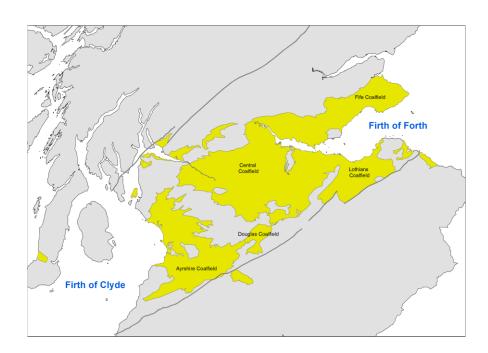


# Scottish coal seam names and correlations

Energy Systems and Basin Analysis Open Report OR/18/027



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# Scottish coal seam names and correlations

William S. McLean

editor
Timothy Kearsey
Contributors
Hugh Barron
Simon Piper

Cover picture details

Scottish Midland Valley Coalfields

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Maps and diagrams in this book use topography based on Ordnance Survey mapping.

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British Geological Survey offices

# Environmental Science Centre, Keyworth, Nottingham NG12 5GG

Tel 0115 936 3100

#### **BGS** Central Enquiries Desk

Tel 0115 936 3143 email enquiries@bgs.ac.uk

#### **BGS Sales**

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email bgslondon@bgs.ac.uk

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Tel 01491 838800

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## Foreword

I have been working for the British Geological Survey for the past twenty one years. Before this appointment I worked for NCB/ British Coal for thirty one years as a mining surveyor and subsidence engineer in all areas of the Scottish Coalfield.

This report details the correlation of the coals in the Scottish Coalfield, a task never completed before due to the complexity of the areas and the various coal seam names.

I have tried to record and correlate all the different seam names, known correlations and aliases for coal seams. This information was collected from documents completed by BGS palaeontology, BGS reports and memoirs and other external coal publications as show below, plus my own personal knowledge within the Scottish Coalfields.

It includes the Sanquhar coalfield but does not take into consideration coalfields at Machrihanish, Brora and a few other isolated small coalfields.

The spreadsheet attached was created to give a base for future discussion as it is only one person's interpretation from the examined data.

# Acknowledgements

Coal Authority (for supplying the scans)

M A E Browne

Peter Brand

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# 1 Introduction

This report correlates the coals in the Scottish Coalfield and provides a key by which local coals, and their local names, can be fitted in to the BGS Carboniferous Stratigraphy. It attempts to collect together all the various seam names, correlations and aliases for coal seams. This information was collected from documents completed by BGS palaeontology, BGS reports and memoirs, NCB/British Coal sections, other external coal publications plus my own personal knowledge within the Scottish Coalfields.

It includes the Sanquhar coalfield but does not take into consideration coalfields at Machrihanish, Brora and a few other isolated small coalfields.

### The spreadsheet shows:

- 1. An indication of where the coal seam name first originated. (they could also be within other sources) denoted by colour of lines round spreadsheet cells
- 2. Speckled cells show correlations within areas.
- 3. Solid lines round hatched or speckled boxes show known correlations whereas dashed line indicate possible correlations.
- 4. Horizontal lines in cells show BGS correlation across different areas.
- 5. Vertical lines in cells indicate NCB/Coal Authority correlations across areas.
- 6. Cross hatching indicates agreement with BGS and NCB/Coal Authority correlations

The spreadsheet was initially created to try to show where every coal seam name on any coal plan or publication was located within the geological strata for any area within the Scottish Coalfield (Figure 1). Correlations for the coal seams within the same area and in different areas were added later. As it was impossible to have headings for every area in Scotland, all the coal seam names in a column may not exist in the places listed at the heading as the seam names are merely within any location name in the headed areas.

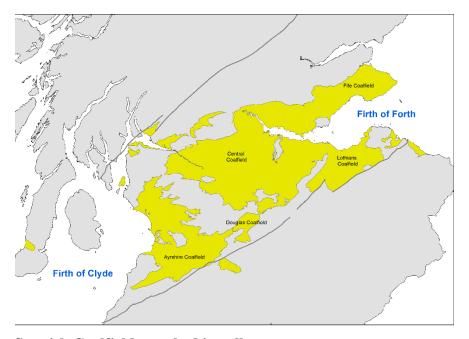


Figure 1 The Scottish Coalfields marked in yellow

Other aliases may exist within the British Geological memoirs as only sections were used for this spreadsheet. Only the mine plans digitised to date were used and these are listed in appendix 1.

## 2 Method and Correlations

The spreadsheet was created as part of the process of digitising abandonment coal plans in the Midland Valley of Scotland. The full Scottish Coal Seam Correlation spreadsheet was created from the individual coal field areas. The initial areas created were Ayrshire, Douglas, South Lanarkshire, West Central, Central, East Central (including West Lothian), Stirling/Clackmannan, Fife, Lothians and Sanquhar. Later they were further sub-divided into smaller areas to enable more localised names to be added.

Any known correlation between seams in the various areas are coloured/hatched and shown in the index at the top of the sheet. Areas were then subdivided into smaller districts to establish more localised coal seam names. Each area was firstly created to show the name of the coal seams in order of sequence and establishing their position in the relevant geological formation. As some coal seams had different names within the same area these were added to the relevant cells within the spreadsheet and other additional local names for the same coal seams were added later. Distances between coal seams varied and cells within the spreadsheet were crossed out showing the narrowing of the strata between the seams.

The spreadsheet has various stippled and hatched colouring to try to identify the known different correlations of the coal seams across the Scottish Coalfield. Some seam names do not have any stipple or hatched colouring correlation but are on the spreadsheet to show where they are in the geological sequence for a particular area. As the correlation process expanded it became too complicated to show areas of strata that did not exist between coal seams. The cells crossed out showing strata that did not exist were left on the spreadsheet. The correlation within areas were shown by stippling the cells the same colour which also identified the source.

Seams correlated across different districts were shown colour hatched. Every cell with a coal seam name in it has a coloured border to show the origin of the name and these are shown in the index at the top of the spreadsheet. Some names were found in various sources and so the first origin for the name was used for the colour coding for the cell. Where additional coal seam information was known text was added to cells.

Other boxes coloured yellow on the spreadsheet showed data about local coal seam conditions. Although they may not have colouring or hatching to show this coal seams with the same name on the same line in different areas on the same line correlate with each other. It should be noted that the spreadsheet only shows the order of the named coal seam in each column and does not refer to another coal seam on the same line unless the cell is stippled, hatched or has the same name. Some seam names do not have any stipple colour correlation but are on the spreadsheet to show where they are in the geological sequence for a particular area. Major coal seam names in one area often had different names in others.

The spreadsheet for the areas were created using the following articles but not necessarily in the order shown:

- 1. Peter Brand's 'Stratigraphical palaeontology of the Westphalian of the Ayrshire Coalfield, Scotland' for Ayrshire
- 2. BGS sections in Geological new Sheet Memoirs for Irvine, Glasgow, Hamilton, Airdrie, Falkirk, Haddington and Greenock
- 3. I H Forsyth report WA/93/51R for Glasgow
- 4. Bulletins of the Geological Survey of Great Britain

- 5. BGS sections in Geological Memoirs (old)
- 6. BGS sections in brief Sheet descriptions for Sheet 15W New Cumnock, Sheet 22E Kilmarnock and Sheet 40E Kirkcaldy
- 7. Names from abandonment coal plans digitised by Bill McLean for BGS
- 8. NCB/British Coal seam Correlations (including data from Bill McLean)
- 9. 10k geological Keys
- 10. Robert W Dron 'The coal-fields of Scotland'

The newer memoir information was always accepted before the older as more data would be available to establish the correlations.

Only certain limestone bands were included in the spreadsheet.

#### **AYRSHIRE**

The Lower and Middle Coal Measures of Ayrshire were initially correlated using the seam names as in Brand (1983). Additional coals seam names were added using the new Geological Sheet Memoirs for Irvine 22W and Kilmarnock 22E and the brief sheet descriptions for New Cumnock 15W and Kilmarnock 22E. The old British Geological Memoirs Ayrshire were checked and any additional coal seam names or aliases were added to the spreadsheet. Additional seam names were added from the various area correlations created by Bill McLean while digitising the Abandonment mine plans for projects within the BGS. Finally Bill McLean's own local knowledge of coal seam names was added, any sections drawn up by NCB/British Coal and articles in the above mentioned list were checked. Some of the correlations on the NCB/British Coal sections do not agree with this spreadsheet as they were created before additional information became available

The Cronberry Seven Foot correlation with the Dalmellington area differed from BGS and NCB/British Coal. The former correlated the Cronberry Seven Foot with the Minnivey of Dalmellington and NCB/British Coal with the Chalmerston.

The correlation from BGS was accepted as it was obtained from Brand (1983).

#### **Douglas**

The correlation of Douglas Coalfield was drawn up initially using the Lumsden (1965; 1967a; 1967b) and Lumsden *et al.* (1964). Sections of the area drawn up by BGS Memoirs were checked against the Bulletin correlation and any additional information was added. Finally data from digitisation of the abandonment coal plans of the area was added by Bill McLean.

### Sanquhar/Kirkconnel

The Sanquhar Coalfield correlation was created using the BGS Geological Memoirs and Geological sections drawn up by NCB/British Coal. Additional correlations and seam names were added from Bill McLean's local knowledge. There were differences between the BGS Geological Memoirs and the NCB/Coal Authority correlation with the Chalmerston Coal of Dalmellington. The Geological Memoirs correlated this seam with the Kirkconnel Splint whereas NCB/British Coal correlated it with the Daugh coal of Sanquhar. The Daugh correlation was taken as the BGS memoir was dated 1936 and the NCB/British Coal correlation was taken from data dated 1960/70s created by the NCB geologist. This data showed the Chalmerston Coal seam in the Middle Coal Measures and Kirkconnel Splint in the Lower Coal Measures.

The location of the Swallowcraig Coal within the Lower Coal Measures was different in the BGS memoir and the NCB/Coal Authority sections. The BGS memoirs correlated them with the Beoch Musselband whereas NCB/British Coal had them much further down the LCMS below the horizon of the Pennyvenie Low Coking. Since there was no information on the NCB/Coal Authority

section to say where the Swallowcraig Coals position had come from the British Geological Memoir Correlation was accepted.

# Stirling/Clackmannan, <u>South Lanarkshire</u>, West Central, Central and East Central (including West Lothian)

The Glasgow area correlation was initially created using Forsyth (1993) and other areas within the report checked with spreadsheet.

The other areas were initially created using the available correlation from the digitisation of the abandonment Coal plans of the areas. Later information from the BGS Geological Memoirs were added with any seam correlations and the other data sources checked.

### **Fife**

This area was first sub-divided into West, Central and East and then further divided into smaller more localised districts to enable the correlation to be more accurate. The already digitised coal plans, the Geological memoirs and a brief explanation of the geological map Sheet 40E Kirkcaldy' were used to create an order of coal seams in the areas with their correlations.

The coal seam correlations for the Neuk of Fife were created using Dron, R.W. (1902).

#### **Lothians (Mid and East)**

The Mid Lothian coals were first correlated using the abandonment coal mine plans which were digitised for a BGS project to identify the location of The Southern Uplands Fault within the area. The BGS memoirs were then checked to see if any information was needed to be amended or added.

The new Sheet memoir correlation of the Limestone Coal Group from Newtongrange to Wallyford was accepted as it differed from the old Geological memoir.

