TCR 98-4251

Consulting Geologists
McElroy Bryan Geological Services Pty Limited

202001

FINAL REPORT

RETENTION LICENCE 8813
TASMANIA

Report prepared for

CORNWALL COAL COMPANY N.L.

by

McElroy Bryan Geological Services Pty Ltd

November 1998

J.H. Bryan

AMG REFERENCE POINTS ADDED

680 Willoughby Rd, Willoughby, SYDNEY
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RL 8813

FINAL REPORT

202002

This coal exploration area is located north of Royal George, mostly on private land on "Lochaber". Between 1984 and 1998 Cornwall Coal Co. N.L. drilled 3 diamond core holes and 3 open holes in this area. The accompanying location plan shows the drill holes, all of which were drilled either beside existing roads or on cleared pasture. The exploration did not involve any disturbance to the environment.

There are no down hole geophysical logs for any of the holes and correlation of coaly intervals between drill holes is not possible. There are probably several significant faults affecting the Triassic strata in this area and the coaly intervals are interpreted to be generally thin and discontinuous. Analyses of coal "seams" indicate that they are generally high ash, low rank coals and are similar in character to those at Merrywood, some 15km to the west.

Details of coaly intervals are as follows:

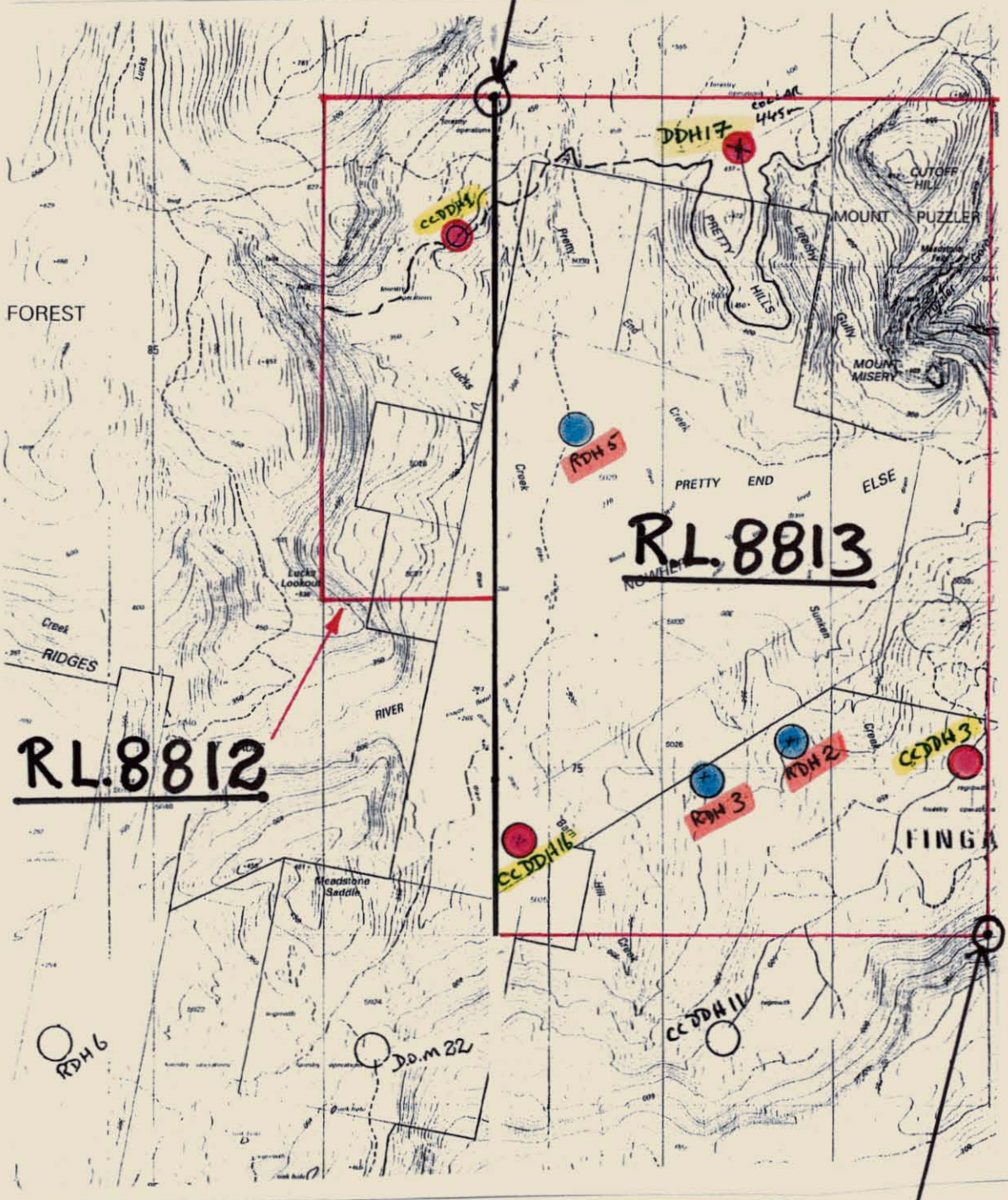
Drill Hole	Depth to Top (m)	Thickness (m)	Comments
RDH2	35.9	0.5	34.3% Ash
DDH3	92.21	1.746	42.9% Ash
	128.991	1.818	75.2%Ash
	131.024	1.942	70.2% Ash
	133.476	1.941	63.4% Ash
	135.732	1.768	50.6% Ash
DDH16	28.84	0.73	24.4% Ash
DDH17	26.46	2.91	55.1% Ash
	30.00	0.72	33.2% Ash
	87.37	1.06	31.8% Ash

Float sink data indicates that the high ash coaly intervals give a very low yield (15%-30%) of useable coal at about 20% ash.

The terrain is generally not suited to open cut mining and the seams are generally too thin or discontinuous to be amenable to underground mining. The economic potential is probably most adversely affected by the low yield of product coal.

AMG587000E,
5379000N

202003



AMG590000E,
5374000N

CORNWALL COAL CO. N.L.

LOCATION PLAN

RL'S 8812 and 8813
ROYAL GEORGE

SCALE 1:25,000

AMG REFERENCE POINTS ADDED

NOVEMBER 1998

Consulting Geologists
McElroy Bryan Geological Services Pty Limited

202004

APPENDIX 1

CORNWALL COAL

RG RDH's 2,3 & 5

DRILL LOG

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202005

CORNWALL COAL RG RDH2
RETENTION LICENCE 8813

Location:	Royal George	**Logged by:**	J. Bryan
AMG Coordinates:	E 588750 N 5375200	**Drilled by:**	Stacpoole Drilling
Collar R.L.:	400m	**Commenced:**	1.11.94
Total Depth:	37.0m	**Completed:**	1.11.94

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
LIGHT DOLERITE SCREE, SOIL AND CLAY	2.0	2.0	4 1/2" hammer
BROWN WEATHERED DOLERITE SCREE	10.0	12.0	
SANDSTONE 75% brown, weathered with 25% MUDSTONE (brown)	2.0	14.0	
SANDSTONE, pale brown/orange with minor mudstone bands, partly weathered	16.0	30.0	Base of weathering 18m
MUDSTONE, (unweathered) mid/dark grey, carbonaceous in part	3.0	33.0	
SANDSTONE, green/grey, fine to medium grained	3.0	35.9	
COAL AND COALY CLAYSTONE (unweathered)	0.5	36.4	Sample of chips analysed *
MUDSTONE, grey, hard	0.6	37.0	T.D.

* 34.30% raw ash (C.C.C. Laboratory)

202006

CORNWALL COAL RG RDH3
RETENTION LICENCE 8813

Location:	Royal George	**Logged by:**	J. Bryan
AMG Coordinates:	E588250 N5375000	**Drilled by:**	Stacpoole Drilling
Collar R.L.:	385m	**Commenced:**	2.11.94
Total Depth:	19.7m	**Completed:**	2.11.94

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
DOLERITE SCREE (BOULDERS AND CLAY	19.7	19.7	T.D. DRY HOLE 4 1/2" hammer

Hole Abandoned at 19.7m

202007

CORNWALL COAL LOCHABER RG RDH5

Location:	"Lochaber"	**Logged by:**	J. Bryan
AMG Coordinates:	E587500 N5377050	**Drilled by:**	Stacpoole Drilling
Collar R.L.:	260m	**Commenced:**	17.3.95
Total Depth:	28.0	**Completed:**	17.3.95

	Estimated Thickness (m)	**Estimated Depth to Base of Stratum (m)**	**Remarks**
SOIL and SCREE	5.0	5.0	
MUDSTONE, soft, orange/brown, weathered	8.5	13.5	some water at 10.6m
CLAYSTONE, grey and MUDSTONE	1.6	15.1	
CLAYSTONE, black, carbonaceous	0.3	15.4	
MUDSTONE, grey, soft, carbonaceous in part	2.8	18.2	
SANDSTONE, grey, hard, carbonaceous at top (typical coal measures sandstone)	8.3	26.5	(Dry at 19m) (Damp at 23m)
MUDSTONE, grey, hard	1.5	28.0	T.D.

Consulting Geologists
McElroy Bryan Geological Services Pty Limited

202008

APPENDIX 2

CORNWALL COAL

ST PAULS DDH 3

DRILL LOG
COAL ANALYSES

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ACN 053 807 926

202009

CORNWALL COAL ST PAULS RIVER D.D.H. 3

Location: Mt St John-north
AMG Co-ordinates: E 589 750
N 5375 000
Collar R.L.: 470 m approx.
Total Depth: 279.15 m

Logged by: C.F.R. Parbury
Drilled by: Stacpoole Drilling
Commenced: 18.9.84
Completed: 5.10.84

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
OPEN HOLE - no record of chips to 43.75 m collared in dolerite scree	43.75	43.75	
SANDSTONE, brown buff, weathered, ironstained, medium, soft, friable, puggy claystone band in middle of unit, carbonaceous claystone band towards base, core broken	0.69	44.44	
CLAYSTONE, black to dark grey, highly fissile, slakes when wet, abrupt base, thin sandstone band at base	0.61	45.05	
SANDSTONE, mid grey, medium, lithic, poorly sorted, poorly cemented, friable, subangular, well bedded, numerous coaly and carbonaceous fragments, sporadic pebbles, pebbles quartzite, pebbles common at base	3.865	48.915	
CLAYSTONE, black to dark grey, highly fissile, carbonaceous in part, coaly at top 0.10m gradational base	0.820	49.735	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SILTSTONE, dark grey, moderately fissile, minor siltstone phases in part	1.385	51.120	
SANDSTONE, mid grey, medium, lithic, moderately sorted, sub-angular, moderately cemented, well bedded, dip less than 5°, bedding massive, micaceous along partings, abrupt base	9.135	60.255	
COAL, dull with minor bright bands	0.305	60.560	
MUDSTONE, dark grey to black, carbonaceous in part, fissile towards base, minor bright coal pennybands, calcite along joints, minor grey brown, puggy claystone phases	1.905	62.465	
SANDSTONE, light to mid grey, fine, lithic to quartz-lithic, siltstone top and base, well bedded, siltstone fissile, calcite along irregular joints	0.690	63.155	
MUDSTONE AND CLAYSTONE INTERBEDDED, ratio 60:40. Mudstone, mid grey brown; claystone, black, well laminated	1.525	64.680	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
MUDSTONE, cream green, highly fissile, slakes when wet, puggy	0.685	65.365	
CLAYSTONE, black, carbonaceous in part, puggy, soft	0.100	65.465	
CLAYSTONE, mid brown grey, indurated, hard, fissile bands, sporadic	1.355	66.820	
CLAYSTONE, black, carbonaceous, moderately fissile	1.750	68.570	
SANDSTONE, mid to light grey, fine, lithic, moderately well sorted, well bedded, numerous claystone bands up to 0.6 m thick, claystone carbonaceous, fissile, numerous fracture sets, fractures within sets very close spaced, high irregular, inclined to LCA 20°, sandstone has disturbed laminations, syndepositional deformation structures	6.840	75.410	
SANDSTONE, light grey, medium, quartz-lithic, well sorted, sub-angular, well cemented, massively bedded, well bedded, carbonaceous phases define straight to wavy laminations and micro cross-			

