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REPORT ON COAL EXPLORATION  
PROGRAMME AT TOWER HILL  
WITHIN E.L. 50/82

**OPEN FILE**

REPORT PREPARED FOR

CORNWALL COAL COMPANY N.L.

BY

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## TOWER HILL - E.L 50/82

1. INTRODUCTION

This outlier of Triassic coal measures is located 15 km north-west of Fingal. The Triassic strata dip to the east-south-east at 2° - 5° and are overlain by Jurassic dolerites. On the lower slopes of Tower Hill there are sporadic outcrops of Permian strata. The dissected plateau at about 550 m which extends to the south and east of Tower Hill is the top of the Mathinna Beds. In 1979 Cornwall Coal Company N.L drilled a hole (DDH 7) on Tower Hill. In the 1984 exploration programme 3 holes were drilled on Tower Hill - DDHs 14, 15 and 19.

2. COAL GEOLOGY

Two seams designated A and B occur towards the top of the Triassic coal measures. Table TH 1 gives the thickness and coal quality data on these seams.

Seam A is thin, but the coal when washed would produce coal of acceptable quality at a yield of about 60%. The coal seam thins to the west and is only 1.16 m thick in DDH 19. In DDH 14 Seam A is just thick enough to mine and has a good sandstone roof. This seam also crops out on the eastern end of Tower Hill and would be accessible from the outcrop for mining.

Seam B is thickest in DDH 7, at 1.86 m, and washes to a 15.4% ash product. To the west in DDH 19 however this seam has deteriorated significantly, is only 0.79 m thick, and is comprised mostly of stony coal and carbonaceous claystone.

CORNWALL COAL COMPANY N.L.

SUMMARY OF COAL SEAM DATA

TABLE TH 1

TOWER HILL -  
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HOLE NO.	COLLAR RL (masl.)	SEAM (Ply)	THICK. (m)	DEPTH TO ROOF (m)	RAW COAL ANALYSIS (AIR DRIED)					20 x 0.5 mm - 'WASHED' COAL (AIR DRIED)									20 x 0.5mm %	-0.5mm %	Ash % -0.5mm	SINKS														
					M %	Ash %	Vol %	F.C. %	R.D.	F/S R.D.	Yield %	R.D.	M %	Ash %	Vol %	F.C. %	S %	S.E. MJ/kg				R.D.	Ash %													
DDH 7	930	B	1.86	19.70	3.9	37.6	21.8	36.7	1.64	1.60	53.3	1.43	3.8	15.4	26.4	54.4	0.41	27.08	97.3	2.7	42.0	2.00	42.0													
DDH 14	990	* (1)	0.825	37.15	4.2	36.0	20.7	39.1	1.66																											
		A (2)	1.47	56.14	3.5	40.2	23.3	33.0	1.69	1.60	60.2	1.46	3.2	20.3	29.9	46.6	0.49	25.96	95.7	4.3	45.9	2.08	70.1													
		B (3)	1.39	81.495	3.9	29.8	24.1	42.2	1.58	1.60	67.7	1.45	3.2	15.5	27.8	53.5	0.47	27.34	97.8	2.2	29.6	-	-													
		* (4)	0.610	86.950	4.1	16.2	27.3	52.4	1.46	1.70	75.1	1.49	3.0	17.8	27.5	51.7	0.47	26.42	97.8	2.2	29.6	2.03	65.0													
DDH 15	940	NO COAL INTERSECTED																																		
DDH 19	1000	A (1)	1.18	38.81	3.3	37.2	25.0	34.5	1.61	1.60	65.3	1.45	3.4	19.6	31.0	46.0	0.54	26.18	96.0	4.0	42.7	-	-													
		B	0.79	91.21	NOT ANALYSED																				1.70	72.1	1.47	-	22.0	-	-	-	-	-	-	-