The East Lothian coal seam correlations were started using the above mentioned BGS project and this data was checked against the new Haddington Geological memoir and the older memoirs for the area.

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SCOTTISH COAL SEAM NAMES
AND
CORRELATIONS

William S. McLean
2018
OR/18/027

SOURCES OF SEAM INFORMATION BGS Geological Sheet Memoirs possible correlations shown: Ayrshire Seam correlation by Peter Brand BGS paleontologist shown: Ayrshire Seams uncorrelated by Peter Brand BGS paleontologist shown: Institute of Geological Sciences Report 79/11 correlations Seam correlation by I H Forsyth (WA/93/51R) BGS Geologist, specialist coal areas, shown:

BGS 10k Keys BGS seams from digitisation of abandonment plans Bulletins of the Geological Society of Great Britain Bill McLean BGS Scientific Officer ex NCB/British Coal mining surveyor and subsidence engineer shown:

(seam locations taken from abandonment of mine plan sections) Bulletins of the Geological Society of Great Britain correlation across areas BGS Geological Memoirs etc. shown: NCB/British Coal agreement with BGS correlation BGS Geological Memoirs correlation (within areas)shown: NCB/British Coal seam correlations (within areas) shown: BGS Geological Memoirs correlation (across areas)shown: NCB/British Coal seam correlations (across areas) shown: BGS Geological Memoirs etc. possible correlations shown: NCB/British Coal possible coal seam correlations shown: BGS Geological Sheet Memoirs shown: NCB/British Coal location within strata from sections BGS Geological Sheet Memoirs correlation (within areas) shown: The Coal-fields of Scotland - Robert W. Dron BGS GeologicalSheet Memoirs correlation (across areas)shown: Strata does not exist ie. seam at lower end of cross hatching is nearer to the seam at the top end of the hatching

