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INGLETON COALFIELD 1600-1940

by

John I. Bentley

with

Bernard Bond & Mike Gill

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Cover illustration:
Montage of New Ingleton Colliery with mining artefacts, and Ingleborough in background. Artefacts - two pairs of 13 inch wheels, at 24 inch gauge, found while digging footings off Enter Lane in 2004. Lamp No.69 and pick No.141 from New Ingleton Colliery, all loaned by Mr A. Bateson.

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Especial thanks are due to Dr Trevor Ford, whose pioneering work on the geology of the coalfield, and willingness to share his findings, inspired the authors.

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Thanks to Richard Barker, for family history research, and above all to Gordon Barker, grandson of James Barker, colliery owner in the late 19th and early 20th century.

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ABOUT THE AUTHORS

John Bentley, railwayman, soldier, shopkeeper turned teacher (now retired), has been a keen local historian for around fifty years. His time attending the School of Military Intelligence trained him in investigative work which he has since applied to family and local history. He also acquired a useful qualification in local history from Manchester University. He has written and published well over twenty volumes of Lancashire and Yorkshire history over the past thirty-five years. He has also lectured on a wide number of topics including, *Historic Pennine Murders*, *The Rose and Laurel*, and *The History of Post Cards*. This will be his sixth book on Ingleton and he is progressing well with a full history of the village which he hopes will be published in the near future.

His interest in Ingleton goes back to visits to the Youth Hostel from 1947. Since 1970 his family have had a caravan at Ingleton.

John's skill in researching has helped to reveal the widest range of information yet of the Ingleton Collieries. With the assistance of Mike Gill and Bernard Bond he has been pleased that a wide variety of errors contained in previous articles and books on the subject have been eradicated.

Bernard Bond has been an active caver since his youth, but first became interested in coal mining and its history in 1982, when he lived in Burnley and began studying Martholme Colliery, which lay alongside the Great Harwood branch of the Lancashire and Yorkshire Railway. Although the latter was Bernard's principal interest, he soon realised that even a fairly small mine could have a fascinating history.

His interest in coal mining was further advanced when, shortly after moving to Ingleton in 1983, he discovered that he was living in the house once occupied by Edmund Danson, the manager of Wilson Wood colliery. As a result he began collecting information and photographs relating to the Ingleton coalfield, a task made easier by his involvement with local people through his plumbing business.

As a long-standing member of the Northern Mine Research Society, Bernard has also communicated his enthusiasm to other members by leading a number of popular field visits to the coalfield during the last twenty years.

Bernard's idea of a modest memorial to Ingleton's former coal industry won the support of the parish council and on Monday 14th June 2004 it was unveiled at a ceremony attended by around fifty people.

His other important role was in facilitating the writing of this book by bringing together John Bentley and Mike Gill in a collaborative effort.

Mike Gill is probably more widely known for his books and many papers on aspects of the history of the lead industry in the Yorkshire Dales. Nevertheless, he first remembers seeing the tip from New Ingleton Colliery in the mid 1960s and even then

was intrigued by the occurrence of coal so close to much older geological formations. This interest was taken further in the early 1970s when he walked over parts of the coalfield and, as a mining surveyor, was able to gain easy access to the abandonment plans of Ingleton collieries which were then held by the National Coal Board. Mike's skills have been used in this book to describe what was going on underground, by interpreting the various plans, sections and reports.

In recent years he has begun researching Yorkshire's coal mining history and has written a book on coal mining in the Keighley area. As Recorder of the Northern Mine Research Society, he has also created a major research tool in the form of a comprehensive database of Yorkshire Collieries, giving details of their owners and management, over the last 150 years. Versions of that and other databases are available on the Society's website (www.nmrs.co.uk) under 'Online Resources'.

The authors are pleased to have produced a book which is dedicated to those who worked in the various Ingleton Collieries and their families.

