



CCI/4787/86

ANALYSIS & TESTING
OF SAMPLES FROM
FENHOPE COLLIERY
ADVENTURE BAY
COLEBROOK
PREOLENNA
AND SALTWATER RIVER



February 1986

This Laboratory is registered by the National Association of Testing Authorities Australia. The test(s) herein have been performed in accordance with its terms of registration and in accordance with the following standards:-

Methods for the sampling of Hard Coal	AS1676 (1975)
Methods for Float & Sink Testing of Hard Coal and Presentation of Results	AS1661 (1979)
Size Analysis of Coal	BS1016-17 (1979) IS01953 (1972)
Free Moisture of Coal & Total Moisture of Hard Coal	AS1038-1 (1980)
Apparent Relative Density (Coal)	AS1038-21 (1983)
Determination of the Relative Density of Hard Coal	AS1038-21 (1983)
Moisture in the Analysis Sample	AS1038-3 (1979)
Determination of Ash	AS1038-3 (1979)
Determination of Volatile Matter	AS1038-3 (1979)
Gross Specific Energy of Coal	AS1038-5 (1979)
Carbon & Hydrogen	AS1038-6 (1971)
Nitrogen	AS1038-6 (1971)
Carbon Dioxide	AS1038-6 (1971)
Total Sulphur	AS1038-6 (1971)
Total Sulphur in Coal (Leco High Temperature)	C.C.I. DIA Sept. 1981
Chlorine in Coal	AS1038-8 (1980)
Forms of Sulphur	AS1038-11 (1982)
Fusibility of Coal & Coke Ash	AS1038-15 (1972)
Analysis of Coal Ash	AS1038-14.2 (1985)
Phosphorus in Coal (Bomb Digestion)	AS1038-9 (1977)
Method for Determining the Hardgrove Grindability Index of Hard Coal	AS1038-20 (1981)
Crucible Swelling Number	AS1038-12.1 (1979)
Gray King Coke Type	AS1038-12.2 (1980)
AA Dilatometer	IS0349 (1975)
Gieseler Plastometer	AS2137 (1981)

ORIGIN: Department of Mines, Tasmania JOB NO. 4787
DESCRIPTION: Fifteen samples from DATE REC'D 9/12/85
Fenhope Colliery
REPORTED TO: Ms. C. Bacon C.C. _____

1. INTRODUCTION

15 samples (F1-F15) from the Fenhope Colliery and 1 sample each from Adventure Bay, Colebrook, Preolenna and Saltwater River were received at Carbon Consulting International Pty. Ltd. from Department of Mines Tasmania on 9/12/85. Analysis was performed according to instructions from Ms. C. Bacon.

2. ANALYSIS AND TESTING

- 2.1 Each sample was weighed, crushed and subdivided for laboratory analysis or specific (-212 um), petrographic analysis (-1 mm) if required and composite reserve sample (-3 mm).
- 2.2 A composite sample was prepared for the Fenhope Colliery samples on a length x relative density basis, mixed well and subdivided for a raw composite sample and float/sink analysis.
- 2.3 The raw composite sample was subdivided for laboratory analysis (-212 um) and petrographic analysis (-1 mm).
- 2.4 The remainder of the sample was float sink tested at 1.70 relative density. The F1.70 sample was dried, weighed and prepared for laboratory analysis and petrographic analysis. The S1.70 sample was dried, weighed and prepared for ash determination only.

Reported By: L Nowak

Date: 14/2/86

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<u>SAMPLE NO</u>	<u>THICKNESS</u>	<u>DESCRIPTION</u>
Roof		Medium grained lithic sandstone
F4 (TOPS)	0.07	Dull coal, 10% bright bands
	0.01	MLSS, sand stringer from roof
	0.68	Dull coal, 10% bright bands
F5	0.15	Carbonaceous shale
F1	0.10	Claystone, white, ash band
F3	0.16	Dull coal
F2	0.12	Claystone, white, ash band
F6	0.30	Dull coal (FOOT SECTION)
F7	0.02	Claystone brown
F8	0.06	Carbonaceous mudstone
F9	0.56	Dull coal (TWO FOOT SECTION)
F10	0.03	Claystone, white
F11	0.15	Dull coal (TOP BAND COAL)
F15	0.01	Mudstone, brown
F12	0.15	Dull coal (BOTTOM BAND COAL)
F13	0.02	Mudstone, brown
F14	0.095	Dull coal (BOTTOM COAL)

