

**APPLICATION  
FOR  
ENVIRONMENTAL CLEARANCE  
(AS PER EIA NOTIFICATION, 2006)  
FOR  
MURPAR UG EXPANSION MINE  
(PHASE-I)  
Underground Mine  
UMRER AREA  
WESTERN COALFIELD LIMITED**

Production Capacity - 0.28 MTPA  
Increase in leasehold area from 325 ha to 482.09 ha

**FORM – 1  
&  
TERMS OF REFERENCE**



**AUGUST - 2017**

**Prepared by:-**  
**Central Mine Planning & Design Institute Limited**  
(Acceditated by NABET vide QCI/NABET/ENV/AOC/16/05/0166 dt 24.05.2016.  
Validity: 03 Years)

**Murpar UG Expansion Mine (Phase-I)**  
**(As per EIA Notification, 2006)**

**APPENDIX I**  
**(See paragraph-6)**  
**FORM - I**

• **Basic Information**

SN.	Item	Details
1	Name of the project/s.	Murpar UG Expansion Mine (Phase-I)
2	S.No. in the schedule.	1(a) (i) Mining of Minerals
3	Proposed capacity/area/length/ tonnage to be handled/command area/lease area/number of wells to be drilled.	Production Capacity: --0.28 MTPA Increase in Land Area from 325 ha to 482.09 ha (Net increase in area -157.09 ha)
4	New/Expansion/Modernization.	Expansion
5	Existing Capacity/Area etc.	Production Capacity: --0.28 MTPA Land Area- 325 ha
6	Category of Project i.e. 'A' or 'B'.	'A'
7	Does it attract the general condition? If yes, please specify.	No, since it is a Category "A" project
8	Does it attract the specific condition? If yes, please specify.	No, since it is a Category "A" project
9	Location	Murpar village
	Plot/Survey/Khasra No.	Latitude : 20° 31' 40" N to 20° 34' 49" N, Longitude : 79° 16' 00" E to 79° 19' 08" E Toposheet : 55 P/6 (RF - 1 : 50,000)
	Village	Murpar Village
	Tehsil	Chimur
	District	Chandrapur
	State	Maharashtra
10	Nearest railway station/airport along with distance in kms.	Nearest Railway station is Warora Railway station at about 43 km and nearest airport is Nagpur airport at about 133 km.
11	Nearest Town, City, District Headquarters along with distance in kms.	Town – Chimur, Distance 8 km (Approx.) District – Chandrapur, Distance – 105 km (Approx.)
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given).	Murpar Village Panchayat, Tahsil – Chimur, Dt. Chandrapur, Maharashtra State
13	Name of the applicant.	General Manager (Environment) Western Coalfields Limited (HQ) Coal Estate, Civil Lines, Nagpur – 440 001.
14	Registered Address	Western Coalfields Limited, Coal Estate, Civil Lines, Nagpur - 440001
15	Address for correspondance:	
	Name	Kaushik Chakraborty
	Designation (Owner/Partner/CEO)	General Manager (Environment)
	Address	Western Coalfields Limited (HQ) Coal Estate, Civil Lines,

SN.	Item	Details
		Nagpur – 440 001.
	Pin Code	440 001
	E-mail	gmenvironment@westerncoal.gov.in
	Telephone No.	0712 – 2510151
	Fax No.	0712 – 2510151
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Coal is site specific, hence only coal bearing areas are proposed to be worked for coal production.
17	Interlinked Projects.	NIL
18	Whether seperate application of interlinked project has been submitted?	No
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?	a) Total 248 ha of forest land is involved in existing Murpar UG. The FC has been obtained vide F. no. 8-35/2000-FC dated 01/06/2001 for this forest land. There is no additional forest land required in phase-I of Murpar Expansion UG Mine.  b) The project is within eco sensitive-Zone of Tadoba-Andhari Tiger Reserve. Northern boundary of Buffer & Core Zone of Tadoba-Andhari Tiger Reserve is at a distance of approx. 5 kms & 13 kms respectively from the Murpar UG. There will be no impact on surface features since Murpar UG is an existing mine and the proposal for expansion in area is only for development of coal seam through the existing mine opening. c) There is no sea coast within 10 km of the project under consideration as such the C.R.Z. Notification 1991 is not applicable.
22	Whether there is any Government Order/Policy relevant/relating to the site?	No
23	Forest land involved (hectares).	248 ha (in existing Murpar UG) No additional forest land required for Murpar Expansion UG (Phase-I)
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 and its relevance with the proposed project.	No

