983001

TITLE THE CORNWALL COAL COMPANY NO LIABILITY
Relinquishment Report

PERIOD: (Year Ended 23.8.1993)

LICENCE: No. 11/91

LOCATION: KEMPTON - MELTON MOWBRAY, TASMANIA

CONSULTING GEOLOGISTS:

McElroy Bryan Geological Services Pty Ltd.
156 Mowbray Road, Willoughby, NSW 2068

AUTHOR:

Dr. J. H. Bryan
(Address as above - PH 02 958 1455)

CONTACT PERSONS IN LICENCE COMPANY

C.E. Peck (003 31 9301) Commercial Manager
R.C.L. Mellows (003 74 2115) Mine Superintendent

OBJECTIVES:

The Cornwall Coal Company No Liability applied for Exploration Licence 11/91 on 12 July, 1991 with the object of determining the possible extent of a low ash coal seam intersected in Mount Vernon DDH No. 1 by the Department of Mines in 1983. The occurrence was reported in "Unpublished Report 1983/33" C.A. Bacon.

93-3491.

.../2

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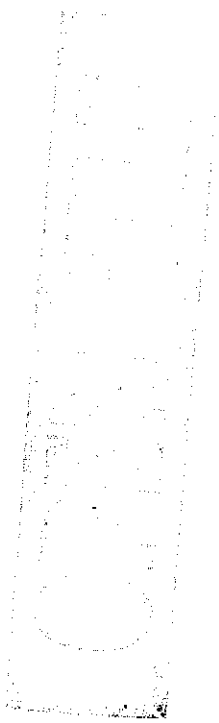
983002



LISTS OF FIGURES AND MAPS

TENEMENT INFORMATION

Property - Access:

Exploration Licence 11/91 as originally granted - covered an area of 86 square kilometres in the Kempton-Melton Mowbray region of Southern Tasmania.

The Licence was marked out to enable investigation of a significant coal intersection in a Department of Mines borehole Mount Vernon No. 1.

Title searches have revealed that the majority of land in the licence is privately owned and that the titles are mainly very old "general law".

The consequence of this is that ownership of any coal is expected to generally vest with the landowner with a few minor exceptions.

Searches were confined to properties in the immediate vicinity of the borehole of interest.

These were:-

"Mount Vernon"	Owner or Occupier	Mr David Taylor Address - Mount Vernon
"Belgrove"	"	Mr Ellison Hawker Address - Belgrove
"The Follies"	"	Mr Rodney Jones Address - Redside, Melton Mowbray
"Lovely Banks"	"	Mr. Gerald McShane
"Kelvin Grove"	"	" Address - Lovely Banks
"Tranquility"	"	D.E. & K.E. White Tranquility

Agreements

Compensation agreements in place and registered with Department of Mines in respect of
"Mount Vernon"
"Belgrove"
"Kelvin Grove"

SUMMARY OF PREVIOUS EXPLORATION

983005

Refer to Summary of Work Completed in Year 1. ended 23/8/92.

Refer to Unpublished Report 1983/33 C A Bacon.

SUMMARY OF WORK COMPLETED IN YEAR 2 ENDED 23/8/93

983006

1. Two fully cored diamond drill holes were completed in May and June 1993. The drill logs, graphic sections and core photographs are included in Appendix A.

   (a) Cornwall Coal Kelvin Grove DDH1 was terminated at 93.10m in dolerite. A westerly dipping fault zone is interpreted to affect the strata near the contact with the dolerite. The coal seam at 43.45m was broken and badly heat affected, destroying its normal physical properties. The 2.55m coaly interval included a core loss of 0.61m and the heat affected coal had a high ash content (29.5%). It is possible that this dipping seam correlates with the 2.3m thick seam in Mt. Vernon DDH1 at 294.79m, but it is equally possible that it does not.

2. (b) Cornwall Coal Kelvin Grove DDH2 was terminated at 103m after encountering a dolerite sill at 83.95m. The sill may cover a large area at depth and is of unknown thickness. The drill logs of Kelvin Grove DDH's 1 and 2 are included in Appendix A, together with the analysis of the coal seam in KG1.

DETAILS OF REGIONAL SURVEYS

NIL

DETAILS OF SPECIFIC SURVEYS

1. Surface reconnaissance as necessary of Jordan River Valley on properties "Belgrove", "Mount Vernon", between "Brooks Marsh" and Bothwell Road. (Map reference - Kempton 5029 - Tasmap Series.

2. Ditto of "Slaters Hill", "Belmont Hill", Valley of "Mosquito Creek", "Curzon Hill", west of Jordan River and Melton Mowbray.

CONCLUSIONS AND RECOMMENDATIONS

Report No.3 by McElroy Bryan Geological Services (Dr. J.H. Bryan)

1. The coal seam at 43.45m in Kelvin Grove DDH1 was heat affected to the extent that the "coal" would not be suitable for use as a steaming coal.

2. The dip of the strata in Kelvin Grove DDH1 indicates the proximity of a substantial fault zone to the east of that hole. The dip of the seam is too steep for conventional underground mining methods.

3. The dolerite sill encountered in Kelvin Grove DDH2 is of unknown thickness and extent.

4. The recent cored diamond drill holes have revealed the presence of geological hazards that are likely to prevent the economic mining of coal in the graben structure that exists west of Melton Mowbray.

5. Further exploration for coal is not warranted in EL11/91 and it is recommended that the area be relinquished on 23/8/93.