REPORTED BY *A Nowak*
 DATE 14/2/86

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DESCRIPTION: Fifteen samples from DATE REC'D 9/12/85
Fenhope Colliery DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

Description:	F4	F5	F1
SAMPLE NO.	10223	10231	10229
Relative Density	1.36	1.99	2.41
Total Moisture (as) %			
Moisture (ad) %	2.5		
ANALYSIS BASIS	ad	ad	ad
Ash %	12.6	63.1	83.8
Volatile Matter %	31.7		
Fixed Carbon %	53.2		
Total Sulphur %	0.65		
Chlorine %			
Phosphorus %			
Specific Energy MJ/kg	29.26		
Carbon %			
Hydrogen %			
Nitrogen %			
Carbon Dioxide %			
DRY, ASH-FREE BASIS			
Volatile Matter %	37.3		
Specific Energy MJ/kg	34.46		
Carbon %			
Hydrogen %			
Nitrogen %			
Sulphur %			
Oxygen (diff.) %			
Crucible Swelling Number			
Gray-King Coke Type			
Hardgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation °C			
Spherical °C			
Hemisphere °C			
Flow °C			
Mass Received (kg)	10.415	0.648	0.147



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 REPORTED BY *L. Hawah*

 DATE 14/2/86

ORIGIN : Department of Mines, Tasmania JOB NO : 4787
 DESCRIPTION : Fifteen samples from DATE REC'D : 9/12/85
Fenhope Colliery
 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

Sample No : 4787/10223 F4

		2	26.1	
Vitrinite A	Vitrinite	24.8	47.2	45 (47.8)
Vitrinite B		20.6	21.7	
Sporinite	Exinite	2.8	3.0	6 (6.4)
Cutinite		1.8	1.9	
Resinite		1.4	1.5	
Micrinite	Inertinite	2.0	2.1	44 (46.5)
Macrinite		4.0	4.2	
Semi - Fusinite		23.8	25.0	
Fusinite		2.8	3.0	
Inertodetrinite		11.6	12.2	
Minerals *		5.0		5

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings									
Mean Random Reflectance Maximum						Percentage of Reactives			
Standard Deviation of Distribution						Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>C F K Diessel</u>			
						Reported by : <u>A. Tronah</u>			
						Date : <u>14/2/86</u>			

ORIGIN: Department of Mines, Tasmania JOB NO. 4787

DESCRIPTION: Fifteen samples from DATE REC'D 9/12/85
Fenhope Colliery DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

Description:	F3	F2	F6
SAMPLE NO.	10222	10230	10224
Relative Density	1.61	2.34	1.45
Total Moisture (as) %			
Moisture (ad) %	2.3		2.3
ANALYSIS BASIS	ad	ad	ad
Ash %	34.3	84.4	18.0
Volatile Matter %	20.9		28.2
Fixed Carbon %	42.5		51.5
Total Sulphur %	0.39		0.47
Chlorine %			
Phosphorus %			
Specific Energy MJ/kg	21.60		27.14
Carbon %			
Hydrogen %			
Nitrogen %			
Carbon Dioxide %			
DRY, ASH-FREE BASIS			
Volatile Matter %	33.0		35.4
Specific Energy MJ/kg	34.06		34.06
Carbon %			
Hydrogen %			
Nitrogen %			
Sulphur %			
Oxygen (diff) %			
Crucible Swelling Number			
Gray-King Coke Type			
Hordgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation °C			
Spherical °C			
Hemisphere °C			
Flow °C			
Mass Received (kg)	0.090	0.075	5.121



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 REPORTED BY *L. Rawah*

 DATE 14/2/86

ORIGIN: Department of Mines, Tasmania JOB NO. 4787

DESCRIPTION: Fifteen samples from DATE REC'D 9/12/85
Fenhope Colliery DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