THE INGLETON COALFIELD

The Pennine parish of Ingleton was in the ancient West Riding of Yorkshire until 1974 when, under local government reorganisation, it became part of North Yorkshire. The village of Ingleton lies in the south-east of the parish on a flat shelf of land above the rivers Greta and Doe which form the boundaries with the neighbouring parishes of Thornton-in-Lonsdale and Burton-in-Lonsdale. The high ground to the north is dominated by the peaks of Ingleborough and Whernside, while to the south-west is a wide area of scattered farms and enclosed fields, covering some four square miles. The latter area is the Ingleton Coalfield, which is 30 miles from the Lancashire Coalfield, at Burnley, and around 45 miles from the Yorkshire Coalfield, at Leeds.

Despite its isolation, however, the Ingleton Coalfield was worked for at least 400 years and attracted miners from throughout the north and the midlands. Many traces of this once important industry have now been lost, but by following the old Coal Pit Road, which crosses the centre of the coalfield from the New Road to Brook House, one can still see some mining sites from near Newfield House. The site of Newfield pits can be seen nearby, while the New Winning is a few fields to the north. To the north-east is Barker's Old Ingleton Colliery, at Dolands, and Moorgarth colliery is in the distance. The old shafts and bell-pits on the outcrop are visible to the west, and the site of New Ingleton Colliery is to the north, near the main road. It is all surprisingly close and compact in this pleasant, green, rolling countryside.

THE GEOLOGY OF THE COALFIELD

The coalfield's geology is a basic aspect of our story. Man found the coal in the ground and from there the historian's task is to continue and complete the story of the coalfield, recording the miners who sank their shafts to the coal seams and then laboured to bring out the coal. This is mainly their story, a story that in Ingleton's case stretches over many centuries and involves the livelihoods of hundreds of people.

The geology of the Ingleton coalfield was the subject of Trevor Ford's doctoral thesis, and his paper on *The Upper Carboniferous Rocks of the Ingleton Coalfield* remains the definitive work.[1] For those unable to pick their way through the specialist terms, which are of necessity found in such a paper, it is hoped that the following, fairly non-technical explanation of the geology of Ingleton Coalfield will suffice.

The Ingleton Coalfield is about six miles long, being bounded on its north-east side by the South Craven Fault, from Cold Cotes, two miles south-east of Ingleton, to Leck Beck, some four miles to the north-west. It is shaped like a segment of a circle, the chord of which is the fault. Ford showed that "*the Coal Measures of Ingleton continue upwards in unbroken succession from the Millstone Grit*", but that they were split into two distinct groups of strata by a major break in their deposition called an unconformity. The lower group is dominated by Grey Measures and contains