	OR/18/027										Strata does not exist ie. seam at lower end of cross hatching is nearer to the seam at the top end of the hatching
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Knockshinnoch High is Nordschinnoch High is Nordschinnoch High is Nordschinnoch Main or Splint  Knockshinnoch Main or Splint  Knockshinnoch House	Find the second party	Lower Kiltongue  Kennox Upper Drumgray  Kennox Lower Drumgray  Kennox Lower Drumgray  Company  Company	Lower Drumgray, Policock Ladygranger, Lower Kritingue or Jewel? [Lower Drumgray differ worked an Upper Drumgray in the Markellan serial Shotts Gas or Shorts Gas or Shorts Gas or Sanoran of	r Shotts Smithy (Lower Drumgray) Shotts Smithy (Lower Drumgray)  Shotts Gas Shotts Gas	Lower Drumgray or Shotts Smithy  Lower Drumgray or Shotts Smithy  Lower Drumgray in the Hammton rate  Shotts Gas  Shotts Gas  Shotts Gar of Shottsaton Upper  Drumgray (incorrectly)	Lower Drumgray, Shotts Smithy or Coercol Coverd or Li Shotts Cas, Greengain Buckstropse or ) Shotts Cas Greengain Suckstropse or ) (Sho	Shotts G	Wee  Lower Drumgray, Lipper Control, seading), Smithy (Wester Coursol, Sour or Lipper Sout Sour or Lipper Sout Sour or Lipper Sout Sour or Lipper Coursol Sour o	Waltsend Waltsend, Wee or Gas  Covrod (No.14) or Soft Carron Upper Coerod  Arth Upper (No.1 Ptr), Low Coal or Lower Coerod Splint Coelsnaughton Main or Hawkhill Splint Sp	Diamond or Boreland or Balgorie Splint Frances Boreland or Balgorie Splint Revision Diamond or Mangle Boreland or Balgorie Splint Revision Diamond or Michael Mangle	Boreland, Mangie or Weltsgreen Three Upper Cannel or Smithy Glass or Grey Mecham Glass Whitehill Great Whitehill Great Glass  Cameron Upper Sandwell Salters Salters Salters Salters Whitehill Rough or Diamond Whitehill Rough or Diamond Upper Sandwell Salters Salters Salters Salters Salters Salters Salters Whitehill Rough or Diamond Salters S
Knoskshinnoch Turf Creoch Knockshinnoch Laight	Ten Fathom Ten Fathom Ten Fathom		Thinacres Thinacres Thinacres  Mill, Crigorethan, Balmonal, or Mill, Cletted, Parrot or Wellbog Crigorethan Dross		Chiate	Sheiris (Biological Sheiricana) Cathled or Mill Control (Mill or Greet Control (Age Bairrosa), Cathled or Mill Mill or Gleet Mil	Additionate Blackforouse Blackforouse Shiels Soft, No. 16, or Hollandbush Spirit Shiels Shiel	Coesnauchton Man.  Local Shellband Shellband Shellband Shellband Shellband Shellband Man.  Local Mill Shellband Man.  Local Mill Shellband Man.  Mill or Auchingane Mill or Auchingane Mill or Auchingane Mill or Auchingane	Shelband Shelband Shelband Shelband  Shelband Shelband  Mil, Auchingane or Airth Ball Mil, Mid Cherry, Tulialian Spirit or Whitesink at Tulialian, Clear or Whitesink	Sandwell Boreland [Wrongly] Sandwell Lower Frances Sandwell  Westfield No.1 Mine  Westfield No.1 Mine  Victory Sandwell [wrongly] Seafed Victory Frances Victory of Michina Lower Sandwell	Cameron Lower Sandwell  Victory  Nine Foot Nine Foot or Barrs Nine Foot or Barrs Whitehill Splint Whitehill Splint Barrs Nine Foot
Knockshinnoch BBI  Pathhead Gas/Soft	Date:	Spirit Douglas Spirit Spirit  Main Tonoue Douglas Main Main  Caste Hispendon Douglas Ponel	Uccer Ball Armadale Ball Armadale Ball	Armadale Ball Armadale Ball	Some reas of Giasgow Costhridge Barrioral Incorptly ramed Kitzinger Lower Drumsrav or Armadale Main	Costinóge B Ball-An	Low Lover Ball Licoer Ball Licoer Ball Armadale Ball or Brighton Main Armadale Ball or Brighton Main Licoer Ball Brighton Main Armadale Ball Armadale Ball Or Brighton Main Brighton Main Armadale Ball Or Brighton Main Brighton Main Armadale Ball Or Brighton Main Bright	Mill or Lower Soft  Bantaskine Coal and tronstone  Armadale Looer Ball  Armadale Looer Ball  Armadale Ball or Colinahelds at  Fauldhouse and Armadale  Brighton Main or Armadale Ball  Brighton Main	Armadale Ball, Brighton Man or Brighton Main Brighton Main [thin]	Cysart Main Dysart Main Dysart Main Dysart Main Dysart Main Dysart Main (Loper Leaf) Westfield Two Foot West	by Dysart Main    Fitteen Foot or   Prole Three Foot   Part Rough   Pa
Pathhead 4' 0"  Pathhead Thick	Carbellow Carbellow	Marwood Band (cost)	Armadale Main  Colinbur  Colinbur  Colinbur  Colinbur  Colinbur	Armadale Main Armadale Main  Colinbum Coffnead, Mil. Liquo Dufflland Parrot at Salsburgh	uo or Colinbum?		dale Main Glenfuir of Carron Armadale Main Armadale Main Glenfuir Under Glenfuir Under Glenfuir Under Glenfuir Highstone Colinburn or Highstone Highstone Highstone	e Main, Gutterhole or Armadale Main or Glenfuir Armadale Main Glenfuir Glenfuir Glenfuir Glenfuir Glenfuir Glenfuir Glenfuir Glenfuir Glenfuir at Roughcastle  Collebum or Corond of Collebum, Bowhouse Craw or Collebum or Craw on plan 13037 Collebum Oursine Glenfuir	Gierfuir, Airth Main, Gutterhole or Armadale Main  Under Glenfuir  Under Glenfuir  Colinbum (Cosed in Dummore Pita)  Colinbum (Cosed in Dummore Pita)  Colinbum (Cosed in Dummore Pita)	Goodalis Goodalis  Lower Dysart Lower Dysart Lower Dysart or Seven Foot or Lower Dysart Seven Foot Or	Prinkle Four Foot Prinkle Four
		Adamson Bland (cost)		Bonnyhill Craw Bonnyhill Craw Lowestone Lowestone or Striking	Bonnyhil Craw	Boghead Gas [Armadale] Bonny	hill Craw Bonnyhill C	Carmeton Ballation.  Southware Manual Carmeton Record Carmeton Ballation.  Carmeton Ballation.  Carmeton Ballation.  Carmeton Ballation.  Location Ballation.  Location Ballation.  Location Ballation.  Location Ballation.	Bonryhil Craw  Broom Coals? (convenience in this strain)	Bogside tronstone and Coal  Bogside tronstone and Coal	## Ceres Goods!
Tait's Marine Band (base)  Baudile Clays  Passage Formation	Raise Coal [ehere present] Raise Coal unconformity  Ayrahire Baustic Clay Member Ayrahire Baustic Clay Member Troon Volcanic Member? Troon Volcanic Member Member?	Porteous Band or unconformity	Crookedstone Statytand Ironatone Crotthead Slatytand Ironatone Bowhousebog Thick Thin is Lawthal/ Stonehouse area	Creative Communication of calcular properties	ne Crothead Slatyband Ironstone or coa	Croffhead or Armadale Statyband ironstone or coal   Bowhousebog   Bowhousebog   Sixty	Sien Crofthead Slatyband Ironstone or Auldshields Slatyband Ironstone Crofthead	Stayburd forestore or coal  Subspection Subspection Subspection Support Subspection Support Subspection Support Subspection Support Subspection Subspe	Codhead Sialyband Ironstone  Bowhousebog or Coal Moses  Bowhousebog or Coal Moses	Lethanneel Lethanneel Lethanneel Vestfield Bogside Trick Westfield Bogside Trick Westfield Bogside Man	Porteous Band    Description
Castlecary Limestone (top)	unconformity unconformity	unconformity Castlecary Limestone (top)	7	Netherwood	missing in Palsley	Netherwood	A Rider (Pin) Netherwood Rider American Rider Netherwood Netherwood Netherwood Netherwood Netherwood Netherwood Netherwood Netherwood Netherwood Under Netherwood Under Netherwood Under Netherwood Under Netherwood Under Ne	Netherwood Roder Netherwood Roder Netherwood Roder Netherwood Under Netherwood Under Craigenbuck Limestone	Netherwood	Westfield Thick	Levenseat Limestone Limestone Allaro
Formation	Upper Linn Limestone Calmy Limestone Blue Tour Limestone Bluetour Bluetour  Broadle Broadle Bluetour Bluetour  Lower Linn or Linn Brig Limestone	Calmy Limestone  Gill Clinestone  Gill Gill or Upper hinst  Ponfeigh Crimestone  Ponfeigh or Rigide  Gas Ponfeigh Gas	Calmy or Gair Limestone Gair Limestone Hirst [thin]  Orchard Limestone Gair Limes		Calmy or Arden Limestone  Arden Limestone and Coal Upper Arden or Shirva Upper Hirst, Hirst or Shirva  Smithy at Darriery as Lower Arden, Lower Hirst or Smithy at Hirst Auchiribask or North Bras  Orchard Limestone  Arthurise South Arthurise	Upper Hirst or Garnkirk Limestone (top)	Calmy Limestone	Dykeneuk Limestone  Upper Hinst Wood, Upper Hinst or Gormyre Upper Hinst [thin] Camook Jewel or Shin Institute or Overton Gas  Hinst or Overton Gas  Kinneli Mills Limestone  Orchard Orchard Orchard	Specification   Specificatio	Craig Coals	Lundin Upper Craig
Cokeyard	Third Post Limestone (Hundred Fathorn Limestone)  Tibble Pagan's  Barkip, Barrmit or Dalry Gas  Cokeyard  Cokeyard	Ellenora Limestone  Cokeyard Ellenora Ellenora Ellenora	Lyoncross Limestone  Lyoncross Lyoncross Climpy Gas	Lyoncross Limestone  Cimpy Gas	Moor Rock Lyoncross Limestone  Lyoncross of Barmill Gas Lyoncross or Holebum Lyoncross	Lyoncross or Lochore Planst Lyoncross or Lochore Lyoncross Lyoncross Lyoncross	Lyoncross Limestone  Lyoncross Limestone  Guarry  Guarry  Guarry  Guarry  Guarry  Guarry  Guarry  Guarry	Manor  Mary or Lyoncross Lyoncross Quarry	Marcor Ma	Thin Shelly Blace  Capiedrae Parrot Capi	Lyoncross Limestone
Upper Li					Chapelgreen	Plants  Chapetgreen, Gamkirk Gas, Upper Chapetgreen, Upper or Gardener's Chapetgreen Chapetgreen, Upper or Gardener's of Meakantal Chapetgreen Chapetg		Courtery Manor  Powis Mounthunger Climpy Gas Powis - NE String	G Poels Poels Caddel's Parrot Period Parrot Cadel's		South Parrot South Parrot Splint Sp
index Limestone (base)	Patra Sandrone eroded North of Kilmarnock Highfield Limestone Eli Coal Limestone  Upper Atton Patra Pa	Index Limestone (base)  Seven Foot Limestone  Upper Index  Cas  Lover Index	Auchenheath Rough Limestone	Index Limestone (base)  Babarde Gas	Cowglen Limestone (South of Civde) Twechar Drty Twechar Drty Twechar Drty Twechar Upper Twechar Upper Twechar Upper Twechar Upper	Twechar No.1 or Dirty Twechar No.1/Dirty or Possel First at Dullatur Twechar No.1 Dirty or Balbardie Gas Twech Twechar Upper Twechar Upper Twechar Upper Twechar Upper Twechar Upper		e Gas or Upper Garth Red at Hilderston or Balbardie Gas Lower Garth Twechar Upper	Index Limestone (base)    Cakley Upper   Upper Cakley   Oakley Upper	Bossebank Bosseb	
	Lower Alton Kilgrammie Wee Ditty or Wee Ell Smitte	Upper Gas		Subble Olive Obdes							
		Smithy or El Kernox Ell Nameless or Lover Nameless (Gas) Gas		Fousities Crina, Shay or Woodmuir/Longford Main	Overlee Bohess Splint or Overlee Bohess Splint  Kilsyth No. 1 Blackband Kilsyth No. 1 Blackband or Garscube	Bo'ness Splint or Twechar No. 2 Bo'ness Splint or Twechar Twechar Twechar No. 2 Upper or Blairhall Main Bo'ne  Melklehil Possil First Killsyth/Twechar No. 1 Blackband Killsyth/Twechar No. 1 Killsyth/Twechar		Wind to Figure 1	Bo'ness Spirit or Garth Coals Bo'ness Spirit (Garth Coals or Lawre Graham (Preston Island) Bo'ness Spirit (Bainhall Main Oakey Main Wee Spirit (Manor Pows) Spirit (Bainhall Main Oakey Main Universe Graham (Preston Island) Upper Blashall Smithly Upper Blashall Smithly Lower Blashall Smithly Lower Blashall Carledon Month Pows (Righth No.1 Blackband Kileyth No.1 Black	Blairhall Main Blairh	Blainfall Main or Klimux Four Foot Blainfall Main in Luncart Luncart Under Foot Blainfall Main in Luncart Tool Confedent Shifting
		Smithy or EI Kernox EII Nameless or Lover Nameless (Gas) Gas		Proutines Linits, Shally or Woodmunt.Conflored Main	Covertee Bohess Splint or Overtee Bohess Splint  Kilsyth No. 1 Blackband Carscube Bank?  Kilsyth No. 1 Blackband Under  Berryhils  Possil Rider  Boghall or Sclutty  Possil Wee Possil First or Possil Wee		1.1 Blackband No.1 BBI Corbiehall or Kilsyth No.1 Blackband Kilsyth No.	Wind to Figure 1	Linear Blaitheil	Blairhal Main  Upper Blairhal Smithy  Upper Three Foot (Fillebone)  Upper Cardenden Smithy  Upper Card	Blainfall Main or Klimux Four Foot Blainfall Main in Leaves Luncart
