

BANGWAR UNDERGROUND MINE

Village : Bangwar
Tehsil: Burhar
District: Shahdol
State: Madhya Pradesh

Project Area: 487.806 Ha.
Production Capacity: 0.650 MTY

APPLICATION FOR FORM- I



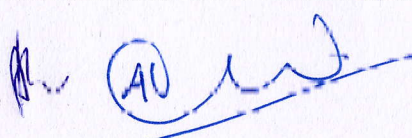
SOUTH EASTERN COALFIELDS LIMITED
(A MINI RATNA COMPANY)
BILASPUR (CHHATTISGARH)

APPENDIX – I
(See paragraph – 6)

FORM 1

(I) Basic Information:

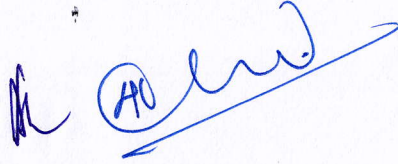
S.No.	Item	Details									
1.	Name of the project/s:	BANGWAR UG MINE									
2.	S. No. in the schedule	1(a)									
3.	Proposed capacity/area/length/tonnage to be handled/command area/lease area/number of Wells to be drilled.	Proposed Capacity of project: 0.650 MTY Proposed Area: 487.806 Ha.									
4.	New/Expansion/Modernization	Existing project									
5.	Existing Capacity Area etc.	Existing capacity: 0.650 MTY Existing lease area: 487.806 Ha.									
6.	Category of Project i.e.' A' or 'B'	A									
7.	Does it attract the general condition? If yes, Please specify.	No									
8.	Does it attract the specific condition? If 'yes, Please specify.	No									
9.	Location	BANGWAR UG Mine, Burhar Tehsil Distt: Shahdol (MP)									
		Latitude–N23°08'45''–23°09'45'' Longitude–E81°31'20''–81°33'00''									
	Plot/Survey/Khasra No.	Survey of India Toposheet no.64 E/12									
	Village	Bangwar									
	Tehsil	Burhar									
	District	Shahdol									
	State	Madhya Pradesh									
10.	Nearest railway station/airport along with Distance in kms	Amlai, Distance- 8 Km									
11.	Nearest Town, city, District Headquarters Along with distance in kms.	a) Towns: Amlai b) District H/Q: Shahdol: 35 KM c) District Collectorate: Shahdol District, Madhya Pradesh									
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal Address with telephone nos. to be given)	<table border="1"> <thead> <tr> <th>Panchayat/ Municipal</th><th>Village</th><th>Contact Nos.</th></tr> </thead> <tbody> <tr> <td>Bandi-Khurd</td><td>Bangwar</td><td>Smt.Champa Bai 06260235782</td></tr> <tr> <td>Bemhouri</td><td>Bemhouri</td><td>Sri Natthulal Baiga 9630374252</td></tr> </tbody> </table>	Panchayat/ Municipal	Village	Contact Nos.	Bandi-Khurd	Bangwar	Smt.Champa Bai 06260235782	Bemhouri	Bemhouri	Sri Natthulal Baiga 9630374252
Panchayat/ Municipal	Village	Contact Nos.									
Bandi-Khurd	Bangwar	Smt.Champa Bai 06260235782									
Bemhouri	Bemhouri	Sri Natthulal Baiga 9630374252									
13.	Name of the applicant	South Eastern Coalfields Limited									
14.	Registered Address	Seepat Road, Bilaspur-495006. (CG)									



15.	Address for correspondence:	
	Name	
	Designation (Owner/Partner/CEO)	General Manager (WBP & Environment)
	Address	WBP & Environment Department, SECL, Seepat Road, Bilaspur.
	Pin Code	495006
	E-mail	gmenvtsecl@gmail.com
	Telephone No.	07752-246324
	Fax No.	07752-246324
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Coal Mining is a site specific activity. The mine is already operational.
17.	Interlinked Projects	Not Applicable.
18.	Whether separate application of interlinked Project has been submitted?	Not Applicable.
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? (b) The Wildlife (Protection) Act, 1972 (c) The C.R.Z. Notification, 1991?	Details of Forest Land : Forestland: 396.130 Ha. a. 325.53 ha- Diverted and applied for renewal with surface right, Form at APPCF, Bhopal vide proposal No. FP/MP/MIN/23108/2016 b. 36.734 Ha – applied for diversion, (proposal at Nodal officer, MP forest). Vide proposal No. FP/MP/MIN/29264/2017 c. 3.296 Ha- Acquired with surface right. d. 30.570- stage 2 valid up to 2020. Total forest land involved: 396.13 Ha.
22.	Whether there is any Government Order/ Policy relevant/ relating to the site?	NA, No
23.	Forest land involved (hectares)	Details of Forest Land : Forestland: 396.130 Ha. a. 325.53 ha- Diverted and applied for renewal with surface right, Form at APPCF, Bhopal vide proposal No. FP/MP/MIN/23108/2016 b. 36.734 Ha – applied for diversion, (proposal at Nodal officer, MP forest). Vide proposal No. FP/MP/MIN/29264/2017 c. 3.296 Ha- Acquired with surface right. d. 30.570- stage 2 valid up to 2020. Total forest land involved: 396.13 Ha.