PROPOSED FUTURE EXPLORATION

No further exploration proposed

BIBLIOGRAPHICAL REFERENCES

10.1 "Unpublished Report 1983/33" - C. A. Bacon

10.2 Melton Mowbray / Oatlands Gravity Map DMMR
- Provisional

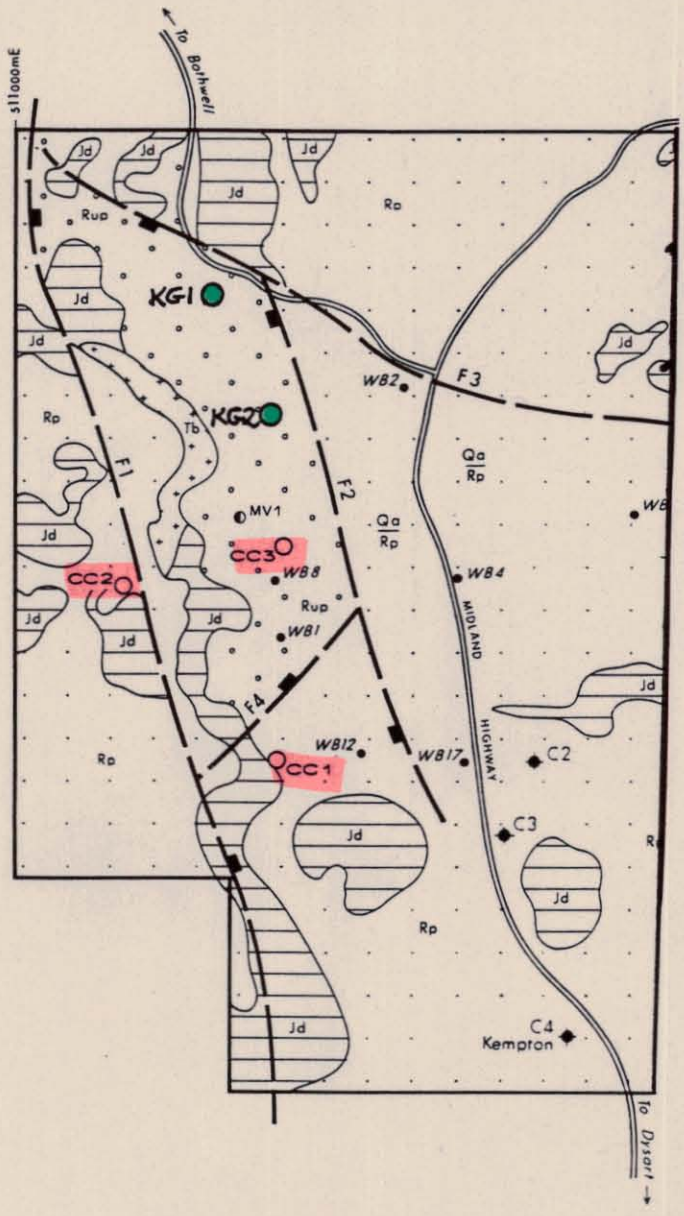
APPENDICES

APPENDIX A	Drill logs and Graphic Sections Cornwall Coal Mount Vernon RDH1 Cornwall Coal Mount Vernon RDH2 Cornwall Coal Mount Vernon RDH3 Kempton Mount Vernon DDH1 Kelvin Grove DDH No.1 Kelvin Grove DDH No.2 as detailed by McElroy Bryan
APPENDIX B	Geological Map - Kempton Prospecting Area.
APPENDIX C	Expenditure Report. Expenditure Report Year No.2

LK/WP51/EL1191-A

MAP SUPPLEMENT

983014



QUATERNARY — Qa — Alluvium, scree

TERTIARY — Tb — Basalt

JURASSIC — Jd — Dolerite

TRIASSIC — Rup — Upper Coal Measures, lithic sandstone, mudstone

TRIASSIC — Rp — Quartz, sandstone, mudstone, shale, siltstone

- CRA drill hole
- Department of Mines drill hole
- Cornwall Coal drill hole
- Water bore
- Fault; position inferred

5 cm

0 1000 2000 4000

scale in metres

CORNWALL COAL COMPANY N.L.

Exploration Licence 11/91, Tasmania

Kempton Coal Prospecting Area

GEOLOGICAL MAP

Prepared by McElroy Bryan Geological Services

Date: . . . . .

Scale 1:50.000

APPENDIX A

EL 11/91 Report to 23/8/93

* Cornwall Coal Kelvin Grove DDH1

  Lithological Log
  Coal Analyses
  Core Photographs
  Graphic Sections

* Cornwall Coal Kelvin Grove DDH2

  Lithological Log
  Core Photographs
  Graphic Sections

983016

CORNWALL COAL KELVIN GROVE DDH1

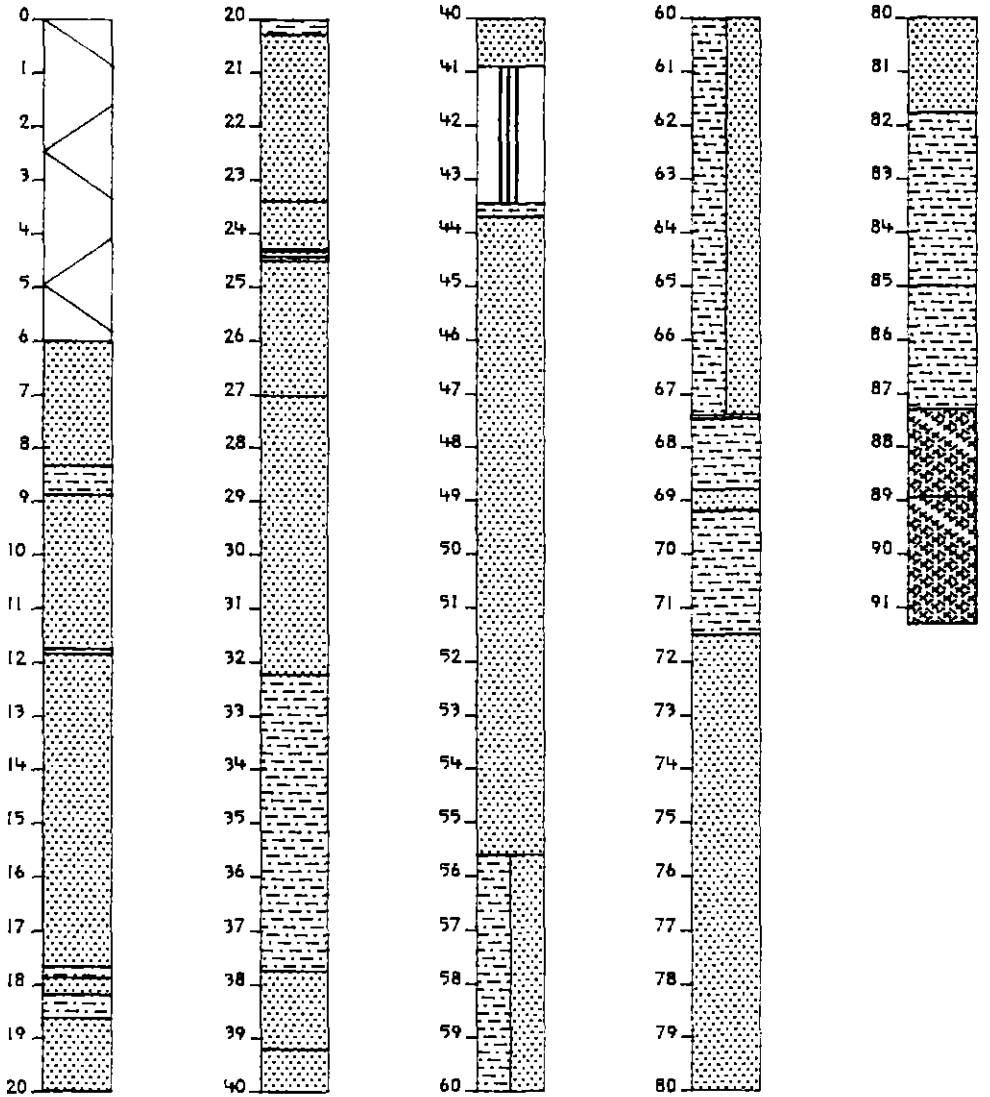
Map: Kempton 1:25,000 **AMG Co-ordinates:** 512700E 5298450N

Driller: Stacpoole Drilling **Collar:** 205m approx.
Commenced: 18.5.93 **T.D.:** 93.10m
Completed: 21.5.93 **Cored Interval:** 6.0m - 93.10m
Logged by: J. Bryan NQTT core

	Estimated Thickness (m)	Estimated Depth of Base of Stratum (m)	Remarks
Non-Core-Tricore Bit	6.0	6.0	3½" casing to 6.0m
SANDSTONE, brown, weathered, fine grained, lithic	2.33	8.33	
MUDSTONE, grey/brown to grey, laminated towards base	0.55	8.88	5° dip
SANDSTONE, grey, fine, lithic, grading to siltstone, soft.	2.86	11.74	2 to 4 f.p.m.
MUDSTONE, grey, slightly weathered	0.10	11.84	
SANDSTONE, grey, fine grained lithic, becoming coarser towards base, occasional plant debris and carbonaceous wisps	5.82	17.66	6 to 10 f.p.m
MUDSTONE, grey, soft, weak, with numerous carbonaceous wisps	0.21	17.87	
SANDSTONE, grey, medium grained, lithic	0.31	18.18	
MUDSTONE, grey, soft, broken	0.44	18.62	Dip 10°
SANDSTONE, grey, fine grained lithic, broken	1.37	19.99	10 f.p.m.
SHALE BRECCIA, grey shale pebbles in sandstone	0.29	20.28	
SANDSTONE, grey, medium grained, lithic, moderately strong, massive	3.12	23.40	
SANDSTONE, grey, weak, broken, some carbonaceous blebs	0.89	24.29	
MUDSTONE, black, carbonaceous	0.04	24.33	
SANDSTONE with carbonaceous partings	0.10	24.43	