	Main Palan Thick Coal = Smither 1 for or Heb	Smithy or Ell Kernox Ell Nameless or Lover Nameless (Gas) Gas  Kernox Linox Film Wee Drum, Little or Smith Hoper )		Proximises Links, Shally or Woodmust Longford Main	Kilsyth No. 1 Blackband  Kilsyth No. 1 Blackband or Garscube Bark?  Kilsyth No. 1 Blackband Under Berryfulls Posail Rider	Melkiehill Possii First Kilsyth/Twechar No.1 Blackband Kilsyth/Twechar No.1 Blackband or Garscube Bark Kilsyth No. 1 Blackband Linder Bank Filsyth No.1 Blackband Under Bank Possii Rider P	1.1 Blackband No.1 BBI Corbiehall or Kilsyth No.1 Blackband Kilsyth No.  Berryhilis  Berryhilis  Ill Rider  Ill Wee Possil Wee  Carronigg Smithy Upper Wee Hartley  Up	1 Slackband or Under at Corbiehall Risych No.1 Slackband or Under at Mainhouse Share or Upper Denny Increasions  Berryhills  Upper Wee Hartley  Upper Wee Hartley	Upper Blashall Upper Blashall Upper Blashall Upper Blashall Upper Cardenden Smithy Smithy In Stackband Killeyth No.1 Blackband Killeyth No.1 Blackband Killeyth No.1 Blackband Smithy In Smithy In Smithy In Smithy In Smith	The Upper Blainhall Smithy Upper Three Foot (Upper Cardenden Smithy Smithy Upper Cardenden Smithy Cardenden	Blairhal Main or Kimux Four Foot  Blairhal Main in Luncart  Uture Blairhal Main or Kimux Four Foot  Blairhal Main or Kimux Fo
Main Gasswater at Dabbair  Clay Gas [Dabbair]  Nine Foot [Dabbair]+[Edge Hil]	Fernan Thio. Coals or Downfeston  Little  Wardend Javes or Wes (Climans)  Wardend Javes for Wes (Climans)	Gas  Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper) Leaf 7:]  Aucherheath Smithy, Ell or Catoraig	Auchenheath Smithy  Auchenheath Smithy  Second Carluke or Carluke Loose  Auchenheath Smithy   Carluke Loose  Auchenheath Smithy   Carluke Loose	erj Woodmuir Smithy or Craw  B Frecity Craw	Kilsyth No.1 Blackband or Garscube Beid?  Kilsyth No.1 Blackband under  Kilsyth No.1 Blackband Under  Bernyfults  Posall Rider  Boghall or Sclutty  Posall Wee  Damier of Linnood Solint	Melkiehil Possil First Kilisyth/Twechar No.1 Blackband Kilisyth/Twechar No.1 Blackband Kilisyth No.1 Blackband or Garsoube Bank Kilisyth No.1 Blackband Under Kilisyth No.1 Blackband Under Kilisyth No.1 Blackband Under Library No.1 Blackband or Garsoube Bank Kilisyth No.1 Blackband Under Library No.1 Blackban	1.1 Blackband No.1 BBI Corbiehall or Kilsyth No.1 Blackband Kilsyth No.  Berryhilis  Berryhilis  Ill Rider  Ill Wee Possil Wee  Carronigg Smithy Upper Wee Hartley  Up	1 Slackband or Under at Corbiehall Risych No.1 Slackband or Under at Mainhouse Share or Upper Denny Increasions  Berryhills  Upper Wee Hartley  Upper Wee Hartley	Upper Blashald  Kilayth No.1 Blackband  Kilayth No.1 B	The Upper Blainhall Smithy Upper Three Foot (Upper Cardenden Smithy Smithy Upper Cardenden Smithy Cardenden	Blairhal Man'ro Klimux Four Foot Blairhal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Foot Foot Foot Foot Foot Foot Foot Foo
Main Gasswater at Dabbair  Clay Gas [Dabbar]  Nine Foot [Dabbar]+(Edge Hill)  Seven Foot [Dabbar]+(Edge Hill)	Utile  Wardend Jewel or Wee Pilmaurs  Lyketone Smithy, Main,	Gas  Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper) Leaf 7:]  Aucherheath Smithy, Ell or Catoraig	First or Upper Cartuke(Upper)  Auchenhealth Smithy  Second Cartuke Lower  Auchenhealth Smithy  Lower Lower  Discertioned  Auchenhealth Smithy  Auchenhealth	Woodmuir Smithy or Craw  W Treclay Craw  W Freclay Craw	Kilsyth No.1 Blackband (Kilsyth No.1 Blackband or Garscube Beint?)  Kilsyth No.1 Blackband Under Kilsyth No.1 Blackband Under Bernfulls  Boghall or Schafty Posall Wee Posall Finder  Boghall or Schafty Posall Wee Posall Finder  Darries or Lineod Solint  Barrhead Man - Bactine Utyper  Barrhead Man - Bactine Utyper Posall Finder  Bactine, Haughrigg, Mekkelnil Man or Bogular of Darriey  Wee coal of Garscube, Abercom Rough  Lineod Splat or Renfrew  Cowglen Rough, Mekkelnil Wee or Galflock Mann Blackband or Utyper Posall Foresteen  Wee coal of Garscube, Abercom Rough  Middle or Main Blackband  Parkhouse Darriey  Stinking  Cowglen Stinking, Lower Wee, Gifflock  Jenet or Main  Cowglen Stinking Lower Wee, Gifflock  Posall Lower Wee  Abercom Splat  Fourteen Inch Inforder  Abercom Splat  Abercom Splat  Fourteen Inch Under  Abercom Splat  Antiel Roler	Meiklehil Possil First Kilsyth/Twechar No.1 Blackband Kilsyth No.1 Blackband or Garscube Bank Kilsyth No.1 Blackband or Garscube Bank Kilsyth No.1 Blackband Under Rose No.1 Blackband Under Rose No.1 Blackband Under Rose No.1 Blackband Under Rose No.2 B	1.1 Blackband No.1 BBI Cortiehall or Kileyth No.1 Blackband Kileyth No. 1 Blac	1 Blackband or Under at Mainhouse Cortischall Vileye No.1 Blackband or Under at Mainhouse Vileye Denny Blackband from the Cortischall Vileye Mental Vileye Berryhills  Berryhills  Upper Wee Hartiery I Upper Wee Hartiery Upper Bronstone  Two Foot Coarroning Smithly or Court Wee Hartiery outprinciples of Foot Foot, Food or Upper Inoristone  Bohess Upper Inoristone Vileyer Foot Speed, Foot Foot Foot, Food or Upper Inoristone Upper Inoristone Vileyer Foot Foot Foot Foot, Food or Upper Inoristone Upper Foot Foot Foot Foot Foot Foot Foot Foo	Upper Blashall Smithy Smithy Lover Blashall Main Main Main Lover Blashall Main Lover Blashall Main Main Main Main Millou Upper or Little Coal Little Splint Little Splint Little Splint Little Splint Little Splint Little Splint Millou Upper Wee Hartley or Hartley Clare w Upper Wee Hartley or Hartley	Typer Blainhal Smithy Upper Blainhal Smithy Upper Cardendeen Blainhal Upper	Blairhal Man'ro Klimux Four Foot Blairhal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Four Foot Blairnal Man'ro Klimux Foot Foot Foot Foot Foot Foot Foot Foo
Main Gasewater at Dablair  Clay Gas [Dablair]  Nine Foot [Dablair]+[Edge Hill]  Seven Foot [Dablair]+[Edge Hill]	Coverleiston  Little  Wardend Jevel or Wee (Rimsuns)  Lylestone Smithy, Man, Wardend Jevel or Wee (Rimsuns)  Parrot, Upper Spirit or Sulphury  Wardend Gas (Rimsuns) or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper) Leaf 7-1  Auchenheath Smithy, Ell or Catorag  Four Foot Seven Foot)  Big Drum or Dross  Dross (Lower) Leaf 7-1  Auchicchan Dross  Seven Foot)  Satateriga (Upper) Leaf Ell Upper Ell	First or Upper Cartuke(Upper)  Auchenhealth Smithy  Second Cartuke Lower  Auchenhealth Smithy  Cartuk Uborer-Lower  Lower  Auchenhealth Smithy  Auchenhealth	Woodmuir Smithy or Craw  Woodmuir Splint	Kilsyth No.1 Blackband    Kilsyth No.1 Blackband or Garscube Baris?  Kilsyth No.1 Blackband Under    Bernyfills    Posali Rider    Boghali or Sclutity    Posali Wee    Posali First or Posali Wee    Damiler of Limzood Selet.  Bernhand Man - Blachband Librer    Barnhand Man - Blachband    Limzood Spint or Renthew    Cowglen Rough, Melikehili Wee or    Glillhock Main    Kenthew/Abercorn Rough    Wee coal of Carscube, Abercorn Rough    Wee coal of Carscube, Abercorn Rough    Wee coal of Carscube, Abercorn Rough    Middle or Main Blackband    Parkhouse Darniey	Meikehil Possil First Kilsyth/Twechar No.1 Blackband Kilsyth No.1 Blackband or Garscube Bank Kilsyth No.1 Blackband Under Kilsyth No.1 Blackband Under Kilsyth No.1 Blackband Under Kilsyth No.1 Blackband Under Kilsyth No.1 Blackband or Garscube Bank Kilsyth No.1 Blackband or Garscube Ba	1.1 Blackband No.1 BBI Cortiehall or Kileyth No.1 Blackband Kileyth No. 1 Blac	1 Blackband or Under at Mainhouse Cortischall Vileye No.1 Blackband or Under at Mainhouse Vileye Denny Blackband from the Cortischall Vileye Mental Vileye Berryhills  Berryhills  Upper Wee Hartiery I Upper Wee Hartiery Upper Bronstone  Two Foot Coarroning Smithly or Court Wee Hartiery outprinciples of Foot Foot, Food or Upper Inoristone  Bohess Upper Inoristone Vileyer Foot Speed, Foot Foot Foot, Food or Upper Inoristone Upper Inoristone Vileyer Foot Foot Foot Foot, Food or Upper Inoristone Upper Foot Foot Foot Foot Foot Foot Foot Foo	Upper Cardender Smithy  Killyth No. 1 Blackband  Lockgelly BBI  Lockgelly BBI  Success or No.2  Control BBI  And Upper or Little Coal  Lower View Hardiny  Lower View Hardi	Typer Blainhal Smithy Upper Blainhal Smithy Upper Cardendeen Blainhal Upper	Real method for a frame of the per forms Ser Fig.   Continue Ser Fig.   Continue Ser Fig.   Continue Ser Fig.
Main Gasswater at Dabbair  Clay Gas [Dabbair] Nine Foot [Dabbair]+[Edge Hill]  Seven Foot [Dabbair]+[Edge Hill]	Coverleiston  Little  Wardend Jevel or Wee (Rimsuns)  Lylestone Smithy, Man, Wardend Jevel or Wee (Rimsuns)  Parrot, Upper Spirit or Sulphury  Wardend Gas (Rimsuns) or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)	Gas  Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper) Leaf 7:]  Aucherheath Smithy, Ell or Catoraig	Auchenheath Snithy  Second Cartilate or Cartilate Lower  Auchenheath Snithy  Auchenheath Snithy  Auchenheath Wee Gas, Upper Gas of Auchenheath Oil	Woodmair Smithy or Craw  Woodmair Smithy or Craw  Woodmair Smithy or Craw  Fireclay Craw  Woodmair Splint  Woodmair Splint  Charry	Kilsyth No. 1 Blackband (Kilsyth No. 1 Blackband or Garscube Bark?)  Kilsyth No. 1 Blackband Under  Bernphilis  Posal Rider  Posal Rider  Posal Rider  Posal First or Posal Wee  Darriew or Limeod Solint  Barrhead Man - Budzhea Upper  Barrhead Gargier/Brightows  Gargier/Brightows  Barrhead Man - Budzhea Upper  Barrhead Man - Cowglen Solinty/Slaby  Lochinch Chenry or Cowglen Solinty/Slaby  Upper Posal First or Posal Wee  Posal First or Posal Wee  Posal First or Posal Wee  Darriew Congression Chenry or Cowglen Solinty/Slaby  Lochinch Chenry or Cowglen Smithy, Batchie,  Barrhead Man, Cowglen Smithy, Batchie,  Cowglen Rough, Makishall Wee or  Gallock Man Blackband or Upper Posal  Investora  Wee coal of Garscube, Abercorn Rough  Man Blackband or Upper Posal  Investora  Wee coal of Garscube, Abercorn Rough  Man Blackband or Upper Posal  Investora  Wee coal of Garscube, Abercorn Rough  Man Blackband or Upper Posal  Investora  Wee coal of Garscube Davy  Man Blackband or Upper Posal  Investora  Wee coal of Garscube Davy  Man Blackband or Upper Posal  Investora  Parkhouse Darriey  Nishill Boghouse  Parkhouse Darriey  Cowglen Sinking, Lower Wee, Giffhook  Posal Fourteen Inch Intensione or  Cowglen Georde's or Fourteen Inch  Abercorn Spint  Barthead Main  Ashfield Coking or Hartey  Ashfield Coking, Wandering Gas or Posal  Man at Robroyston  Upper Posal Treatment and Andread Coking, Wandering Gas or Posal  Upper Posal Treatment and Tre	Meiklehill Possil First  Kilsyth/Twechar No.1 Blackband  Kilsyth No.1 Blackband Linder  Blank  Possil Rider  Possil Wee Coal about Wee Coal about Haspiring  Meiklehill Rider Main  Blackhall Upper Blackband  (I) Upper Possil Upper or Cadder Main  Meiklehill Wee or Possil Main  Meiklehill Wee or Rider Meiklehill Rider Main  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Wee Coal about Haspiring  Meiklehill Wee or Wee Coal Below Haspiring  Meiklehill Main or Barnore Main Meiklehi	Ashfeld Coking  Ashfeld Coking	1 Blackband or Under at Mainhouse Cortischall Vileye No.1 Blackband or Under at Mainhouse Vileye Denny Blackband from the Cortischall Vileye Mental Vileye Berryhills  Berryhills  Upper Wee Hartiery I Upper Wee Hartiery Upper Bronstone  Two Foot Coarroning Smithy or Court Wee Hartiery outprinciples of Foot Foot, Food or Upper Inoristone  Bohess Upper Inoristone Vileyer Foot Speech Foot Foot Foot, Food or Upper Inoristone Upper Foot Halderston Inch Halderston	Upper Blankal   Upper Cardenden Smithy   Upper Cardenden Smithy   Upper Cardenden Smithy   Cardenden Lower Mat Plane Foot   Cardenden Lower of Md Blank   Cardenden Lower of Md Blank   Smithy   Upper Cardenden Lower of Md Blank   Cardenden Lower of Md Blank   Smithy   Upper Cardenden Lower of Md Blank   Cardenden Lower of Md Blank   Main or Lochgely BBI   Success or No.2   Lochgely BBI   No.2 (Lower Comine Blackband or Killedone Lower Time Foot I, Little Splint   Little Sp	Typer Blainhal Smithy Upper Blainhal Smithy Upper Cardendeen Blainhal Upper	Section of the control of the cont