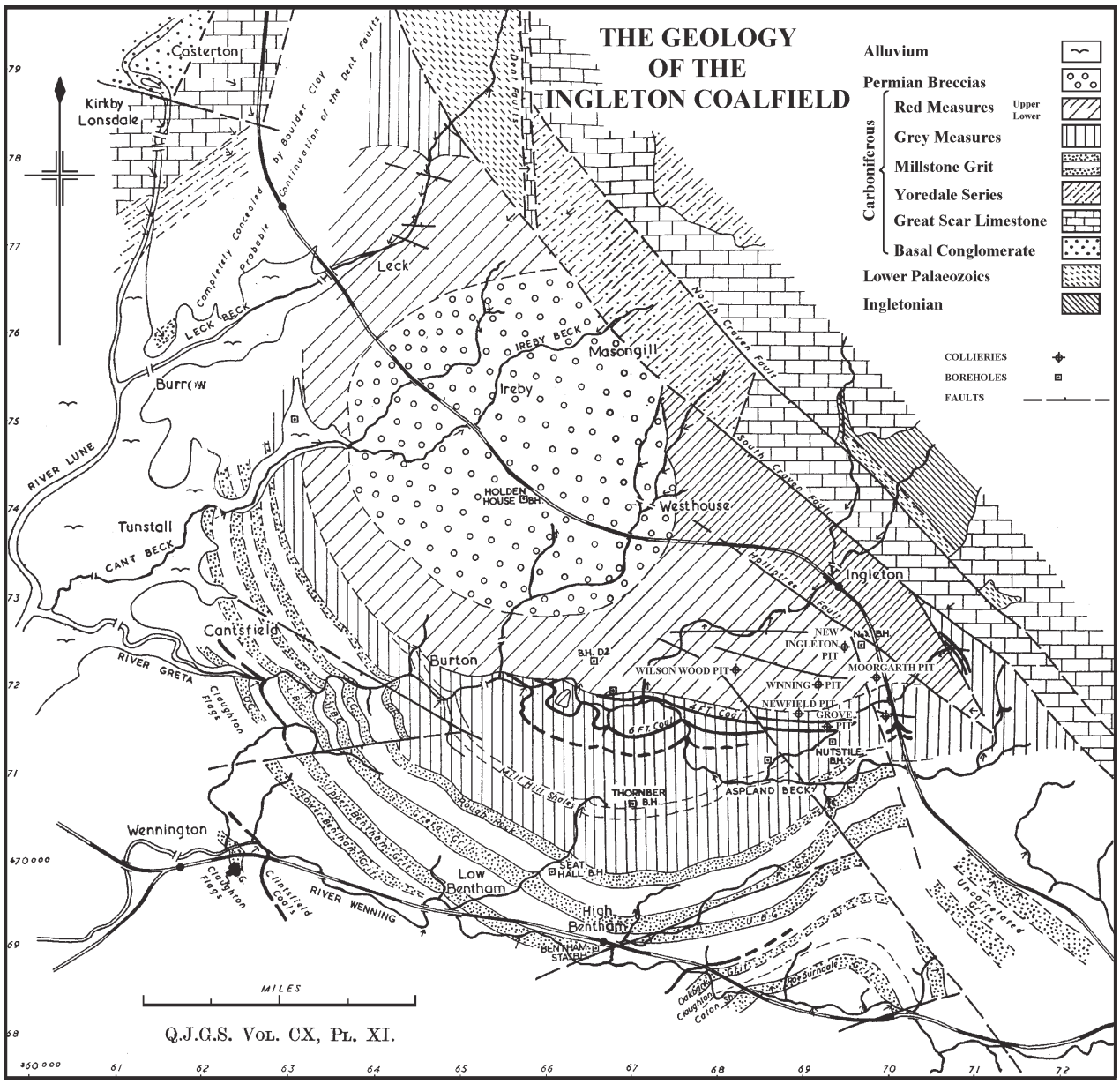

Fig.1 Geological map of coalfield (T.D. Ford, The Geological Society, 1954).

the workable coals, which are confined to the lower part of the *modiolaris* zone. The higher group is dominated by Red Beds and has no workable coals.

In layman's terms, a break in deposition allowed the exposed upper surface of the Grey Measures to be eroded unevenly before the Red Beds were laid down. As a result, the thickness of coal bearing strata varies considerably and in places the coal seams have been removed altogether. Unlike the Yorkshire and Lancashire coalfields, where the Millstone Grit is followed by a number of thin seams, at Ingleton such coals are either absent or not of workable thickness until a horizon equivalent to the Thorncliffe – Middleton Main Seam of West Yorkshire. The stratigraphically highest, or most recent, seams at Ingleton were around the horizon of the Flockton Seam.

The coalfield extends over the Greta into the neighbouring parishes of Burton and Thornton-in-Lonsdale, but over the last two centuries by far the most mining was

done in Ingleton. Most Burton pits were either shallow pits or drifts and there was no colliery to compare with the larger ones in Ingleton. In Thornton the coal seams have probably been removed by the unconformity described above and there is a thick cover of Red Beds. These barren rocks were found to have cut off the Four Foot Seam as workings from New Ingleton Colliery advanced beyond the river Greta in the late 1920s and early 1930s.

