such, the ambient noise level at different locations inside washery premises is not likely to exceed the permissible limit for industrial area. |
| 6.3 | From construction or demolition | No | Construction of washery and infrastructure will not lead to significant noise and vibration. The level will be measured through regular monitoring and is expected to be within permissible limits with control measures. |
| 6.4 | From blasting or piling | No | Not Applicable. |
| 6.5 | From construction or | Yes | Noise will be generated due to coal |

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data |
|--------------|---|---------------|---|
| | operational traffic | | transportation. The level will be measured through regular monitoring and is expected to be within permissible limits with control measures. |
| 6.6 | From lighting or cooling systems | No | Not Applicable |
| 6.7 | From any other sources | No | Not Applicable |

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------------|---|---------------|---|
| 7.1 | From handling, storage, use or spillage of hazardous materials | No | Not Applicable |
| 7.2 | From discharge of sewage or other effluents to water or the land (expected mode and place of discharge) | No | Not applicable as the washery is designed on the principle of zero discharge. |
| 7.3 | By deposition of pollutants emitted to air into the land or into water | No | Control measures like spraying at all dust generating points is adopted. In view of this, fugitive dust emission into air is insignificant. |
| 7.4 | From any other sources | No | Not Applicable |
| 7.5 | Is there a risk of long term build up of pollutants in the environment from these sources? | No | Not Applicable |

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment:

| S.No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|-------|---|--------|--|
| 8.1 | From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances | No | Not Applicable. |
| 8.2 | From any other causes | Yes | The different dynamic operations inside the washery may cause industrial hazards. All standard safety precautions shall be followed while the plant is in operation. |
| 8.3 | Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)? | Yes | The area under study falls in Zone-III, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, will be adopted while designing the structure. There are no chances of flood and landslide. |

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality:

| S. No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------|--|--------|--|
| 9.1 | <p>Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:</p> <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other | Yes | <p>Supporting infrastructural facilities of the washery are likely to come up. This will impact the local land use pattern.</p> <p>However, socio-economic growth associated with washery activity will lead to semi-urbanization. This supports development of ancillaries and other related activities.</p> <p>Roads, power supply, water supply & water treatment plant & other community development.</p> <p>Ancillary & supply industries may develop, which will in turn generate employment indirectly & need to growth in the income generation.</p> |
| 9.2 | Lead to after-use of the site, which could have an impact on the environment | No | Proper care will be taken to restore the land use pattern in its original form. |

| S. No. | Information/Checklist confirmation | Yes/No | Details thereof (with approximate quantities/rates, wherever possible) with source of information data |
|--------|---|--------|---|
| 9.3 | Set a precedent for later developments | Yes | Activities at 9.1 above will lead to over all socio economic growth of the area. Socio-economic benefits of the Project will accrue to local population also. |
| 9.4 | Have cumulative effects due to proximity to other existing or planned projects with similar effects | Yes | As indicated at 9.1 can lead to cumulative impact on environment. |

(III) Environmental Sensitivity

| S.No. | Areas | Name/ Identity | Aerial distance (within 15 km.) Proposed project location boundary |
|-------|--|---|--|
| 1 | Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value | None | Not Applicable. |
| 2 | Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests | Damodar River Kadamdaha Jora Gobai River Ijri River Ghi River Barakanali Forest Bhuski Forest Loylabad Forest Babugram Forest | 2.5 km (approx.) North 1.0 km (approx.) South 2.0 km (approx.) North-West 3.0 km (approx.) North-West 11.0 km (approx.) North-East 8.0 km (approx.) South-East 8.5 km (approx.) West 13.0 km (approx.) South-West 14.0 km (approx.) South-East <i>(Source: Topo Sheet No.-73 I/6)</i> |
| 3 | Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration | None | Not Applicable. |
| 4 | Inland, coastal, marine | Damodar River | 2.5 km (approx.) North |