**(I)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/Check list 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	<p>The additional land involved for Murpar Expansion UG mine (Phase-I) is 157.09 ha. The total leasehold area of Murpar Expansion UG Mine (Phase-I) will be 482.09 ha.</p> <p><b>Land use details (Existing Mine)</b></p> <table><tr><th>S. N.</th><th>LAND USE</th><th>Within ML Area (ha)</th><th>Outside ML Area (ha)</th><th>Total</th></tr><tr><td>1</td><td>Agricultural/Tenancy land</td><td>57.0</td><td>15.0</td><td>63.0</td></tr><tr><td>2</td><td>Forest land</td><td>248.0</td><td>-</td><td>248.0</td></tr><tr><td>3</td><td>Waste land/Govt. land</td><td>5.0</td><td>-</td><td>5.0</td></tr><tr><td>4</td><td>Grazing land</td><td>-</td><td>-</td><td>-</td></tr><tr><td>5</td><td>Surface water bodies</td><td>-</td><td>-</td><td>-</td></tr><tr><td>6</td><td>Settlements</td><td>-</td><td>-</td><td>-</td></tr><tr><td>7</td><td>Others (specify)</td><td>-</td><td>-</td><td>-</td></tr><tr><td></td><td>Total</td><td>310.0</td><td>15.0</td><td>325.0</td></tr></table> <p><b>Land use details (Present Proposal)</b></p> <table><tr><th>S. N.</th><th>LAND USE</th><th>Within ML Area (ha)</th><th>Outside ML Area (ha)</th><th>Total</th></tr><tr><td>1</td><td>Agricultural/Tenancy land</td><td>214.09</td><td>15.00</td><td>229.09</td></tr><tr><td>2</td><td>Forest land</td><td>248.0</td><td>-</td><td>248.0</td></tr><tr><td>3</td><td>Waste land/Govt. land</td><td>5.0</td><td>-</td><td>5.0</td></tr><tr><td>4</td><td>Grazing land</td><td>-</td><td>-</td><td>-</td></tr><tr><td>5</td><td>Surface water bodies</td><td>-</td><td>-</td><td>-</td></tr><tr><td>6</td><td>Settlements</td><td>-</td><td>-</td><td>-</td></tr><tr><td>7</td><td>Others (specify)</td><td>-</td><td>-</td><td>-</td></tr><tr><td></td><td>Total</td><td>467.09</td><td>15.00</td><td>482.09</td></tr></table> <p>The existing mine entries of Murpar UG will be used for mining operations in additional land (157.09 ha). Only development of coal seam (Seam-IX) has been proposed in the approved scheme. Hence there will not be any change in land use due to present proposal of expansion.</p>	S. N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total	1	Agricultural/Tenancy land	57.0	15.0	63.0	2	Forest land	248.0	-	248.0	3	Waste land/Govt. land	5.0	-	5.0	4	Grazing land	-	-	-	5	Surface water bodies	-	-	-	6	Settlements	-	-	-	7	Others (specify)	-	-	-		Total	310.0	15.0	325.0	S. N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total	1	Agricultural/Tenancy land	214.09	15.00	229.09	2	Forest land	248.0	-	248.0	3	Waste land/Govt. land	5.0	-	5.0	4	Grazing land	-	-	-	5	Surface water bodies	-	-	-	6	Settlements	-	-	-	7	Others (specify)	-	-	-		Total	467.09	15.00	482.09
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1.2	Clearance of existing land, vegetation and buildings?	No	The existing mine entries of Murpar UG will be used for mining operations in additional land (157.09 ha). Only development of coal seam (Seam-IX) has been proposed in the approved scheme. Hence there will not be any change in land use due to present proposal of expansion.																																																																																										
1.3	Creation of new land uses?	No	The existing mine entries of Murpar UG will be used for mining operations in additional land (157.09 ha). Only development of coal seam (Seam-IX) has been proposed in the approved scheme. Hence there will not be any change in land use due to present proposal of expansion.																																																																																										
1.4	Pre-construction investigations e.g. bore holes, soil testing?	No	The necessary exploratory boreholes had been drilled to assess the coal reserves in the block.																																																																																										