	Estimated Thickness (m)	Estimated Depth of Base of Stratum (m)	Remarks
MUDSTONE, grey, soft	0.08	24.51	
SANDSTONE, grey, coarse, lithic, massive	2.50	27.01	3 f.p.m.
SANDSTONE, grey, fine grained with numerous carbonaceous partings	5.21	32.22	Dip 12°
MUDSTONE, grey, soft, broken laminated towards base, weak	5.52	37.74	Dip 15°
SANDSTONE, grey, lithic, medium	1.46	39.20	
SANDSTONE, green and grey/ green, broken, slickensided, broken, weak, some carbonaceous partings and minor mudstone bands (core loss 0.8m) contact with coal below about 40°.	1.70	40.90	Dip 12°
COAL, dull, coked and heat affected, calcite veins, core broken and soft, bedding distorted. Core loss 0.61m	2.55	43.45	Dip 17°
CLAYSTONE, brown, soft, waxy	0.25	43.70	
SANDSTONE, grey, medium grained, massive, very soft and weak in part (2.52m core loss)	11.90	55.60	
MUDSTONE/SANDSTONE interbeds, green to green/grey, soft and broken in part, slickensided fractures	11.80	67.40	
COAL, dull, heat affected	0.07	67.47	
MUDSTONE, red/brown to grey/green, broken, soft, weak	1.33	68.80	
SANDSTONE, grey/green, fine grained, hard	0.40	69.20	

	Estimated Thickness (m)	Estimated Depth of Base of Stratum (m)	Remarks
MUDSTONE, grey/green, soft	2.30	71.50	20f.p.m.
SANDSTONE, green/grey, grading to mudstone in part, core broken, soft, irregular bedding	10.27	81.77	
MUDSTONE, grey/brown, carbonaceous, broken, slickensided, brecciated, soft	3.23	85.00	? Fault zone
MUDSTONE, green/brown and and grey, brecciated in part, core broken, heat affected	2.30	87.30	
DOLERITE, hard, fine grained, numerous calcite veins	1.65	88.95	
DOLERITE, green, altered, soft, sheared?	2.35	91.30	BASE OF HOLE



LEGEND

- NO RECOVERY
- SANDSTONE
- MUDSTONE
- SHALE
- CARBONACEOUS MUDSTONE
- COAL Heat affected
- CLAYSTONE
- DOLERITE

SCALE = 1:100

5 cm

CORNWALL COAL

KELVIN GROVE DDH1

DATE DRILLED 21/5/93

GEOLOGY BY: MBGS

LOGGED BY: J·H·BRYAN

PROLOG

983020

CORNWALL COAL COMPANY N.L.

ANALYSIS OF COAL SEAM IN KGDDH1

40.90m to 43.45m

(air dried basis)

Relative Density	1.65
Inherent Moisture	4.0%
Ash	29.5%
Volatile Matter	18.0%
Fixed Carbon	48.5%
Specific Energy	21.78 MJ/kg

Ash Fusion Temp & Reducing Temperature

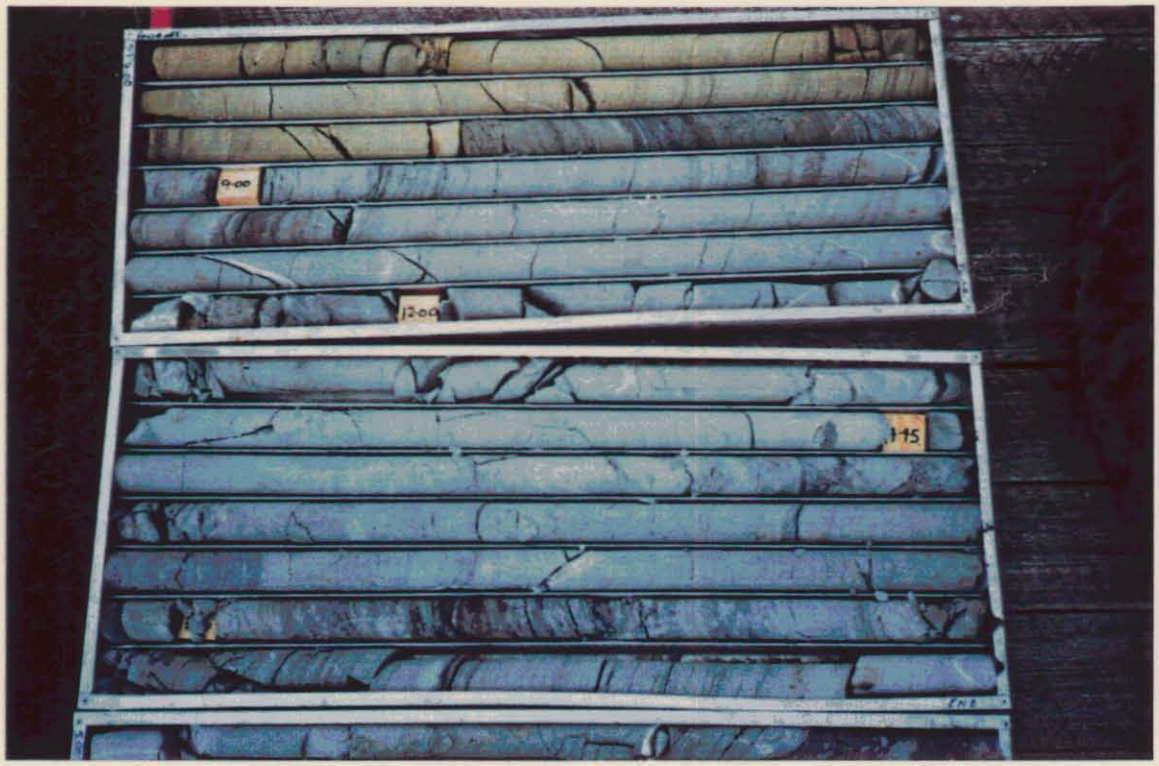
Initial Deformation	1270°C
Spherical Deformation	1340°C
Hemispherical Deformation	1360°C
Flow Deformation	1380°C

(From SGS Report EP1840, 16.6.93)