In the southern part of the coalfield, which has been the most heavily worked, the seams dip northwards, towards the Craven Faults, at between 1 in 4 and 1 in 5. As they near the faults, especially around Moorgarth, the seams are disrupted by many hitches, or small faults. In other places 'rolls', which thin the coal, appear to follow lines of stress between the larger faults. Because of these dips, the Four Foot and Six Foot Seams outcrop in the southern part of the field as well as in the river bed, two to two and a half miles to the west-south-west of Ingleton, from Aspen Foot to Barnoldswick Bridge. Coal also outcrops nearer the Craven Faults, in the cutting north of Skew Bridge, between Cold Cotes and Greenwood Leghe, and at the south-western edge of the Thornton Hall fault, below and under the two weirs.

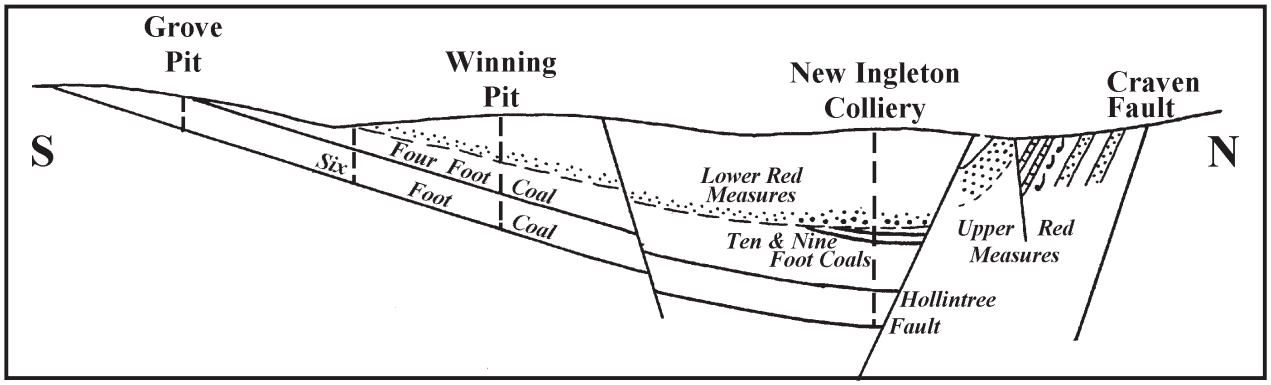

Fig.2 Section across the coalfield (T.D. Ford, The Geological Society, 1954).

The coal seams are derived from tropical swamp vegetation, which included tree-like ferns. They decayed under special conditions and were compressed as they were buried beneath further sediments as the deltas slowly subsided and the process was eventually repeated. For an elementary account of the process see *The Origin and Evolution of Coal* by P.J. Adams.[2] The vegetation that was to form coal had a root system which drew necessary minerals for growth from the ground beneath, leaving a subsoil, termed seat earth, which was deficient in some minerals. These subsoils became fireclays, which have been extracted for use as refractory material.

After deposition and lithification, the region was subjected to tectonic forces which, as well as the Pennine fold, resulted in the North and South Craven Faults. Around Ingleton these have a combined throw (vertical displacement) which "*can hardly be less than 2,000 feet and may be considerably more*".[3] These faults, which are close together at Ingleton and run from the north-west to the south-east, threw down an area of coal measures on their south-west side. This is the reason for the close

proximity of the limestone area, to the north of the village, and coal measures, to the south of it. All the other surrounding coal measures have long since been eroded away, and "*Only with an effort can the mind grasp the fact that the continuation of the topmost strata of Ingleborough, fractured at the faults, must lie hundreds of feet below the deepest depths which the miners of Ingleton collieries will ever touch*".[4]

Another small area of coal measures has been preserved at Stainmore, near Brough in Westmorland, by being similarly 'dropped' by the Argill and Augill Faults.[5]