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)		Remarks
laminations, single fractures sporadic, continuous, rough planar and regular, sporadic pebble and intraformational clast horizons, rip up clasts and thin coal bands in horizon 0.50 m thick at 86.60m mudstone band 0.120m thick, 0.580m above base of unit, abrupt base	16.800	92.210		
COAL, dull, hard, compact	0.114	92.324	)	
CLAYSTONE, brown, soft, slakes when wet	0.025	92.349	)	
COAL, dull, hard, compact	0.332	92.681	)	
SILTSTONE, light grey, abrupt top and base, erosional base	0.040	92.721	)	PLY 1
COAL, dull with minor bright bands	0.095	92.816	)	Thickness: 1.746 m
CLAYSTONE, brown buff, fissile, slakes and swells when wet, abrupt top and base	0.080	92.896	)	
COAL, dull	0.025	92.921	)	
CLAYSTONE, white cream, hard, compact	0.020	92.941	)	
COAL, dull	0.030	92.971	)	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SILTSTONE, light grey, cream, irregular lenses of carbonaceous material at top	0.035	93.006	
COAL, dull with minor bright bands	0.117	93.123	
SILTSTONE, light grey, hard, compact	0.023	93.146	PLY 1
COAL, dull with minor bright bands	0.230	93.376	Thickness
, dull with numerous bright bands	0.394	93.770	1.746 m
, stony	0.039	93.809	
CLAYSTONE, dark brown-black, carbonaceous	0.147	93.956	
CLAYSTONE, mid brown, fissile, carbonaceous in part, gradational base	0.250	94.206	
SANDSTONE, light grey, fine to medium, lithic to quartz-lithic, well bedded, well sorted, well cemented, thickly bedded, siltstone phases at top of unit, two fractures in unit, planar rough subparallel to LCA, parallel to wavy laminations, micro cross laminations defined by carbonaceous material	4.636	98.842	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SANDSTONE AND SILTSTONE INTER-BEDDED, ratio 40:60. Sandstone, light grey, fine, bioturbation structures; siltstone, mid grey, fissile, carbonaceous mudstone band at top, thinly bedded, sporadic coal wisps and lenses	2.515	101.357	
CLAYSTONE, mid grey to black, carbonaceous, fissile, becoming more compact at base	1.046	102.403	
SILTSTONE, mid grey, compact, fine sandstone in part, sandstone infilling structures, gradational base	0.535	102.938	
MUDSTONE, mid grey to dark grey, carbonaceous in part, fissile	0.590	103.528	
CLAYSTONE, brown grading to light cream green, highly fissile, slaking when wet	0.275	103.803	
CLAYSTONE, cream green, puggy, slaking and swelling, abrupt base	0.700	104.503	
SILTSTONE, light to mid grey, hard, compact, abrupt base, fractures at top and base, slickensides along fracture	0.375	104.878	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
MUDSTONE, dark brown, moderately carbonaceous, compact at top, fissile at base	0.240	105.118	
CLAYSTONE, dark brown, numerous bright coal pennybands	0.180	105.298	
CLAYSTONE, dark grey, fissile, moderately carbonaceous, numerous coaly lenses and wisps	0.110	105.408	
CLAYSTONE, mid grey, highly fissile, numerous lenses and blebs of siltstone, single smooth planar fracture 45° to LCA in middle of unit	0.900	106.308	
SILTSTONE AND SANDSTONE INTERBEDDED, ratio 55:45. Siltstone, mid grey, fissile; sandstone, light grey, medium, well sorted, well bedded, laminations parallel wavy throughout, numerous scour and fill structures, syndepositional deformation structures, laminated in basal 0.5 m of unit, abrupt base, micaceous along partings, where laminated highly fissile	3.845	110.153	

202016

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SANDSTONE, light grey, medium with coarse fractions, quartz-lithic, well bedded, massive to thickly bedded, minor intra-formational clasts, laminations defined by carbonaceous material bedding dip less than 5°, basal 1.5 m coarse with numerous rip up structures, coaly blebs and intraformational clasts, fractures at 124.1 m and 127.0m, curved irregular	18.838	128.991	
MUDSTONE, dark grey to black, pelletoidal, carbonaceous in part, gradational base	0.092	129.083	
COAL, dull, abrupt base, pyrite blebs sporadic	0.145	129.228	
MUDSTONE, cream fawn, pelletoidal, numerous black carbonaceous wisps and lenses, abrupt base	0.138	129.366	PLY 2
COAL, dull	0.045	129.411	Thickness: 1.818 m
SILTSTONE, light to mid brown, fissile, abrupt base	0.045	129.456	
CLAYSTONE, black, hard, compact	0.120	129.576	
COAL, stony	0.020	129.596	

202017

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
MUDSTONE, black, hard, compact, abrupt base	0.015	129.611	
MUDSTONE, buff cream, pelletoidal	0.020	129.631	
COAL, stony, hard, compact, siltstone cream pennyband at base	0.060	129.691	
, dull, abrupt base	0.080	129.771	
MUDSTONE, cream, pelletoidal	0.010	129.781	
COAL, stony	0.020	129.801	
MUDSTONE, cream, hard, compact, pelletoidal, abrupt base	0.035	129.836	
COAL, dull, hard, compact	0.085	129.921	PLY 2
CLAYSTONE, black, carbonaceous, hard, compact	0.025	129.946	
SANDSTONE, mid grey, lithic, medium	0.062	130.008	
MUDSTONE, buff fawn, compact, pelletoidal, minor carbonaceous wisps	0.056	130.064	
COAL, dull, hard, compact, abrupt base	0.123	130.187	

202018

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, light brown buff, fissile, slaking and swelling when wet, abrupt base	0.032	130.219	
COAL, dull, gradational base	0.034	130.253	
MUDSTONE, dark grey to black, carbonaceous in part, numerous pellets, abrupt base	0.095	130.348	
MUDSTONE, cream buff, pelletoidal, abrupt irregular base	0.060	130.408	
CLAYSTONE, black, coaly	0.077	130.485	PLY 2
COAL, stony	0.038	130.523	
CLAYSTONE, black, coaly	0.038	130.561	
COAL, dull	0.175	130.736	
MUDSTONE, black, carbonaceous, hard, compact, abrupt base	0.073	130.809	
MUDSTONE, cream buff, pelletoidal	0.035	130.844	
CLAYSTONE, light brown cream, slaking and swelling when wet	0.180	131.024	PLY 3 Thickness: 0.215 m

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
COAL, stony, abrupt base	0.042	131.066	
MUDSTONE, mid brown, pelletoidal abrupt base	0.020	131.086	
CLAYSTONE, black, coaly	0.020	131.106	
MUDSTONE, dark grey black, minor pellets	0.070	131.176	
COAL, stony, abrupt base	0.030	131.206	
MUDSTONE, brown tan, fissile, soft in part, abrupt base	0.035	131.241	PLY 4
COAL, dull, soft	0.260	131.501	Thickness: 0.586 m
CLAYSTONE, dark grey black, hard, compact	0.058	131.559	
CLAYSTONE, black, coaly, abrupt base	0.051	131.610	
CLAYSTONE, cream fawn, very soft, highly slaking and swollen when wet, abrupt base	0.285	131.895	PLY 5
COAL, dull, hard, compact	0.108	132.003	
, bright	0.035	132.038	PLY 6 Thickness: 1.071 m
, dull	0.190	132.228	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
MUDSTONE, brown, tan, soft, fissile, abrupt base	0.047	132.275	
COAL, dull, hard, compact	0.235	132.510	
CLAYSTONE, cream fawn, soft, highly swollen and slaking when wet	0.045	132.555	
CLAYSTONE, black, carbonaceous	0.050	132.605	
CLAYSTONE, cream fawn, highly swollen and slaking	0.185	132.790	PLY 6 Thickness: 1.071 m
MUDSTONE, black, numerous fawn pellets throughout, abrupt base	0.130	132.920	
COAL, dull	0.046	132.966	
CLAYSTONE, cream fawn, highly swollen and slaking when wet	0.510	133.476	PLY 7
MUDSTONE, black, carbonaceous, hard, compact	0.050	133.526	
COAL, stony	0.080	133.606	
CLAYSTONE, mid brown black, hard, compact	0.067	133.673	PLY 8 Thickness: 1.052 m
CLAYSTONE, black, coaly, dense, hard	0.085	133.758	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, cream fawn, highly swollen and slaking when wet	0.105	133.863	
MUDSTONE, black, carbonaceous, hard, compact, dense	0.140	134.003	PLY 8
COAL, dull	0.310	134.313	Thickness: 1.052 m
, dull with numerous bright bands	0.090	134.403	
, dull	0.125	134.528	
CLAYSTONE, cream fawn, highly swollen and slaking when wet	0.180	134.708	PLY 9
COAL, stony, hard, compact, abrupt base	0.128	134.836	
CLAYSTONE, fawn buff, pelletoidal, abrupt base	0.025	134.861	
COAL, stony, gradational base	0.120	134.981	
CLAYSTONE, buff fawn, fissile, minor swelling, pelletoidal at top, abrupt base	0.115	135.096	PLY 10 Thickness: 0.709 m
COAL, dull, abrupt base	0.020	135.116	
CLAYSTONE, buff cream, abrupt base	0.016	135.132	
COAL, dull, abrupt base	0.285	135.417	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, buff cream, slaking when wet	0.315	135.732	PLY 11
CLAYSTONE, black, coaly, hard, compact	0.145	135.877	
CLAYSTONE, mid brown, fissile, abrupt base	0.025	135.902	
COAL, stony	0.042	135.944	
CLAYSTONE, mid brown, fissile, abrupt base, irregular band	0.015	135.959	
COAL, dull	0.083	136.042	
CLAYSTONE, black, carbonaceous, hard, compact, sporadic lenses and pellets throughout, abrupt base	0.054	136.096	PLY 12 Thickness 1.768 m
CLAYSTONE, cream white, hard, compact, irregular abrupt base	0.070	136.166	
CLAYSTONE, black with numerous cream lenses and pellets, abrupt base	0.107	136.273	
COAL, dull	0.135	136.408	
, dull with numerous bright bands	0.095	136.503	
, dull	0.070	136.573	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
COAL, dull with numerous bright bands	0.600	137.173	PLY 12
CLAYSTONE, grey, hard, indurated	0.033	137.206	
COAL, dull with numerous bright bands, abrupt top	0.025	137.231	
CLAYSTONE, cream white, abrupt top and base	0.020	137.251	
COAL, dull with minor bright bands	0.056	137.307	
, dull and bright	0.140	137.447	
, dull, abrupt base	0.053	137.500	
CLAYSTONE, light grey, fissile	0.965	138.465	
SANDSTONE, light grey, medium, lithic, minor carbonaceous phases, well sorted, subangular, well cemented, well bedded, thickly to massive, carbonaceous phases define laminations, wavy straight parallel, micro cross laminations	8.465	146.930	
COAL, dull with numerous bright bands	0.160	147.090	
, dull with minor bright bands	0.082	147.172	
CLAYSTONE, dark grey, carbonaceous to coaly	0.020	147.192	