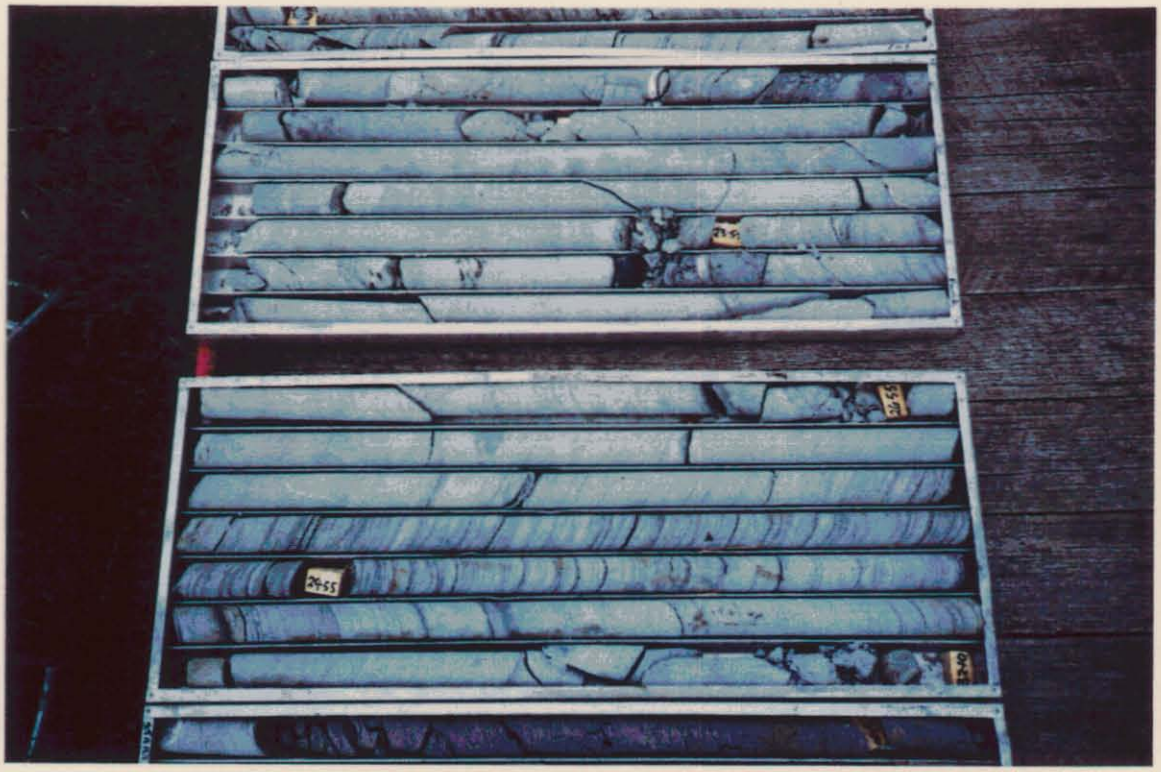
983021

KELVIN GROVE DDH1

CORNWALL COAL CO. N.L.



Boxes 1 and 2 6.0m to 19.2m

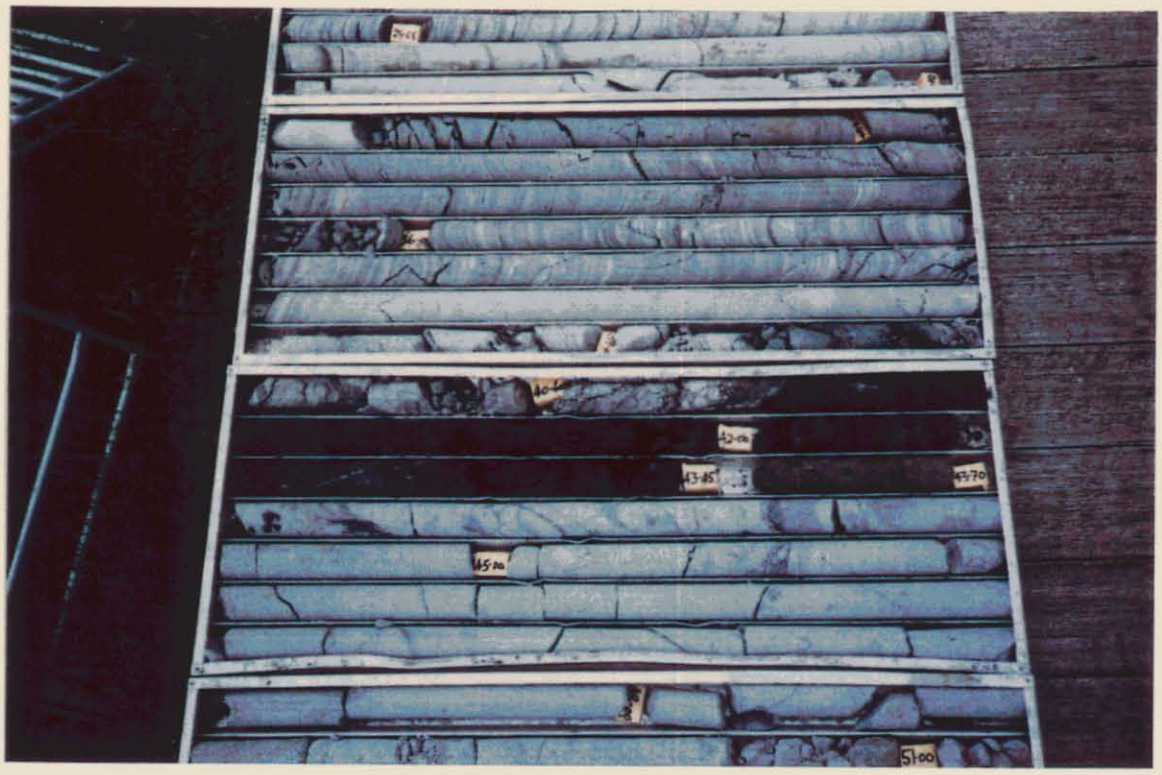


Boxes 3 and 4 19.2m to 32.1m

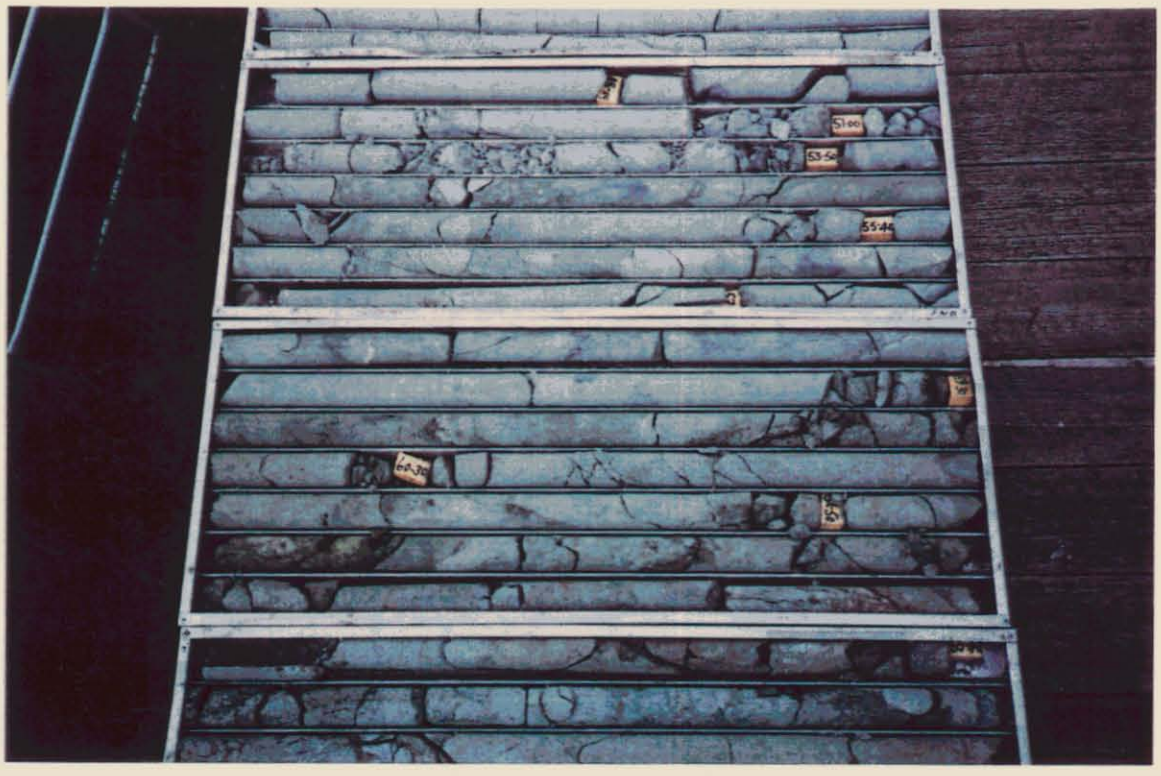
983022

KELVIN GROVE DDH1

CORNWALL COAL CO. N.L.