THE COAL SEAMS

There are several seams of coal in the Ingleton Coalfield, but not all of them were worked, because they were either too thin or of poor quality. In the main, therefore, work was concentrated on the seams listed in the following table:-

Seam	**Depth from surface* Yards**	**Thickness of Seam Ft**	**ins**	**Uses**
Ten Foot	127	10	7½	House and Steam Coal.
Nine Foot	134	9	9½	Steam and House Coal.
Four Foot	233	4	4	House, Gas and Coking Coal.
Three Foot	236	5	9	House and Gas Coal.
Six Foot	260	6	9	Steam and House Coal.

* At New Ingleton Colliery

TEN FOOT AND NINE FOOT SEAMS

The existence of these seams was unknown until they were discovered during the sinking of New Ingleton Colliery. The former was described as being similar to the Barnsley Seam of South Yorkshire, but, judging from the small amount of work done in it, the latter was probably of a poorer quality.

The owners hoped that both seams would cover a wide area and, in a report to shareholders in January 1924, it was stated that:-[6]

> "*further delay was incurred by the occurrence of a washout in the Ten Foot and Nine Foot Seams beyond which washout these seams have not been proved, although there is no reason to doubt their existence over the greater portion of the coalfield*".

This was an optimistic view because there appears to have been an unconformity in the strata immediately above these seams. This indicates a break in the sequence of deposition, when erosion denuded most of both seams except for a very small area around the New Ingleton Colliery shafts.

FOUR FOOT SEAM

This seam was regular in thickness, with no dirt bands, and was often called the 'Main Coal'. It was said that it "*burns with a bright flame and makes a very hot fire. It burnt rather quickly*". It was the principal objective of the later collieries and commanded a higher price than Six Foot coal.

THREE FOOT (YARD) SEAM

This seam was separated from the Four Foot, above it, by a layer of fireclay around two feet thick, usually known in Ingleton as 'sill'. The coal was said to be of a good quality and to burn brightly, leaving a red ash. Nevertheless, the seam was also more variable than the Four Foot Seam and it appears to have been considered as inferior by earlier miners. It was worked at Wilson Wood, Old Ingleton and Moorgarth collieries, and preparations were being made to work it at New Ingleton Colliery in the year or so before it closed.

In 1896 James Barker had analyses made of the fireclay sill between the Four and Three Foot Seams, and of the three to five feet of fireclay under the Three Foot Seam, of which the top 18 inches was of the best quality:-[7]

Fireclay sill	
	Percent
Silica	49.92
Ferric Oxide	2.89
Alumina	31.68
Lime	0.73
Magnesia	1.04
Soda & potash	0.75
Moisture etc	13.00

Three Foot Coal fireclay	
	Percent
Silica	58.68
Ferric Oxide	5.76
Alumina	24.72
Lime	0.90
Magnesia	0.80
Alkali	1.50
Moisture etc	7.64

W. Fairley, the mining engineer who made the analyses, felt that the first bed was suitable for producing vitrified flooring and paving tiles, as well as bricks, salt-glazed bricks and buff bricks. The fireclay under the Three Foot Seam was said to be "*evidently capable of producing a good variety of merchantable ware, of both an ordinary and high class kind*".

CANNEL COAL

About 12 feet above the Six Foot Seam is a seam of Cannel Coal, around four feet thick. This may have been worked at Wilson Wood during William Bracewell's time, when there was a debate as to its value. He held it to be a good fuel, but many thought it only fit for putting on the roads. Some seam sections, however, show the top part (about 8 inches) of the Four Foot Seam as Cannel Coal.