202024

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
MUDSTONE, mid grey, numerous coaly wisps and lenses, abrupt base	0.180	147.372	
CLAYSTONE, cream white, hard, compact, abrupt base	0.046	147.418	
MUDSTONE, mid grey, numerous coaly bands	0.040	147.458	
COAL, dull with minor bright bands	0.180	147.638	
CLAYSTONE, mid grey, highly fissile, bedding dip less than 10° highly disturbed bedding, numerous rip up clasts, pellets, intraformational clasts	0.382	148.020	
SANDSTONE, light grey, medium, quartz-lithic, well sorted, well cemented, well bedded, numerous coaly wisps and lenses, numerous coal fragments, single regular planar fracture inclined to LCA 0.5 m from top of unit, numerous intraformational clasts at base, abrupt angular base	1.200	149.220	
CLAYSTONE, mid grey, fissile, irregular angular base	0.400	149.620	
CLAYSTONE, mid grey, breccia	0.190	149.810	

202025

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SILTSTONE, mid grey, fractured throughout, abrupt base, abrupt top	0.330	150.140	
SANDSTONE, light grey, medium to coarse, quartz-lithic, well sorted, well cemented, subangular, numerous coal fragments, coaly wisps and lenses, intraformational claystone blebs, numerous fractures highly irregular, curved, closed at 150.50 m over an interval of 0.7 m massive bedding	6.542	156.682	
COAL, stony	0.120	156.802	
MUDSTONE, buff brown, compact, hard, fissile in part, carbonaceous towards top	0.430	157.232	
SANDSTONE, light grey, fine to medium, lithic, grain size coarser at base, moderately well sorted, well bedded, numerous laminations defined by carbonaceous material, numerous curved fractures in basal 0.5 m of unit, abrupt base	1.283	158.515	
SILTSTONE, mid grey, fine sandstone phases throughout, well bedded, fissile in part, minor infilling structures	0.785	159.300	

202026

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, dark grey to black, carbonaceous in part	0.360	159.660	
SANDSTONE, mid grey, fine, lithic, numerous siltstone phases throughout, parallel wavy to straight laminations throughout, numerous fractures, curved and irregular throughout	0.843	160.503	
SANDSTONE, light grey, medium, quartz-lithic, abrupt base	1.857	162.360	
COAL, dull with minor bright bands	0.050	162.410	
CLAYSTONE, light brown grey, irregular abrupt top and base	0.065	162.475	
COAL, stony	0.096	162.571	
MUDSTONE, brown, fissile, abrupt top and base	0.025	162.596	
CLAYSTONE, mid brown black, carbonaceous	0.032	162.628	
CLAYSTONE, cream white, abrupt base	0.026	162.654	
COAL, dull	0.106	162.760	
CLAYSTONE, dark grey black, carbonaceous, coaly at base	0.065	162.825	

202027

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, mid grey,highly fissile, carbonaceous in part, siltstone throughout towards base	4.485	167.310	
SANDSTONE, light grey, medium to coarse, quartz-lithic, well sorted, well bedded, well cemented, massively bedded, sporadic phases of carbonaceous material defining laminations, laminations parallel straight, sporadic claystone phases highly irregular boundaries and abrupt sporadic intraformational clasts, sporadic extraformational clasts up to 0.050 m in size, claystone phase at 184.5 m highly fractured, fractures at 184.6 m, fractures closed, rough, discontinuous, irregular, curved, subparallel to LCA	24.494	191.804	
CLAYSTONE, green grey, fissile, abrupt top and base	0.105	191.909	
COAL, stony to dull, wisps and lenses of claystone throughout, abrupt base	0.135	192.044	
MUDSTONE, cream grey green, abrupt base, fractures common	0.420	192.464	

202028

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE, mid grey, fissile, bright coal pennyband at base	0.100	192.564	
CLAYSTONE, cream fawn, highly fissile, slaking when wet, abrupt top and base	0.122	192.686	
CLAYSTONE, dark grey, carbonaceous in part, bright coal pennyband in middle of strata	0.150	192.836	
CLAYSTONE, mid grey green, fissile and fractures in part	0.352	193.188	
COAL, dull	0.070	193.258	
CLAYSTONE, dark brown, puggy	0.015	193.273	
CLAYSTONE, black, coaly, abrupt base	0.155	193.428	
MUDSTONE, light grey, abrupt base, bioturbated	0.060	193.488	
CLAYSTONE, brown, fawn, highly fissile, slaking when wet	0.340	193.828	
SANDSTONE, light grey green, medium to coarse, lithic, moderately sorted, well cemented, subangular, hard, well cemented, massive, heat affected? in part (from 198m to 207m), siltstone at top of strata 0.4m thick, minor plant remains along bedding partings	24.766	218.594	

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
COAL, dull with minor bright bands	0.290	218.884	
CLAYSTONE, light cream grey, fissile, slaking when wet, sandstone phase 0.040m thick in middle of strata	0.400	219.284	
CLAYSTONE, dark grey black, carbonaceous	0.078	219.362	
SANDSTONE, light grey green, medium to coarse, lithic, well sorted, subangular, well cemented, well bedded, massive, very minor carbonaceous laminations, sporadic intraformational clasts, siltstone on top of strata for 0.4m thick, fractures vary from planar regular to curved irregular with rough surfaces, minor plant remains along bedding partings, thinly bedded from 234 m to 242 m	52.028	271.390	
CLAYSTONE, mid grey green, fissile in part, sporadic fractures, minor carbonaceous bands, numerous plant remains along partings	1.370	272.760	
COAL, dull, minor claystone penny-bands	0.465	273.225	

202030

CORNWALL COAL ST PAULS RIVER D.D.H. 3

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
CLAYSTONE AND MUDSTONE INTERBEDDED, ratio 70:30. Claystone, mid grey green; mudstone, light grey, fissile, bedding disturbed in part, thinly bedded	5.073	278.298	
COAL, dull	0.250	278.548	
CORE LOSS	0.602	279.150	

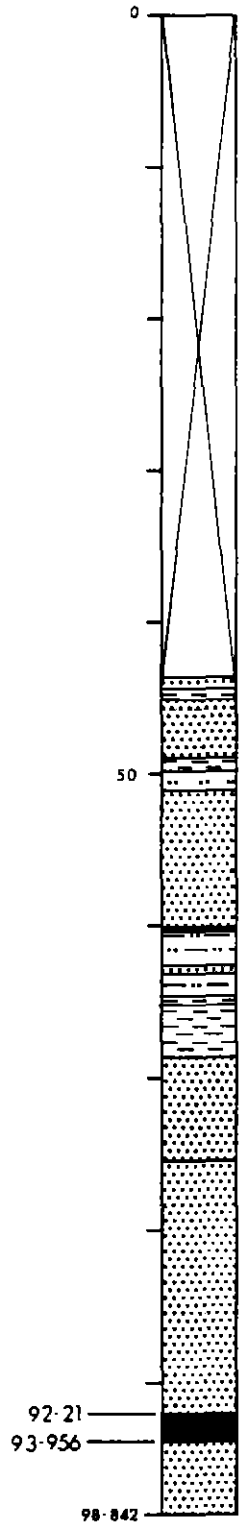
BASE OF HOLE

CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202031



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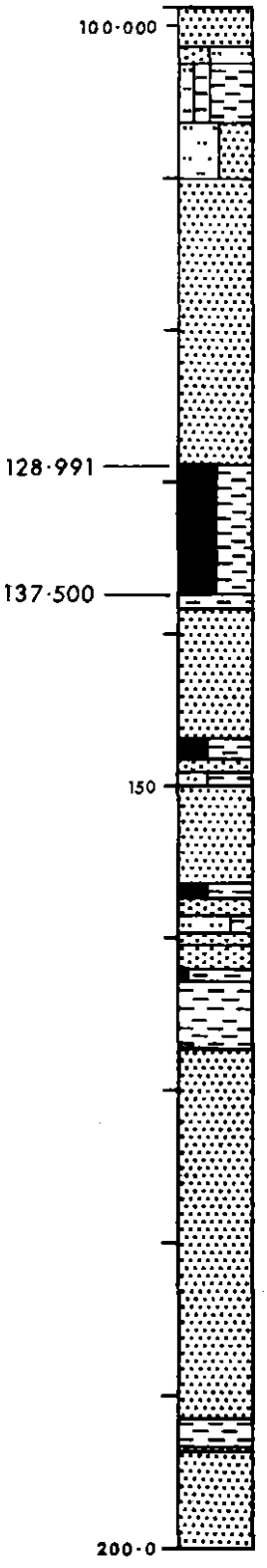
SCALE 1:500 DRAWN C.F.R.P. DATE 4/12/84 PAGE 1 OF 3

CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202032



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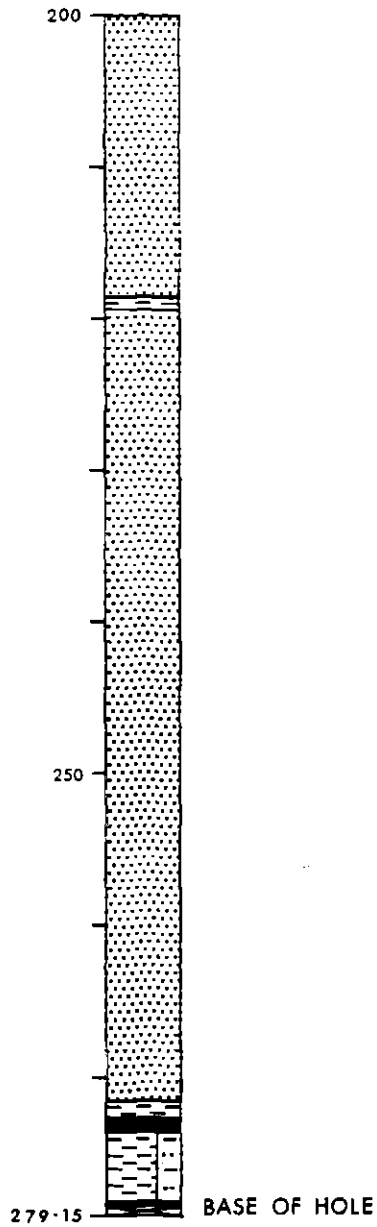
CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202033