Boxes 5 and 6 32.1m to 48.5m

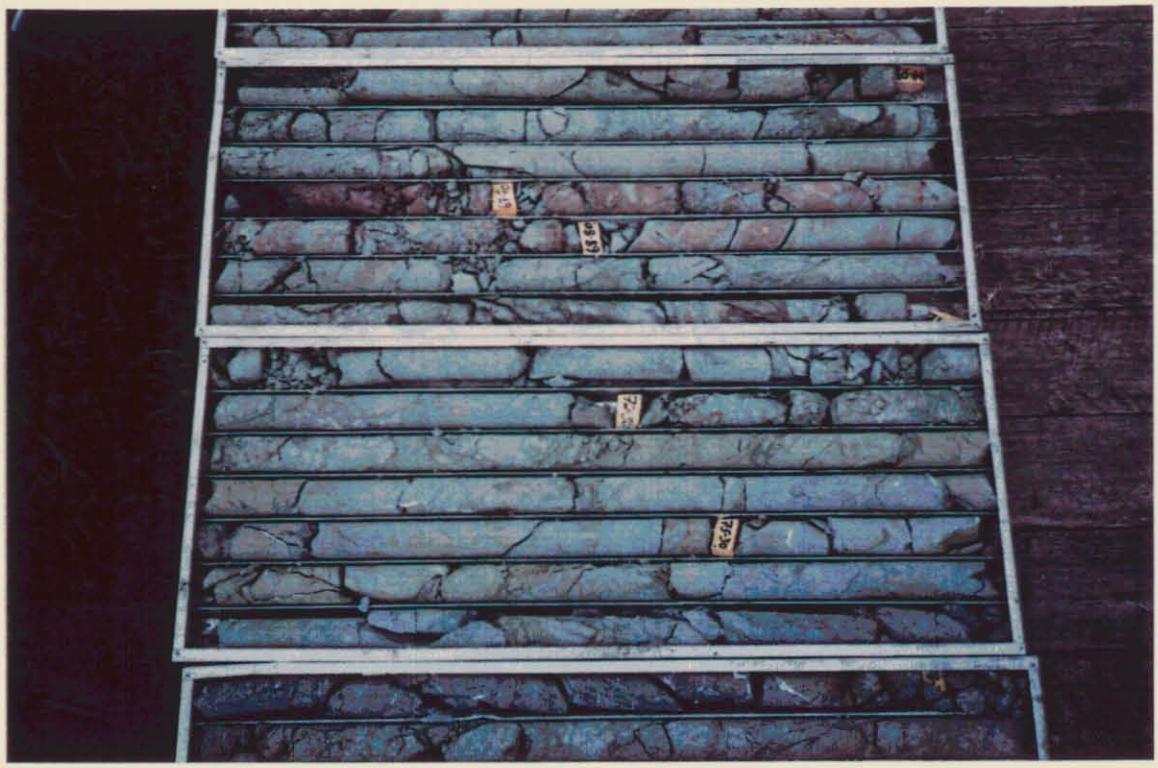


Boxes 7 and 8 48.5m to 64.5m

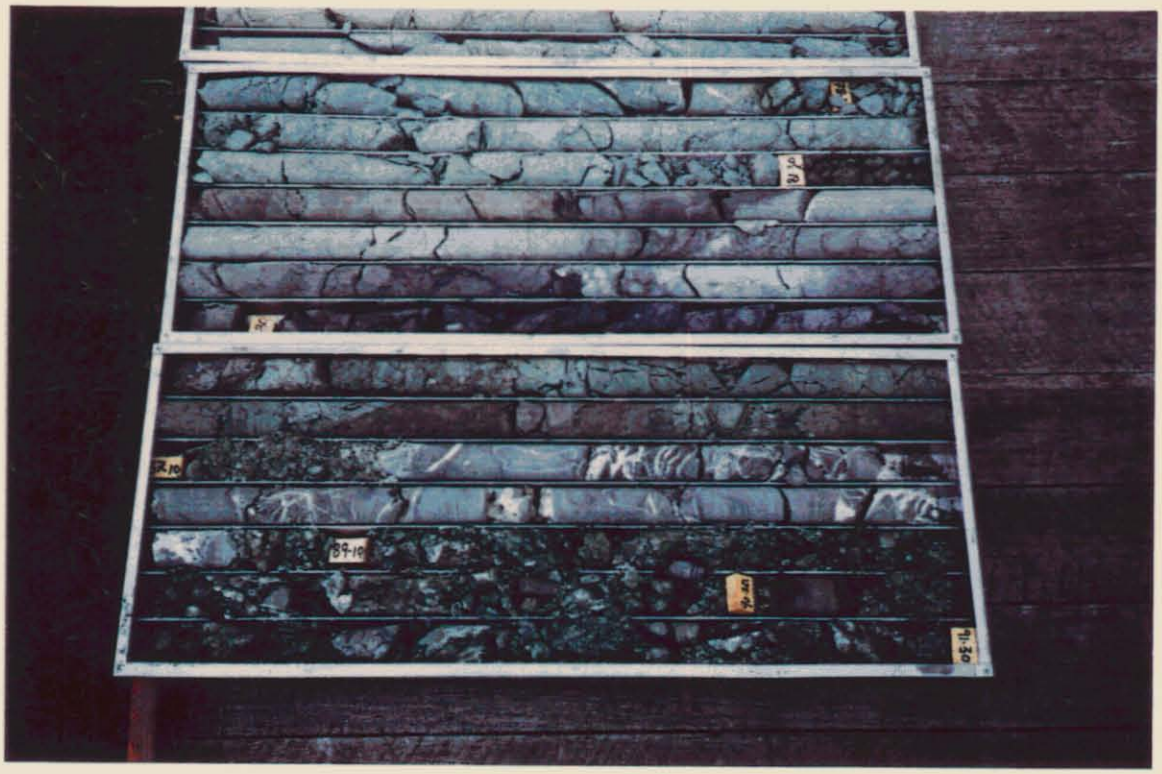
KELVIN GROVE DDH1

CORNWALL COAL CO. N.L.

983023



Boxes 9 and 10 64.5m to 77.5m



Boxes 11 and 12 77.5m to 91.3m

983024

KELVIN GROVE DDH1

CORNWALL COAL CO. N.L.

Heat affected coal seam from 40.90m to 43.45m with 0.61m core loss. Weak fractured sandstone roof with minor mudstone partings. Brown claystone (0.25m) floor is soft and weak. Dip of strata 12° to 17°.

Heat affected broken mudstone above hard dolerite with calcite crystals. Sheared and broken doleritic rock from 88.95m to 91.30m.

983025

CORNWALL COAL KELVIN GROVE DDH2

Map: Kempton 1:25,000 **AMG Co-ordinates:** 513350E 5297600N

Driller: Stacpoole Drilling **Collar:** 200m approx.