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24.	Whether there is any litigation pending against the project and /or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any an its relevance with the proposed project.	No case under Environment Protection Act.
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APPENDIX I

(See paragraph – 6)

FORM 1

(I) Basic Information

Name of the Project: Bangwar underground mine

Location / site alternatives under consideration: Latitude N23°08'45"-23°09'45"
Longitude E81°31'20"-81°33'00"

Size of the Project : 4.87 Sq.KM

Expected cost of the project : Rs 2754.85 Lakhs

Contact Information : Shri A.J Banarjee, Project Officer, 9425533411
Shri P.K.Sharma, Mine Manager, 9425533451

Screening Category: A

- Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)

(II) Activity

- 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	Particulars	Mining area	Infrastructure and colony	Total
			Forest land	392.834	3.296	396.13
			Tenancy land	85.876	-	85.876
			Government land	5.8	-	5.8
			Total	484.51	3.296	487.806
			Post mining land use plan: 487.806 Ha afforested area (Source: Mine closure plan)			
1.2	Clearance of existing land, vegetation and buildings?	YES	3.296- forest land has been cleared for building and infrastructures construction			
1.3	Creation of new land uses?	NO	3.296 ha forest land are used for infrastructure and building			
1.4	Pre-construction investigations e.g.		267 nos. of bore holes have been drilled by			

	bore houses, soil testing?		CMPDI involving 25000m of drilling with borehole density of 5.4 hole /sq KM
1.5	Construction works?	YES	Existing project, Construction of following major buildings are already completed: a) Sub-station building b) Store building c) Workshop d) Project office e) Manager Office
1.6	Demolition works?	YES	As per final mine closure plan. Progressive mine closure plan has been prepared & duly approved by Company secretary during 213th meeting held on 18th May 2013.
1.7	Temporary sites used for construction works or housing of construction workers?	NO	Not Applicable
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	YES	Construction of following infrastructure already exists, such as Colony (479 quarters), Substation, Pit office, Canteen, Rest shelter, First Aid room, Workshop, Weigh bridge. Infrastructure.
1.9	Underground works including mining or tunneling?	YES	Extraction of Coal through underground mining method.
1.10	Reclamation works?	YES	Plantation around mine premises has been done (29199 plants), and reclamation by plantation of mine premises after completion of project. Crack filling in subsidence area/de-pillared area
1.11	Dredging?	NO	Not Applicable
1.12	Offshore structures?	NO	Not Applicable
1.13	Production and manufacturing processes?	YES	Coal Production from U/G mine
1.14	Facilities for storage of goods or materials?	YES	(i) Coal stock (250 x 120m). (ii) Store (40 x 20m). (iii) Portable Magazine.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	YES	Solid Waste: No solid waste generated. UG mine. (ii) Mine water: Sedimentation/settling Tanks for treatment on mine water: Underground sump: 02 Nos. Municipal waste: Old residential colony. Soak-pits & septic tanks have been provided in residential colony.
1.16	Facilities for long term housing of operational workers?	YES	Bangwar colony (479 quarters), Old residential colony. Soak-pits & septic tanks have been provided in residential colony.
1.17	New road, rail or sea traffic during construction or operation?	NO	Existing project, all major construction works completed. No new road/rail construction required.

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1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	NO	Existing project, all major construction works completed. No new road/rail construction required.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	NO	Not applicable, No Closure or diversion of existing transport routes or infrastructure will be done.
1.20	New or diverted transmission lines or pipelines?	NO	NA
1.21	Impoundment, damming, converting, realignment or other changes to the hydrology of watercourses or aquifers?	YES	<p>Only during depillaring with caving, subsidence due to total extraction of coal causes changes in topography and drainage by developing micro basins, subsidence fractures, ridges, pot holes, etc. This alters the drainage of the area in micro level.</p> <p>No any realignment or others changes too hydrology of watercourses, all nallah are flowing outside of mine boundary.</p> <p>In Aquifers- mining activities may cause changes in aquifer geometry, Water levels in the vicinity of the mine and disturb the Groundwater flow direction. This can also create secondary fractures and higher permeability zones within the aquifer system. Thereby, the aquifer units maintain continuity and improve secondary porosity. After the mining activity, the aquifer restores its original water level and mined out area behave as groundwater reservoirs</p>
1.22	Stream crossings?	NO	NA
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	<p>Aquifer water released by mining activities and small quantity ground water abstraction is required for drinking purpose</p> <p>Mine water extraction- 2200 KLD</p> <p>Ground water for drinking purpose -50 KLD</p>
1.24	Changes in water bodies or the land surface affecting drainage or runoff?	Yes	During depillaring runoff pattern may be change due formation of subsidence trough, necessary corrective measure will be taken like crack filling, plantation etc.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	YES	<p>a) Transportation of coal is done by road to Burhar railway siding for onward transportation by rail.</p> <p>b) Light vehicles & bus for transportation of personnel.</p>
1.26	Long-term dismantling or decommissioning or restoration works?	YES	It will be dealt in final mine closure plan.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	NO	It will be dealt in final mine closure plan.
1.28	Influx of people to an area in either temporarily or permanently?	YES	<p>Project manpower: 895 Nos.</p> <p>Other allied services manpower: 83 Nos.</p> <p>Total : 980 Nos.</p>