Description:	F7	F8	F9
SAMPLE NO.	10232	10233	10225
Relative Density	2.19	1.75	1.45
Total Moisture (as) %			
Moisture (ad) %			2.7
ANALYSIS BASIS	ad	ad	ad
Ash %	74.9	45.6	17.9
Volatile Matter %			27.9
Fixed Carbon %			51.5
Total Sulphur %			0.46
Chlorine %			
Phosphorus %			
Specific Energy MJ/kg			26.84
Carbon %			
Hydrogen %			
Nitrogen %			
Carbon Dioxide %			
DRY, ASH-FREE BASIS			
Volatile Matter %			35.1
Specific Energy MJ/kg			33.80
Carbon %			
Hydrogen %			
Nitrogen %			
Sulphur %			
Oxygen (diff.) %			
Crucible Swelling Number			
Gray-King Coke Type			
Hardgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation °C			
Spherical °C			
Hemisphere °C			
Flow °C			
Mass Received (kg)	2.026	1.052	3.852



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 REPORTED BY L. Rowch

 DATE 14/2/86

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DESCRIPTION : Fifteen samples from DATE REC'D : 9/12/85
Fenhope Colliery

REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

Sample No : 4787/10225 F9

Vitrinite A	Vitrinite	6.8	7.5	16	17.3
Vitrinite B		9.0	9.8		
Sporinite	Exinite	2.2	2.4	7	7.9
Cutinite		4.0	4.4		
Resinite		1.0	1.1		
Micrinite	Inertinite	3.2	3.5	67	74.3
Macrinite		6.8	7.5		
Semi - Fusinite		35.4	39.2		
Fusinite		3.4	3.7		
Inertodetrinite		26.4	18.4		
Minerals *		9.8	90.2	10	

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings						Percentage of Reactives			
Mean Random Reflectance Maximum						Percentage of Non - Reactives			
Standard Deviation of Distribution						Strength Index			
Composition Balance Index						Analysed by : <u>C F, K Diessel</u>			
Estimated (ASTM) Coke Stability Index						Reported by : <u>J. Louch</u>			

Date : 14/2/86

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Fenhope Colliery DATE TESTED _____
 REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

Description:	F10	F11	F15
SAMPLE NO.	10234	10226	10236
Relative Density	2.12	1.46	2.45
Total Moisture (as) %			
Moisture (ad) %		3.2	
ANALYSIS BASIS	ad	ad	ad
Ash %	72.0	19.5	83.1
Volatile Matter %		26.6	
Fixed Carbon %		50.7	
Total Sulphur %		0.49	
Chlorine %			
Phosphorus %			
Specific Energy MJ/kg		26.18	
Carbon %			
Hydrogen %			
Nitrogen %			
Carbon Dioxide %			
DRY, ASH-FREE BASIS			
Volatile Matter %		34.4	
Specific Energy MJ/kg		33.86	
Carbon %			
Hydrogen %			
Nitrogen %			
Sulphur %			
Oxygen (diff.) %			
Crucible Swelling Number			
Gray-King Coke Type			
Hardgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation °C			
Spherical °C			
Hemisphere °C			
Flow °C			
Mass Received (kg)	0.280	6.006	0.009



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 REPORTED BY *A. Hawah*

 DATE 14/2/86

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 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

Sample No : 4787/10226 F11

Vitrinite A	Vitrinite	12.2	13.3	33	35.8
Vitrinite B		20.6	22.5		
Sporinite	Exinite	2.2	2.4	4	4.8
Cutinite		1.4	1.5		
Resinite		0.8	0.9		
Micrinite	Inertinite	2.6	2.8	55	59.3
Macrinite		2.6	2.8		
Semi - Fusinite		37.8	41.3		
Fusinite		3.0	3.3		
Inertodetrinite		13.6	8.4		
Minerals *		8.4	9.6	8	

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings									
Mean Random Reflectance						Percentage of Reactives			
Standard Deviation of Distribution						Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>C K F Diessel</u>			
						Reported by : <u>[Signature]</u>			
						Date : <u>14/2/86</u>			