Clay Gas (Dalblair)  Clay Gas (Dalblair)  Nine Foot (Dalblair)+(Edge Hill)  Seven Foot (Dalblair)+(Edge Hill)	Coverleiston  Little  Wardend Jevel or Wee (Rimsuns)  Lylestone Smithy, Man, Wardend Jevel or Wee (Rimsuns)  Parrot, Upper Spirit or Sulphury  Wardend Gas (Rimsuns) or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper) Leaf 7-1  Auchenheath Smithy, Ell or Catorag  Four Foot Seven Foot)  Big Drum or Dross  Dross (Lower) Leaf 7-1  Auchicchan Dross  Seven Foot)  Satateriga (Upper) Leaf Ell Upper Ell	Auchenheath Smithy  Second Cartuke or Cartuke  Auchenheath Smithy  Auchenheath Smithy  Auchenheath Wee Gas, Uppe Gas or Auchenheath Ot	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fireday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Charry  Main Craw  Moss-side Main Craw	Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband under Bernyhits  Possil Rider  Possil Rider  Possil First or Possil Wee  Barrhead Main Cowglen Soluthy State Barrhead Main Cowglen Soluthy State Barrhead Main Barrhead Main Cowglen State Barrhead Main Ashfield Coking or Hantley  Possil Fourteen Inch for Georgie's  Storking  Cowglen Stinking, Lower Wee, Giffhook Possil Lower Wee  Possil Fourteen Inch Interest National Possil Coking Wandering Gas or Possil Coking Wandering Gas or Possil Coking Wandering Gas or Possil Main and Robovyston  Deservice of Nation Storkey  Two Foet, Possil Main, Sathutand Coking or Piss Blackband and Coking Wandering Gas or Possil Main and Robovyston or Teverty Foot Inch of Sathutand or Linewood Story  Two Foet, Possil Main, Sathutand Sourh Storke or West Cowglen Statutand or Linewood Story  Abercom Storke  Storke or West Cowglen Storkey  Neithor Lower Possil Main, Sathutand Story Possil Instinction Possil Instinction Wee  Neithor Lower Possil Instinction  Neithor Lo	Meiklehill Possil First  Kilsyth/Twechar No.1 Blackband  Kilsyth No.1 Blackband Linder  Blank  Possil Rider  Possil Wee Coal about Wee Coal about Haspiring  Meiklehill Rider Main  Blackhall Upper Blackband  (I) Upper Possil Upper or Cadder Main  Meiklehill Wee or Possil Main  Meiklehill Wee or Rider Meiklehill Rider Main  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Rider  Meiklehill Wee or Wee Coal about Haspiring  Meiklehill Wee or Wee Coal Below Haspiring  Meiklehill Main or Barnore Main Meiklehi	At Blackband No.1 881 Corbiehall or Kilsyth No.1 Blackband Kilsyth No. 1 Blackband Kilsyth Main Upper Developer Possit Wee    Carroningg Smithy   Upper Wee Hartley or Smithy   Upper Developer Developer Developer Possit Main   Upper Twenty Blackband Increasone or Meskehill Main   Cowderbeath Seven Foot, Hartley or Upper Twenty Inch Woodmuir Smithy Wee Wee   No.2 881   Mid Denny BBI or coal   Woodmuir Smithy Woodmuir Smithy   Upper Inch Mid Inch Under   Inch Unde	1 Blackband or Under at Multhouse  Berryhills  Berryhills  Berryhills  Berryhills  Borness Upper Ironstone  Borness Upper Ironstone  Two Foot  Carronings Smithy  Modernheath Seven Foot, Foot of Upper Ironstone  Two Foot  Lover Wee Hartley  In John of Woodmair Smithy  Manor Powis Main, Hartley or Upper Twent Inch  Manor Powis Main, Hartley or Upper Twent  Inch  Manor Powis Main, Hartley  Manor Powis Main, Hartley  Manor Powis	Upper Cardender Smithy  Killyth No. 1 Blackband  Lockgelly BBI  Lockgelly BBI  Success or No.2  Control BBI  And Upper or Little Coal  Lower View Hardiny  Lower View Hardi	Typer Blainhal Smithy Upper Blainhal Smithy Upper Cardendeen Blainhal Upper	Real method for a frame of the per forms Ser Fig.   Continue Ser Fig.   Continue Ser Fig.   Continue Ser Fig.
Clay Gas [Dablair]  Clay Gas [Dablair]  New Foot [Dablair]+[Edge Hill]  Seven Foot [Dablair]+[Edge Hill]  Twelve Foot [Dablair]+[Edge Hill]  Eleven Foot [Dablair]+[Edge Hill]	Coverleiston  Little  Wardend Jevel or Wee (Rimsuns)  Lylestone Smithy, Man, Wardend Jevel or Wee (Rimsuns)  Parrot, Upper Spirit or Sulphury  Wardend Gas (Rimsuns) or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)  Wardend Gas, Scrittly, Peel or Lylestone Man (a Köwnning)	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper)  Four Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   Upper Nine Foot   Upper Nine Foot or   General Proof Poot   General Proof Seven Poot    Upper Nine Foot   Upper Nine Foot   Upper Nine Foot or   General Proof   General Proof Poot   Upper Nine Foot   Upper Nine F	Auchenheath Smithy  Second Carbie or Carbie  Auchenheath Smithy  Auchenheath Smithy  Auchenheath Wee Gas, Uppe Gas or Auchenheath Oil	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fiveday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Alanton Lower of Wisordown Ma	Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband under Bernyhits  Possil Rider  Possil Rider  Possil First or Possil Wee  Barrhead Main Cowglen Soluthy State Barrhead Main Cowglen Soluthy State Barrhead Main Barrhead Main Cowglen State Barrhead Main Ashfield Coking or Hantley  Possil Fourteen Inch for Georgie's  Storking  Cowglen Stinking, Lower Wee, Giffhook Possil Lower Wee  Possil Fourteen Inch Interest National Possil Coking Wandering Gas or Possil Coking Wandering Gas or Possil Coking Wandering Gas or Possil Main and Robovyston  Deservice of Nation Storkey  Two Foet, Possil Main, Sathutand Coking or Piss Blackband and Coking Wandering Gas or Possil Main and Robovyston or Teverty Foot Inch of Sathutand or Linewood Story  Two Foet, Possil Main, Sathutand Sourh Storke or West Cowglen Statutand or Linewood Story  Abercom Storke  Storke or West Cowglen Storkey  Neithor Lower Possil Main, Sathutand Story Possil Instinction Possil Instinction Wee  Neithor Lower Possil Instinction  Neithor Lo	Meikehil Possil First Kilsyth/Wechar No.1 Blackband Kilsyth No.1 Blackband or Garscube Bank Kilsyth No.1 Blackband or Garscube	At Blackband  No. 1 BBI  Corbiehall or Kilsyth No. 1 Blackband  Berryhills  Berryhills  Caroningg Smithy  Upper Wee Hartley  Upper Wee Hartley  Upper Wee Hartley  Upper Deeny Blackband Ionstone or Meiklahill Main  Hartley, Upper Twenty Inch or Meiklahill  Cowderbeath Beven Foot, Hartley or Contity  Hartley, Upper Twenty Inch or Meiklahill  Cowderbeath Beven Foot, Hartley or Upper Twenty Inch  Hartley, Cupper Twenty Inc	1 Blackband or Under at Multhouse  Berryhills  Berryhills  Berryhills  Berryhills  Borness Upper Ironstone  Borness Upper Ironstone  Two Foot  Carronings Smithy  Modernheath Seven Foot, Foot of Upper Ironstone  Two Foot  Lover Wee Hartley  In John of Woodmair Smithy  Manor Powis Main, Hartley or Upper Twent Inch  Manor Powis Main, Hartley or Upper Twent  Inch  Manor Powis Main, Hartley  Manor Powis Main, Hartley  Manor Powis	Name   Common Basis	Symposium Lawry   Symposium	Second content will be conte
Clay Gas [Dablair]  Clay Gas [Dablair]  New Foot [Dablair]+[Edge Hill]  Beven Foot [Dablair]+[Edge Hill]  Twelve Foot [Dablair]+[Edge Hill]  Eleven Foot [Dablair]+[Edge Hill]	Utile  Wardend Jewel or Wee [Cimaus]  Partic Upper Spirit or Sulphuy  Wardend Gas (Gimeus) or Uperton Ame (Int Kharinng) Upston or Sulphuy  Wardend Gas (Gimeus) or Upston Ame (Int Kharinng) Upstone Ame (Int Kharinng)  Stone or Stony  Stone or Stony  Newforded  Newfordads  Newfordads  Loudination  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Loudination  Louer Gass Water (Son)  Nine Foot	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper)  Four Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   Upper Nine Foot   Upper Nine Foot or   General Proof Poot   General Proof Seven Poot    Upper Nine Foot   Upper Nine Foot   Upper Nine Foot or   General Proof   General Proof Poot   Upper Nine Foot   Upper Nine F	Auchenheath Smithy  Second Carbae or Carbae  Auchenheath Smithy  Auchenheath Wee Gas. Upper Gas or Auchenheath Oil  Auchenheath Dross?  Auchenheath Dross Lime. Tower or Ell	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fixeday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Allanton Lower Allanton Lower or Wisontown Ma	Klayth No.1 Blackband (Klayth No.1 Blackband or Garscube Bank?)  Klayth No.1 Blackband under Bernyfilis  Posal Rider  Borghali or Sclutty  Posal Wee  Damiler or Limsood Sight  Posal Brider  Posal First or Posal Wee  Damiler or Limsood Sight  Barrhand Main Conglem Southy Statute, South Statute, South South, Cherry or Limsood Sight Barrhand Main, Conglem Southy, Statute, South, Cherry or Limsood Sight Barrhand Main, Conglem Southy, Statute, South, Cherry or Limsood Sight Barrhand Main, Conglem Southy, Statute, South, Cherry or Limsood Sight Barrhand Main, Conglem Southy, Statute, South, South	Makkerill Possi Frat  Kilyyth No. 1 Blackband  Kilyyth No. 1 Blackband  Kilyyth No. 1 Blackband  Kilyth No. 1 Blackband  Kilyth No. 1 Blackband  Row  Possi Rider  Possi Mann Rideris Rideris Mann Rideris Rid	At Blackbarrd No.1 BBI Cotterhall or Kityth No.1 Blackbarrd Kityth Upper Wee Hartfery Duper Wee Hartfery or Smithly Upper Dec Madebalth Mann Upper Twenty Inch or Madebarrd Wee Upper Twenty Inch or Madebarrd Wee No.2 BBI Mid Denny BBI or coal Upper Twenty Inch Or December Twenty Inc	Beryhills  Beryhills  Beryhills  Beryhills  Beryhills  Bo'ness Upper bronstone  Bo'ness Upper bronstone  Two Foot  Coner' Wee Harriery  Woodmake Smithy J Blackband  Denny BBi or Coal  Foot Foot, Foot or Upper Inventore  Committee Trader at Hiderator, Marce Trader at Hiderator, Marce Press Main, Marce Trader at Hiderator, Marce Press Main, Marce Trader at Lower Denny BBi or 14*  Conney BBi or 14*  King  King  King  King  King  Kelly Blackband  Jewel, Parrot at Hiderator, Big Ladymorton at Woodmair Smithy and Carrorrigg 14 inch  King or Woodmair Splint  King  King  King  Kelly Blackband  Twerty Eight Inch  Falls Smithy or Steam Roof  Lipper Main, Marce Traw  Falls Smithy or Steam Roof  Lipper Main, Marce Traw  Falls Smithy or Steam Roof  Lipper Main, Marce Traw  Lipper Main, Marce  Lip	Name   Common Basis	Company   Comp	Second content will be conte