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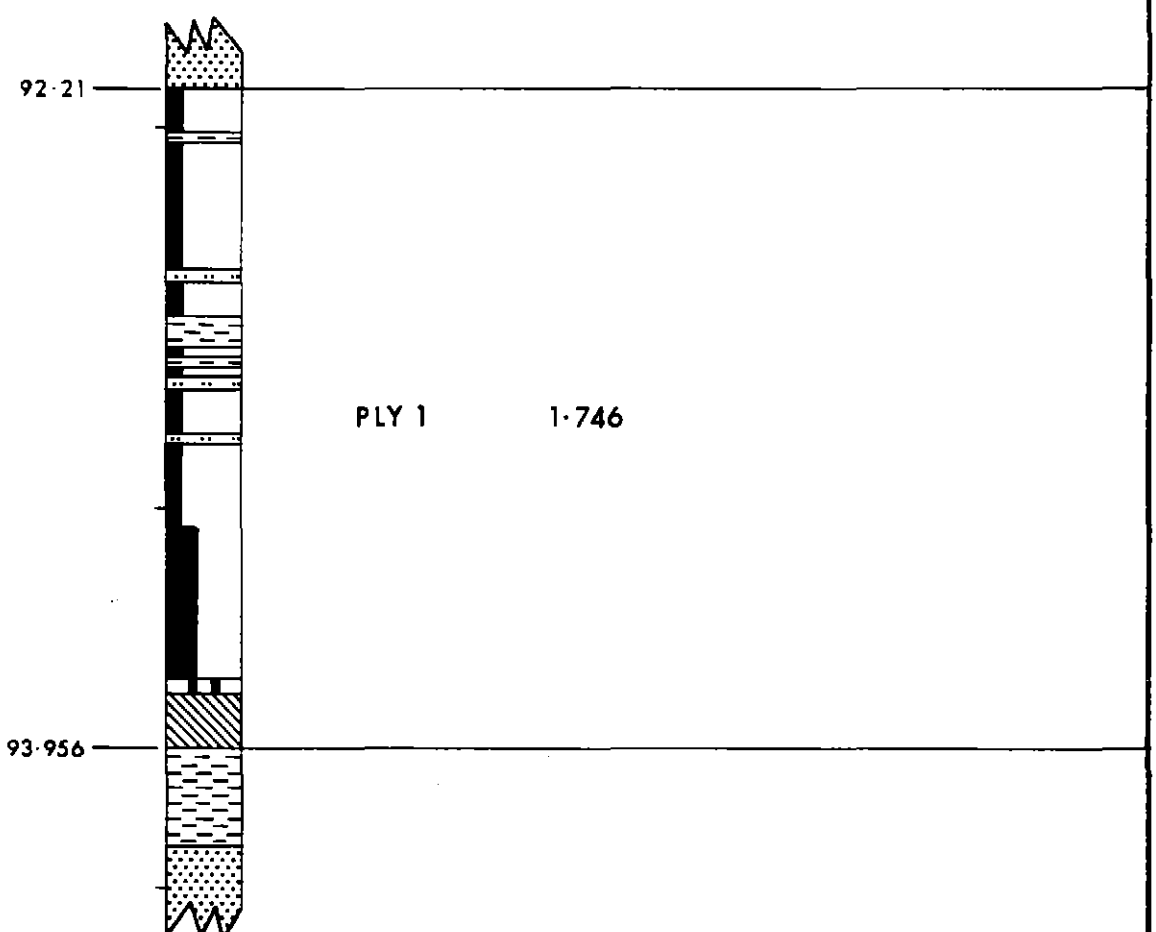
CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202034



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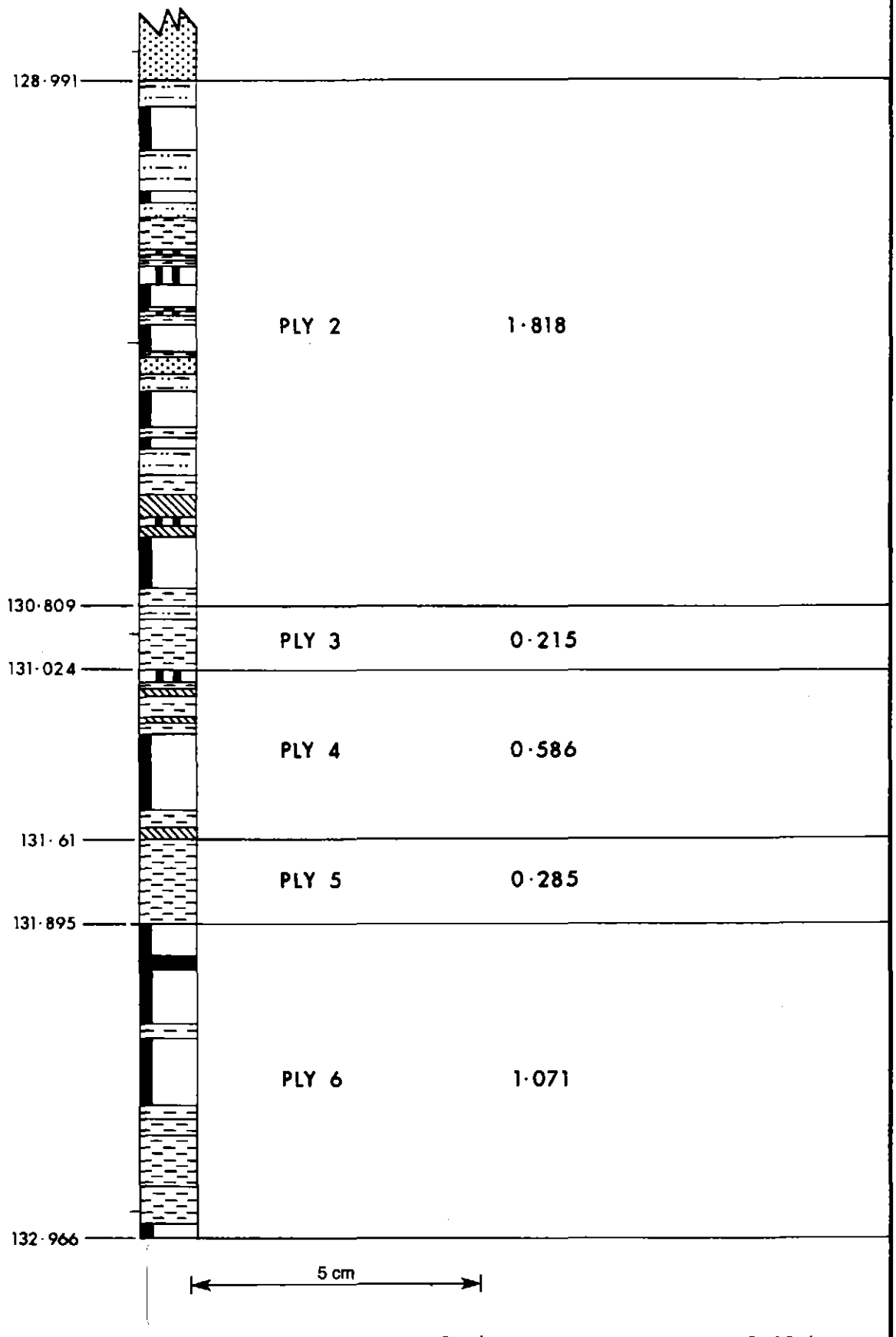
SCALE 1:20 DRAWN C.F.R.P. DATE October, 1984 PAGE 1 OF 4

CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202035



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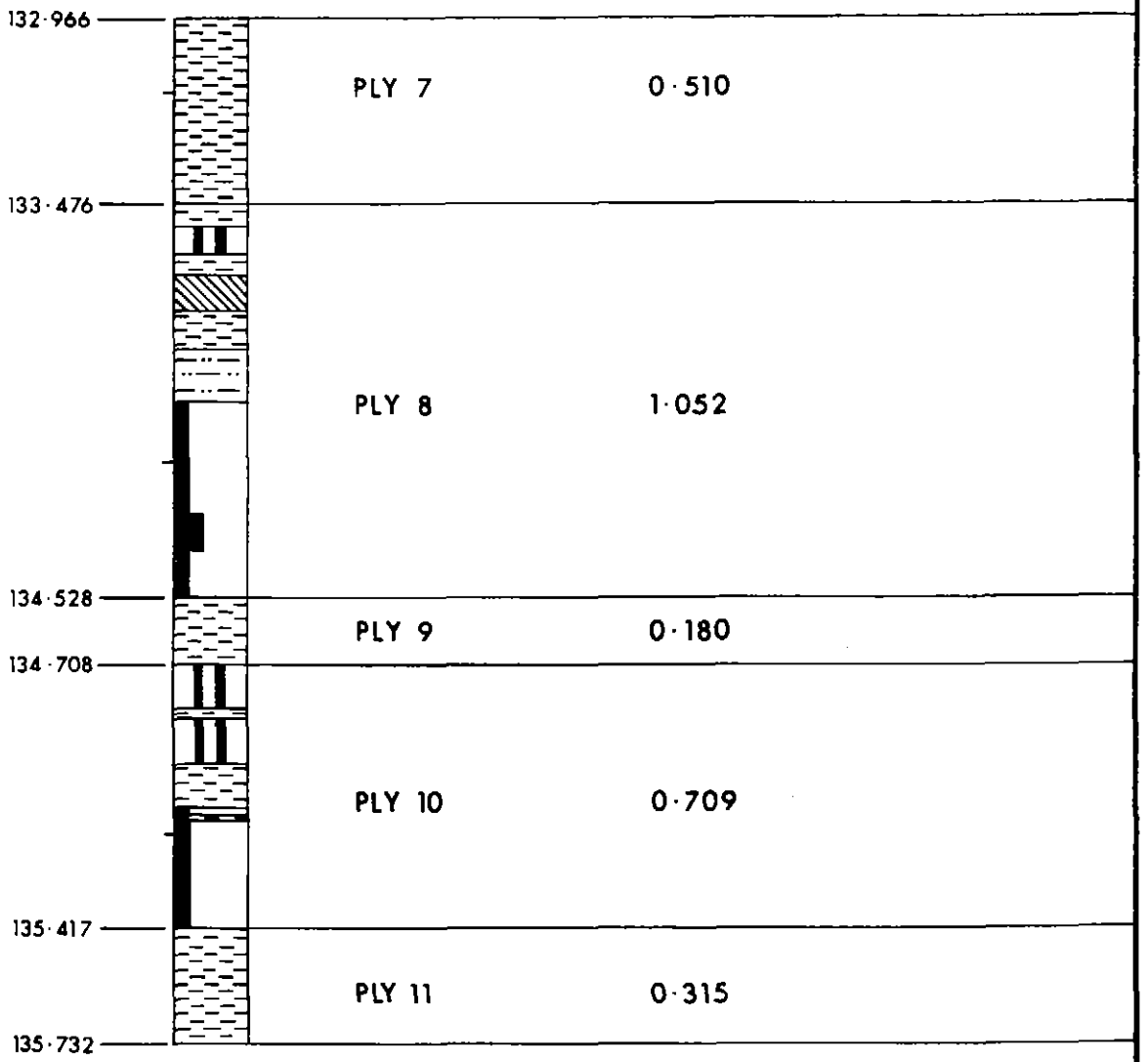
CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202036