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ANALYSIS REPORT

Description	F12	F13	F14
SAMPLE NO.	10227	10235	10228
Relative Density	1.48	2.47	1.49
Total Moisture (as) %			
Moisture (ad) %	3.1		2.4
ANALYSIS BASIS	ad		ad
Ash %	20.2	83.7	21.3
Volatile Matter %	25.5		26.9
Fixed Carbon %	51.2		49.4
Total Sulphur %	0.44		0.50
Chlorine %			
Phosphorus %			
Specific Energy MJ/kg	26.30		26.04
Carbon %			
Hydrogen %			
Nitrogen %			
Carbon Dioxide %			
DRY, ASH-FREE BASIS			
Volatile Matter %	33.2		35.3
Specific Energy MJ/kg	34.28		34.12
Carbon %			
Hydrogen %			
Nitrogen %			
Sulphur %			
Oxygen (diff.) %			
Crucible Swelling Number			
Gray-King Coke Type			
Hardgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation °C			
Spherical °C			
Hemisphere °C			
Flow °C			
Mass Received (kg)	4.489	0.074	7.710



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 REPORTED BY L. Newsham

 DATE 14/2/86

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 DESCRIPTION : Fifteen samples from DATE REC'D : 9/12/85
Fenhope Colliery

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

 Sample No : 4787/10227 F12

Vitrinite A	Vitrinite	6.8	7.5	19	21.3
Vitrinite B		12.6	13.6		
Sporinite	Exinite	1.0	1.1	5	5.4
Cutinite		3.6	3.9		
Resinite		0.4	0.4		
Micrinite	Inertinite	2.0	2.2	67	73.1
Macrinite		3.2	3.5		
Semi - Fusinite		46.0	50.5		
Fusinite		2.6	2.8		
Inertodetrinite		12.8	14.1		
Minerals *		9.0	9.1	9	

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings						Percentage of Reactives			
Mean Random Reflectance Maximum						Percentage of Non - Reactives			
Standard Deviation of Distribution						Strength Index			
Composition Balance Index									
Estimated (ASTM) Coke Stability Index									

 Analysed by : C F K Diessel
 Reported by : [Signature]
 Date : 14/2/86

ORIGIN: Department of Mines, Tasmania JOB NO. 4787

DESCRIPTION: Fifteen samples from DATE REC'D 9/12/85
Fenhope Colliery DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

Description: Full Seam (3.540 m) Raw Full Seam (3.540 m) F1.70

Recovery: - 71.1%

SAMPLE NO. 10473 10474

Relative Density			
Total Moisture (as)	%		
Moisture (ad)	%	3.1	3.8
ANALYSIS BASIS		ad	ad
Ash	%	29.4	15.2
Volatile Matter	%	24.7	28.6
Fixed Carbon	%	42.8	52.4
Total Sulphur	%	0.40	0.39
Chlorine	%		
Phosphorus	%		
Specific Energy	MJ/kg	22.60	27.38
Carbon	%	54.78	67.22
Hydrogen	%	3.56	4.17
Nitrogen	%	1.03	1.23
Carbon Dioxide	%	0.53	0.27
DRY, ASH-FREE BASIS			
Volatile Matter	%	36.6	35.3
Specific Energy	MJ/kg	33.48	33.80
Carbon	%	81.16	82.99
Hydrogen	%	5.27	5.15
Nitrogen	%	1.53	1.52
Sulphur	%		
Oxygen (diff.)	%		
Crucible Swelling Number			
Gray-King Coke Type			
Hardgrove Grindability Index			
ASH FUSION TEMPERATURES (reducing atmosphere)			
Deformation	°C	1200	1310
Spherical	°C	1490	1470
Hemisphere	°C	+1500	1500
Flow	°C	+1500	+1500

 REPORTED BY *L. Nowak*

 DATE 14/2/86


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ORIGIN : Department of Mines, Tasmania JOB NO : 4787

 DESCRIPTION : Fifteen samples from DATE REC'D : 9/12/85
Fenhope Colliery

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

 Sample No : 4787/10473 Full Seam (3.540 m) Raw

Vitrinite A	Vitrinite	10.0	10.6	27	28.2	
Vitrinite B		16.6	17.6			
Sporinite	Exinite	1.6	1.7	7	7.3	
Cutinite		1.3	1.4			
Resinite		4.0	4.2			
Micrinite	Inertinite	2.0	2.1	61	64.4	
Macrinite		4.6	4.8			
Semi - Fusinite		37.6	39.9			
Fusinite		2.3	2.4			
Inertodetrinite		20.9	14.3			15.2
Minerals *			5.7			90.3

Remarks * Clay, quartz, pyrite. n - (Macerals).

