

**DEOCHA-PACHAMI- DEWANGANJ- HARINSINGHA, BHIRBHUM
COALFIELD
WEST BENGAL**

SALIENT FEATURES

1. **Block** : **DEOCHA-PACHAMI- DEWANGANJ- HARINSINGHA , BHIRBHUM COALFIELD, DISTT.- BIRBHUM , WEST BENGAL**
2. **Area** : 9.7 Sq. km. (DEOCHA-PACHAMI) + 2.6 Sq. Km (DEWANGANJ- HARINSINGHA)
3. **Location and Communication** : Deocha-Pachami block is located in the south western part of Birbhum Coalfield (adjoining Dewanganj Block). The nearest approach road is Panagarh-Mourgram Road & nearest Railway Station is Mallarpur(Bardhaman-Kiul loop of E.R Railway).

Dewanganj Harinsingha block is located in the western fringe of Birbhum coalfield (bordering Jharkhand). The nearest approach road is Panagarh-Mourgram road and nerest railway station is Mallarpur (on Bardhaman-Kiul loop of Eastern Railway).

The limiting coordinates of the blocks are

Latitude:24°01'45"-24°05'30"N (Approx)
Longitude:87°34'15"-87°37'39"E (Approx)
Toposheet no-72 P/12

4. **Status of Exploration** : Regionally Explored

Block	Agency	No. of borehole	Meterage
Deocha-Pachami	GSI	21	11326.15m
Dewanganj Harinsingha	GSI	15	3830.45
Total	GSI	36	15156.60

5. **Structure** : Strike : NNW-SSE

Dip : 5°-10° easterly

Faults: Area is dissected by three systems of normal faults. NNW-SSE trending boundary fault having easterly throw defining western limit.

6. **Sequence of Coal Seams** : Four coal seam zones have been identified
The details are given below:

(a) DEOCHA-PACHAMI

Seam/Zone	Thickness of coal seam zones (i.e. cumulative thickness of coal seams & partings (m))	Depth Range (m)	Remarks
IV	8.98-30.77 (4.1-20.9)	135-355	Seams occur in a number of sections. Coal seams are concealed by a thick cover of Trap, Laterite and Dubrajpur formation.
Parting	100-122		
III	17.32-42.66 (6.7-40.4)	280-500	
Parting	30-122		
II	40.69-58.88 (15.2-53.6)	350-580	
Parting	87-200		
I	41.61-79.89 (5.2-63.4)	510-850	

Note : *Figures in bracket indicate cumulative thickness of coal sections.*

(b) DEWANGANJ-HARINSINHA

Seam Zone	Zone thickness (m)	Depth Range (m)	Remarks
III	107-138	12-96	There are 5-22 sections in seam zone. The total thickness of coal sections varies from 5.30-38.63 m
Parting	47-63		
II	25-74	204-284	There are 6 to 16 sections in seam zone. The total

			thickness of coal sections varies from 8.62 to 31.04m
Parting	122-144		
I	10-17	45-386	There are 2 to 4 sections in seam zone. The total thickness of coal sections varies from 6.69-9.65 m

7. Quality :
(a) DEOCHA-PACHAMI

Seam zone	M%	Ash%	Class @ Range
IV	3.0-6.6	18.5-48.8	B-G
III	1.2-7.5	20.3-47.8	C-G
II	2.3-6.3	18.2-52.4	B-G
In some thick section of II	3.3-5.9	18.9-24.9	B-D
I	2.0-4.8	22.9-51.9	C-G
Lower part of seam-I	2.2-4.1	15.4-28.4	A-D

(b) DEWANGANJ-HARINSINHA

Seam zone	M%	Ash%	UHV Kcal/kg	Class @ Range
IIII	4.0-6.9	27.1-50.6	2662-4525	D-F
II	2.5-7.2	18.7-50.9	1365-5519	C-G
I	3.6-5.6	28.9-40.7	1300-4332	D-G

@ - The grade of the coal in present report has been given as per old classification prevailing before UHV based grade classification

8. Reserves :

(a) DEOCHA-PACHAMI: An indicated reserve of 2025.62m.t has been reported in Deocha-Pachami & adjoining eastern sector of Birbhum coalfield.

Seam	Gr A	Gr B	Gr C	Gr D	Gr E	Gr F	Gr G	Total
IV					23.62	123.51	49.78	196.91
III			135.63	157.06	240.62	265.53	91.08	889.92
II			310.80		147.29			458.09

I			161.44	212.97	94.20		12.09	480.70
Total			607.87	370.03	505.73	389.04	152.95	2025.62

The depth-wise break-up of the reserves are given below:

Depth Range (m)	Reserves (Mt)
0-300	152.20
300-600	1078.39
600-1200	795.03
TOTAL	2025.62

(b) DEWANGANJ-HARINSINHA: Out of 38.693 mt. of net reserve, proved reserve of 28.093 & indicated reserve of 10.600 mt. has been reported. Horizon-wise reserve of Coal seams is given below :

Horizon (Seam zone)	Proved reserve	Indicated	Net Total (In Million Tonne)
III	12.014	1.797	13.811
Local	1.513	0.825	2.338
II	11.128	6.333	17.461
I	3.438	1.645	5.083
Total	28.093	10.600	38.693

GSI has estimated 'Proved' reserves in the Dewanganj-Harinsinha block as per the earlier practice of taking 200m influence from boreholes. However, in view of very limited data, the entire reserves are being reported as Indicated. Additional drilling would be required to prove the reserves.

Note:

1. Salient features, Block boundary plan & lithologs are based on GSI report on Regional Exploration of the Pachami Sector, Birbhum Coalfield.
2. Block boundary shown in the plan is approximate.
3. Forest cover details are not available with CMPDI.
4. Infrastructure details are not available with CMPDI.

Bibliography:

Report on Exploration for coal in the Pachami Sector, Birbhum Coalfield, Birbhum District, West Bengal, Coal wing, GSI 1992