Clay Gas [Dablair]  Clay Gas [Dablair]  New Foot [Dablair]+[Edge Hill]  Seven Foot [Dablair]+[Edge Hill]  Twelve Foot [Dablair]+[Edge Hill]  Eleven Foot [Dablair]+[Edge Hill]  Dablair 3 ft	Utile  Wardend Jewel or Wee [Cimaus]  Partic Upper Spirit or Sulphuy  Wardend Gas (Gimeus) or Uperton Ame (Int Kharinng) Upston or Sulphuy  Wardend Gas (Gimeus) or Upston Ame (Int Kharinng) Upstone Ame (Int Kharinng)  Stone or Stony  Stone or Stony  Newforded  Newfordads  Newfordads  Loudination  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Newfordads  Loudination  Louer Gass Water (Son)  Nine Foot	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper)  Four Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   Upper Nine Foot   Upper Nine Foot or   General Proof Poot   General Proof Seven Poot    Upper Nine Foot   Upper Nine Foot   Upper Nine Foot or   General Proof   General Proof Poot   Upper Nine Foot   Upper Nine F	Auchenheath Smithy  Second Cartake Cantake  Auchenheath Smithy  Auchenheath Wee Gas. Upp  Gas or Auchenheath Dross, Lime, Tower or Et  Auchenheath Dross Lime, Tower or Et	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fixeday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Allanton Lower Allanton Lower or Wisontown Ma	Klayth No.1 Blackband or Garscube Bank?  Klayth No.1 Blackband Under Berryhits  Posal Rider  Posal Rider  Posal Rider  Posal Rider  Posal First or Posal Wee  Posal Barrhead Main Conglem Signity  Barrhead Main Conglem Storty  Lochinch Cherry or Conglem Schitty/Staty  Barrhead Main Barrhead Main Conglem Stratty, Batchie, Hauphing, Melikelial Main or Bodghal at Darriery  Linwood Spint or Renflew  Cowglen Rough, Melikelial Wee or Gaffock Main Blackband or Open Posal Forest or Garscube Davy  Mindle or Main Blackband  Renflew/Abercorn Rough  Cowglen Stinking, Lower Wee, Giffock  Posal Lower Wee  Abercom Spint  Cowglen Georder's or Fourteen Inch  Cowglen Georder's or Fourteen Inch  Cowglen Georder's Or Fourteen Inch  Ashfield Coking, Or Harder Rough or Posal Rough	Makkerill Possi Frat  Kilyyth No. 1 Blackband  Kilyyth No. 1 Blackband  Kilyyth No. 1 Blackband  Kilyth No. 1 Blackband  Kilyth No. 1 Blackband  Row  Possi Rider  Possi Mann Rideris Rideris Mann Rideris Rid	It Blackbord  No. 1 Bill Corteinhal or Kinyth No. 1 Blackbord  Berryhills  Berryhills  Berryhills  It Wee  Possil Wee  Carrorings Smithy  Upper Wee Hartley  Lover Wee Hartley  Lover Wee Hartley  Lover Wee Hartley  Hartley, Upper Therein york or Malketel Condendanth Seven Foot, Nartley or Upper the Malketel Main  Inch Lover  No. 2 BBI  Mid Denny BBI or coal  Lover Denny BBI or coal  Anfallad Culture  Anfallad Culture  Anfallad Culture  No. 3 BBI  Carrorings Fourteen Inch  Control Lover  Anfallad Culture  Anfallad Culture  No. 3 BBI  Carrorings Fourteen Inch  Control Denny BBI or coal  Lover Denny BBI or coal  Lover Denny BBI or coal  Lover Denny BBI or coal  Anfallad Culture  Anfallad Culture  Anfallad Culture  Anfallad Culture  Proceed Main  Proceed Main  Proceed Main  Proceed Main  Proceed Main  Proceed Main  Dumbreck Cloven  Dumbreck Cloven  Dumbreck Cloven  Dumbreck Cloven  Lover Wester Main  Lover Wester Main  Barrockborn Main  Burnockborn Bain  Lover Wester Main	Berryhilis  Berryhilis  Berryhilis  Diper Wee Hartiery  Diper Wee	Name   Common Basis	Symposium Lawry   Symposium	Second content will be conte
Clay Gas [Dabkar]+[Edge Hill]  Seven Foot [Dabkar]+[Edge Hill]  Twelve Foot [Dabkar]+[Edge Hill]  Eleven Foot [Dabkar]+[Edge Hill]	Little  Westerd January Workshop Smithy Main. Westerd January (Western Smithy Main. Westerd January (Western Smithy Main. Westerd January (Western January (Wes	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper)  Four Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   Upper Nine Foot   Upper Nine Foot or   General Proof Poot   General Proof Seven Poot    Upper Nine Foot   Upper Nine Foot   Upper Nine Foot or   General Proof   General Proof Poot   Upper Nine Foot   Upper Nine F	Auchenheath Smithy  Auchenheath Smithy  Auchenheath Wee Cas. Upper Cashae Const.  Auchenheath Wee Cas. Upper Cashae Const.  Auchenheath Wee Cas. Upper Cashae Const.  Auchenheath Dross?  Auchenheath Dross?  Auchenheath Dross Line, Tower or E. E.  BLACK METALS  MAGGIE BANDS	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fixeday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Allanton Lower Allanton Lower or Wilsontown Ma	Klayth No.1 Blackband or Garscube Bank?  Risyth No.1 Blackband under Berryhits  Possil Rider  Possil Rider  Possil Rider  Possil Rider  Possil First or Possil Wee  Lichinch Cherry or Conglen Sciutty/Slaty Barrhead Main Conglen Spritty, Batchie, Readpring, Melkinili Main or Boghal at Darriery  Linacod Spint or Renflew Schutty, Cherry or Linacod Spint or Renflew Conglen Rough, Melkinili Wee or Gilfhock Main  Renflew/Abercom Rough  Upper Main, Rough or Cherry  Mindle or Main Blackband  Parkhouse Darriery  Middle or Main Blackband  Possil Fourteen Inch  Conglen Stinking  Conglen Stinking, Lower Wee, Giffhock Possil Lower Wee  Abercom Spint  Ashfield Coking or Harriey  Conglen Georde's or Fourteen Inch  Conglen Georde's Or Fo	Makalani Pasai Frant  Singh Twenter No. 1 Blackbard  Singh No. 1 Blackbard Under  Black  Posal Rider  Ride	1. Blackband No. 1 BBI Corteintal or Kinyth No. 1 Blackband No	1 Blackband or Under at Multihouse  Berryhills  Berryhills  Berryhills  Der Wee Hartiey  Des Wee Hartiey  De	Fig. 1 (a. 1) Because of Fig. 1 (b. 1) Because of Fig. 2 (b. 1) Because	Company   Comp	Second content will be conte
Clay Cas [Dabbair] - [Edge Hei]  Seven Foot [Dabbair] - [Edge Hei]  Twelve Foot [Dabbair] - [Edge Hei]  Eleven Foot [Dabbair] - [Edge Hei]  Dabbair 3 ft	Tomorous Special Control of Control of Control Special Control of Con	Three Foot Kennox Upper Seven Wee Drum, Little or Smithy (Upper)  Four Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   General Proof Seven Poot   General Proof Seven Poot    Seven Foot   Upper Nine Foot   Upper Nine Foot or   General Proof Poot   General Proof Seven Poot    Upper Nine Foot   Upper Nine Foot   Upper Nine Foot or   General Proof   General Proof Poot   Upper Nine Foot   Upper Nine F	Auchenheath Smithy  Auchenheath Smithy  Auchenheath Wes Cas, Upper Canhadol Dross, Line, Tower of Ell.  Auchenheath Dross?  Auchenheath Dross Line, Tower of Ell.  BLACK METALS  MAGGIE BANDS	Woodmuir Smithy or Craw  Woodmuir Smithy or Craw  Fixeday Craw  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Woodmuir Splint  Allanton Lower Allanton Lower or Wilsontown Ma	Kilayth No. 1 Blackband   Kilayth No. 1 Blackband or Carscube Bask?	Melades Russi First Niley No. 1 Blackbard of Carsocke Back Niley No. 1 Blackbard No. 1 No.	1. Blackbard No. 1 881 Corbinal or Kitylyn No. 1 Blackbard No. 1 881 Berryhila Berryhi	Berryhilis  Berryhilis  Berryhilis  Diper Wee Hartiery  Diper Wee	Fig. 1 (a. 1) Because of Fig. 1 (b. 1) Because of Fig. 2 (b. 1) Because	March   Marc	Marchand Controllands   Marchand   Marchan
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Clay Gas [Dabbar] - [Edge Hil]  Seven Foot [Dabbar]+[Edge Hil]  Twelve Foot [Dabbar]+[Edge Hil]  Eleven Foot [Dabbar]+[Edge Hil]  Dabbar 3 ft	Total Control	Three Foot Mannot Upper Server Wee Drum, Little or Smithy Upper Vision Foot Server Foot Se	Crutherland Jeunt/Joint or Earnockmuir Blackband Jaunt Jaunt Auchenheath Main Gas	Jourt	Killyth No. 1 Blackbard   Killyth No. 1 Blackbard   Killyth No. 1 Blackbard (Index   Description	Makeland Pool Frat  Makeland Makeland Pool Frat  Makeland Makeland Pool Frat  Makeland Makeland Pool Frat  Makeland Makeland Makeland Pool Frat  Makeland Makeland Makeland Pool Frat  Makeland	The Backbard No. 1 Bill Content or Kings No. 1 Bookbard Content or Kings No. 1 Bookbard Content or Kings No. 1 Bookbard Content or Content or Kings No. 1 Bookbard Content or Content or Kings No. 1 Bookbard Content or Con	Barchand or Union of American   Contented   Contente	Company   Comp	March   Marc	Marche   M
Clay Gas [Dabbar]   Edge Hill    Seven Foot [Dabbar]+[Edge Hill    Twelve Foot [Dabbar]+[Edge Hill    Eleven Foot [Dabbar]+[Edge Hill    Eleven Foot [Dabbar]+[Edge    Hill    Dabbar 3 ft    Thirty Inch (Dabbar)    Six Foot (Dabbar)    Johnstone Shell Bed (Dabbar)	Total Control	The Fold    Commontage   Common	Confinented Jauret Joint or Earnockmier Blackband  House + Jount Smithy = House + Jauret Smithy = Culterised Case.  Smithy [local] Smithy	Jauret  Wilsontown Cas  House -Jauret-Smithy  * Contented Cosh  Smithy  Haywood Under  Slingstane or Johnstone Shall Bed	Killyth No. 1 Blackbard   Killyth No. 1 Blackbard   Killyth No. 1 Blackbard (Index   Description	Maked has first Depth to State the Company of the C	The State of the Committee of C	It Backbard or Under at Monthson Mann Part of Mannes Control (Control (Cont	Company   Comp	Column   C	Marche   M
Clay Gas [Dabbar]   Edge Hill    Seven Foot [Dabbar]+[Edge Hill    Twelve Foot [Dabbar]+[Edge Hill    Eleven Foot [Dabbar]+[Edge Hill    Eleven Foot [Dabbar]+[Edge    Hill    Dabbar 3 ft    Thirty Inch (Dabbar)    Six Foot (Dabbar)    Johnstone Shell Bed (Dabbar)	Total Control	There Fold    Section Light Service   Control Light or   Control Light	Coulterland Jaurit Joint or Earnockmut Blackband Jaurit Jaurit Auchenheath Main Gas  House + Jaurit - Smithy   House + Jaurit - Smithy   House + Jaurit - Smithy   Convenied Case    Smithy [local]   Smithy    Flatt   Flatt or Heads Coal   Daw Rock    Calderwood Cement Limestone (East Kilbride)   Lille's Snale-Coal    Lille's Coal/Shale [thin]   Lille's Snale-Coal	Journ Wilsontown Cas  House + Journ's Smithy  ** Outleward Case  Smithy Haywood Under  Slingstane or Johnstone Shell Eed  Mcdonald or Singstane  Litte's Shale	Response to Standard Colors of Color	Makedid Presid Freid  Makedid Makedi	The state of the comment of the comm	It Backbard or Under at Monthson Mann Part of Mannes Control (Control (Cont	Company   Comp	March   Marc	Market   M
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Congress (Dashari   Edge Hel)  Seven Foot (Dashari   Edge Hel)  Twelve Foot (Dashari   Edge Hel)  Character   Edge	Process   Proc	The Food Maries later from 1945 Danies Units of Colors o	Confinential Junet/Joint or Jaunt Joint or Jaunt Joint or Jaunt Joint or Joint Main Cas   House *Jaunt*Smithy * Confinential Case *Jaunt*Smith	Journ Wilsontown Cas  House + Journ's Smithy  **Continued Cose  Smithy  Haywood Under  Slingstane or Johnstone Shell Bed  Mcdonald or Singstane  Lille's Shake  Wilsontown Smithy  Wilsontown Smithy  Wilsontown Smithy  Hardet  Two Food  Houston Coddonshase	Marco Daniel Cologo Dale  First Rocked and Cologo Dale  First Rocked and Cologo Dale  First Rocked Annual Cologo Cologo Dale  First Rocked Annual Cologo Dale  First Rocked Annual Cologo Cologo Cologo Cologo Dale  First Rocked Annual Cologo Cologo Cologo Cologo Dale  First Rocked Annual Cologo Cologo Cologo Cologo Cologo Cologo Dale  First Rocked Annual Cologo Colo	Makemark Part and Company Comp	The color of the c	In Backbook of Lohar of Contacted Co	Company		March 19
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## References