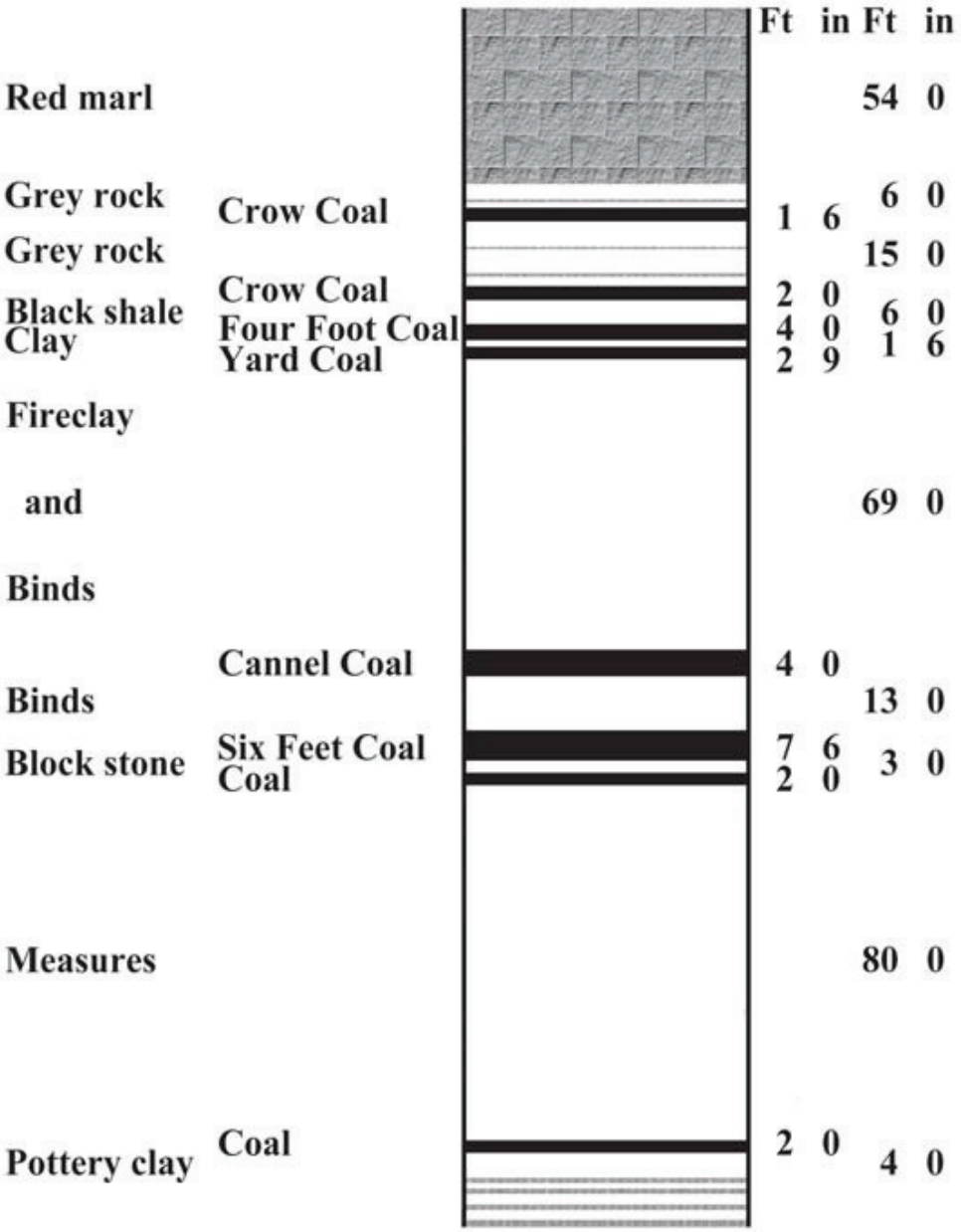

Fig.3.

Barker tried working this seam from Nellie Pit, at his Old Ingleton Colliery, and Fairley's report suggested that it could produce about 10,000 cubic feet of gas from every ton.

