WESTERN PART OF GORHI MAHALOI COAL BLOCK SUMMARY

PART A

Sr. No.	Features	Details
1.	**Location**	
	Coal Block	Western Part of Gorhi-Mahaloi
	Latitude	22º02'59" N - 22º05'01" N (Provisional)
	Longitude	83º24'03" E- 83º27'55" E (Provisional)
	Topo Sheet No.	**F44K14** (old Toposheet Nos. 64 N/8 (R.F. 1:50,000)
	Coalfield	Mand Raigarh Coalfield
	Villages	Tamnar and Gharghoda are important towns located in the area, Gorhi village in western part and Maholi village lies in the eastern part of the block. Village Amaghat is located outside block is situated near the north western boundary of the block.
	Tehsil/Taluka	Tamnar, Raigarh
	District	Raigarh
	State	Chhattisgarh
2.	**Connectivity with Block**	
	Nearest Rail Head	Raigarh railway station on Howrah – Nagpur section of South East Central Railway is located in the southern periphery of the coalfield
	Road	Gorhi-Mahloi block is about 40 km north of Raigarh township and is close to Tehsil Headquarter at Tamnar which lies on Raigarh-Dhorabhatta State Highway.The two villages Gorhi and Maholi are connected to Tamnar Tahsil by an all-weather road. Tamnar is around 35 kms north of Raigarh Railway Station which is on Mumbai – Howrah main line of South East Central Railway.
	Airport	Raigarh Airport is located approx. 40Km from the block. The air strip is used mainly for small aircraft and choppers.
3.	**Area**	
	Geological Block Area	20.3 sq. km. (Approximately)
	Forest Area	9% (Approximately as per FSI map)
	Non-Forest Area	91% (Approximately)
4.	**Climate and Topography**	
	Average Annual Rainfall	1620 mm approximately.
	Temperature (Min. — Max.)	18º C-45º C

	Local Surface Drainage Channels	The block is traversed by two rivers viz.Pajhar nadi and Kelo river, both flowing from north to south, is located in the western part of the block and constitutes the main drainage system. A few ponds are also located within in the block. The minimum ground level is 240.70m in the northwestern part and maximum ground elevation is 251.25m in the Central part of the block.
	Rivers	The southerly flowing perennial Mand river with its tributaries constitute the main drainage of the area. The Kelo river, a tributary of Mahanadi, drains in the eastern part of the coalfield.
5.	**Exploration**	
	Status	Explored
	Exploration Agency	MECL
	Total Number of Boreholes with meterage	I) 1 BH by GSI; 432.00m II) 17 BHs (MECL DEC 2015) =8355.30m. III)169 BHs; 87749.0m **Total -187 BHs; 96,536.30 m**
	Borehole Density	9.2 boreholes per sq. km. (Approx.)
	General Dip of Seams	Dip varies south westerly from 2- 4°.
	General Strike Direction	The general strike of the beds is NW–SE.
	Faults -	Ten faults viz. F1-F1 and F10-F10 are deciphered to evolve the structure of Western Part of Gorhi Mahloi Block. The faults are of low to medium intensity with throw ranging from 0 to 160 m. The dip of these faults is assumed as 70° to 80°.

6. Coal Seams & Reserve (Thick Seams: 532.2438MT (Proved+Indicated), Additional for thin Seams: 83.5MT; Total: 615.7438MT)

Coal Seam	Thickness range (m)	Depth Range (m)	Geological Reserve (Mt)	Grade
R8	0.12-0.44	147.55-154.12	0	-
R7	1.03-5.43	8.03-186.56	7.1783	G17-G9
R6	0.4-1.75	10.28-196.57	2.3681	G17-G12
R5	0.15-1.18	7.9-210.85	0	G17-G14
R4	0.14-1.61	8.7-223.14	0	G15-G15
R3	0.12-1.2	13.46-234.89	0.6697	G17-G12
R2 TOP	0.09-0.85	17.14-246.47	0	-
R2 BOT	0.2-0.3	23.77-248	0	-
R1 TOP	0.12-0.97	13.3-298.29	0.077	G17-G11
R1 MID	0.17-1.54	13.93-299.35	0	G17-G11
R1 BOT	0.32-1.24	9-295.45	0	G15-G12
LOCAL-1	0.06-0.17	111.24-131.87	0	-
X LD	0.03-1.58	115.78-362.12	0	-
X LC	0.05-1.21	123.78-381.09	0	G17-G17
X LB	0.04-0.77	142.56-407.6	0	-
X LA	0.04-1.2	205-469.97	0	-
X TOP	0.09-3.07	219.64-660.54	49.0463	G17-G1