| S.No. | Areas | Name/ Identity | Aerial distance (within 15 km.) Proposed project location boundary |
|--------------|--|--|---|
| | or underground waters | | |
| 5 | State, National boundaries | West Bengal-Jharkhand | 2.0 km North |
| 6 | Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas | None | Not Applicable. |
| 7 | Defense installations | None | Not Applicable. |
| 8 | Densely populated or built-up area | Santaldih Rangamati Raghunathpur | 2.0 km North-west 7.0 km North 13.0 km South-East |
| 9 | Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities) | Yes | Hospital, School, place of worship, community facility are all in general in the above towns. |

| S.No. | Areas | Name/ Identity | Aerial distance (within 15 km.) Proposed project location boundary |
|-------|--|-------------------------|---|
| 10 | Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals) | None | Not Applicable. |
| 11 | Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded) | None | Not Applicable. |
| 12 | Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) | Seismic Flooding | The area under study falls in Zone-III, accordingly to the Indian Standards Seismic Zone Map. Suitable seismic coefficients in horizontal and vertical directions respectively will be adopted while designing the structures. There are no possibilities of the proposed project site getting flooded as per records available. |

(IV). Proposed Terms of Reference for EIA studies

1. Location map showing Project and Area boundary along-with major surface features like road, rail line, surface water bodies, pits etc.
2. Present land use of core zone and buffer zone.
3. List of flora and fauna in the core and buffer zone.
4. Description of the present environmental scenario based on one season (non-monsoon) primary base-line data on ambient air quality (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x), water quality, noise level and soil characteristics.
5. Socio-economic profile of core and buffer zone.
6. A site plan showing the areas ear-marked for various components of the Project.
7. Justification for selection of washing technology proposed by the successful BOM operator.
8. Water and mass balance study for the washery plant.
9. Description of different sections of washing plant.
10. Detail of the coal-transportation and its impact.
11. Prediction of impact on different components of environment inter-alia
 - i) Air & Noise
 - ii) Water
 - iii) Soil
 - iv) Flora & Fauna
 - v) Socio-economic scenario
12. Environmental management plan for mitigation of impacts.
13. Detail of health-care facilities available for local population.
14. Safety and risk-analysis study.
15. Detail (including video graph of the proceedings) of Public-hearing and issues raised by the public and our replies to them.
16. Brief description of profiles of various agencies involved in the preparation of the EIA/EMP report.

17. Status of different clearances.

18. The generic structure suggested in EIA Notification, 2006 will be followed for preparation of EIA/EMP document.

["I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.



