The Railways of Hetton, Pittington and Rainton.

Part 1. Early Developments

Without doubt the most noteworthy railway in Hetton was the Hetton Railway itself - the line which ran from the village, north and east across Warden Law and down to the staithes on the River Wear. Built in 1822 under the direction of Robert Stephenson to serve the Hetton Coal Company it was the world's first steam locomotive railway.

Prior to this event a network of waggonways crisscrossed the landscape of the Northern coalfield, allowing the transport of huge amounts of coal to be shipped from the Great Northern Coalfield. For centuries coal reserves had been exploited away from the coast simply because access to the coal seams was so much easier. However by 1820 the first deep mine at Hetton pierced the overburden of the magnesian limestone and yielded great reserves of coal which had good marketable quality. This primary success paved the way for the development of further mining operations along the eastern coast and lessened the transport difficulties associated with waggonways.

Waggonway and railway developments depended upon access to the coastal points as well as the major rivers of the region since much of the coal was destined for foreign and national markets outside of the northern region. It was also necessary for the correct leases to be obtained for the waggonways to be built, and proper "wayleafs" to be given to allow coal to pass through land owned by others, not associated with the winning of the coal.

What makes the Hetton Colliery line so important was that not only was it the longest railway line in the world at 8 miles but it was also the first in the world to be specifically designed to use locomotives on various stretches throughout its length. It used a combination of standing steam engines, self acting inclines and locomotives to shift the coal down to Sunderland. Opened on September 18th 1822 thousands of people came to see the first Puffing Billies operating at speeds of just four miles an hour.

Within seven years the speed had been increased to twenty nine miles an hour and the railway was moving 2880 tons of coal in an eight hour shift. This

increase in the movement of coal and its efficiency meant that within a few years of its opening, successful coal management and handling on this innovative railway set the scene for other collieries in other areas to adopt the same successful operating conditions. Close by, other collieries such as Elemore Colliery and North Hetton Colliery had by 1825 used the line to carry the coal down to the waiting colliers at the coast. So much was the chaos at the staithes due to the arrival of huge volumes of coal from the areas around Hetton as well as coal transported from Lambton and Londonderry collieries a few miles to the north that the River Wear Commissioners were forced to impose strict controls on who used the River Wear.

More and more staithes were built and enlarged up river from Sunderland as far away as Chester-le-Street to take account of the huge amounts of coal being moved. For the first time, by the mid 1830s dredging was taking place throughout the river length to accommodate larger colliers and boats with a deeper draft. Eventually this led to the development of the massive harbour and dock developments which transformed the scene on the river banks as well as the building of the South Docks in Sunderland within the next 30 years.

Part 2. Village Growth

The period between 1820 and 1870 saw the greatest development of the collieries in the area clustered around Hetton. The dependence of the villages upon coal mining as a means of livelihood for the villagers in the early part of the 19th century showed a large inward migration of people from both other parts of the region and farther afield nationally. Intense competition relating to the economic development of the coalfield by the individual coal owners meant that much of the population was not static and housing and village facilities were dependent upon the success of the individual collieries. Many smaller collieries in the area closed during this period as production concentrated on the larger mines. These larger mines produced in excess of 70% of all the coal produced in the region by the 1870s and many of them continued well into the 20th century.

The villages of Hetton and Easington Lane owed their existence to the opening of the pits at Hetton and Elemore, but what of the surrounding area. By 1800 colliery undertakings were well underway to the west of the Magnesian Limestone outcrops. Around Houghton-le-Spring and Lumley coal production was in evidence, in fact there are references to the fact that a number of these

collieries had been in operation since the 16th century. Other collieries were operating at West Rainton and Chilton Moor. Linking many of these pits was a sophisticated network of waggonways which ran down to staithes on the river at Painsher (Penshaw). Some of these waggonways served collieries operated under the Earl of Durham (Lambton) while others served the pits belonging to the Londonderry family and another important family called Neasham (Nesham). Archaeological evidence during the 1990s has shown that the waggonways were not only more extensive as previously thought, but also more technologically advanced in their construction.