	X BOT	0.1-2.34	227.09-670	11.0881	G17-G9
	IX L3	0.06-1	234.9-506.55	0	-
	IX L2	0.1-3.43	241.9-697.94	46.5243	G17-G6
	IX L1	0.16-1.08	250.71-529.58	1.8529	G16-G5
	IX TOP	0.15-1.12	258.27-538.71	5.5678	G17-G8
	IX BOT	0.06-4.11	268.35-556.1	36.7801	G16-G8
	BAND-A	0.63-0.63	352.3-366.66	0	-
	VIII TOP	0.15-1.97	272.83-370.8	0.8033	G16-G8
	VIII BOT	0.11-1.74	274.44-382.9	0.026	G17-G8
	VIII COMB	0.05-2.36	299.98-569.85	1.9645	G13-G7
	VII TOP	0.2-1.58	284.38-579.4	0	G16-G6
	VII BOT	1.09-6.85	298.51-768.2	104.061	G14-G6
	VI TOP	0.73-7.81	307-589.41	44.5946	G15-G11
	VI BOT	0.32-5.45	312.53-591.7	7.5439	G17-G10
	VI COMB	0.5-9.12	315-781.95	140.5416	G15-G8
	VI L	0.07-6.1	316.13-791.36	9.5743	G17-G9
	VI L1	0.2-9.22	324.04-800.03	58.4278	G17-G9
	VI L2	0.09-1.54	329.51-817.26	0	G17-G6
	BAND-1 TOP	0.14-1.4	339.87-829	0	G11-G11
	BAND-1 BOT	0.09-1.73	346.4-662.48	0	G15-G11
	BAND-1 COMB	3.9-3.9	369.4-369.4	0	-
	V TOP	0.09-1.94	365.28-847	0.9618	G17-G9
	V BOT TOP	0.1-1.5	378.34-849.13	2.5923	G17-G9
	V BOT BOT	0.1-1.27	373.66-850.88	0	G17-G7
	L3 TOP	0.11-1.4	474.25-849.06	0	G17-G8
	L3 BOT	0.06-1.4	477.2-852.07	0	G17-G7
	L3 COMB	1.42-1.42	631.82-631.82	0	
	IV	0.66-2.89	490.63-641.17	0	G12-G12
	BAND-3 COMB	0.3-0.3	447.1-447.1	0	-
	III	0.3-0.7	493.69-703.46	0	-
	BAND-4 TOP	0.13-0.13	533.7-533.7	0	-
	I	0.33-0.33	677.78-677.78	0	-
	Total			**532.2438**	
	Apart from this resource of coal seam thickness above 0.50 m to 0.90 m has also been computed separately in Western Part of Gorhi Mahloi Block. The resource under 'Proved' and 'Indicated' of above thickness are calculated as 58.42 million tonnes and 25.08 million tonnes in respectively.				
7.	**Surface Constraints**	Proposed alignment of rail corridor of NTPC MGR passes through the block.			
8.	**Grade of the block**	G12 (Provisional), based on weighted average grade as per grade-wise resources in DGR.			
9.	**Decision Support System (DSS) Analysis**	Hydrology info: The polygon touches major river(s)- Kelo River- Wildlife info: The polygon touches Wildlife Habitat(s)- Sloth Bear, Elephant Grid			
10.	**Eco Sensitive Zone (ESZ)**	SE boundary of the block is approx. 37 km from the boundary of ESZ of Debrigarh. SE boundary of the block is approx. 60 km from the boundary of ESZ of Sambalpur Elephant Region and NW boundary of the block is approx. 38 km from the boundary of buffer zone of unnotified Lemru Elephant Reserve.			