S.No.	Information/Check list confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data			
1.5	Construction Work	No	Major service buildings like Project Managers Office, Service Magazine, Canteen, Store, Fan House, Lamproom, Sub-station, Workshop, Water treatment plant, Mine discharge treatment plant, rest house, direct haulage room, D.G. set room, Weigh-bridge etc. which have been already constructed will be continued to be used in Murpar Expansion UG Mine (Phase-I).			
1.6	Demolition works?	No	Not required.			
1.7	Temporary sites used for construction works or housing of construction workers?	No	Not required.			
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	Not required.			
1.9	Underground works including mining or tunneling?	Yes	Drivage of three stone drifts from Seam-VII to Seam-IX is required. These three drifts (4.2m x 3.0m) at 1 in 4.5 gradient would be utilised for Coal transport, Material transport and Return airway respectively for the proposed panels during development of Seam-IX as per the Scheme for Murpar UG Expansion Mine (Phase-I).			
1.10	Reclamation works?	No	Not required for expansion project.			
1.11	Dredging?	No	---			
1.12	Offshore structures?	No	---			
1.13	Production and manufacturing processes?	Yes	Underground mining with LHD			
Production schedule for Murpar Expansion UG Mine (Phase-I)						
		Particulars	I Year	II Year	III Year	IV Year
		Production (tpd)	800	933	933	813
		Production (MTPA)	0.24	0.28	0.28	0.244
1.14	Facilities for storage of goods or materials?	Yes	Existing store will cater to the need of expansion project. Portable Magazine is catering to the daily requirement of Murpar U/G Mine.			

S.No.	Information/Check list confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Insignificant solid waste will be generated as it is an underground coal mine.
1.16	Facilities for long term housing of operational workers?	Yes	At present, about 225 quarters of different types have been constructed for Murpar UG mine at Bander Colony on Wardha - Chimur Road. The colony is situated at a distance of 9 km from the mine at Chimur-Warora State Highway.
1.17	New road, rail or sea traffic during construction or operation?	No	Existing coal transportation route will cater to the need of proposed project.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	-
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	-
1.20	New or diverted transmission lines or pipelines?	No	-
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	-
1.22	Stream crossings?	No	---
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	There are five number of aquifer in the area. The top unconfined aquifer extending down to a depth of about 20 m bgl occurs in soil zone / weathered Kamthis and Basalt and is tapped by dug wells for domestic and agriculture use. Ground water abstraction will be done to ensure safety of underground mine.