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
6	0.60 - 0.65	0.625		4	4				
	0.65 - 0.70	0.675	7	15	22				
7	0.70 - 0.75	0.725	12	27	39				
	0.75 - 0.80	0.775	8	11	19				
8	0.80 - 0.85	0.825	8	5	13				
	0.85 - 0.90	0.875	3		3				
9	0.90 - 0.95	0.925							
	0.95 - 1.00	0.975							
10	1.00 - 1.05	1.025							
	1.05 - 1.10	1.075							
11	1.10 - 1.15	1.125							
	1.15 - 1.20	1.175							
12	1.20 - 1.25	1.225							
	1.25 - 1.30	1.275							
13	1.30 - 1.35	1.325							
	1.35 - 1.40	1.375							
Total Number of Readings			38	62	100				
Mean	Random Maximum Reflectance		0.76	0.72	0.74	Percentage of Reactives			
Standard Deviation of Distribution			.061	.050	.057	Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>A McHugh</u>			
						Reported by : <u>[Signature]</u>			
						Date : <u>14/2/86</u>			

ORIGIN : Department of Mines, Tasmania JOB NO : 4787

DESCRIPTION : Fifteen samples from DATE REC'D : 9/12/85
Fenhope Colliery

REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

Sample No : 4787/10474 Full Seam (3.540 m) F1.70

Vitrinite A	Vitrinite	14.0	14.2	30	30.5
Vitrinite B		16.3	16.5		
Sporinite	Exinite	3.0		9	9.2
Cutinite		1.6			
Resinite		4.0			
Micrinite	Inertinite	2.3		59	60
Macrinite		6.6	6.7		
Semi - Fusinite		37.3	38.3		
Fusinite		1.6			
Inertodetrinite		11.6	11.8		
Minerals *		1.7		2	

Remarks * Clay, quartz, pyrite. n - (Macerals). **98.3**

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
5	0.50 - 0.55	0.525							
	0.55 - 0.60	0.575		2	2				
6	0.60 - 0.65	0.625		4	4				
	0.65 - 0.70	0.675	3	11	14				
7	0.70 - 0.75	0.725	14	27	41				
	0.75 - 0.80	0.775	12	8	20				
8	0.80 - 0.85	0.825	10	2	12				
	0.85 - 0.90	0.875	5		5				
9	0.90 - 0.95	0.925	2		2				
	0.95 - 1.00	0.975							
10	1.00 - 1.05	1.025							
	1.05 - 1.10	1.075							
11	1.10 - 1.15	1.125							
	1.15 - 1.20	1.175							
12	1.25 - 1.30	1.225							
	1.30 - 1.35	1.275							
Total Number of Readings			46	54	100				
Mean ^{Random} Reflectance _{Maximum}			0.78	0.71	0.74	Percentage of Reactives			
Standard Deviation of Distribution			.063	.052	.067	Percentage of Non - Reactives			
Composition Balance Index						Strength Index			

Estimated (ASTM) Coke Stability Index

Analysed by : A McHugh

Reported by : [Signature]