PART B

Sr. No.	Features	Details
1	**Tentative Peak rated Capacity (Mty)**	1.74

Note:

1) Summary is compiled from Draft Geological Report on Detailed Exploration for Coal in Western Part of Gorhi Mahloi Block, Mand Raigarh Coalfield, District – Raigarh, Chhattisgarh, MECL, March-2021.
2) The bounding coordinates and cardinal points are extracted from ArcGIS software and on ground DGPS survey is required to ascertain the exact location of the boundary.
3) Weighted average grade is calculated from the grade-wise resource data available in DGR and is subject to change.

Disclaimer:

1. The analysis is done on Beta-version (Trial Version) of Decision Support System (DSS) of FSI / MOEF.
2. The Decision Rules for various parameters of this DSS System are controlled by FSI.
3. CMPDI only runs this DSS to obtain the status of any block based on these Decision Rules.
4. The database of the Decision Rules is updated by FSI from time to time.
5. CMPDI does not own any responsibility for variation in the results which are based on the Decision Rules of the FSI DSS in case of any updation of the database at FSI end.
6. ESZ analysis and tiger habitat/ corridor given here is based on the information available in public domain. Bidders are encouraged to verify this information and any other information additionally available.

WESTERN PART OF GORHI MAHALOI BLOCK
MAND RAIGARH COALFIELD

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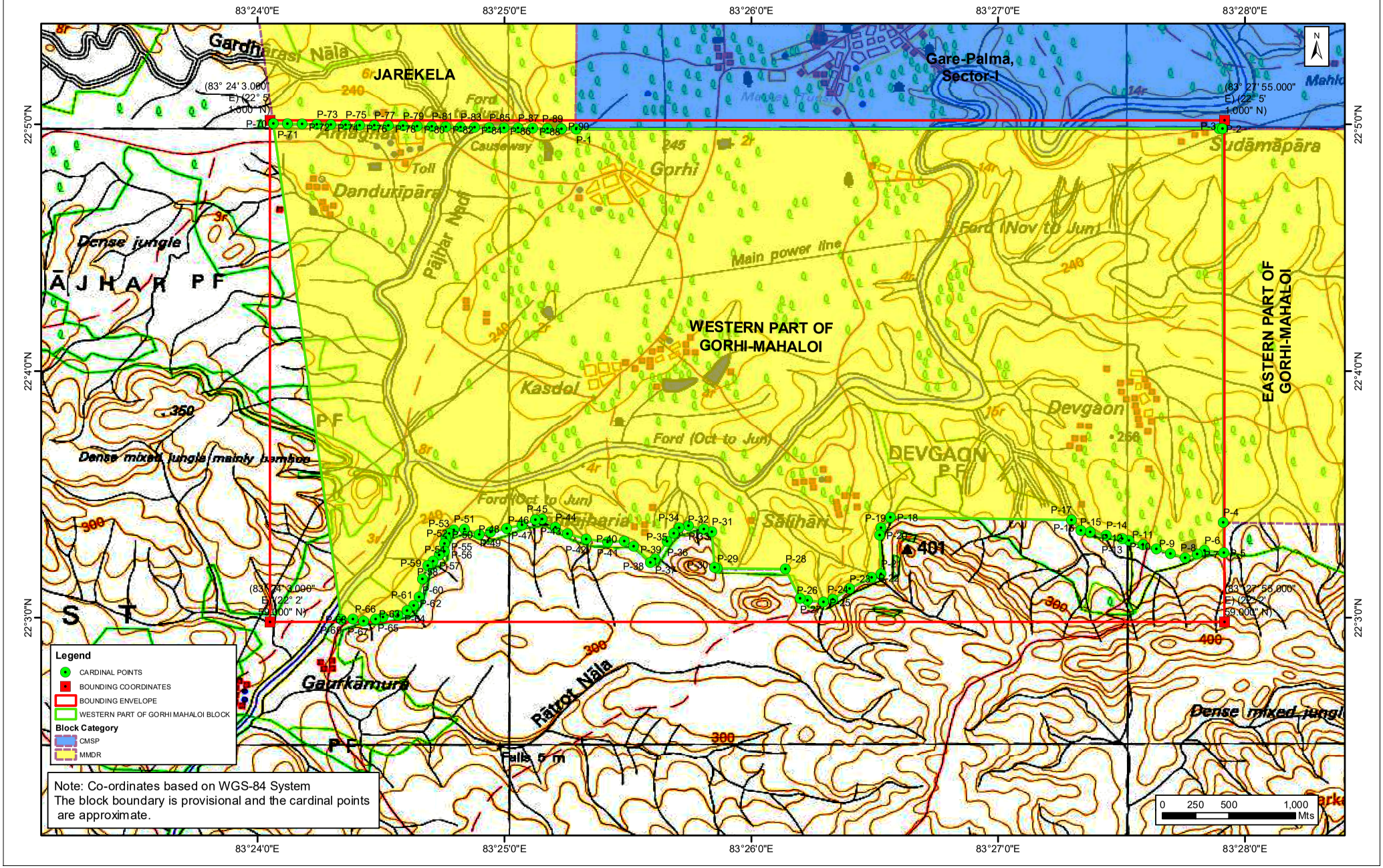