S.No.	Information/Check list confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	--
1.25	Transport of personnel or materials for construction, operation or de-commissioning?	Yes	The colony is situated at a distance of 9 km from the mine at Chimur-Warora State Highway. Personal as well as official vehicles are used for transportation of mining personnel. Store and construction material are transported by trucks.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	Not envisaged at present however provision for mine closure fund as per statute has been made in approved scheme.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not envisaged at present.
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Existing manpower in Murpar U/G Mine is 426 including executives & non-executives. An additional manpower requirement of 227 is needed for production and this manpower requirement would be internally arranged.
1.29	Introduction of alien species?	No	---
1.30	Loss of native species or genetic diversity?	No	---
1.31	Any other actions?	No	

**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	The existing mine entries of Murpar UG will be used for mining operations in additional land (157.09 ha). Only development of coal seam (Seam-IX) has been proposed in the approved scheme. Hence there will not be any change in land use due to present proposal of expansion.			
2.2	Water (expected source & competing users) unit: KLD	Yes	Ground Water Abstracted on account of Dewatering / Mining Seepage - 9354.24 m3/day (Maximum)			
2.3	Minerals (MT)	Coal	Total mineable reserves considered for extraction are 1.0447 Million Tonne.			
2.4	Construction material – stone, aggregates, sand/ soil (expected source( MT)	Yes	As required for installation of Conveyor Belts provided in approved scheme of Murpar Expansion UG Mine			
2.5	Forests and timber (source – MT)	Yes	Will be required in small quantity for various purposes.			
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	SI. No	Particulars	Data	
			1.	Specific Energy Consumption for Additional P&M	11.22 kWh / t	
			2.	Specific Power Cost	Rs. 94.77/t	
			3.	Fixed Percentage of Power Cost	32.53 %	
			4.	Variable Percentage of Power Cost	67.47 %	
			5.	Specific Demand	1.814 MVA/Mt.	
			6.	Capacitor Bank Provided	400 kVAR	
			7.	Target Coal production	0.28 Mty	
			8.	Average Cost of Purchased Power	Rs. 8.45 / kWh	
2.7	Any other natural resources (use appropriate standard units)	No	----			

**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	Used oils and old batteries will be auctioned to authorized re-processors.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	--
3.3	Affect the welfare of people e.g. by changing living conditions?	No	---
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	---
3.5	Any other causes	No	---

#### 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	Insignificant solid waste will be generated during drifting through the stone.
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Domestic – Recycling for manures. Approximately 360 kg/ day from colony
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	<ul style="list-style-type: none"> <li>Used Batteries and Oil –Through approved Recyclers.</li> </ul>
4.4	Other industrial process wastes	No	---
4.5	Surplus product	No	---
4.6	Sewage sludge or other sludge from effluent treatment.	Yes	Sludge from effluent Treatment – disposed as per Consent Conditions.
4.7	Construction or demolition wastes	Yes	During demolition of infrastructure solid waste will be generated.
4.8	Redundant machinery or equipment	Yes	<ul style="list-style-type: none"> <li>By auction through authorized agencies.</li> </ul>
4.9	Contaminated soils or other materials	Yes	<ul style="list-style-type: none"> <li>Through biological reclamation by growing trees (Native Species).</li> </ul>
4.10	Agricultural wastes	No	---
4.11	Other solid wastes	No	---

### 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	The quantum of gases viz. SO <sub>2</sub> and NO <sub>2</sub> generated due vehicular movement in ambient environment are measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000. The same will be continued for Murpar Expansion UG Mine.
5.2	Emissions from production processes	Yes	<ul style="list-style-type: none"> <li>• Dust particles including coal dust.</li> <li>• The quantum of Dust (TSPM &amp; PM<sub>10</sub>) in the ambient environment is measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000. The same will be continued for Murpar Expansion UG Mine.</li> </ul>
5.3	Emissions from materials handling including storage or transport	Yes	<ul style="list-style-type: none"> <li>• Dust particles including coal dust.</li> <li>• The quantum of Dust (TSPM &amp; PM<sub>10</sub>) in the ambient environment is measured through ambient air quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000. The same will be continued for Murpar Expansion UG Mine.</li> </ul>
5.4	Emissions from construction activities including plant and equipment	No	---
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	No	---
5.6	Emissions from incineration of waste	No	---
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	---
5.8	Emissions from any other sources	No	---