Date : 14/2/86

ORIGIN: Department of Mines, Tasmania

JOB NO. 4787

DESCRIPTION: Fifteen samples from

DATE REC'D 9/12/85

Fenhope Colliery

REPORTED TO: Ms. C. Bacon

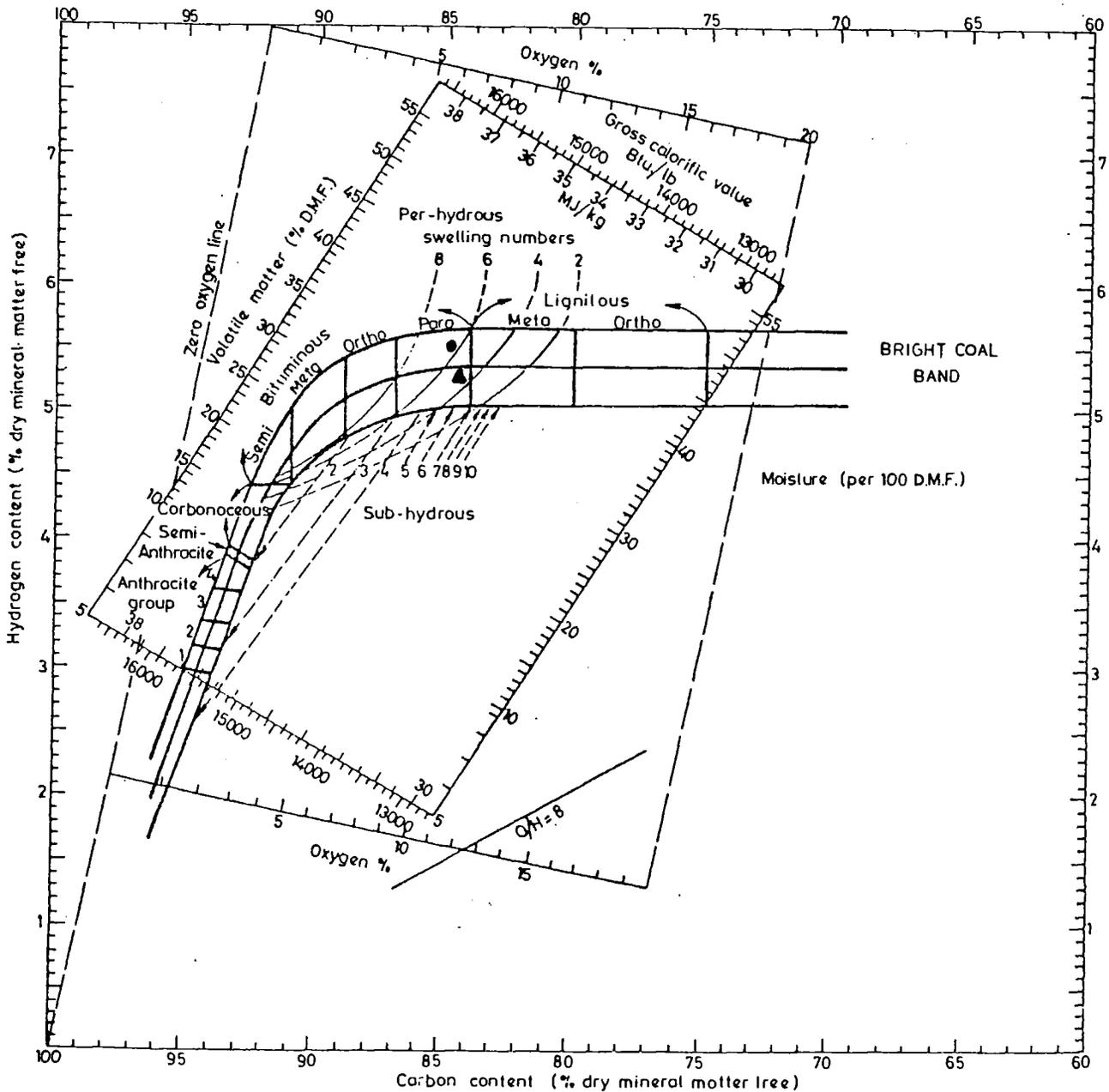
C.C. _____

Full Seam (3.540 m)

● 4787/10473 Raw

▲ 4787/10474 F1.60

COAL CLASSIFICATION



SEYLER'S COAL CHART 47B

ORIGIN: Department of Mines, Tasmania JOB NO. 4787

DESCRIPTION: Adventure Bay Sample DATE REC'D 9/12/85

DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

SAMPLE NO.

10219

Relative Density		
Total Moisture (as)	%	
Moisture (ad)	%	3.6
ANALYSIS BASIS		ad
Ash	%	14.8
Volatile Matter	%	8.2
Fixed Carbon	%	73.4
Total Sulphur	%	0.77
Chlorine	%	
Phosphorus	%	
Specific Energy	MJ/kg	27.80
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Carbon Dioxide	%	
DRY, ASH-FREE BASIS		
Volatile Matter	%	10.0
Specific Energy	MJ/kg	34.06
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Sulphur	%	
Oxygen (diff.)	%	
Crucible Swelling Number		
Gray-King Coke Type		
Hardgrove Grindability Index		
ASH FUSION TEMPERATURES (reducing atmosphere)		
Deformation	°C	
Spherical	°C	
Hemisphere	°C	
Flow	°C	
Mass received (kg)		0.836