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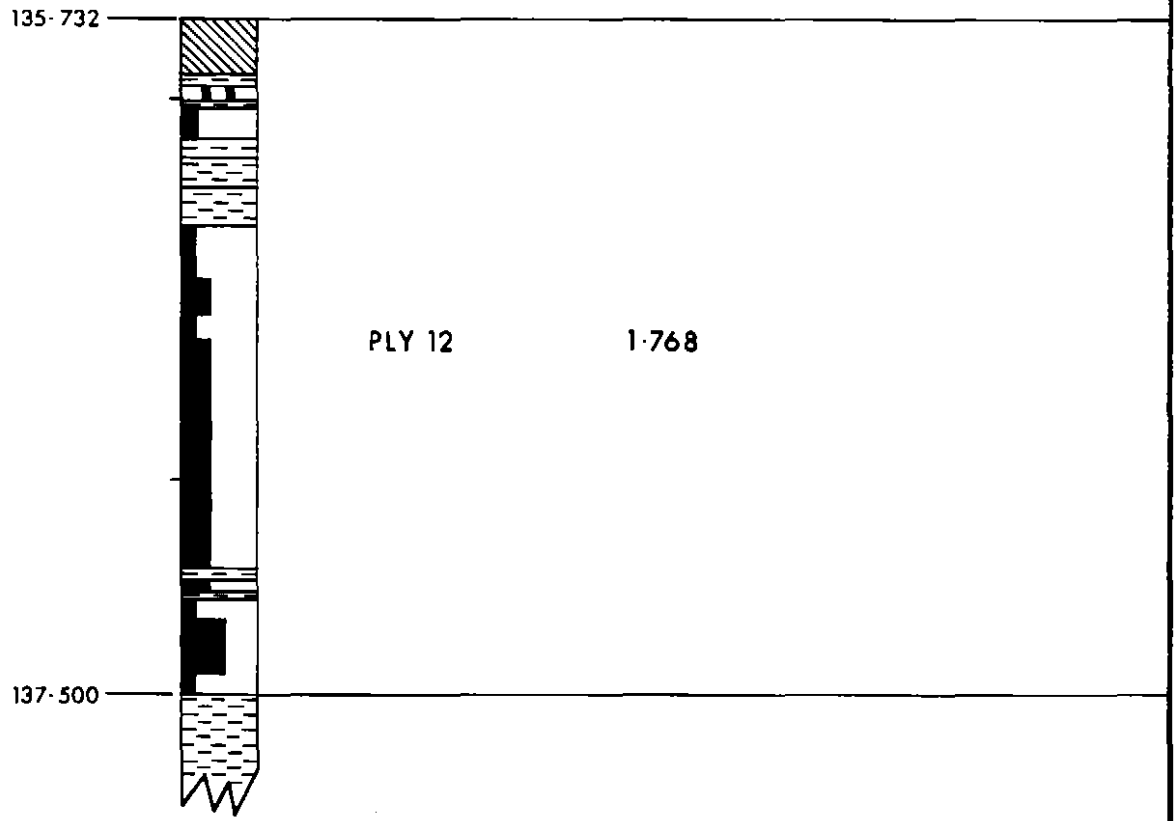
SCALE 1:20 DRAWN C.F.R.P. DATE October, 1984 PAGE 3 OF 4

CORNWALL COAL COMPANY N.L.

St Pauls River

DDH 3

202037



5 cm

SCALE 1: 20 DRAWN C.F.R.P. DATE October , 1984 PAGE 4 OF 4

SGS Australia Pty. Ltd.
(Incorporated in N.S.W.)

74 McEvoy St.,
Alexandria NSW 2015
Telephone (02) 699 7625
Telex 22395
NATA Reg. No. 1002

202038

McElroy Bryan & Associates
156 Mowbray Road
Willoughby, N.S.W. 2068

Attn: MR. C. PARBURY

REPORT NO SL 2859 CLIENT REF NO

DATE SAMPLES IN 22/10/84 DATE REPORT OUT 2/11/84

REPORT TITLE: ANALYSES OF BORECORE SAMPLES
DDH 3, ST. PAUL'S RIVER.

The tests contained in this report have been carried out in accordance with the Australian Standards or other NATA approved methods listed below:-

AS 1038 Pt. 1	Total Moisture
AS 1038 Pt. 3	Proximate Analysis
AS 1038 Pt. 5	Specific Energy
AS 1038 Pt. 6	Ultimate Analysis
AS 1038 Pt. 8	Chlorine
AS 1038 Pt.11	Forms of Sulphur
AS 1038 Pt.12.1	Crucible Swelling Number
AS 1038 Pt.12.2	Gray King Coke Type
AS 1038 Pt.14.1	Ash Analysis
AS 1038 Pt.15	Fusibility of Ash
AS 1038 Pt.20	Hardgrove Grindability Index
AS 1038 Pt.21	Relative Density
AS 1661	Float/Sink Testing
AS 1676	Sampling
AS 2137	Gieseler Plastometer (Discontinuous stirring method)
AS 2486	Reflectance of Vitrinite
AS 2515	Maceral Analysis
ISO 349	Audibert Arnu Dilatometer
ISO 335	Roga Index
ISO 1018	Moisture Holding Capacity
BS 1016 Pt.17	Size Analysis
LECO Method	Total Sulphur

Borecore samples supplied by client.

SGS Australia Pty. Ltd.

202039

REPORT No: SL 2859

RAW

Analysis \ Sample Ref.		PLY 1 20x0 mm	PLY 1 -0.5mm	PLY 2 20x0 mm	PLY 2 -0.5mm	PLY 3 20x0 mm	PLY 3 -0.5mm
Total Moisture	%						
Moisture	%	3.4		3.7			
Ash	%	42.9	55.7	75.2	76.5	85.1	84.5
Volatile Matter	%	22.1		10.9			
Fixed Carbon	%	31.6		10.2			
Crucible Swelling No.							
Specific Energy	Mj/kg						
Total Sulphur	%						
Carbon	%						
Hydrogen	%						
Nitrogen	%						
Oxygen(plus errors)	%						
Carbon Dioxide	%						
Chlorine	%						
Relative Density		1.70		2.20			
Mass	(kg)	4.16	0.29	5.82	0.14	0.69	0.04

FUSIBILITY OF COAL ASH (Atmosphere): Sintered Alumina Support

Temperatures °C at Characteristic Shapes						
Initial Deformation						
Sherical						
Hemispherical						
Flow						
Comments:						

BASIS RESULTS REPORTED ON Air Dried.

COLIN MEADS
MANAGER
LABORATORIES

Analysis \ Sample Ref.		PLY 4, 5, 6 20x0 mm	PLY 4, 5, 6 -0.5 mm	PLY 7 20x0 mm	PLY 7 -0.5 mm	PLY 8, 9, 10 20x0 mm	PLY 8, 9, 10 -0.5 mm
Total Moisture	%						
Moisture	%	5.9				3.6	
Ash	%	70.2	77.2	82.1	81.8	63.4	68.5
Volatile Matter	%	11.3				14.2	
Fixed Carbon	%	12.6				18.8	
Crucible Swelling No.							
Specific Energy	Mj/kg						
Total Sulphur	%						
Carbon	%						
Hydrogen	%						
Nitrogen	%						
Oxygen(plus errors)	%						
Carbon Dioxide	%						
Chlorine	%						
Relative Density		2.10				1.95	
Mass	(kg)	5.23	0.37	1.26	0.18	5.30	0.25

FUSIBILITY OF COAL ASH (Atmosphere): Sintered Alumina Support

Temperatures °C at Characteristic Shapes						
Initial Deformation						
Sherical						
Hemispherical						
Flow						
Comments:						

BASIS RESULTS REPORTED ON Air Dried.

COLIN MEADS
MANAGER
LABORATORIES

SGS Australia Pty. Ltd.

202041

REPORT No: SL 2859

Analysis \ Sample Ref.		PLY 11 20x0 mm	PLY 11 -0.5mm	PLY 12 20x0 mm	PLY 12 -0.5mm		
Total Moisture	%						
Moisture	%			3.5			
Ash	%	83.1	82.8	50.6	41.3		
Volatile Matter	%			21.1			
Fixed Carbon	%			24.8			
Crucible Swelling No.							
Specific Energy	Mj/kg						
Total Sulphur	%						
Carbon	%						
Hydrogen	%						
Nitrogen	%						
Oxygen(plus errors)	%						
Carbon Dioxide	%						
Chlorine	%						
Relative Density				1.82			
Mass	(kg)	0.87	0.05	4.32	0.09		

FUSIBILITY OF COAL ASH (Atmosphere): Sintered Alumina Support

Temperatures ^{O}C at Characteristic Shapes						
Initial Deformation						
Sherical						
Hemispherical						
Flow						
Comments:						

BASIS RESULTS REPORTED ON Air Dried.

COLIN MEADS
MANAGER
LABORATORIES

SGS Australia Pty. Ltd. 202042

REPORT No: SL 2859 FLOAT/SINK ANALYSIS
DDH 3, ST. PAUL'S RIVER

Analysis \ Sample Ref.		PLY 1 20x0.5mm F1.60	PLY 1 20x0.5mm S1.60	PLY 12 20x0.5mm F1.60	PLY 12 20x0.5mm S1.60		
Total Moisture	%						
Moisture	%	3.2		3.9			
Ash	%	20.7	64.4	15.6	70.6		
Volatile Matter	%	29.6		32.5			
Fixed Carbon	%	46.5		48.0			
Crucible Swelling No.							
Specific Energy Mj/kg		25.08		26.78			
Total Sulphur	%	0.38		0.57			
Carbon	%						
Hydrogen	%						
Nitrogen	%						
Oxygen(plus errors)	%						
Carbon Dioxide	%						
Chlorine	%						
Relative Density			1.96		2.10		

FUSIBILITY OF COAL ASH (Atmosphere): Sintered Alumina Support

Temperatures °C at Characteristic Shapes						
Initial Deformation						
Sherical						
Hemispherical						
Flow						
Comments:						

BASIS RESULTS REPORTED ON Air Dried.