03.05.13
Sri Rajendra Prasad Yadav
Project Officer, Bhojudih Coal Washery
P.O.- Santhaldih
PIN-723145, W.B.

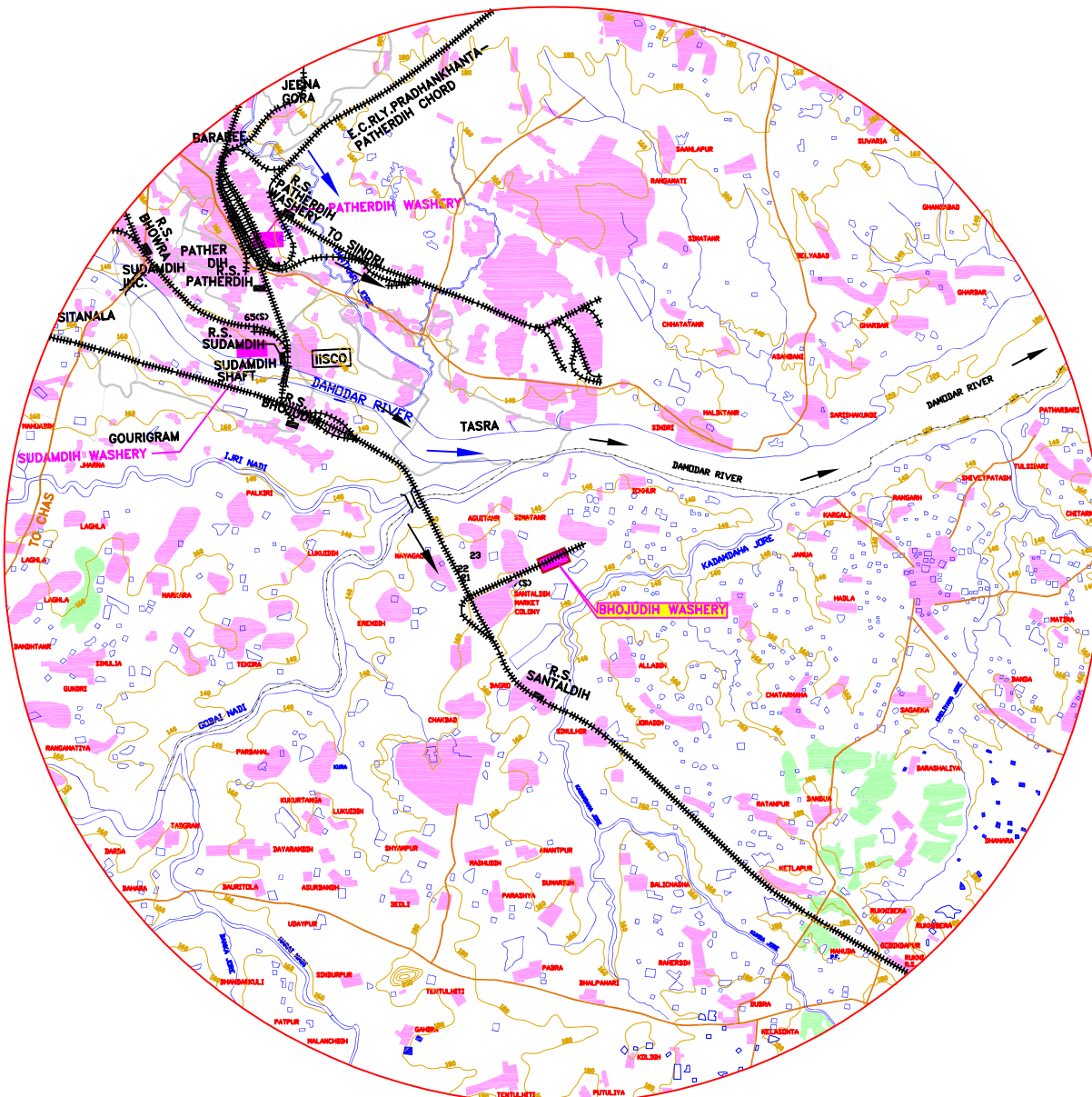
PROJECT OFFICER
Bhojudih Coal Washery (BCCL)
P.O.- Santaldih, Dist.- Purulia (W.B.)

Date: 03.05.13

Place: BCW SANTALDIH

Signature of the applicant
With Name and Full Address
(Project Proponent / Authorised Signatory)

STUDY AREA MAP OF PROPOSED BHOJUDIH COAL WASHERY SHOWING CORE ZONE & BUFFER ZONE



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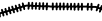