1.29	Introduction of alien species?	NO	NA
1.30	Loss of native species or genetic diversity?	NO	NA
1.31	Any other actions?	NO	NA

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	Particulars	Mining area	Infrastructure and colony	Total
			Forest land	392.834	3.296	396.13
			Tenancy land	85.876	-	85.876
			Government land	5.8	-	5.8
			Total	484.51	3.296	487.806
2.2	Water (expected source & competing users) unit: KLD	YES	For industrial purpose like dust suppression, plantation fire fighting-200 KLD Source - Mine water Domestic - 10 KLD Source-Bore well			
2.3	Minerals (MT)	YES	Coal Reserve - 18.85 MT As on 01.04.2018			
2.4	Construction material - stone, aggregates, sand / soil (expected source - MT)	NO	Major Construction activity has been completed During operation of mine : Construction material will be used in u/g for making ventilation stopping's, Retaining wall & Air crossing etc. Bricks, Sand, Cement, Stone Aggregate. Source of construction materials: Stone crushers, rivers and Thermal Power ash.			
2.5	Forests and timber (source - MT)	YES	Wooden sleeper will be required for roof support.			
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	NO	Elect. Consumption - 12299.479 MW/Year Diesel- 9578ltr. /Year			
2.7	Any other natural resources (use appropriate standard units)	NO	Not Applicable			

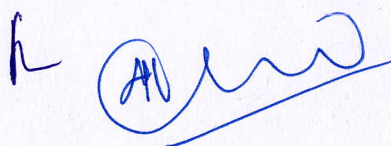
3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

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)	Yes	Cap lamp and used batteries, burnt oil for machineries. The storage/use/ handling of hazardous substances will be taken

			care as per safety norms. Authorized HW quantity: Burnt oil (Cat 5.1)- 0.2 KL Waste residual oil(Cat 5.2)-0.050 MT Batteries consumption: about 530 Nos. per year
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)

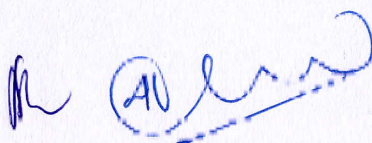
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	NO	Not Applicable, Underground mine
4.2	Municipal waste (domestic and or commercial wastes)	yes	Bangwar colony (479 quarters), Old residential colony. Soak-pits & septic tanks have been provided in residential colony.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	YES	Used oil/waste oil are stored in separate drums/container. Then transported to Regional Store at Area HQ for storage and finally centralized auction from SECL HQ to the authorized parties. Authorized HW quantity: Burnt oil (Cat 5.1)- 0.2 KL Waste residual oil(Cat 5.2)-0.050 MT
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	YES	Older colony, septic tank with soak pits are provided in colony.
4.7	Construction or demolition wastes	YES	As per final mine closure plan. Progressive mine closure plan has been prepared & duly approved by Company secretary during 213th meeting held on 18th May 2013.



4.8	Redundant machinery or equipment	YES	Machinery/ equipment surveyed off as & when reqd. or when found necessary
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)

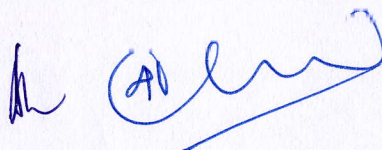
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	YES	Bangwar is an UG mine and all the machineries works on electric power except Dumpers and loaders. 06 LCV and 05 HCV (per day) are to be deployed in the project. Emissions due to burning of fossil fuels from vehicles/ machinery deployed.
5.2	Emissions from production processes	YES	Quantity within permissible limit.
5.3	Emissions from materials handling including storage or transport	YES	Fugitive dust emission due to coal handling, emission form Dumpers and loaders, deployed for coal handling,
5.4	Emissions from construction activities including plant and equipment	NO	Quantity insignificant
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	yes	<ol style="list-style-type: none"> 1. During operation of mine : Construction material will be used in u/g for making ventilation stopping's, Retaining wall & Air crossing etc., pollution from these activities are within permissible limit. 2. Domestic sewage & waste: Soak pit and septic tank provided at residential quarters. 3. Industrial sewage and waste: no solid waste generated. Settling tank provided for treatment of mine discharge water. 4. Odors form these activities is negligible.