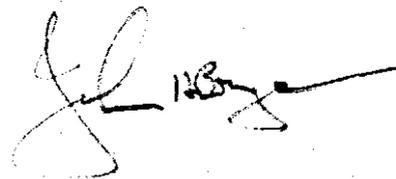
\* Minor coal interval

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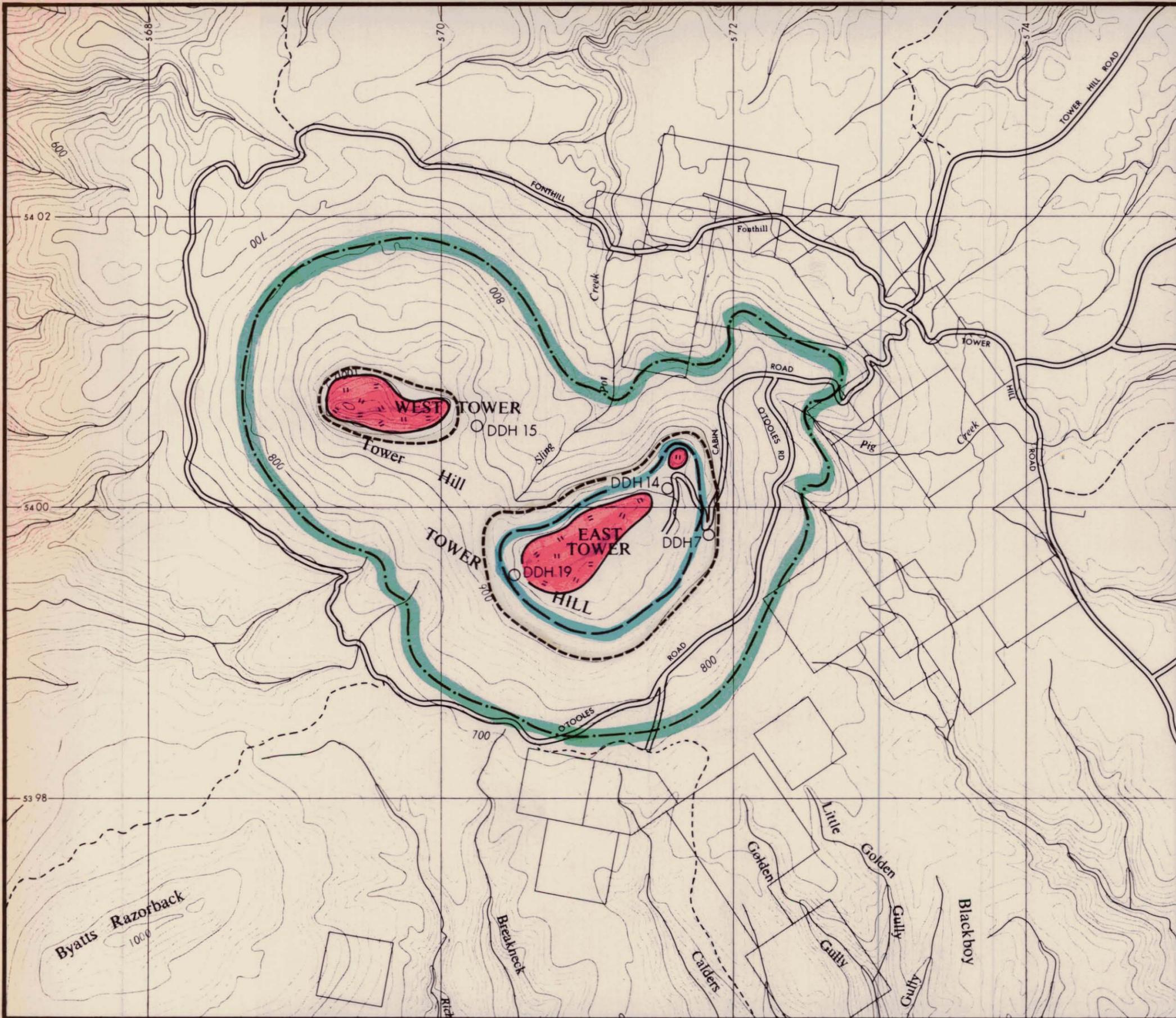
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The reserves of potentially mineable coal at Tower Hill are confined to the eastern end of the area and the *in situ* reserves are estimated to be in the order of 2 million tonnes. The quality of saleable coal is estimated at about 600,000 tonnes on the basis of 50% mining recovery and 60% washing recovery.

Because of the rapid changes in seam thickness between drill holes additional drilling would be necessary to more precisely define the extent of mineable coal. This is not considered to be warranted at this time.



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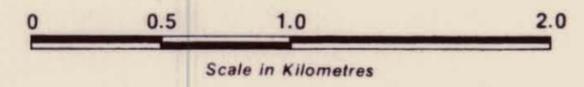


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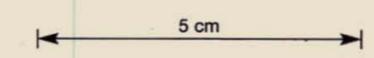
**REFERENCE**

- Subcrop of Seam A.....
- Subcrop of Seam B.....
- Approximate base of Triassic coal measures.....
- Dolerite (Jurassic).....

SCALE 1:25,000



**CORNWALL COAL COMPANY N.L.**  
**TOWER HILL - E.L. 50/82**



**GEOLOGICAL MAP**

004 B

85-2326

Prepared by McElroy Bryan & Associates Pty Limited  
To accompany report by J.H.Bryan - November, 1984

004 A