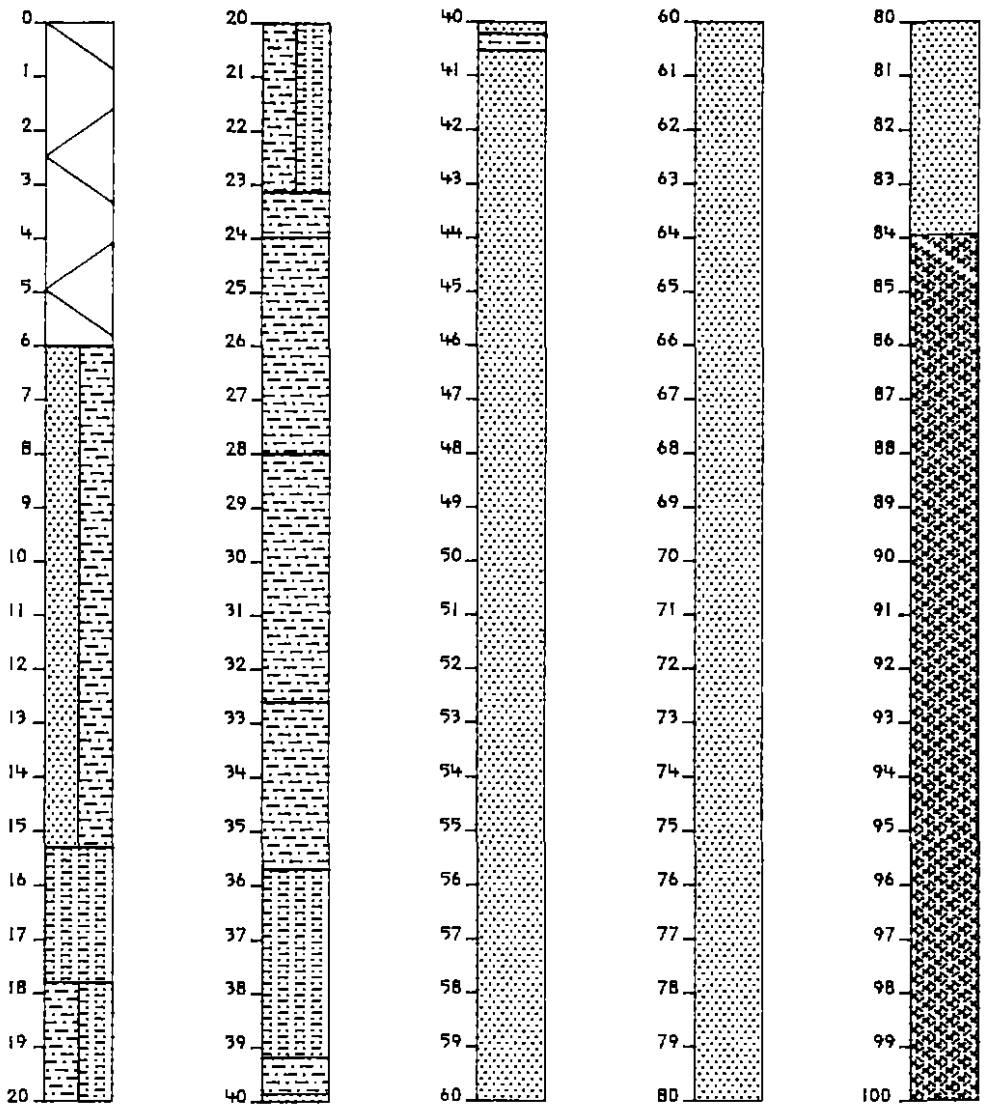
Commenced: 3.6.93 **T.D.:** 103.0m

Completed: 8.6.93 **Cored Interval:** 6.0m - 103.0m

Logged by: J. Bryan NQTT core

	Estimated Thickness (m)	Estimated Depth of Base of Stratum (m)	Remarks
Non-Core-Tricore	6.0	6.0	3½" casing to 6.0m
SANDSTONE/MUDSTONE interbeds up to 4m thick, brown to 10m then grading to grey. Sedimentary structures include slumps and some breccias	9.30	15.30	5 to 10 fpm
SILTSTONE, grey, hard, lithic, with carbonaceous laminae, moderately strong	2.50	17.80	4 fpm
MUDSTONE/SILTSTONE interbeds, grey, with some carbonaceous laminae, some thinly bedded laminate	5.33	23.13	Dip 1°
MUDSTONE, dark grey with siltstone phases	0.84	23.97	
MUDSTONE, grey to green/ grey, hard, with numerous siltstone interbeds	4.02	27.99	Dip 1°
MUDSTONE, dark grey with numerous thin siltstone interbeds, carbonaceous in part	4.61	32.60	
MUDSTONE, grey with occasional siltstone laminae and interbeds	3.10	35.70	
SILTSTONE, grey, hard, quartz/lithic	3.48	39.18	Dip 0°
MUDSTONE, grey, hard, massive	0.67	39.85	

	Estimated Thickness (m)	Estimated Depth of Base of Stratum (m)	Remarks
SANDSTONE, grey, fine grained, quartz/lithic	0.37	40.22	
MUDSTONE, grey with siltstone phases, hard	0.31	40.53	2 to 4 fpm Dip 0°to 2°
SANDSTONE, grey, fine grained, quartz/lithic, hard, massive to thinly bedded, grading to siltstone and with minor very thin mudstone interbeds. Some claystone clasts. Joints coated with pyrite from 80m to 83m; minor calcite veins; sandstone indurated at base.	43.42	83.95	2 to 6 fpm Dip 3° on bedding
DOLERITE, grey/green, fine grained, hard prominent horizontal joints	19.05	103.00	2 to 4 fpm BASE OF HOLE



LEGEND

- NO RECOVERY
- SANDSTONE
- SILTSTONE
- MUDSTONE
- DOLERITE

SCALE = 1:100

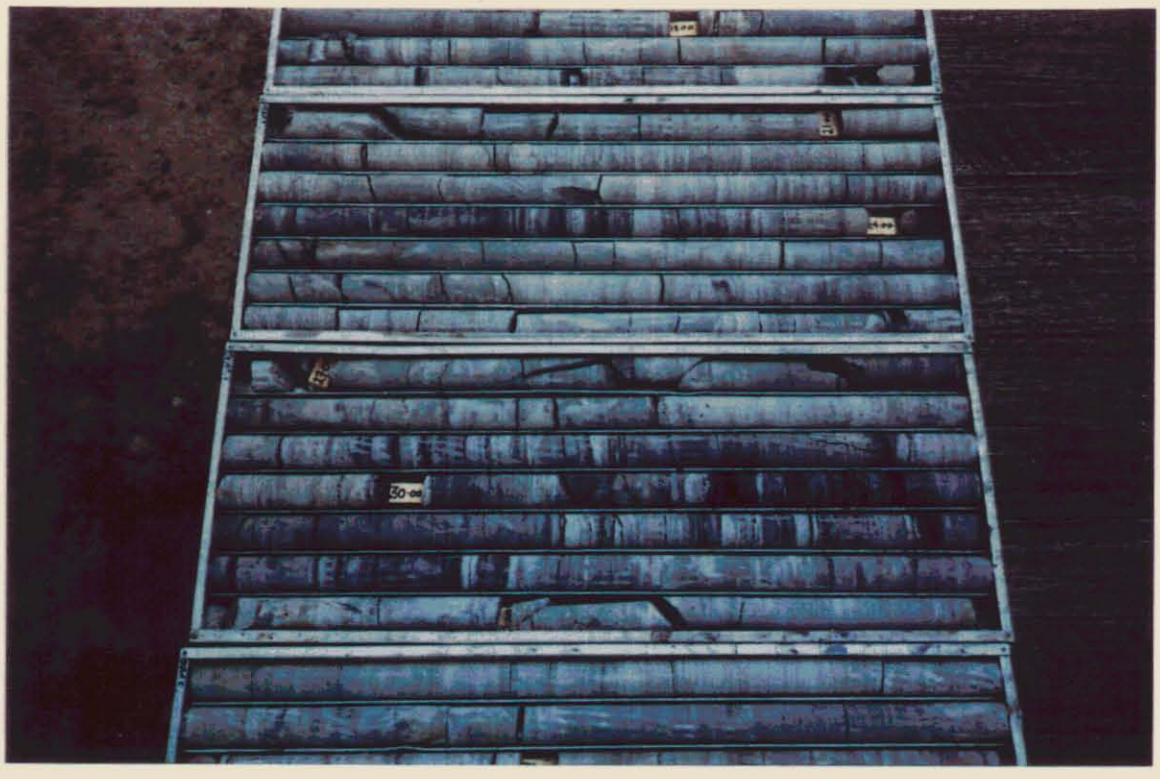
CORNWALL COAL	
KELVIN GROVE DDH2	
DATE DRILLED	8/6/93
GEOLOGY BY:	MBGS
LOGGED BY:	J-H-BRYAN
PROLOG	