ANDERSON, E.M. 1925. The economic geology of the Ayrshire Coalfields, Area II. Memoir of the British Geological Survey.

RICHER, J., WILSON, G. and ANDERSON, E. 1925. The economic geology of the Ayrshire coalfields, Area I. Memoir of the British Geological Survey.

EYLES, V.A., SIMPSON, J.B. and MACGREGOR, A.G. 1930. The Economic Geology of the Ayrshire Coal-fields, Area III. Ayr, Prestwick, Mauchline, Cumnock, and Muirkirk (Vol. 1). Memoir of the British Geological Survey.

SIMPSON, J.B. and MACGREGOR, A.G. 1932. The Economic Geology of the Ayrshire Coalfields, Area IV. Dailly, Patna, Rankinston, Dalmellington, and New Cumnock. Memoir of the British Geological Survey.

HALDANE, D., ALLAN, J.K. and DINHAM, C.H. 1925. *The Economic Geology of the Ayrshire Coalfields. Geology of the Airdrie district Memoir of the British Geological*, Sheet 31W (Scotland). *British Geological Survey*.

ROBERTSON, T. and HALDANE, D. 1937. The Economic Geology of the Central Coalfield, area I. Kilsyth and Kirkintilloch (Vol. 1). Memoir of the British Geological Survey.

HINXMAN, L.W. 1917. The economic geology of the central coalfield of Scotland description of area II. Including the districts of Denny and Plean; Banknock; Carron and Grangemouth; Cumbernauld; Castlecary and Bonnybridge; Falkirk and Slamannan. Memoir of the British Geological Survey.

MACGREGOR, M. and HALDANE, D. 1933. The economic geology of the central coalfield, area II. Bo'ness and Linlithgow. Memoir of the British Geological Survey.

HINXMAN, L.W., ANDERSON, E.M. and CARRUTHERS, R.G. 1920. The Economic Geology of the Central Coalfield of Scotland: area IV. Paisley, Barrhead, Renfrew, and the Western Suburbs of Glasgow, North and South of the Clyde (Vol. 4). Memoir of the British Geological Survey.

CLOUGH, C.T., HINXMAN, L.W., WRIGHT, W.B., ANDERSON, E.M., CARRUTHERS, R.G., KIDSTON, R., LEE, G.W. and MACGREGOR, M. 1916. The economic geology of the Central Coalfield of Scotland including parts of the counties of Lanark, Stirling, Renfrew, Linlithgow, Dumbarton and Edinburgh' description of area 5. Glasgow East, Chryston, Glenboig and Airdrie extending from Glasgow and Cadder on the west to Salsburgh, Caldercruix and Black Loch. Memoir of the British Geological Survey.

MACGREGOR, M. and ANDERSON, E.M. 1923. The economic geology of the Central Coalfield of Scotland area VI. Bathgate, Wilsontown, and Shotts with Braehead, Fauldhouse, Armadale and Harthill. Memoir of the British Geological Survey.

CLOUGH, C.T., WILSON, J.S.G., ANDERSON, E.M., MACGREGOR, M., CARRUTHERS, R.G. and DINHAM, C.H. 1920. The economic geology of the Central Coalfield of Scotland description of area VII.: including the districts of Rutherglen, Hamilton and Wishaw. Memoir of the British Geological Survey.

CARRUTHERS, R.G. and DINHAM, C.H. 1917. *The Economic Geology of the Central Coalfield of Scotland, Area VIII. Memoir of the British Geological Survey.* 

HINXMAN, L.W., CARRUTHERS, R.G., MACGREGOR, M. and DINHAM, C.H. 1921. The Economic Geology of the Central Coalfield of Scotland, area I. Memoir of the British Geological Survey.

HALDANE, D., ALLAN, J.K. and DINHAM, C.H. 1930. The economic geology of the Fife Coalfields area 1. Dunfermline and West Fife, including Valleyfield, Blairhall, Oakley, Saline, Halbeath, Lassodie and Blairenbathie. Memoir of the British Geological Survey.

ALLAN, J. K. and KNOX, J. 1933. Department of Scientific and Industrial Research *The economic geology of the Fife coalfields area II.: Cowdenbeath and Central Fife including Fordell, Lochgelly, Cadham and Kirkcaldy. Memoir of the British Geological Survey.* 

FRANCIS, E.H., ALLAN, J.K., KNOX, J. and ANDERSON, F.W. 1961. The Economic Geology of the Fife Coalfields. British Geological Survey.

KNOX, J. 1954. The economic geology of the Fife coalfields: area III, Markinch, Dysart and Leven. Memoir of the British Geological Survey.

TULLOCH, W. and WALTON, H.S. 1958. The geology of the Midlothian Coalfield. Memoir of the British Geological Survey.

MITCHELL, G.H. and MYKURA, W. 1962. The geology of the neighbourhood of Edinburgh (Vol. 32). British Geological Survey.

SIMPSON, J.B., RICHEY, J.E. and PRINGLE, J. 1936. The Geology of the Sanquhar Coalfield and adjacent basin of Thornhill. Memoir of the British Geological Survey.

DINHAM, C.H. and HALDANE, D. 1932. The economic geology of the Stirling and Clackmannan Coalfield. Memoir of the British Geological Survey.

Francis, E.H. and Wilson, R.B. 1956. The economic geology of the Stirling and Clackmannan coalfield, Scotland, area north of the River Forth (No. 1). Memoir of the British Geological Survey.

READ, W.A. and WILSON, R.B. 1959. The economic geology of the Stirling and Clackmannan coalfield, Scotland: area south of the River Forth (No. 2). Memoir of the British Geological Survey.

Francis, E.H., Forsyth, I.H. and Armstrong, M. 1970. The Geology of the Stirling District. Memoir of the British Geological Survey.

CAMERON, I. B. 1998. Geology of the Falkirk district, Sheet 31E (Scotland). Memoir of the British Geological Survey. PATERSON, I. B., MCADAM, A. D. and MACPHERSON, K. A. T. 1998. Geology of the Hamilton district Sheet 23W (Scotland). Memoir of the British Geological Survey,

FORSYTH, I.H., HALL, I. H. S., MCMILLAN, A.A. and ARTHUR, M.J. 1996. Geology of the Airdrie district Memoir of the British Geological, Sheet 31W (Scotland). Memoir of the British Geological Survey.

CAMERON, I.B. 1998. Geology of the Falkirk district. Memoir of the British Geological Survey 1:50000 Geological Sheet 31E (Scotland). British Geological Survey.

HALL, I.H.S., BROWNE, M.A.E. and FORSYTH, I. H. 1998. *Geology of the Glasgow district. Memoir of the British Geological*, Sheet 30E (Scotland). *The British Geological Survey*.

PATERSON, I. B., HALL, I. H. S. and STEPHENSON D. 1990. Geology of the Greenock District: Memoir for 1:50000 geological Sheet 30W and part of Sheet 29E (Scotland). Memoir of the British Geological Survey.

SMITH, R.A. 1999. *Geology of the New Cumnock district: a brief explanation of the geological map sheet 15W New Cumnock*. British Geological Survey.

MACPHERSON, K.A.T., SMITH, R.A. and AKHURST, M.C. 2001. *Geology of the Kilmarnock District: A Brief Explanation of the Geological Map, Sheet 22E Kilmarnock*. British Geological Survey.

BROWNE, M. A. E. and WOODHALL D. G. 1999. Geology of the Kirkcaldy District: A Brief Explanation of the Geological Map, Sheet 40E Kirkcaldy. British Geological Survey.

FORSYTH, I.H. report WA/93/51R 1993. The stratigraphy of the central coalfield of Scotland. British Geological Survey.

LUMSDEN, G.I. with PALAEONTOLOGY by WILSON R.B.1964. *The Limestone Coal Group of the Douglas Coalfield, Lanarkshire*. *Bulletin of the Geological Survey of Great Britain*, 21, pp.37-71.

LUMSDEN, G.I. 1965. The Base of the Coal Measures in the Douglas Coalfield, Lanarkshire from Bulletin of the Geological Survey of Great Britain 22 pp.80-91.

LUMSDEN, G.I. 1967. The Carboniferous Limestone Series of Douglas, Lanarkshire. Bulletin of the Geological Survey of Great Britain 26, pp 1-22.

LUMSDEN, G. I. 1967. The Upper Limestone Group and Passage Group of Douglas, Lanarkshire. Bulletin of the Geological Survey of Great Britain, 27, pp 17-48.

Browne, M.A.E., Dean, M., Hall, I.H., McAdam, A.D., Monro, S.K. and Chisholm, J.I., 1997. *A lithostratigraphical framework for the Carboniferous rocks of the Midland Valley of Scotland: British Geological Survey Technical Report* WA/96/29. *British Geological Survey*.

BROWNE, M.A.E., DEAN, M., HALL, I.H., MCADAM, A.D., MONRO, S.K. and CHISHOLM, J.I., 1999. A lithostratigraphical framework for the Carboniferous rocks of the Midland Valley of Scotland: British Geological Survey Report RR/99/007 version 2. British Geological Survey.

DRON, R.W. 1902. The coal-fields of Scotland. Publisher Blackie, J., London

Brand, P. 1983. Stratigraphical palaeontology of the Westphalian of the Ayrshire Coalfield, Scotland. In Earth and Environmental Science Transactions of the Royal Society of Edinburgh 73(03)

British Geological 10k Geological map keys

# Appendix 1 Abandonment Plans

Abandonment plans checked from scans supplied by the Coal Authority

160/1/1	2268/1/4	4409/3/4	5376/4/6
174/1/2	2268/2/4	4418/2/2	5391/1/1
174/2/2	2268/3/4	4453/1/1	5401/2/5
200/1/2	2269/1/1	4502/1/2	5458/1/1
214/1/1	2344/1/2	4529/1/1	5467/2/2
336/1/2	2344/2/2	4541/1/1	5586/1/1
348/1/1	2432/1/1	4583/1/1	5630/1/5
383/3/6	2437/1/1	4632/1/2	5650/1/1
528/1/1	2516/2/2	4655/3/5	5660/2/5
591/1/1	2591B/1/1	4655/4/5	5689/1/1
741/1/1	2698/1/1	4655/5/5	5699/1/2
794/3/3	2810/1/1	4695/1/3	5699/2/2
798/1/1	2953/2/3	4722/1/2	5720/1/3
850/1/1	3032/1/1	4734/1/5	5720/2/3
886/1/1	3063/1/1	4748/1/1	5720/3/3
1041/1/1	3327/1/1	4802/1/2	5792/1/4
1177D/1/1	3328/1/1	4822/1/1	5792/2/4
1196/1/4	3382/1/1	4831/3/3	5792/3/4
1205/1/1	3388/1/1	4939/1/1	5792/4/4
1206/1/1	3424/1/1	4939/1/1	5867/1/1
1248/1/1	3446A/4/5	4941/1/1	5871/2/2
1346/1/1	3446/2/2	4961/1/1	5878/3/4
1348/1/2	3511/1/3	5000/1/1	5888/4/4
1348/2/2	3511/2/3	5011/1/1	5965/1/1
1350/4/4	3536/1/1	5046/1/1	5971/2/2
1357/1/1	3547/2/2	5112/2/2	6032/1/1
1425/1/1	3548/1/2	5112/1/2	6414/1/1
1462/1/1	3548/2/2	5150/2/6	6504/1/6
1483A/1/2	3690/1/1	5150/3/6	6504/2/6
1483A/2/2	3716/1/2	5150/4/6	6504/3/6
1647/1/2	3729/4/4	5150/5/6	6504/4/6
1869/4/4	3814/1/1	5150/6/6	6504/5/6
1906/6/7	3882/1/1	5153/1/2	6504/6/6
1906/7/7	3937/1/1	5153/2/2	6582/1/1
1922/1/2	4289/2/2	5165/1/1	6583/1/1
1967/1/1	4293/1/1	5180/2/3	6616/2/2
2166/2/10	4305/1/2	5201/1/2	6680/1/1
2166/3/10	4305/2/2	5208/1/2	6810/2/6
2166/4/10	4311/1/2	5222/1/1	6832/3/4
2251/1/2	4314/2/2	5239/1/2	6933/1/1