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	Source of noise: 1. Bangwar is an underground mine and there are 05HCV, and 06 LMV operational at surface. 2. Ventilation fan. Control measures for preventing noise pollution are- 1. Regular maintenance of machineries 2. Green belt development around the fan house, transportation, 3. Regular monitoring and corrective measures, if necessary.
6.2	From industrial or similar processes	YES	Underground mine and there is no HEMM operational at surface. Noise from main mechanical ventilator is within permissible limit. Vibrations resulting due to blasting in mine are within permissible standards of DGMS.
6.3	From construction or demolition	No	Existing mine, all major construction works are completed.
6.4	From blasting or piling	YES	Underground mine, Generation of Instantaneous noise and vibration during blasting which is maintained within the permissible limits specified by DGMS.
6.5	From construction or operational traffic	YES	06 LCV and 05 HCV (per day) are to be deployed in the project. Noise and vibration level will be kept well within permissible limits.
6.6	From lighting or cooling systems	NO	Bangwar is an underground mine and there is no cooling plant operational at surface. Noise from main mechanical ventilator is within permissible limit
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	YES	Burnt oil & Oil Sludge will be handled & stored as per norms. Precautionary measures are taken during storage, handling and transportation to avoid spillage. Authorized quantity: Burnt oil (Cat 5.1)- 0.2 KL Waste residual oil (Cat 5.2)-0.050 MT
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)		Water is being pumped out from u/g after initial settling at underground holding sump and then goes to Baiga quarry (8.5 Ha) further used for settling of mine water. Sewerage disposal system with conventional septic tanks & soak pits in residential colony.
7.3	By deposition of pollutants emitted to air into the land or into water	YES	The pollutants emitted are disperse/dilute/deposited in environment. The environment monitoring is being done as per coal mining standards and values recorded are within permissible limit.
7.4	From any other sources	NO	NA
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	NO	NA

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	YES	storage, safe handling and usage of explosive. All precautionary measure as stipulated in License Granted for storage and use of explosive by "PESO" are strictly followed. MSDS for explosive are kept handy and followed. In addition to above, Mine emergency response plan has been

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			prepared to prevent any incidents / accidents as per guidelines of DGMS. Regular mock drills are conducted to ascertain readiness of persons
8.2	From any other causes	YES	1. Operation of fleet of HCV on surface and operation of other UG equipment. 2. Blasting 3. Fire 4. Mine inundation. Traffic rule, Code of practice for blasting and emergency organization plan has been prepared as per guidelines of DGMS.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	YES	Although the project is not falling under seismically active zone or land slide prone zone, however, mine is well equipped to deal with eventuality as enumerated in CMR 1957 and related DGMS circulars.

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	Lead to development of supporting utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <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	The region is highly industrialized with a number of working mines. This has led to overall economic growth of nearby areas to supplement the population of the area & creation of social infrastructures like schools, hospitals, and roads etc, which help in economic development in the region. Along with leading to semi urban development in infrastructure of the nearby areas & supporting mining and other industries.
9.2	Lead to after-use of the site, which could have an impact on the environment	YES	Due to underground mining, there will be a little change in land use pattern. The after use of land will be covered in the Final mine closure plan as per prevailing guidelines/norms.
9.3	Set a precedent for later developments	YES	Existing project, ancillary and other development already happen.

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9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	YES	Underground project, cumulative effects due to proximity is very small because project is surrounded by forest.
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(III) Environmental Sensitivity

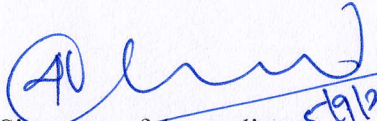
S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	NO	NA
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	NO	NA
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	NO	NA
4	Inland, coastal, marine or underground waters	NO	NA
5	State, National boundaries	NO	NA
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	NO	NA
7	Defense installations	NO	NA
8	Densely populated or built-up area	NO	No of villages In core zone – 3 In buffer zone -54
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	YES	Hospitals, schools, place of worship etc. are situated within 10 KM of the mine. School- 41 Place of worship- 30 Hospitals- 08
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	NO	Except for coal reserve, no other highquality reserves were encountered.
11	Areas already subjected to pollution or	NO	NA

	environmental damage. <i>(those where existing legal environmental standards are exceeded)</i>		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems <i>(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)</i>	NO	NA

Undertaking : I hereby given undertaking that the data and information given in the application and the enclosure 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.

Date:

Place:


Signature of the applicant

With Name and Full address
(Project proponent / Authorized Signatory)