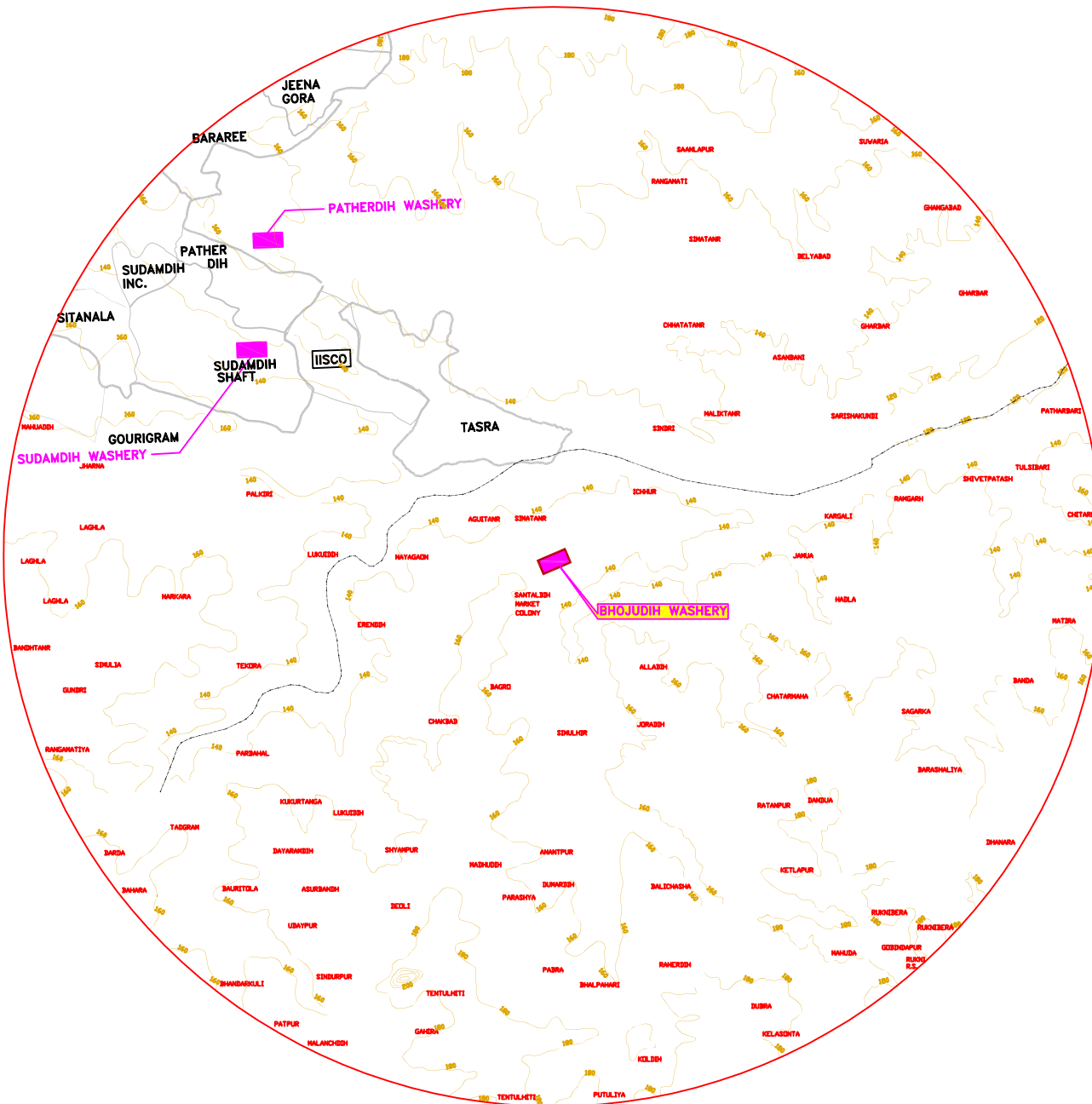
-  BUILTUP
-  FOREST
-  ROAD
-  CONTOUR
-  RAILWAY
-  POND
-  RIVER
-  BHOJUDIH WASHERY CORE ZONE
-  BUFFER ZONE
-  JHARKHAND-W.B INTER-STATE BOUNDARY