**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	Generation of Noise and Vibration will be due to the vehicle use for coal and manpower transportation. The quantum of noise in ambient environment is measured through ambient noise quality monitoring in the mine activity area every fortnight as per Environment Protection Amendment Rule, 2000. The same will be continued for Murpar Expansion UG Mine.
6.2	From industrial or similar processes	No	--
6.3	From construction or demolition	No	--
6.4	From blasting or piling	Yes	The coal is extracted in underground by blasting off solid using permitted explosives. Maximum instantaneous noise level upto 110 dB(A) is likely to be generated during blasting operations. Noise level will be maintained as per DGMS guidelines in mining operations.
6.5	From construction or operational traffic	No	--
6.6	From lighting or cooling systems	No	---
6.7	From any other sources	No	---

**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	Used Oil – will be disposed off through approved Recyclers and same will be continued.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	<p><u>Mine Pumped Out Water –</u>  Water collected in the working is being first allowed to settle in sumps. A sufficiently large sump has been provided to eliminate the undissolved suspended solid through 5 M.L.D. capacity mine water treatment plant. The final treated discharge e.g. water spraying, irrigation of agriculture field, watering of plant, etc. Balance quantity if any will be discharged in natural water source.  Quality parameters of mine discharge water are being monitored and will be continued to be monitored on fortnightly basis.</p> <p><u>Domestic sewage</u>  Residential quarters are provided with conventional soak pit system.</p>
7.3	By deposition of pollutants emitted to air into the land or into water	No	---
7.4	From any other sources	No	---
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	---

**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	All the precautions laid down for mining problems like fire & spontaneous heating will be carefully followed as per Statutory and regulatory norms.
8.2	From any other causes	Yes	All the precautions laid down for mining problems like inundation, water seepage from roof & floor, dust suppression, fire & spontaneous heating, roof control and subsidence etc. will be carefully followed as per Statutory and regulatory norms.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	----

**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**

9.1	Lead to development of supporting Facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> <li>• Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)</li> <li>• housing development</li> <li>• extractive industries</li> <li>• supply industries</li> <li>• other</li> </ul>	Yes	Economic growth associated with coal mining activities lead to semi Urban like development. The existing project Murpar UG supported development of ancillary and supporting industries and other related activities in the area. The expansion of this project will continue to support development of housing, roads, ancillary industries and lead to Improvement in social & living standards.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	--
9.3	Set a precedent for later developments	Yes	Activities detailed out in previous paragraph above do culminate in conjunction with local setup has set precedence of economic development leading to over all socio-economic growth of the area.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	Yes	Coal occurs in layers and continues for large distances. Associated mining activity with such closely located centers along with other related service sector could have a cumulative impact. This is the only existing mine in the area. However a conceptual note for expansion of Murpar UG in large area (Phase-II) is under preparation.

## III ) Environmental Sensitivity

S.No	Areas	Name/ Identity	Aerial distance (within 10 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Yes	Project is within Eco-sensitive Zone of Tadoba-Tiger Reserve Forest.
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	The existing Murpar UG is having 248 ha of forest land for which FC has been already granted. The mine is surrounded by Kasarbodi Reserve Forest. Project is within Eco-sensitive Zone of Tadoba-Tiger Reserve Forest. Northern boundary of Buffer & Core Zone of Tadoba-Andhari Tiger Reserve is at a distance of approx. 5 kms & 13 kms respectively from the Murpar UG. There are no coastal zones biospheres, mountains.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	The area may be used by protected species like tiger as it falls under eco-sensitive zone of tiger reserve. Murpar UG is an existing mine and the proposal for expansion in area is only for development of coal seam through the existing mine opening.
4	Inland, coastal, marine or underground waters	No	---
5	State, National boundaries	No	----
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	----
7	Defence installations	No	---
8	Densely populated or built-up area	Yes	There is no densely populated area in the core zone. Only Murpar village with --population is existing in the project area.
9	Areas occupied by sensitive man-made land uses ( <i>hospitals, schools, places of worship, community facilities</i> )	Yes	Limited to Project township area and nearby villages.
10	Areas containing important, high quality or scarce resources ( <i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i> )	Yes	Ground water – Yes Surface water- River, Nallah's. Forestry - Yes Agricultural – Yes Fisheries - Yes Minerals – Coal.