Provisional cardinal points for Western part of Gorhi Mahaloi Block, Mand Raigarh coalfield		
Point	Longitude	Latitude
P-1	83° 25' 17.333" E	22° 4' 58.848" N
P-2	83° 27' 53.762" E	22° 4' 58.990" N
P-3	83° 27' 54.540" E	22° 4' 58.990" N
P-4	83° 27' 54.802" E	22° 3' 23.236" N
P-5	83° 27' 54.831" E	22° 3' 15.833" N
P-6	83° 27' 50.203" E	22° 3' 16.379" N
P-7	83° 27' 48.339" E	22° 3' 15.495" N
P-8	83° 27' 45.342" E	22° 3' 14.623" N
P-9	83° 27' 41.953" E	22° 3' 15.672" N
P-10	83° 27' 38.565" E	22° 3' 16.722" N
P-11	83° 27' 35.176" E	22° 3' 17.771" N
P-12	83° 27' 31.787" E	22° 3' 18.821" N
P-13	83° 27' 30.215" E	22° 3' 19.222" N
P-14	83° 27' 26.313" E	22° 3' 20.046" N
P-15	83° 27' 22.410" E	22° 3' 20.870" N
P-16	83° 27' 20.106" E	22° 3' 21.220" N
P-17	83° 27' 17.855" E	22° 3' 23.792" N
P-18	83° 26' 33.870" E	22° 3' 24.451" N
P-19	83° 26' 31.462" E	22° 3' 21.863" N
P-20	83° 26' 31.155" E	22° 3' 20.089" N
P-21	83° 26' 31.578" E	22° 3' 10.723" N
P-22	83° 26' 29.278" E	22° 3' 9.836" N
P-23	83° 26' 23.899" E	22° 3' 7.085" N
P-24	83° 26' 19.775" E	22° 3' 4.501" N
P-25	83° 26' 17.474" E	22° 3' 3.858" N
P-26	83° 26' 13.582" E	22° 3' 4.251" N
P-27	83° 26' 11.818" E	22° 3' 4.716" N
P-28	83° 26' 8.282" E	22° 3' 11.876" N
P-29	83° 25' 51.690" E	22° 3' 11.995" N
P-30	83° 25' 51.044" E	22° 3' 12.253" N
P-31	83° 25' 50.379" E	22° 3' 20.935" N
P-32	83° 25' 48.371" E	22° 3' 21.562" N
P-33	83° 25' 44.616" E	22° 3' 22.426" N
P-34	83° 25' 42.437" E	22° 3' 21.882" N
P-35	83° 25' 41.187" E	22° 3' 20.544" N
P-36	83° 25' 39.485" E	22° 3' 18.553" N
P-37	83° 25' 36.625" E	22° 3' 14.282" N
P-38	83° 25' 35.494" E	22° 3' 13.416" N
P-39	83° 25' 31.412" E	22° 3' 17.418" N
P-40	83° 25' 29.035" E	22° 3' 18.629" N
P-41	83° 25' 25.093" E	22° 3' 18.436" N
P-42	83° 25' 19.838" E	22° 3' 19.181" N
P-43	83° 25' 15.331" E	22° 3' 20.449" N
P-44	83° 25' 12.446" E	22° 3' 22.016" N
P-45	83° 25' 9.123" E	22° 3' 24.037" N