PLATE NO.-02

DRAINAGE CONTOUR PLAN OF THE STUDY AREA OF PROPOSED BHOJUDIH COAL WASHERY



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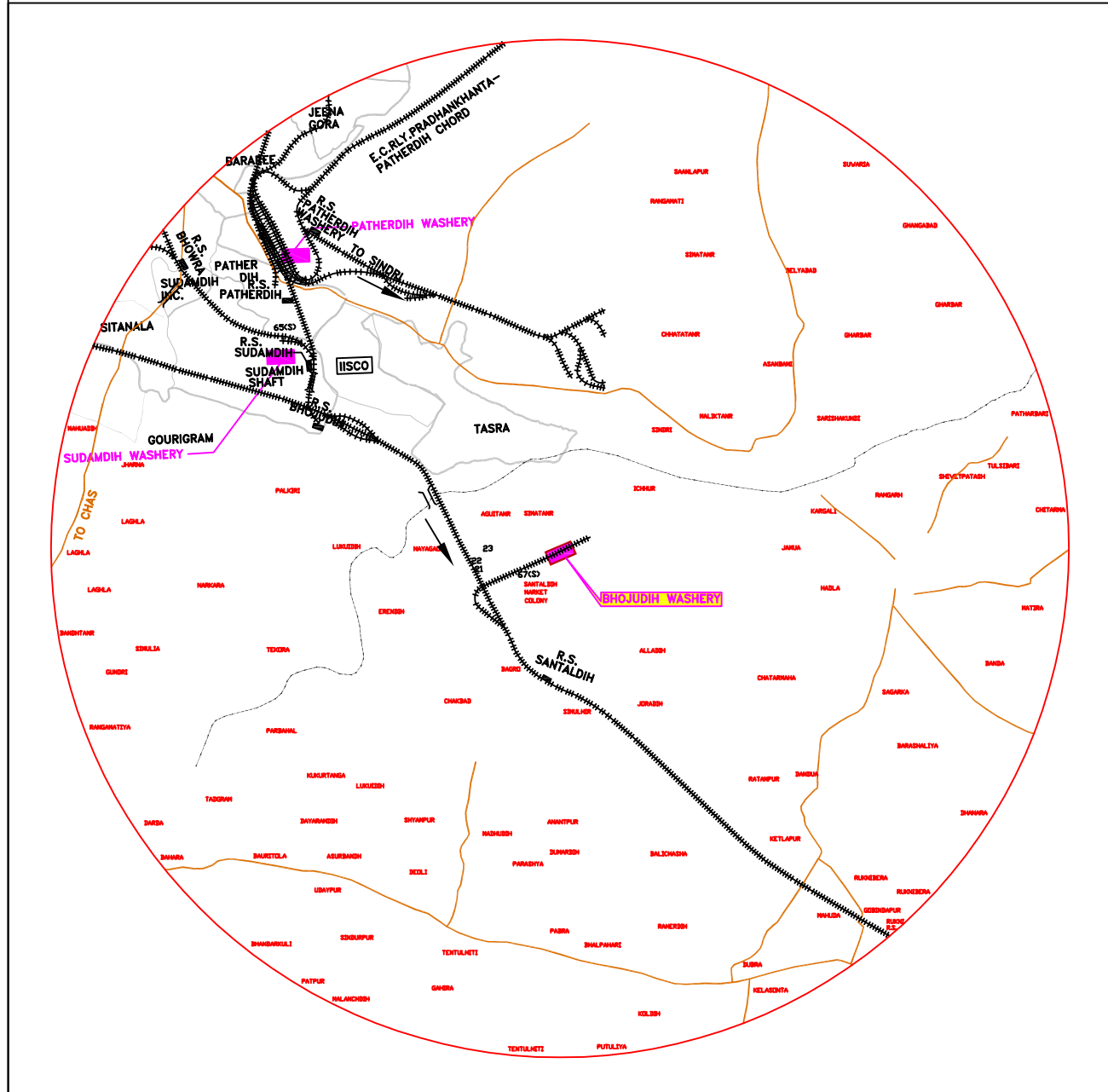
-  200 CONTOUR
-  BHOJUDIH WASHERY CORE ZONE
-  BUFFER ZONE
-  JHARKHAND-W.B INTER-STATE BOUNDARY