COLIN MEADS
MANAGER
LABORATORIES

COAL ANALYSIS REPORT

FLOAT/SINK ANALYSIS, PLY 1

Relative Density	Fractional %		Cumulative %	
	Mass	Ash	Mass	Ash
F1.60	49.5	20.7	49.5	20.7
S1.60	50.5	64.4	100.0	42.8

FLOAT/SINK ANALYSIS, PLY 12

F1.60	38.5	15.6	38.5	15.6
S1.60	61.5	70.6	100.0	49.4

COLIN MEADS
MANAGER
LABORATORIES

Consulting Geologists
McElroy Bryan Geological Services Pty Limited

202044

APPENDIX 3

CORNWALL COAL

ST PAULS DDH 16

DRILL LOG
COAL ANALYSES
CORE PHOTOGRAPHS

680 Willoughby Rd, Willoughby, SYDNEY
P.O. Box 34, Willoughby, N.S.W. 2068, Australia
Phone: (02) 9958 1455 Fax: (02) 9958 2181
ACN 053 807 926

202045

CORNWALL COAL ST PAULS DDH 16

Location:	"Old Meadstone"	**Logged by:**	J.BRYAN
AMG Coordinates:	E(5) 87150 N(53)74550	**Drilled by:**	STACPOOLE DRILLING
Collar R.L.:	290m	**Commenced:**	16.3.95
Total Depth:	32.13m	**Completed:**	17.3.95

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SANDY SOIL	0.80	0.8	$5^1/_2$" Hammer to 12.0m HQ CORE TO T.D.
CLAY, brown, soft	6.30	7.1	
SANDSTONE, brown, weathered	3.10	10.2	
SANDSTONE, grey, fine grained, lithic	1.80	12.0	
SANDSTONE, grey, lithic, massive	9.12		Hole used 20,000 litres of water
MUDSTONE, grey with carbonaceous partings 10 f.p.m, moderately strong	0.64	21.76	
MUDSTONE, carbonaceous and stony coal, hard	0.11	21.87	
CLAYSTONE, tuffaceous, soft, weak	0.01	21.88	
COAL, dull, broken	0.16	22.04	
MUDSTONE, dark grey to grey, 12fpm, moderately strong	0.54	22.58	
MUDSTONE, light grey, broken, weak to moderately strong	1.30	23.88	
COAL	0.02	23.90	
MUDSTONE, grey, moderately strong	0.25	24.15	
LAMINITE, grey, hard (siltstone 60%, mudstone 40%)	3.25	27.40	
MUDSTONE, grey, carbonaceous towards base (badly broken towards base)	1.44	28.84	

CORNWALL COAL ST PAULS DDH 16

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
COAL, dull	0.05	28.89	) Sample
CLAYSTONE, grey/brown,, ?tuffaceous, hard	0.01	28.90	) 16/1) for
COAL, dull with calcite veins	0.08	28.98	) analysis
COAL, bright with minor dull bands	0.02	29.00	)
COAL, dull with minor bright bands	0.57	29.57	)
MUDSTONE, brown/black, carbonaceous	0.16	29.73	
MUDSTONE, grey/green hard, moderately strong when fresh, carbonaceous at base	1.68	31.41	
LAMINATE, siltstone (70%), mudstone (30%), grey hard	0.72	32.13m	T.D.

SGS Australia Pty. Ltd. (A.C.N. 000 964 278)
ANALYTICAL REPORT

Our Reference: EP2456 Client Reference: ST PAULS DDH16

202047

ANALYTICAL REPORT ON SAMPLES SUBMITTED BY / ON BEHALF OF

MCELROY BRYAN GEOLOGICAL SERVICES LTD

PO BOX 34

WILLOUGHBY NSW 2068

Attn: DR JOHN H BRYAN

Date Received 30.Mar.1995

Date Completed 04.Apr.1995

Number of Samples 1

.....

Issued at Port Kembla on 04.Apr.1995

SGS Australia Pty Ltd
40 SWAN STREET
WOLLONGONG NSW 2500
Telephone: 042 283766
Telex:
Fax: 042 263348

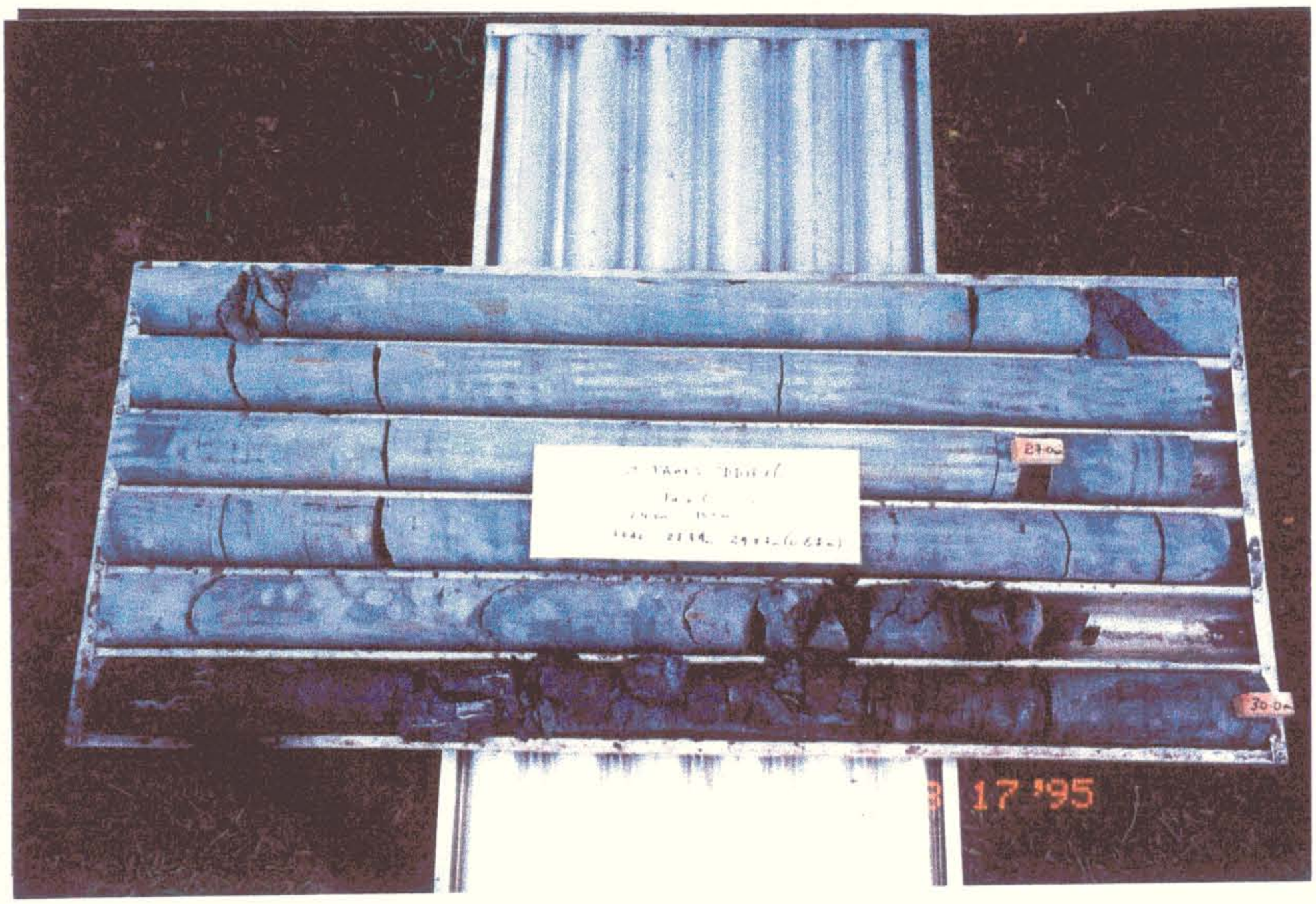
SGS Australia Pty. Ltd. (A.C.N. 000 964 278)

COAL ANALYSIS REPORT

202048

Our Reference: E22456 Client Reference: ST PAULS DDH16

Analysis \ Sample Reference:		SAMPLE 16/1	Moisture Base
Inherent Moisture	%	3.8	AD
Ash	%	24.4	AD
Volatile Matter	%	24.8	AD
Sulphur	%	0.48	AD
Specific Energy	Mj/Kg	24.18	AD
Apparent Relative Density		1.48	AD



ST PAULS DDH16
COAL SEAM
28.89m TO 29.57m

Consulting Geologists
McElroy Bryan Geological Services Pty Limited

202050

APPENDIX 4

CORNWALL COAL

ST PAULS DDH 17

DRILL LOG
COAL ANALYSES
CORE PHOTOGRAPHS

680 Willoughby Rd, Willoughby, SYDNEY
P.O. Box 34, Willoughby, N.S.W. 2068, Australia
Phone: (02) 9958 1455 Fax: (02) 9958 2181
ACN 052 007 096

202051

CORNWALL COAL ST PAULS DDH17

Location: R.L.445m
AMG Co-ordinates: 588460E
5378700N
Collar R.L.: 445m
Total Depth: 102.10m

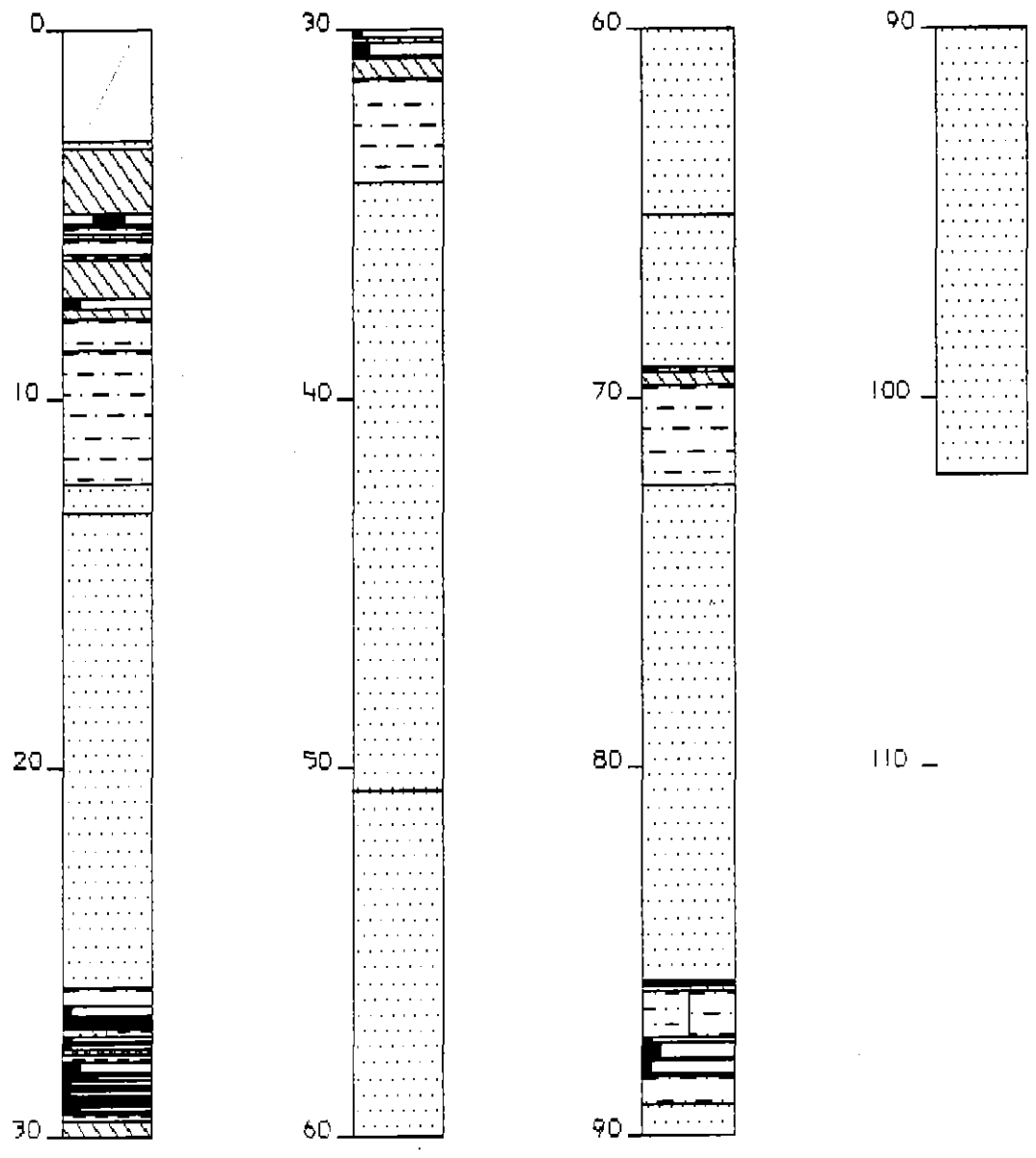
Logged by: J. Bryan
Drilled by: Stacpoole Drilling
Commenced: 19.2.98
Completed: 24.2.98