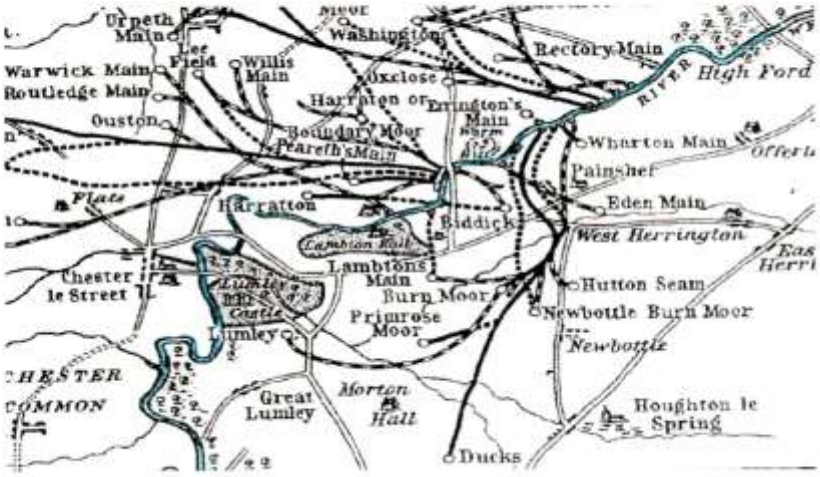
It is singularly difficult to suggest dates for the opening and closing of collieries or indeed who owned them throughout their lifetime. Changes of ownership took place on a regular basis and quite often the changes went unrecorded. Additionally pits were known by a variety of names or the same name appeared in differing locations. The development of pits in the location to the west of Hetton continued well before the opening of Hetton Colliery known later as Lyons Colliery and represented new investments by the notable land owning families, mainly Lambton and Londonderry.

The list below is by no means exhaustive but serves to indicate how important this area was in laying the foundation of the mid Durham coalfield.

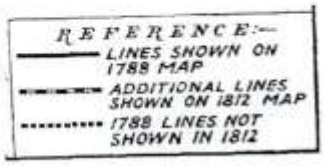
Name	Opened	Closed	Owner
Bourne Moor A pit	1785	?	Lambton
Bourne Moor C Pit	1791	?	Lambton
Bourne Moor D Pit	1820	1965	Lambton
Old Painsher(Penshaw)	1792	?	Londonderry
Herrington Mill Pit	?	After 1815	Londonderry
Newbottle Jane	?	1799	Nesham
Newbottle Dorothea	1816	1956	Nesham
Success	before 1810	?	Lambton
Lumley 1st Pit	before 1780	?	Stobart & Bell

Adventure Pit (W Rainton)	1753	1978	Londonderry
Hunters House(W Rainton)	1817	?	Londonderry
Plain Pit (W Rainton)	1817	?	Londonderry
North Pit (East Rainton)	1822	?	Lambton
Nicholsons Pit (E Rainton)	1817	?	Lambton
Dunwell Pit (E Rainton)	Before 1812	?	Lambton
Hazard Pit (E Rainton)	1815	1935	Hetton Coal Co.

There were other pits in existence before 1800 and these too would have been connected to a waggonway system prior to the coming of the railways. The map below produced by Gibson in 1778 and updated in 1812 shows the waggonways between Houghton-le-Spring and the River Wear.



Section taken from "A Plan of the Collieries on the River Tyne and Wear".
Survey carried out by John Gibson 1788.



Part 3 The Importance of Pittington and the Raintons.