11	Areas already subjected to pollution or environmental damage. <i>(those where existing legal environmental standards are exceeded)</i>	No	---
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	---

#### **(IV). PROPOSED TERMS OF REFERENCE FOR EIA STUDIES**

Based on the information furnished in Form – I, the Terms of Reference (TORs) for undertaking detailed EIA is proposed as under:

- i) The proposed project under consideration is Murpar Expansion UG Mine for existing production capacity of 0.28 MTPA and increase in ML area from 325 ha to 482.09 ha located in Tahsil - Chimur, Dist - Chandrapur, State - Maharashtra as shown in the plan (Plate – I) and fall under the administrative control of Umrer Area of Western Coalfields Limited. The additional area of 157.09 ha is tenancy land of Murpar village.
- ii) The study area will comprise of 10 km (radius) zone around the mine lease as shown in the enclosed plan (Plate – II). Project is within Eco-sensitive Zone of Tadoba-Tiger Reserve Forest. Northern boundary of Buffer & Core Zone of Tadoba-Andhari Tiger Reserve is at a distance of approx. 5 kms & 13 kms respectively from the Murpar UG. However, there will be no impact on surface features since Murpar UG is an existing mine and the proposal for expansion in area is only for development of coal seam through the existing mine opening without increase in production capacity of mine.
- iii) A site plan including surface layout plan showing the details of mining project, administrative block, colony, workshop, stores, coal stock yard etc will be enclosed with the EMP. This plan will form the part of detailed EIA study.
- iv) Routine environmental monitoring carried out for existing Murpar UG Mine will be included in the EIA report. This will form the basis of detailed EIA study. As the project is only for increase in land area within existing production capacity, the impact of proposed project will be negligible on environment. Only development of coal seam will carried out in increased land area of 157.09 ha. Thus exemption from generation of baseline data for the EIA studies may be granted.
- v) Hydro geological study including water balance study in the study area will be carried out and will be further detailed in the EIA Study. It will also include the impact of pumping of ground water & its discharge into natural water body in the area.
- vi) Prediction of impact on different environmental components inter- alia.
  - a) Ambient air including noise.
  - b) Water.
  - c) Soil/Land
  - d) Socio-economic will be carried out.

- vii) Details of land use, waste generation, stage-wise land use & reclamation area, stage-wise cumulative plantation and post mining land use pattern will be provided in detail in EMP report.
- viii) Details of mitigation measures to be taken for control of pollution level will be provided.
- ix) An application for grant of TOR was made to MoEF on 25/05/2011 for increase in land area from 325 ha to 759.28 ha within same peak production capacity of 0.28 MTPA. TOR was granted vide letter No. J-11015/129/2011-IA.II(M) dated 17/08/2011. The Public hearing for the project held on 27/12/2011 at project site of Murpar UG. However the project was dropped due to adverse geological conditions. Present proposal is for Phase-I of Murpar Expansion UG Mine which is only for expansion in area (Non Forest land-157.09 ha) for development of coal seam through the existing mine openings. The mine life in Phase-I has been envisaged only 4 years. Phase-II of the project will involve Forest land, and a separate application of EC will be made on approval of project report of Phase-II. In view of above exemption from public hearing may be given for Phase-I of the project. **The status of implementation of earlier Public Hearing is being submitted.**

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I hereby give 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.

Date: \_\_\_\_\_

Signature of the applicant  
With Name and Full Address

Place: \_\_\_\_\_

(Project Proponent / Authorized Signatory)