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
NON CORE	3.0	3.0	
SANDSTONE, grey, weathered, soft	0.20	3.20	
MUDSTONE, black, carbonaceous, soft laminated in part with thin sandy and coaly bands to 3mm	1.78	4.98	
COAL, black, weathered	0.25	5.23	
MUDSTONE, grey, soft	0.06	5.29	
COAL, dull, partly weathered	0.04	5.33	
MUDSTONE, grey, soft	0.20	5.53	
MUDSTONE, black carbonaceous	0.12	5.65	
CLAYSTONE, brown, soft, ?tuff	0.03	5.68	
MUDSTONE, dark grey to black, partly weathered	0.37	6.05	
CLAYSTONE, brown, soft, ?tuff	0.14	6.19	
MUDSTONE, black, carbonaceous, soft	1.10	7.29	
COAL, dull minor bright	0.23	7.52	
MUDSTONE, black, coaly to carbonaceous	0.28	7.80	
COAL, dull minor bright	0.03	7.83	
MUDSTONE, dark grey to mid grey/ brown, carbonaceous, some coaly partings, laminated	0.82	8.65	
MUDSTONE, grey, grading to sandy MUDSTONE at base	3.68	12.33	
SANDSTONE, grey, fine, lithic	0.76	13.09	
SANDSTONE, medium, lithic, grey, massive, abundant coaly fragments, wisps and partings	12.87	25.96	
MUDSTONE, dark grey and brown, interbedded	0.50	26.46	
COAL, dull to stony	0.25	26.71	
CLAYSTONE, grey/brown	0.05	26.76	

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
COAL, dull to stony	0.11	26.87	
CLAYSTONE, brown/grey, tuffaceous	0.07	26.94	
COAL, stony	0.02	26.96	
CLAYSTONE, grey/brown	0.05	27.01	
COAL, stony	0.06	27.07	
MUDSTONE, black and CLAYSTONE grey/brown interbedded	0.23	27.30	
COAL, dull	0.10	27.40	
CLAYSTONE, grey/brown, ?tuff	0.03	27.43	
COAL, dull	0.03	27.46	
COAL, dull minor bright	0.05	27.51	
COAL, dull	0.14	27.65	
CORE LOSS - probably coal	0.15	27.80	
CLAYSTONE, brown, ?tuff, soft	0.21	28.01	
COAL, dull minor bright	0.23	28.24	
CLAYSTONE, grey/brown	0.02	28.26	
COAL, dull to stony	0.03	28.29	
CLAYSTONE, soft, brown, ?tuff	0.05	28.34	
COAL, dull numerous bright	0.10	28.44	
COAL, dull	0.16	28.60	
CLAYSTONE, dark grey to brown, tuff	0.05	28.65	
COAL, dull minor bright	0.10	29.75	
CLAYSTONE, brown, ?tuff	0.01	28.76	
COAL, dull to stony	0.16	28.92	
CLAYSTONE, light grey, soft	0.04	28.96	
COAL, dull minor bright	0.07	29.03	
MUDSTONE, black, carbonaceous	0.05	29.08	
COAL, dull to stony	0.04	29.12	
CLAYSTONE, brown, soft	0.06	29.18	
COAL, dull minor bright	0.14	29.32	
MUDSTONE, black, coaly	0.05	29.37	
CLAYSTONE, brown, tuff	0.23	29.60	
MUDSTONE, black, carbonaceous	0.40	30.00	
COAL, dull to stony	0.20	30.20	
MUDSTONE, black, carbonaceous	0.14	30.34	
COAL, dull minor bright	0.38	30.72	
CLAYSTONE, grey/brown, tuffaceous	0.01	30.73	
MUDSTONE, black, coaly in part	0.61	31.34	
MUDSTONE, grey, laminated	2.76	34.10	
SANDSTONE, grey, fine, lithic with some mudstone phases, occasional carbonaceous wisps, massive	16.50	50.60	

	Estimated Thickness (m)	Estimated Depth to Base of Stratum (m)	Remarks
SANDSTONE, med, lithic, massive, occasional thin carbonaceous mudstone pebbles or lenses	14.40	65.00	
SANDSTONE, fine grained, lithic, massive bedding dip 0°-2°	4.17	69.17	
MUDSTONE, green/grey, hard	0.12	69.29	
MUDSTONE, black, carbonaceous to coaly	0.35	69.64	
MUDSTONE, green/grey, hard	2.76	72.40	
SANDSTONE, fine, grey, lithic, occasional coaly wisps	13.40	85.80	
COAL, dull minor bright	0.10	85.90	
CLAYSTONE, black, carbonaceous	0.03	85.93	
MUDSTONE, grey/green	0.03	85.96	
MUDSTONE, dark brown, carbonaceous	0.12	86.08	
SILTSTONE/MUDSTONE interbeds grading to mudstone at base	1.29	87.37	
COAL, dull	0.13	87.50	
CLAYSTONE, brown, tuffaceous	0.02	87.52	
COAL, dull minor bright	0.40	87.92	
CLAYSTONE, dark brown, hard	0.03	87.95	
COAL, dull	0.41	88.36	
CLAYSTONE, black, carbonaceous	0.04	88.40	
COAL, dull, laminated	0.03	88.43	
MUDSTONE, green/grey, hard	0.72	89.15	
SANDSTONE, grey, medium/fine, lithic, massive	12.95	102.10	T.D.

202054



COAL Stony
COAL Dull miner
CLAYSTONE
COAL Dull
MUDSTONE
COAL Weathered
CARBONACEOUS MU
SANDSTONE
NO RECOVERY
SILTSTONE
CARBONACEOUS CL
COAL Dull num·
CORE LOSS

CORNWALL COAL

DDH 17

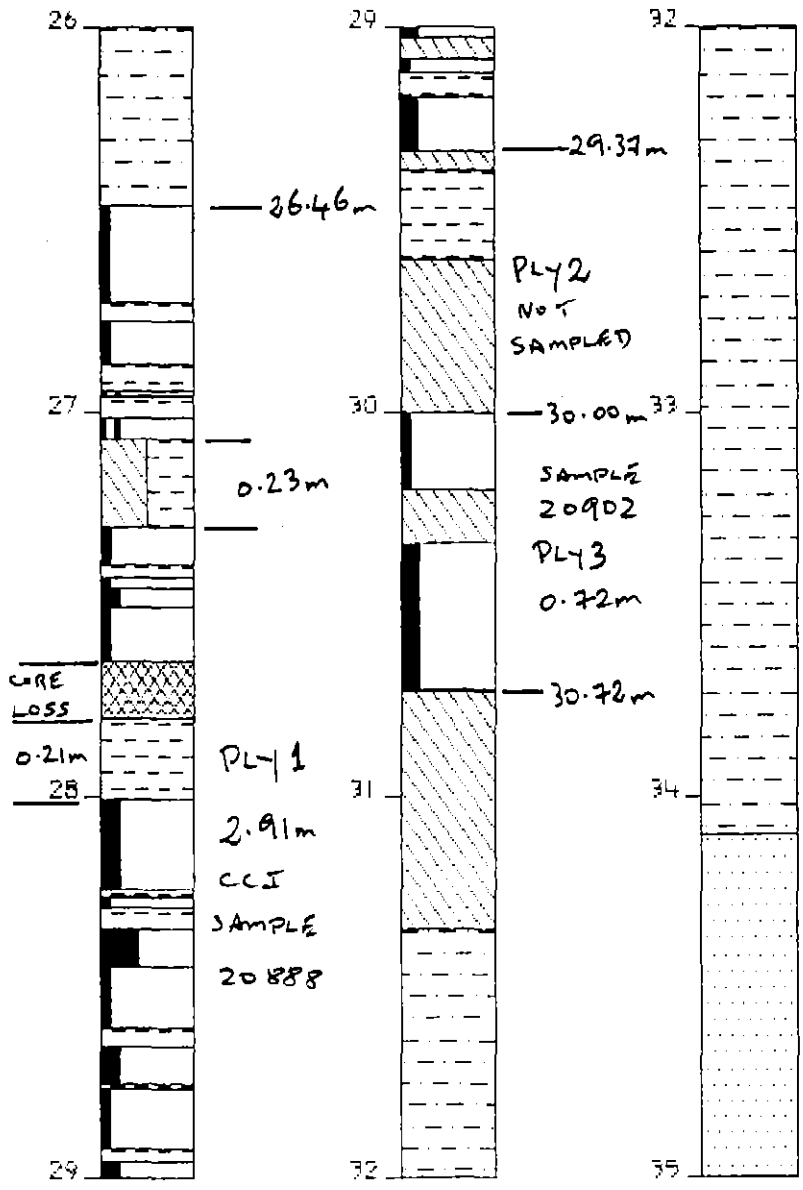
DATE DRILLED: 24-02-98

GEOLOGY BY: MBGS

LOGGED BY: J·H·BRYAN

PROLOG

202055



- SANDSTONE
- COAL Dull mum
- CORE LOSS
- COAL Dull minor
- CARBONACEOUS MU
- COAL Stony
- CLAYSTONE
- COAL Dull
- MUDSTONE

CORNWALL COAL
DDH17
DATE DRILLED: 24-02-98
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PROLOG

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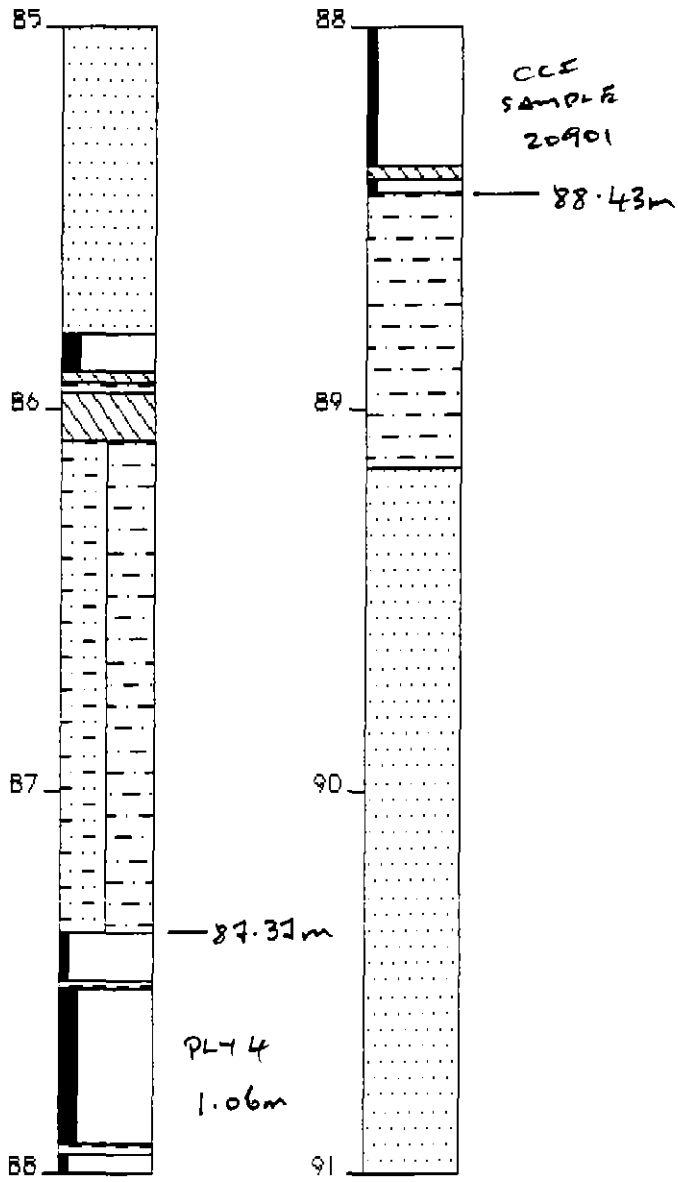