REPORTED BY

L. Howden

DATE

14/2/86



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ORIGIN : Department of Mines, Tasmania JOB NO : 4787

 DESCRIPTION : Adventure Bay Sample DATE REC'D : 9/12/85

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT
Sample No : 4787/10219

Vitrinite A	Vitrinite	7.4	8.8	34	40.0
Vitrinite B		26.2	31.2		
Sporinite	Exinite	-	-	-	-
Cutinite		-	-		
Resinite		-	-		
Micrinite	Inertinite	0.4	0.5	51	
Macrinite		5.8	6.9		
Semi - Fusinite		32.0	38.0		
Fusinite		2.4	2.9		
Inertodetrinite		10.0	11.9		
Minerals *		15.8	84.2	15	

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings									
Mean Random Reflectance Maximum						Percentage of Reactives			
Standard Deviation of Distribution						Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>A McHugh</u>			
						Reported by : <u>[Signature]</u>			
						Date : <u>14/2/86</u>			

ORIGIN: Department of Mines, Tasmania JOB NO. 4787

DESCRIPTION: Colebrook Sample DATE REC'D 9/12/85

DATE TESTED _____

REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

SAMPLE NO.

10220

Relative Density		
Total Moisture (as)	%	
Moisture (ad)	%	6.1
ANALYSIS BASIS		ad
Ash	%	62.9
Volatile Matter	%	7.1
Fixed Carbon	%	23.9
Total Sulphur	%	0.19
Chlorine	%	
Phosphorus	%	
Specific Energy	MJ/kg	8.76
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Carbon Dioxide	%	
DRY, ASH-FREE BASIS		
Volatile Matter	%	22.9
Specific Energy	MJ/kg	28.26
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Sulphur	%	
Oxygen (diff.)	%	
Crucible Swelling Number		
Gray-King Coke Type		
Hardgrove Grindability Index		
ASH FUSION TEMPERATURES (reducing atmosphere)		
Deformation	°C	
Spherical	°C	
Hemisphere	°C	
Flow	°C	
Mass received (kg)		0.450

REPORTED BY



DATE

14/12/86



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ORIGIN : Department of Mines, Tasmania JOB NO : 4787

 DESCRIPTION : Colebrook Sample DATE REC'D : 9/12/85

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

 Sample No : 4787/10220

Vitrinite A	Vitrinite	1.2	6
Vitrinite B		4.8	
Sporinite	Exinite	-	-
Cutinite		-	
Resinite		-	
Micrinite	Inertinite	3.6	40
Macrinite		0.4	
Semi - Fusinite		0.8	
Fusinite		0.4	
Inertodetrinite		34.8	
Minerals *		54.0	54

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
30	3.00 - 3.05	3.025			1				
	3.05 - 3.10	3.075							
31	3.10 - 3.15	3.125			1				
	3.15 - 3.20	3.175				2			
32	3.20 - 3.25	3.225			8				
	3.25 - 3.30	3.275				6			
33	3.30 - 3.35	3.325			4				
	3.35 - 3.40	3.375				5			
34	3.40 - 3.45	3.425			10				
	3.45 - 3.50	3.475				4			
35	3.50 - 3.55	3.525			6				
	3.55 - 3.60	3.575				2			
36	3.60 - 3.65	3.625			1				
	3.65 - 3.70	3.675							
Total Number of Readings					50				
Mean Random Reflectance Maximum					3.37	Percentage of Reactives			
Standard Deviation of Distribution					.132	Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index									

 Analysed by : A McHugh
 Reported by : [Signature]
 Date : 14/2/86

ORIGIN: Department of Mines, Tasmania JOB NO. 4787
 DESCRIPTION: Preolenna Sample DATE REC'D 9/12/85
 DATE TESTED _____
 REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