In 1819 the Third Marquis of Londonderry married Frances Anne Vane Tempest the only daughter of Sir Henry Vane Tempest. Coming from a family who lived in Northern Ireland this was Londonderry's second marriage. The Vane Tempests were a coal owning family with considerable interests in the Pittington, West Rainton and Fence Houses areas. The marriage to Lord Londonderry brought importance to the Vane Tempests while Londonderry acquired considerable wealth. He was a man who recognised the importance of the coal mining interests and together with his wife embarked upon a programme of expansion which brought the family great wealth long into the 20th century. In order to maintain the impetus of development he was responsible for the creation and growth of Seaham Harbour which would allow the easier shipment of coals from the Rainton and Pittington Pits and ease the strain upon the River Wear and in particular on the staithes at Penshaw where most of his coal ended up.

At present day High Pittington, close to allotments lies the site of the Pittington Colliery. Opened in 1826, it was the pit which influenced the decision of Londonderry and his wife to build Seaham Harbour on their estates at Seaham. The construction, started in 1828, was completed four years later. A new railway was also constructed from Pittington, over the Benridge Bank crossing the Romney Road at the east end of West Rainton, then downhill to join the existing Londonderry Railway to the North of both East and West Rainton. It then turned east came through Rainton Bridge then up over the limestone ridge close to the existing Mines Rescue Station at Houghton before climbing up Copt Hill and passing across the present day Houghton Golf Course on its way to Seaham Harbour.

The expansion of the Londonderry Railway system, if it can be called that, prior to the opening of the Seaham branch was a significant milestone for the carriage of coal which led from West Rainton via Chilton Moor, Fence Houses and Penshaw to the staithes on the River Wear. It was opened in September 1827 and the guest of honour at the official opening was the Duke of Wellington, the hero of Waterloo and a good friend of Londonderry. A special car called the Wellington Car travelled the length of the line to the Wear. The line did not use locomotives but relied upon stationary steam engines throughout

its length as well as the occasional incline. A little known fact related to this line was that a locomotive was tested on the line during the early part of 1822.

Close to the first pit at Pittington was a second, much smaller shaft known as the Buddle Pit. Named after John Buddle, a competent engineer and mine manager, who took up the position of Viewer, then manager to the developing Londonderry collieries. He brought a steam adhesion locomotive to the Londonderry line for trials. However it broke a number of rails due to its weight and slipped badly as it moved. Thus it was never adopted for use, even though it was later demonstrated to the Duke of Wellington on his visit.

The waggonway ran downhill to Low Pittington before heading over to West Rainton. Located within a mile or two of Londonderry's Collieries at Pittington were a number of collieries belonging to Lord Lambton. The nearest Pit, known as Lambton Pit was a few hundred metres from the Buddle Pit. A short waggonway left the colliery to join up with another coming from Littletown Colliery before following the Londonderry waggonway down to Low Pittington. The fact that both waggonways ran parallel to each other and only a short distance apart indicates the degree of non co-operation between the two coal owners. Once down at Low Pittington the Lambton line took a different route over to West Rainton and then on towards other Lambton Collieries in the Cocken and Lumley areas.

Just to confuse the issue at Low Pittington, a further line was constructed in 1837. This was the Durham to Sunderland Railway line. It started at the original Durham station in Shincliffe village before crossing fields to pass Sherburn House Hospital then on to Sherburn itself and finally Low Pittington. For about a mile close to Low Pittington it ran parallel to another branch of the Londonderry line, namely the branch from Broomside Colliery close to Carville. From Low Pittingington the D&S line ran along the valley to the north of High Moorsley before passing through Low Moorsley (Peat Carr) on its way to Hetton station. This railway was worked entirely by eight standing engines and it wasn't until the start of the 1880s that locomotives travelled along part of its length. In 1842 it was described as " The longest public railway in the kingdom worked entirely by the fixed engine system."

A picturesque line, it was principally built to handle mineral traffic although in later years it carried large numbers of passengers. More often than

not the carriages were attached to coal trains coming from collieries along the route. During the first two years of opening it carried more than 77,000 passengers. At some point the section in the west at Shincliffe was closed and a new station for Durham City was built at Elvet and the line was diverted to this terminus following the building of a flat metal bridge over the River Wear in the vicinity of Old Durham in 1893.