SIX FOOT SEAM

Also known as the 'Deep or Bottom Coal' this was, depending on the location, between three and five seams, or leaves, of coal separated by thin partings of shale, called dirt bands. The thickest of these leaves was near the middle of the seam and, in 1897, was classed as 'steam coal'. The leaves above and below it were classed as 'house coal'. Presumably it was possible to keep much of the dirt separate when the coal was cut by hand, but it had to be well-screened, especially once the railway began importing better quality coal. It was often mixed with Four Foot coal to improve its quality and give a good burning blend.

Preventing the dirt bands from contaminating the coal would have been much more difficult when using coal cutting machines and this may explain why New Ingleton Colliery did not work the Six Foot Seam again after 1921.

TWO FOOT SEAM

This was about one yard below the Six Foot Seam and was apparently never worked.

POTTERY CLAY

The lowest seam in the Ingleton Coalfield was a thin, poor quality coal which was underlain by about 4 feet 6 inches of pottery clay. Because of its depth, it was never worked over much of the coalfield, but was important along the southern edge, where it outcropped, particularly around Burton in Lonsdale.

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THE BEGINNINGS - LOWTHER OF INGLETON

Colonel Richard Lowther, Governor of Pontefract Castle, had little time to think of his peaceful home at Ingleton as he was bombarded by the besieging Parliamentary forces. He was Lord of the Manor of Ingleton, where he owned estates and a colliery, but it was 1645 and civil war was raging in England. Lowther had survived one siege, which Royalist troops under Sir Marmaduke Langdale ended in March 1645. The relief was short lived, however, for the siege was reimposed by the end of the month. This time the castle's defenders were forced to surrender through near starvation. On July 19th 1645, Colonel Lowther, having made an honourable surrender to General Poyntz, led his forces from the castle and, having laid down their arms, they were allowed to leave and march to Newark to join the Royalists there.

Richard Lowther was accompanied by his son, Gerard, and his brother Robert, the castle chaplain. Gerard, aged 19, had been a captain of horse, but with the horses being captured, killed, or eaten by the besieged garrison, he was reduced to a foot soldier. Richard Lowther never saw Ingleton again for on August 15th 1645, only three weeks after marching his weary troops out of Pontefract, he died aged 43. He was buried in the parish church of St Mary Magdalene, at Newark, where the burial register records him as "*Collonell Lowther governor of Pontefract*".

The Civil War ended the following year and young Gerard returned to his home and family at Ingleton Hall in Upper Gate. During the war, Ingleton Hall had been occupied by parliamentary soldiers under Major Rippon and was much damaged. Gerard Lowther and his father had been Royalist heroes, but now his father was dead and Gerard was declared a 'delinquent' for having taken up arms against Parliament. Royalist Composition papers record the following:-[1]

> *His delinquency that he was in arms against Parliament and at Newarke at the surrender and is to have the benefit of those articles; he took the covenant before Robert Windle minister at Preston in Yorkshire 20 July 1646 and Again before William Barton and the Oath here 27 February 1646. He is seized in the Manor of Ingleton in the Parish of Bentham of the yearly value of above £10 yearly rent of £120; in rents in Ingleton and in a colliery worth £20. He craves an allowance for £80 per annum to be paid for 7 years whereof 2 years are next June yet to come and for £1000 to be paid at the feasts of Pentecost which shall be in 1649 for which the manor of Ingleton is charged by deed made by Richard Lowther father of the compounder 18 June 18 Car (1643) if the said manor be redeemed then the mother of the compounder is to have her thirds. He is indebted £1000. 5 March 1646. R. Gurdon, D. Watkins.*

As well as having mortgaged the Manor of Ingleton, Gerard Lowther was fined £400 on March 23rd 1646. He and his mother, Isabella, had a further problem in that when Richard Lowther died his personal goods were valued at £227 10s 4d, but his debts were £428 4s 0d. Nevertheless, by January 1649, only a year before she died, Isabella had paid off her husband's debts. The inventory of Richard Lowther's goods and chattels is dated January 17th 1646 and it lists cattle, horse, corn and hay as well