 SAMPLE NO. 10218

Relative Density		
Total Moisture (as)	%	
Moisture (ad)	%	5.6
ANALYSIS BASIS		ad
Ash	%	7.3
Volatile Matter	%	36.5
Fixed Carbon	%	50.6
Total Sulphur	%	2.06
Chlorine	%	
Phosphorus	%	
Specific Energy	MJ/kg	26.86
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Carbon Dioxide	%	
DRY, ASH-FREE BASIS		
Volatile Matter	%	41.9
Specific Energy	MJ/kg	30.84
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Sulphur	%	
Oxygen (diff.)	%	
Crucible Swelling Number		
Gray-King Coke Type		
Hardgrove Grindability Index		
ASH FUSION TEMPERATURES (reducing atmosphere)		
Deformation	°C	
Spherical	°C	
Hemisphere	°C	
Flow	°C	
Mass received (kg)		1.270



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 REPORTED BY A Nowak

 DATE 14/2/86

ORIGIN : Department of Mines, Tasmania JOB NO : 4787

 DESCRIPTION : Preolenna Sample DATE REC'D : 9/12/85

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

 Sample No : 4787/10218

Vitrinite A	Vitrinite	5.4	5.7	59
Vitrinite B		53.4	56.0	
Sporinite	Exinite	7.0	7.3	10
Cutinite		1.2	1.2	
Resinite		2.2	2.3	
Micrinite	Inertinite	7.0	7.3	26
Macrinite		2.2	2.3	
Semi - Fusinite		5.6	5.9	
Fusinite		3.0	3.1	
Inertodetrinite		8.4	8.7	
Minerals *		4.6		5

 3
2.6
2
3
3
3
1 3.7
3

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings									
Mean Random Reflectance Maximum						Percentage of Reactives			
Standard Deviation of Distribution						Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>C F K Diessel</u>			
						Reported by : <u>J. Nowak</u>			
						Date : <u>14/2/86</u>			

ORIGIN: Department of Mines, Tasmania JOB NO. 4787
 DESCRIPTION: Saltwater River Sample DATE REC'D 9/12/85
 DATE TESTED _____
 REPORTED TO: Ms. C. Bacon C.C. _____

ANALYSIS REPORT

 SAMPLE NO. 10221

Relative Density		
Total Moisture (as)	%	
Moisture (ad)	%	4.2
ANALYSIS BASIS		ad
Ash	%	20.3
Volatile Matter	%	10.5
Fixed Carbon	%	65.0
Total Sulphur	%	0.50
Chlorine	%	
Phosphorus	%	
Specific Energy	MJ/kg	24.84
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Carbon Dioxide	%	
DRY, ASH-FREE BASIS		
Volatile Matter	%	13.9
Specific Energy	MJ/kg	32.90
Carbon	%	
Hydrogen	%	
Nitrogen	%	
Sulphur	%	
Oxygen (diff.)	%	
Crucible Swelling Number		
Gray-King Coke Type		
Hardgrove Grindability Index		
ASH FUSION TEMPERATURES (reducing atmosphere)		
Deformation	°C	
Spherical	°C	
Hemisphere	°C	
Flow	°C	
Mass received (kg)		0.255

 REPORTED BY L. Howah

 DATE 14/2/06


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ORIGIN : Department of Mines, Tasmania JOB NO : 4787

 DESCRIPTION : Saltwater River Sample DATE REC'D : 9/12/85

 REPORTED TO : Ms. C. Bacon C.C. _____

MACERAL & REFLECTIVITY REPORT

 Sample No : 4787/10221

Vitrinite A	Vitrinite	3.8	11
Vitrinite B		7.6	
Sporinite	Exinite	0.4	0
Cutinite		-	
Resinite		-	
Micrinite	Inertinite	1.0	70
Macrinite		3.2	
Semi - Fusinite		44.0	
Fusinite		9.6	
Inertodetrinite		11.8	
Minerals *		18.6	19

Remarks * Clay, quartz, pyrite. n - (Macerals). 500

V Step	Reflectance Range - %	Class Midpoints	Vitrinite			Exinite	Semi Inertinite	Reactives	
			A	B	A+B				
Total Number of Readings									
Mean Random Reflectance Maximum						Percentage of Reactives			
Standard Deviation of Distribution						Percentage of Non - Reactives			
Composition Balance Index						Strength Index			
Estimated (ASTM) Coke Stability Index						Analysed by : <u>C F K Diessel</u>			
						Reported by : <u>L Nowak</u>			
						Date : <u>14/1/86</u>			