- CLAYSTONE
- COAL Dull
- SILTSTONE
- CARBONACEOUS MU
- MUDSTONE
- CARBONACEOUS CL
- COAL Dull minor
- SANDSTONE

CORNWALL COAL
DDH17
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PROLOG

202057

CARBON CONSULTING INTERNATIONAL PTY. LTD.
ACN 001 285 927

24 GLASTONBURY AVENUE UNANDERRA NSW 2526 AUSTRALIA
TEL (02) 4272 4224 FAX (02) 4272 4190
E-MAIL cciwol@ozemail.com.au

CLIENT	:	CORNWALL COAL COMPANY
DESCRIPTION	:	CORNWALL COAL BORE CORE SAMPLES
REPORTED TO	:	Mr Bob Mellows Cornwall Coal Company PO Box 402 FINGAL TAS 7214
C.C.	:	Mr John Bryan
REFERENCE NUMBER	:	W4264
SAMPLED BY	:	McElroy Bryan Geological Services Pty Ltd
DATE RECEIVED	:	12th May, 1998
REPORT STATUS	:	Final
DATE REPORTED	:	27th May, 1998

P Howes
MANAGER

CLIENT	:	CORNWALL COAL COMPANY	**REF :**	W4264
DESCRIPTION	:	CORNWALL COAL BORE CORE SAMPLES		
REPORTED TO	:	Mr Bob Mellows		

INTRODUCTION

Cornwall coal bore core samples were delivered to the C.C.I. Unanderra laboratory on 12th May 1998.
The samples were analysed in accordance with instructions from Mr John Bryan.

This is the final report, provisional results were faxed on 20th May, 1998.

TEST PROCEDURE

1. The samples were weighed.

2. Each core was hand knapped to pass 19.0mm.

3. Each sample was screen at 0.5 mm ww.

4. The - 19.0 + 0.5 mm ww material of each core was subjected to float sink analysis *at relative densities* : 1.40, 1.50, 1.60 *and* 1.70.
Yield and ash was determined on each fraction.

5. The - 0.5 mm ww fractions were prepared for ash determination.

6. A raw coal composite was calculated and prepared for proximate analysis, total sulphur specific energy and relative density.

All analyses were performed in accordance with Australian Standards.

CLIENT	:	CORNWALL COAL COMPANY	**REF :** W4264
DESCRIPTION	:	CORNWALL COAL BORE CORE SAMPLES	
REPORTED TO	:	Mr Bob Mellows	

St PAUL'S DDH 17 Ply 1

As received : 7275 gm

RAW COAL ANALYSIS

Sample Number		:	20888	
Relative density		:	1.86	
Moisture *	(Air dried basis)	:	5.5	%
Ash	(Air dried basis)	:	55.1	%
Volatile Matter	(Air dried basis)	:	16.2	%
Total Sulphur	(Air dried basis)	:	0.40	%
Specific Energy	(Air dried basis)	:	10.65	MJ/kg
Specific Energy	(Dry ash free basis)	:	27.04	MJ/kg
Gross Calorific Value	(Air dried basis)	:	2544	kcal / kg
Gross Calorific Value	(Dry ash free basis)	:	6457	kcal / kg

CLIENT : CORNWALL COAL COMPANY **REF :** W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

St PAUL'S DDH 17 Ply 1

SIZE DISTRIBUTION

Size Fraction mm sq. aperture	Mass %	Cum. Passing Mass %	Ash %
- 19.0 + 0.5 ww	94.2	100.0	
- 0.5 ww	5.8	5.8	57.6

FLOAT SINK ANALYSIS

Size Fraction : - 19.0 + 0.5 mm ww.

Proportion of Total Sample : 94.2 %

Relative Density Fraction	Fractional Mass %	Ash % (a.d.)	Cumulative Mass %	Ash % (a.d.)	Sample Number
F1.40	7.2	11.6	7.2	11.6	20781
S1.40 - F1.50	8.4	20.1	15.6	16.2	20782
S1.50 - F1.60	9.3	27.2	24.9	20.3	20783
S1.60 - F1.70	8.8	35.6	33.7	24.3	20784
S1.70	66.3	70.6	100.0	55.0	20785

Analysed in accordance with AS1038 part 3 and AS4156 part 1.

CLIENT : CORNWALL COAL COMPANY **REF** : W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

St PAUL'S DDH 17 Ply 3

As received : 1755 gm

RAW COAL ANALYSIS

Sample Number		:	20902	
Relative density		:	1.58	
Moisture *	(Air dried basis)	:	4.6	%
Ash	(Air dried basis)	:	33.2	%
Volatile Matter	(Air dried basis)	:	25.2	%
Total Sulphur	(Air dried basis)	:	0.45	%
Specific Energy	(Air dried basis)	:	19.55	MJ/kg
Specific Energy	(Dry ash free basis)	:	31.43	MJ/kg
Gross Calorific Value	(Air dried basis)	:	4669	kcal / kg
Gross Calorific Value	(Dry ash free basis)	:	7506	kcal / kg

CLIENT : CORNWALL COAL COMPANY **REF** : W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

St PAUL'S DDH 17 Ply 3

SIZE DISTRIBUTION

Size Fraction mm sq. aperture	Mass %	Cum. Passing Mass %	Ash %
- 19.0 + 0.5 ww	94.7	100.0	
- 0.5 ww	5.3	5.3	36.7

FLOAT SINK ANALYSIS

Size Fraction : - 19.0 + 0.5 mm ww.

Proportion of Total Sample : 94.7 %

Relative Density Fraction	Fractional Mass %	Ash % (a.d.)	Cumulative Mass %	Ash % (a.d.)	Sample Number
F1.40	36.8	8.5	36.8	8.5	20786
S1.40 - F1.50	15.3	18.2	52.1	11.3	20787
S1.50 - F1.60	7.0	29.8	59.1	13.5	20788
S1.60 - F1.70	6.2	40.1	65.3	16.1	20789
S1.70	34.7	64.4	100.0	32.8	20790

Analysed in accordance with AS1038 part 3 and AS4156 part 1.

CLIENT : CORNWALL COAL COMPANY **REF :** W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

St PAUL'S DDH 17 Ply 4

As received : 2570 gm

RAW COAL ANALYSIS

Sample Number		:	20901	
Relative density		:	1.55	
Moisture *	(Air dried basis)	:	4.4	%
Ash	(Air dried basis)	:	31.8	%
Volatile Matter	(Air dried basis)	:	23.4	%
Total Sulphur	(Air dried basis)	:	0.39	%
Specific Energy	(Air dried basis)	:	20.92	MJ/kg
Specific Energy	(Dry ash free basis)	:	32.79	MJ/kg
Gross Calorific Value	(Air dried basis)	:	4997	kcal / kg
Gross Calorific Value	(Dry ash free basis)	:	7833	kcal / kg

CLIENT : CORNWALL COAL COMPANY **REF :** W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

St PAUL'S DDH 17 Ply 4

SIZE DISTRIBUTION

Size Fraction mm sq. aperture	Mass %	Cum. Passing Mass %	Ash %
- 19.0 + 0.5 ww	93.5	100.0	
- 0.5 ww	6.5	6.5	32.4

FLOAT SINK ANALYSIS

Size Fraction : - 19.0 + 0.5 mm ww.

Proportion of Total Sample : 93.5 %

Relative Density Fraction	Fractional Mass %	Ash % (a.d.)	Cumulative Mass %	Ash % (a.d.)	Sample Number
F1.40	32.0	9.5	32.0	9.5	20791
S1.40 - F1.50	28.4	19.0	60.4	14.0	20792
S1.50 - F1.60	13.4	30.4	73.8	17.0	20793
S1.60 - F1.70	2.7	38.7	76.5	17.7	20794
S1.70	23.5	77.2	100.0	31.7	20795

Analysed in accordance with AS1038 part 3 and AS4156 part 1.

CLIENT	:	CORNWALL COAL COMPANY	**REF :**	W4264
DESCRIPTION	:	CORNWALL COAL BORE CORE SAMPLES		
REPORTED TO	:	Mr Bob Mellows		

Mt. NICHOLAS DDH 4A

As received : 2611 gm

RAW COAL ANALYSIS

Sample Number		:	20903	
Relative density		:	1.58	
Moisture *	(Air dried basis)	:	4.4	%
Ash	(Air dried basis)	:	29.0	%
Volatile Matter	(Air dried basis)	:	22.8	%
Total Sulphur	(Air dried basis)	:	0.45	%
Specific Energy	(Air dried basis)	:	21.08	MJ/kg
Specific Energy	(Dry ash free basis)	:	31.65	MJ/kg
Gross Calorific Value	(Air dried basis)	:	5034	kcal / kg
Gross Calorific Value	(Dry ash free basis)	:	7559	kcal / kg

CLIENT : CORNWALL COAL COMPANY **REF** : W4264

DESCRIPTION : CORNWALL COAL BORE CORE SAMPLES

REPORTED TO : Mr Bob Mellows

Mt. NICHOLAS DDH 4A

SIZE DISTRIBUTION

Size Fraction mm sq. aperture	Mass %	Cum. Passing Mass %	Ash %
- 19.0 + 0.5 ww	88.0	100.0	
- 0.5 ww	12.0	12.0	26.3

FLOAT SINK ANALYSIS

Size Fraction : - 19.0 + 0.5 mm ww.

Proportion of Total Sample : 88.0 %

Relative Density Fraction	Fractional Mass %	Ash % (a.d.)	Cumulative Mass %	Ash % (a.d.)	Sample Number
F1.40	40.5	7.7	40.5	7.7	20796
S1.40 - F1.50	15.1	17.7	55.6	10.4	20797
S1.50 - F1.60	8.3	27.8	63.9	12.7	20798
S1.60 - F1.70	5.5	36.6	69.4	14.6	20799
S1.70	30.6	62.6	100.0	29.3	20800

Analysed in accordance with AS1038 part 3 and AS4156 part 1.

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CORNWALL COAL CO. NL
ST. PAULS DDH17
CORE PHOTOGRAPHS

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