PLATE NO.-03

STUDY AREA MAP OF PROPOSED BHOJUDI COAL WASHERY SHOWING ROADS & RAILWAYS



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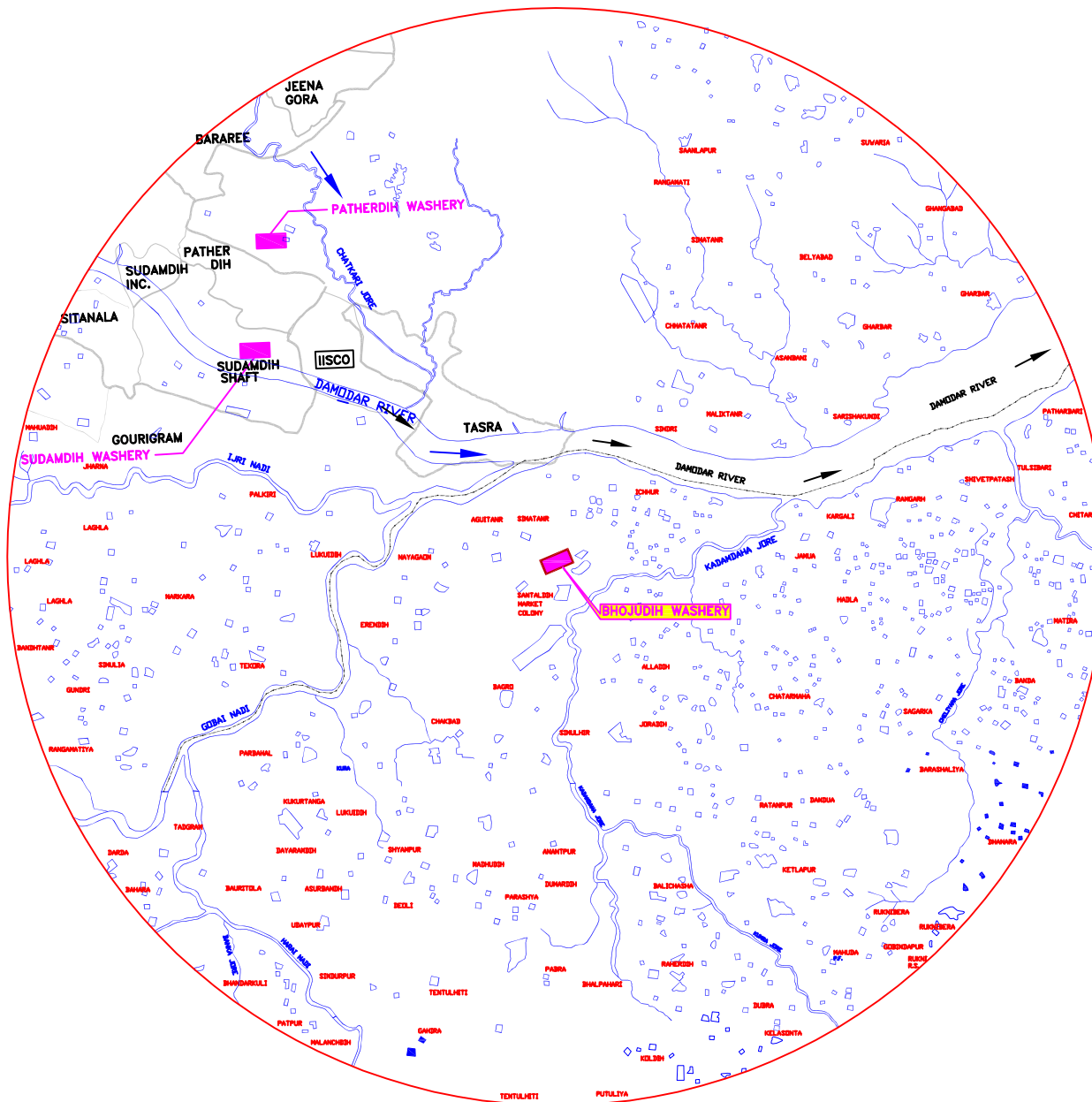
-  ROAD
-  RAILWAY
-  BHOJUDI WASHERY CORE ZONE
-  BUFFER ZONE
-  JHARKHAND-W.B INTER-STATE BOUNDARY

PLATE NO.-05

HYDROGEOLOGICAL PLAN OF THE STUDY AREA OF PROPOSED BHOJUDIH COAL WASHERY



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-  POND
-  RIVER
-  BHOJUDIH WASHERY CORE ZONE
-  BUFFER ZONE
-  JHARKHAND-W.B INTER-STATE BOUNDARY

PLATE NO.-06