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THE BELLAMBI COAL COMPANY LIMITED



BELLAMBI COAL PROJECT QLD.

OPEN FILE

FINAL REPORT

ON

STAGE IV DRILLING IN A. to P. 27C

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The Bellambi Coal Co. Limited

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1. Geological Logs of Bores A35, A36, A37, A38, A39, A40, A41, A42 and A43.
2. Analyses of Coal Seams - Bores A35, A40 and A42.
3. General Bore Location
4. Detailed Plan S.E. Corner A. to P. 27C.      Scale: 2 ins.: 1 mile.

## OBJECTIVES

Stage III drilling indicated a slight easterly improvement in coal quality in the S.E. of A. to P. 27C. Stage IV bore holes were sited so as to thoroughly explore the possible occurrence of any coals of a coking quality that may exist in this area. A deeper bore to the west of Stage III drilling checked for any anomalous behaviour in coal rank. Two wildcat bores were drilled to test for alleged close to surface occurrences of German Creek Coal Measures.

## DRILLING

<u>Bore</u>	<u>Total Depth</u> ft.	<u>Depth to Coal</u> ft.	<u>Coal Thickness</u> ft.
A35	350	185	6
A36	302		
A37	400		
A38	130		
A38A	115		
A39	158		
A40	188	176	9
A41	175		
A42	457	455	10
A43	110		
A44	200		
A44	80		

There was a total of 2,146 ft. open hole drilling, and 36' 8" core drilling.

# GEOLOGY

Coal in the area drilled is unlikely to occur at a depth of less than 120 ft. This is attributed to a deep lateritic profile, and considerable weathering below it. The strike of the coal "outcrop", below laterite, is indicated on plan No. 4. In addition, much of the area is covered by igneous material which impairs drilling and may, in some instances, have ingested the coal seams.

The uppermost eastern boundary of the coal runs in N.W. direction, slightly west of A39 bore. The bottom of black mudstone at the base of the coal in A35 is found to be the top unweathered unit in A39. The Clutha bores to the south confirm that the area drilled is on the S.W. tip of the Comet anticline, and all coal bearing horizons south of the highway in A. to P. 27C will have regional westerly-south westerly dip. The dip in the vicinity of A30 - A32 - A42 is about 1° W.S.W.

There appears to be a marked variation in seam thickness, ranging from 5 ft. in A35 up to 11 ft. in A21 and A32. A similar variation in thickness occurs in the Clutha bores to the south. This variation may be attributable to variable depositional conditions occurring west of the Comet anticline.

The presence of large sheets of igneous material would impose stringent limits on any open cut mining, even if the coal were coking.

Three bores, A43, A44 and A44A, were drilled along an old seismic line where coal was reported at less than 100 ft. None of these bores intersected any coal, but the driller (who drilled the original seismic holes) remains adamant that he did find some coal in this vicinity. This ties in with the geology as the German Creek Coal Measures should outcrop in this vicinity. In all previous intersections they have been dirty seams.

## QUALITY

<u>Bore</u>	<u>Seam Thickness</u>	<u>Recovery</u> <u>@ Fl.45</u>	<u>Moisture</u> <u>%</u>	<u>Ash</u> <u>%</u>	<u>Vol. M.</u> <u>%</u>	<u>S.I.</u>
A35	4' 10½"	94.4	3.6	9.6	31.2	1
A40	8' 1½"	93.3	3.8	9.0	33.4	4
A42	10'	85.8	5.6	8.9	30.1	1½
<u>Stage III</u>						
A21	10' 11"	96.5	4.8	7.2	30.8	1½
A30	6' 4"	89.8	5.4	7.6	32.3	1½
A31	10' 7"	91.8	3.0	8.6	30.4	1½
A32	11' 0"	89.9	5.0	7.9	31.2	1½
A33	10' 2"	92.9	4.0	7.2	31.7	2½

A westerly decrease in rank is best illustrated by S.I. and moisture. The eastern bores A35 and A40 have moisture content of 3.6 and 3.8, whilst A42 has moisture of 5.6. The S.I. varies from 4 (east) to  $1\frac{1}{2}$  (west).

The slightly inferior washing characteristic of A42 is accounted for by an increase in the number of mudstone bands which generally have been absent from the other seams. This phenomenon may again suggest a variation in depositional conditions.

None of the seams encountered in Stage III or Stage IV drilling is an economically exploitable coking proposition. The rank is too low (para bituminous - meta lignitous). However, they appear to have some value as steaming coals.

The reserves of potential steaming coal at a depth of less than 700 ft. in the S.E. of A. to P. 27C would be in the vicinity of 100 million tons.

#### CONCLUSIONS

1. Economically exploitable coking coal does not occur in the S.E. corner of A. to P. 27C.
2. Considerable reserves of steaming coal do occur close to the Comet River (not at open cut depths).
3. It appears most unlikely that any coking coal occurs in the Rangal Coal Measures on the west or south western flanks of the Comet anticline.