983028

KELVIN GROVE DDH2

CORNWALL COAL CO. N.L.

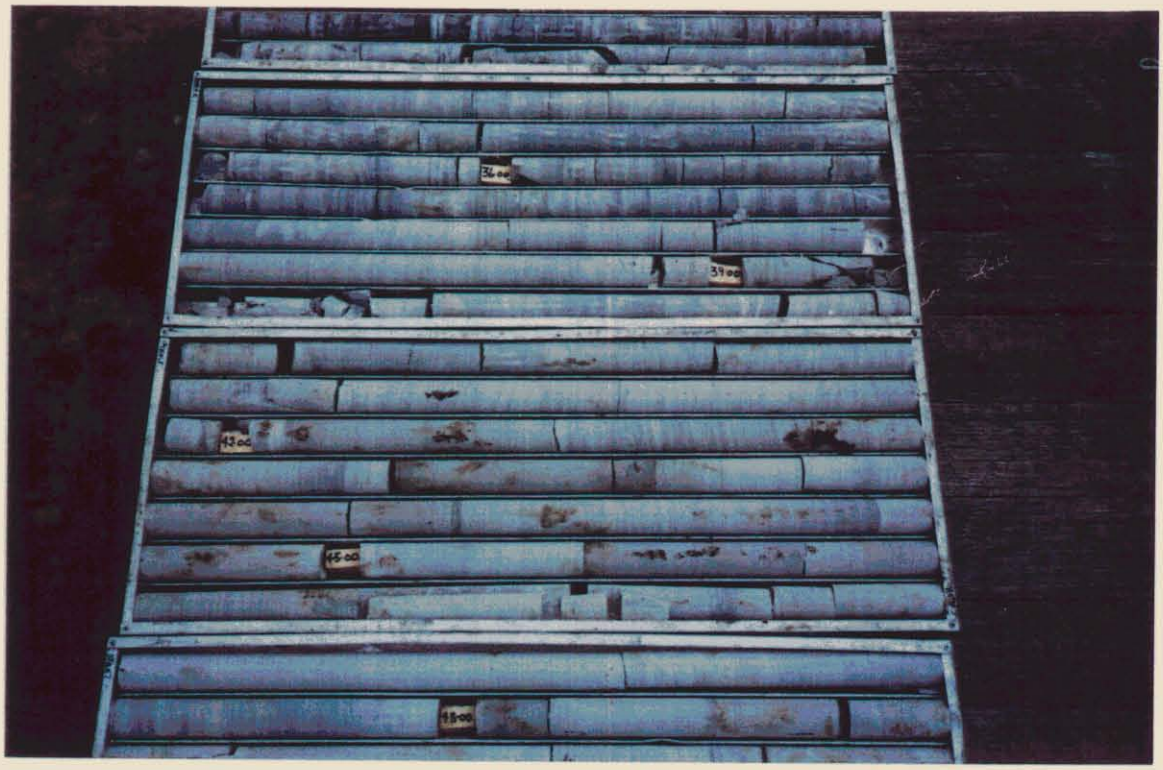
Boxes 1 and 2 6.0m to 20.2m



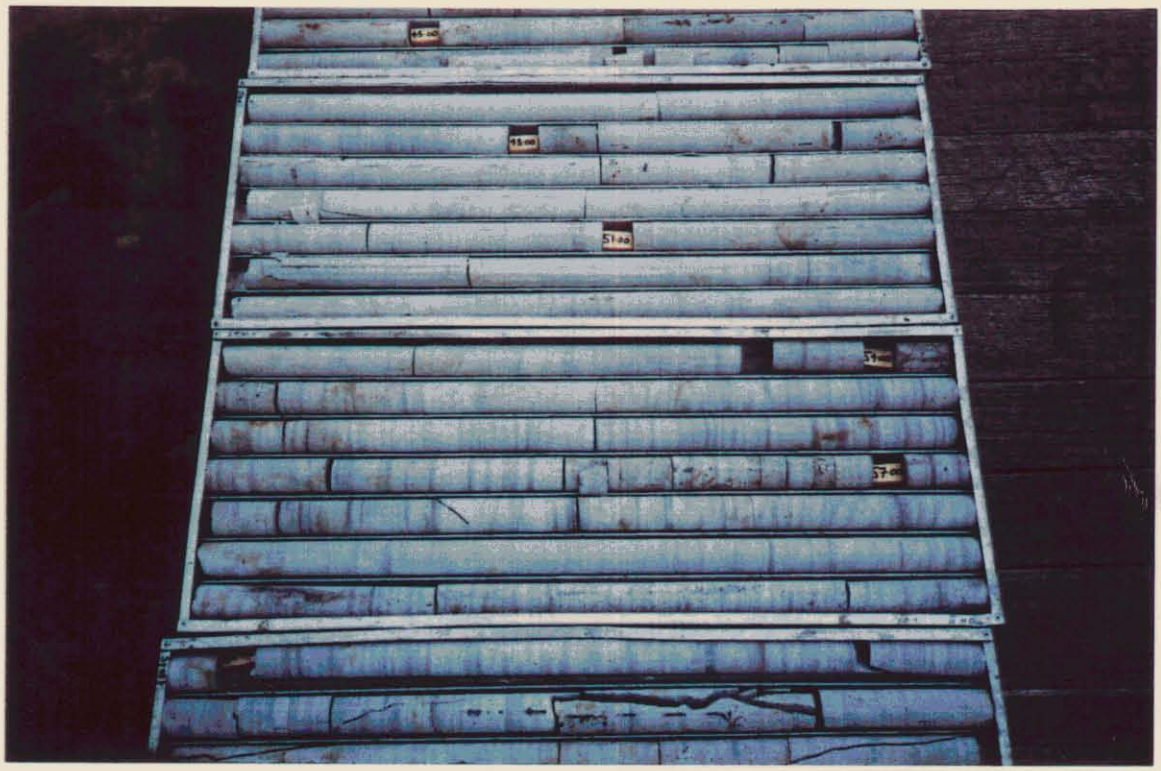
Boxes 3 and 4 20.2m to 33.6m

983029

KELVIN GROVE DDH2
CORNWALL COAL CO. N.L.