Provisional cardinal points for Western part of Gorhi Mahaloi Block, Mand Raigarh coalfield		
Point	Longitude	Latitude
P-46	83° 25' 7.484" E	22° 3' 23.852" N
P-47	83° 25' 4.261" E	22° 3' 22.620" N
P-48	83° 25' 0.418" E	22° 3' 21.728" N
P-49	83° 24' 56.575" E	22° 3' 20.835" N
P-50	83° 24' 53.838" E	22° 3' 20.305" N
P-51	83° 24' 50.256" E	22° 3' 21.625" N
P-52	83° 24' 47.692" E	22° 3' 21.388" N
P-53	83° 24' 46.510" E	22° 3' 20.505" N
P-54	83° 24' 45.643" E	22° 3' 19.282" N
P-55	83° 24' 45.386" E	22° 3' 18.061" N
P-56	83° 24' 45.394" E	22° 3' 16.126" N
P-57	83° 24' 44.159" E	22° 3' 15.259" N
P-58	83° 24' 42.526" E	22° 3' 13.822" N
P-59	83° 24' 41.274" E	22° 3' 12.711" N
P-60	83° 24' 39.980" E	22° 3' 9.438" N
P-61	83° 24' 39.179" E	22° 3' 5.011" N
P-62	83° 24' 37.879" E	22° 3' 2.957" N
P-63	83° 24' 36.192" E	22° 3' 1.731" N
P-64	83° 24' 34.121" E	22° 3' 0.617" N
P-65	83° 24' 30.494" E	22° 3' 0.197" N
P-66	83° 24' 28.630" E	22° 2' 59.670" N
P-67	83° 24' 25.683" E	22° 2' 59.252" N
P-68	83° 24' 23.117" E	22° 2' 59.649" N
P-69	83° 24' 20.331" E	22° 2' 59.590" N
P-70	83° 24' 3.753" E	22° 5' 0.245" N
P-71	83° 24' 7.256" E	22° 5' 0.179" N
P-72	83° 24' 10.760" E	22° 5' 0.113" N
P-73	83° 24' 14.264" E	22° 5' 0.046" N
P-74	83° 24' 17.768" E	22° 4' 59.980" N
P-75	83° 24' 21.272" E	22° 4' 59.913" N
P-76	83° 24' 24.776" E	22° 4' 59.847" N
P-77	83° 24' 28.280" E	22° 4' 59.780" N
P-78	83° 24' 31.783" E	22° 4' 59.714" N
P-79	83° 24' 35.287" E	22° 4' 59.647" N
P-80	83° 24' 38.791" E	22° 4' 59.581" N
P-81	83° 24' 42.295" E	22° 4' 59.514" N
P-82	83° 24' 45.799" E	22° 4' 59.448" N
P-83	83° 24' 49.303" E	22° 4' 59.381" N
P-84	83° 24' 52.806" E	22° 4' 59.315" N
P-85	83° 24' 56.310" E	22° 4' 59.248" N
P-86	83° 24' 59.814" E	22° 4' 59.181" N
P-87	83° 25' 3.318" E	22° 4' 59.115" N
P-88	83° 25' 6.822" E	22° 4' 59.048" N
P-89	83° 25' 10.326" E	22° 4' 58.981" N
P-90	83° 25' 13.829" E	22° 4' 58.914" N