6978/2/2	8217/1/2	9883/4/4	11854/2/5
6982/1/1	8217/2/2	9907/1/1	11854/3/5
7148/1/1	8218/1/1	9921/2/2	11854/4/5
7238/2/3	8335/2/2	9922/1/1	11854/5/5
7309/1/5	8379/2/2	10032/1/2	11991/1/1
7309/2/5	8426/1/3	10032/2/2	12022/1/1
7309/3/5	8426/2/3	10059/23	12103/1/1
7309/4/5	8426/3/3	10064/1/2	12203/3/4
7309/5/5	8427/1/2	10064/2/2	12208/1/2
7318/5/5	8427/2/2	10150/1/2	12218/1/1
7334/1/5	8448/1/1	10180/1/1	12221/1/1
7334/2/5	8496/1/2	10252/1/1	12223/2/3
7334/3/5	8496/2/2	10263/1/1	12331/1/1
7334/4/5	8662/3/4	10357/1/1	12467/1/1
7334/5/5	8741/1/1	10481/2/3	12472/1_1
7363/3/5	8749/1/4	10481/3/3	12574/1/1
7365/1/3	8766/1/1	10514/1/1	12656/1/1
7365/2/3	8821/1/1	10645/1/1	12657/5/8
7365/3/3	8941/1/1	10769/1/1	12657/8/8
7460/1/1	9020/1/6	10791/2/2	12753/1/4
7462/1/2	9020/3/6	10794/2/3	12753/2/4
7462/2/2	9020/4/6	10811/5/5	12877/1/1
7508/1/2	9020/5/6	10869/6/6	13037/1/1
7508/2/2	9020/6/6	10921/2/8	13307/1/1
7511/1/3	9062/7/7	10921/4/8	13322/1/1
7511/3/3	9070/1/11	10921/7/8	13341/2/3
7513/1/6	9070/2/11	10921/8/8	13345/1/1
7516/1/1	9070/4/11	10922/1/6	13377/1/1
7525/3/4	9070/5/11	10922/2/6	13392/1/2
7686/5/6	9070/6/11	10922/3/6	13439/1/1
7710/5/6	9070/8/11	10922/4/6	13506/1/1
7720/2/2	9070/9/11	10922/5/6	13553/1/1
7731/2/2	9073/1/1	10922/6/6	13668/2/3
7771/2/8	9122/1/2	10941/2/2	13692/4/5
7771/3/8	9122/2/2	10942/1/1	13698/1/1
7771/4/8	9138/1/2	10974/2/3	13750/1/1
7771/5/8	9437/1/1	10983/3/4	13762/1/1
7771/6/8	9518/1/1	11072/1/4	13803/1/1
7771/7/8	9635/1/1	11133/2/5	13904/1/4
7771/8/8	9636/1/1	11191/1/4	13904/2/4
7782/1/2	9637/1/1	11191/4/4	13904/3/4
7819/1/1	9732/2/2	11220/3/3	13904/4/4
7846/1/1	9771/1/3	11259/3/3	13970/2/2
7952/2/11	9824/1/1	11569/2/3	13983/1/2
7961/1/1	9878/1/1	11655/1/2	13993/1/1
8106/1/1	9883/1/4	11655/2/2	14023/1/1
8137/1/1	9883/2/4	11691/1/1	14031/5/5
8138/1/1	9883/3/4	11854/1/5	14036/1/1
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14118/1/5	S25/1/1	S371/4/6	S528/1/1
14118/5/5	S49/1/1	S371/5/6	S533/1/2
14146/1/1	S63/1/1	S371/6/6	S536/5/22
14450/1/1	S114/1/1	S383/1/1	S536/21/22
14471/1/1	S115/5/5	S394/1/1	S541/1/1
14479/1/1	S116/1/7	S395/1/1	S546/3/21
14677/1/1	S116/2/7	S397/1/1	S546/20/21
14703/1/4	S116/3/7	S400/5/9	S548/3/3
14703/2/4	S116/4/7	S401/3/4	S568/2/2
14703/3/4	S116/5/7	S408/1/2	S573/1/2
14703/4/4	S116/6/7	S408/2/2	S576/1/1
14714/5/6	S116/7/7	S409/1/ 1	S584/3/12
14792/1/1	S141/1/6	S414/1/2	S584/7/12
14957/2/3	S145/3/4	S418/1/3	S601/1/1
14979/1/2	S147/4/4	S418/2/3	S605/1/1
14980/3/4	S158/1/1	S418/3/3	S608/1/1
16546/2/2	S162/5/5	S419/1/1	S619/2/4
16546/1/2	S163/4/4	S422/1/2	S619/3/4
16573/1/1	S169/3/3	S423/1/1	S619/4/4
16881/1/1	S173/1/1	S427/13/14	S619/4/4
16930/1/5	S174/6/7	S427/14/14	S619/1/4
16930/3/5	S197/1/1	S436/1/5	S627/1/2
16930/5/5	S201/1/1	S436/5/5	S637/2/3
17391/1/	S209/1/1	S437/1/5	S637/3/3
17590/2/7	S218/1/3	S437/2/5	S639/1/1
17617/1/1	S231/1/1	S437/3/5	S643/1/2
17634/1/3	S239/1/3	S437/4/5	S648/1/1
17634/2/3	S239/2/3	S437/5/5	S660/1/20
17634/3/3	S239/3/3	S439/2/2	S660/14/20
17636/4/6	S290/5/12	S445/3/7	S660/15/20
17653/1/3	S292/2/5	S445/4/7	S660/19/20
17657/5/8	S292/4/5	S446/6/8	S673/1/1
17658/1/3	S292/5/5	S459/1/1	S674/1/1
17658/2/3	S307/4/4	S463/2/5	S675/1/2
17658/3/3	S320/2/4	S470/1/2	S675/2/2
17663/4/7	S320/1/4	S472/1/2	S681/3/3
17671/2/8	S331/2/12	S486/1/1	S686/1/1
17679/3/6	S331/12/12	S489/2/7	S689/1/1
17697/1/1	S359/1/2	S491/1/2	S694/1/1
17700/1/7	S365/1/1	S491/2/2	S705/1/6
17700/2/7	S366/1/1	S492/3/8	S705/3/6
17715/1/9	S367/1/3	S492/4/8	S705/5/6
17736/1/1	S367/2/3	S495/1/3	S718/3/3
17738/2/3	S367/3/3	S495/2/3	S719/2/2
17836/1/1	S370/1/4	S495/3/3	S723/1/4
R390A/1/1	S371/1/6	S497/8/8	S723/3/4
S12/2/2	S371/2/6	S501/1/2	S723/4/4
S22/1/1	S371/3/6	S522/4/4	S726/1/2

S726/2/2	S936/1/1	S2495/2/2	S3654/1/1
S734/1/1	S984/1/3	S2570/1/1	S3827/1/1
S743/1/2	S984/2/3	S2589/1/1	S3871/1/1
S750/1/2	S995/1/1	S2643/1/1	S3927/1/1
S750/2/2	S1016/1/1	S2675/1/2	S3943/1/1
S751/2/2	S1026/1/1	S2678/1/1	S3963/1/1
S753/1/1	S1027/1/1	S2693/1/1	S3965/1/2
S760/2/2	S1055/1/1	S2862/1/1	S3994/1/3
S760/1/2	S1066/1/1	S2946/1/1	S4049/1/1
S760/2/2	S1069/1/1	S2955/1/1	S4075/1/2
S779/1/4	S1076/1/1	S3081/1/5	S4096/1/1
S779/2/4	S1085/1/1	S3084/1/1	S4100/1/1
S779/3/4	S1183/1/1	S3102/2/3	S4106/1/1
S779/4/4	S1346/1/1	S3117/1/1	S4128/1/2
S781/1/3	S1347/1/1	S3144/1/1	S4129/1/1
S795/1/1	S1351/1/1	S3153/1/1	S4131/1/1
S804/1/1	S1357/1/1	S3168/1/1	S4135/1/1
S807/1/1	S1418/1/1	S3171/1/1	S4136/1/1
S822/2/2	S1422/1/1	S3175/1/1	S4143/2/2
S841/1/3	S1548/1/1	S3191/1/1	S4145/1/1
S841/2/3	S1554/1/1	S3212/1/1	S4156/1/1
S841/3/3	S1641/1/1	S3215/1/1	S4166/1/1
S848/1/2	S1806/1/1	S3232/1/1	S4168/1/4
S848/2/2	S1959/1/9	S3242/1/1	S4168/2/4
S851/1/23	S1959/9/9	S3268/1/3	S4168/3/4
S851/2/23	S1979/1/1	S3268/1/1	S4168/4/4
S851/3/23	S2065/1/1	S3269/1/1	S4178/1/1
S862/2/2	S2070/1/3	S3270/1/1	S4179/1/1
S869/5/8	S2070/3/3	S3278/1/1	S4182/1/1
S869/6/8	S2091/1/1	S3280/1/2	S4184/1/1
S878/2/3	S2182/1/1	S3286/1/3	S4185/1/1
S879/1/1	S2198/1/1	S3286/2/3	S4191/1/1
S882/1/3	S2311/1/1	S3292/1/1	S4199/1/1
S882/2/3	S2349/1/1	S3293/1/1	S4208/1/1
S883/1/2	S2351/1/1	S3296/1/1	S4210/2/2
S893/2/2	S2355/3/4	S3320/1/3	S4220/1/1
S894/1/2	S2377B/1/1	S3320/2/3	S4225/2/3
S901/1/1	S2407/1/1	S3320/3/3	S4234/1/2
S907/1/2	S2417/1/1	S3326/1/1	S4276/1/3
S907/2/2	S2433/1/1	S3338/1/1	S4285/1/1
S908/1/2	S2435/1/1	S3388/1/1	S4289/1/1
S908/2/2	S2457/1/1	S3389/1/1	S4292/1/1
S910/1/1	S2458/1/1	S3413/1/1	S4341/1/1
S911/1/2	S2463/1/1	S3416/1/1	S4343/1/1
S911/2/2	S2475/1/1	S3458/1/1	S4429/1/1
S913/1/2	S2476/2/3	S3583/1/3	S4430/1/1
S934/1/1	S2476/3/3	S3583/3/3	S4433/1/1
S935/1/1	S2485/1/1	S3619/1/1	S4438/1/1

S4440/1/1	S4541/1/1	S4674/1/1	S4705/1/1
S4461/1/1	S4545/1/1	S4686/1/1	S4712/1/1
S4469/1/1	S4566/1/1	S4693/1/1	S4730/1/1
S4478/1/1	S4567/1/1	S4695/1/1	S4748/1/1
S4479/3/4	S4569/1/1	S4697/1/1	S4962/1/1
S4487/1/1	S4571/1/2	S4702/1/1	S5031/1/1
S4502/1/1	S4571/2/2	S4703/1/1	S5792/4/4
			S637/1/3

### **COMMENTS**

It should be noted that about a third of the abandonment coal plans have been examined and remainder yet to be checked could contain other coal seam names not on the spreadsheet.

# Appendix 2 Excel Spreadsheet showing coal seam names and correlations

This spreadsheet is a combination of a lot of hard work and research. It was created to enable people to locate where any coal seam name exists within the geological strata in the Scottish Coalfield.