Boxes 5 and 6 33.6m to 46.7m

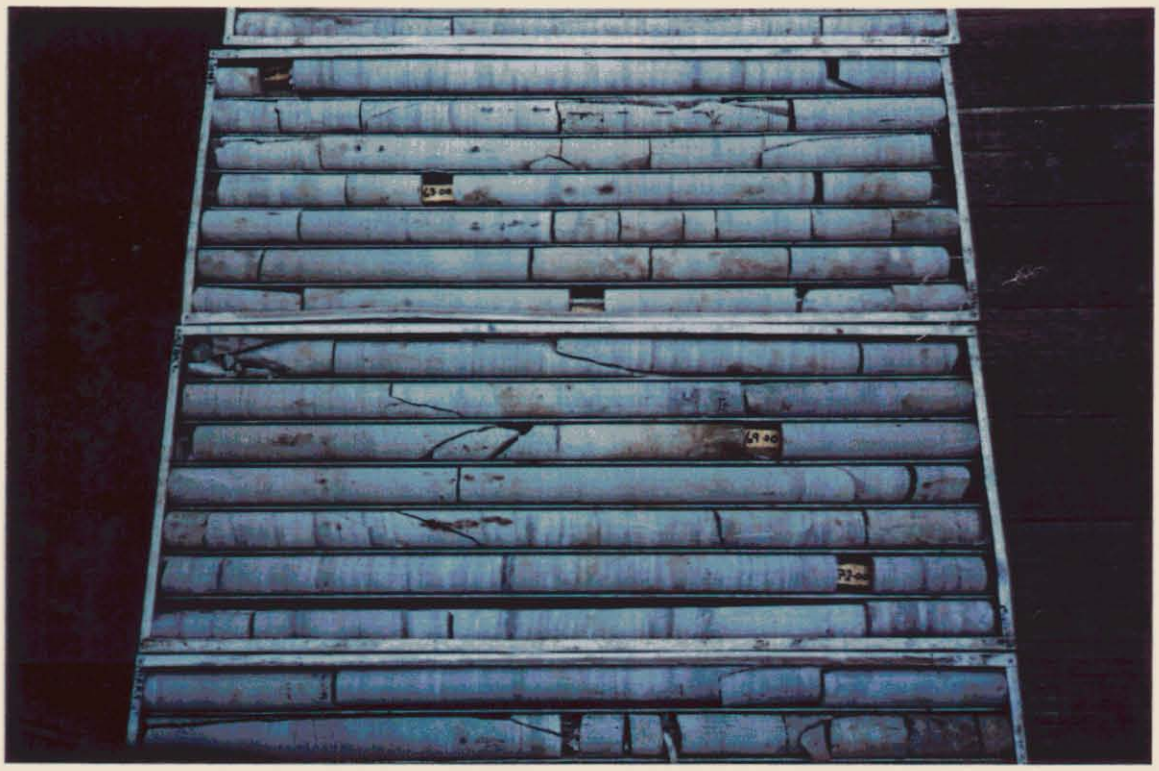


Boxes 7 and 8 46.7m to 59.9m

KELVIN GROVE DDH2

CORNWALL COAL CO. N.L.

983030



Boxes 9, 10 and 11 59.9m to 75.0m

983031

TASMANIA DEPARTMENT OF RESOURCES AND ENERGY
DIVISION OF MINES AND MINERAL RESOURCES

~~INTERIM~~ Annual REPORT ON MINERAL EXPLORATION

RETURN for the ~~six~~ year months ending 23 August 1993

PART 1. DETAILS OF LICENCE

Licence No. 11/91 Location Kempton

Licensee The Cornwall Coal Company No Liability

Operator / Manager As above

Note: A separate form is required for each licence

Part 2. EXPENDITURE STATEMENT

Item (see explanatory notes overleaf)	Current ($)	Cumulative total since issue ($)
Geology (including consultants, petrology)	4715	10442
Geochemistry (including consultants, sampling, analysis costs)	781	781
Geophysics (including consultants, data processing)		
Drilling (all direct driling costs)	17698	28232
TOTAL METRES DRILLED 194		
Feasibility studies (including ore reserves, mineral processing, mining)		
Rehabilitation included in drilling costs		
Other exploration expenditure (e.g. gridding, surveying)		
Administrative overheads (including licence fees)	1335	7643
TOTAL EXPENDITURE	24529	47098

PART 3. EXPLORATION PROGRESS REPORT* (attach additional sheet if necessary)

See attachments

For Yr 1.7.92-30/6/93

Expenditure entered G.O.

PART 4. DETAILS ON ENVIRONMENTAL IMPACT AND REHABILITATION ACTIVITIES (attach additional sheet if required)

In the current period, two fully cored holes were drilled in open grazing land.
Each hole was collared on sandstone outcrop (Triassic coal measures).
Holes were plugged on completion & all materials removed from site. Minimal disturbance of the land occurred.

*If no exploration was undertaken during the six months a 'nil' Return must be completed

THE DECLARATION OVERLEAF MUST BE COMPLETED

Holders of Exploration Licences are required to furnish the Director of Mines with an Interim Report on expenditure and exploration progress biannually (within 14 days of the six-month periods ending 31 March and 30 September).

EXPLANATORY NOTES

983032

Part 1 The number and location of the exploration licence, the fullname of the licensee, and, if in joint venture the full name of the managing operator.

Part 2 All expenditure attributable to exploration should be itemised as shown on the front of this Return in support of the expenditure statement.

Geology, Geochemistry and Geophysics should include, as appropriate:

- salaries and wages, etc. paid to employees (professional, technical and field staff)
- payments to contractors, consultants, laboratories, etc., including ground and airborne geophysical surveys and data processing, but not drilling contractors
- travel and subsistence allowances.

Drilling *includes all direct drilling costs. The total number of metres drilled duriong the quarter* must also be shown.

Feasibility Studies includes all expenditure directly attributable to:

- ore reserves and estimation
- mineral processing and metallurgical studies
- feasibility / economic studies
- marketing studies

Rehabilitation includes all direct rehabilitation costs.

Other Field / Direct Expenditure is all other expenditure directly attributable to exploration, including:

- gridding, construction of acccess tracks, surveying, cointract drafting, etc., not attributed to geology, geochemistry, geophysics or drilling
- aerial photography
- capital expenditure and hire / leasing of vehicles and equipment specifically for this enterprise.

Administration overheads include:

- legal costs and government fees and charges, but only those attributable to expoloration
- a proportion of office and administrative expenses and of capital expenditure but not exceeding 10% of annual expenditure.

Exclusion – payments, other than to government, for the purchase of mineral tenements.

Part3 *The progress report should be a brief resumé of exploration completed and in progress, and of* any significant results. A lengthy statement is not required as full details must be provided in the annual report to the Director of Mines. The progress report should be no more than one page.

Part 4 Full details of any activities that have an impact on the environment are required together with a *resumé of the type and extent of rehabilitation proposed, in progress or completed.* The report should be no more than one page, but should include plans and photographs where appropriate.

General If work is undertaken on more than one licence, a separate form for each is requireds.
If no exploration was undertaken during the period a 'nil' return must be completed.

If exploration is being carried out by a company or person(s) other than the licence holder then the Return may be sent to, and completed by, the company or person(s) concerned

THIS FORM SHOULD BE COPMPLETED IN DETAIL AND RETURNED WITHIN 14 DAYS AFTER THE END OF THE PERIOD TO THE DIRECTOR OF MINES, P.O. BOX 56, ROSNY PARK, TASMANIA 7018

DECLARATION

I hereby certify that this statement is a true and accurate record of expenditure and operations.

Signature: ... ...

Position: ... COMMERCIAL MANAGER ...

Company: ... THE CORNWALL COAL CO. N.L. ...