By this time the principal station for Durham City was the present one which carries the main East Coast line from Darlington to Chester-le-Street. After leaving Hetton station this line continued eastwards to Murton where it joined a further junction carrying the coast line north from Shotton in the direction of Ryhope and Sunderland. By the 1870s this line between Durham City and Sunderland was really a secondary line, the major route being one which travelled from the present station in Durham to cross the River Wear in the woods close to Leamside before travelling on to Fence Houses Penshaw and running alongside the River Wear's south bank into Sunderland.

The last train to use the Sunderland, Murton, Hetton, Pittington, Durham Elvet line was in the early 1950s when an excursion to the Durham Miners Gala brought people to the event, and it finally close on the 5th January 1953. Today the majority of the line forms part of a walk and national cycle route through the area. For most of the first 50 years this line relied upon stationary engines and an engine house on Murton Moor helped pull the traffic up from Hetton station. There was also another engine placed in the field close to Pittington Station and another close to the Lecht colliery. Reliability of movement along the line was lacking due to ropes breaking or snagging while steam hauling gear needed constant attention. The D&S line in its latter years carried coal consignments from a number of pits close to it. This included coal from the Alexandrina pit, named originally after one of Londonderry's daughters and later to become known as the Lecht or Letch Pit (named after a letch or stream). Nestled in the vale below High Moorsley, opened in 1824 and close to the line it was in an ideal location for coal to be loaded on to chaldron wagons for transportation.

Some four field lengths to the east of the Alexandrina pit was the Moorsley Colliery. Opened in 1821 and closed in 1915 it was owned by the North Hetton Coal Company. This pit stuck on the side of rising ground at Moorsley,

did not use the D&S line which ran a short distance below it. Instead it crossed the D&S line by a wooden bridge heading north in the direction of the Hazard Pit lying to the east of the village of East Rainton.

The Hazard Pit and another the Dunwell Pit were also owned by the North Hetton Coal Company. The traffic from Moorsley and Hazard ran underneath the Londonderry waggonway coming from North Pit before joining another Londonderry waggonway, close to Rainton Bridge. The waggonway then continued towards Chilton Moor and Fence Houses before arriving at the Londonderry staithes at Penshaw on the River Wear.

The coal from the Hazard, Dunwell and Moorsley collieries was later switched to run down hill, along a short length of way, before joining up with the Londonderry line in the vicinity of the mill at Rainton Bridge and proceeding to Seaham Harbour. The line to Seaham Harbour continued in operation carrying coal up the Copt Hill until it became defunct around 1896. For a short length it travelled in parallel on the Copt Hill with the Hetton line coming from the Lyons Colliery before the latter swung north in the direction of Warden Law. Once the Seaham line closed, the coals from the Hazard Pit and Moorsley pit were transferred to the Durham and Sunderland line for transport to Sunderland via Murton and Ryhope.

Throughout the period of the 19th century there existed a rather confused picture regarding the transportation of coal along the lines between Sherburn and Hetton due to the constant change in ownership of the collieries which used the waggonways and railway lines. Additionally collieries closed then occasionally re-opened, wayleaf arrangements changed and new technologies developed throughout the time period. The Durham & Sunderland Railway faced the same problems as coal waggonways in that it also relied heavily on the use of standing engines along the whole of its length. Standing engines although effective were slow and traffic moved at a pace slower than if they had been horse drawn. There were numerous delays when the waggons, and later passenger carriages were uncoupled and coupled at the intervening stages of the route. They had one distinct advantage over lines used by locomotives in that they overcame the necessity to make the line as level as possible and removed the need to build embankments and cuttings.

The section of line between Hetton station and Murton was one of the steepest gradients on the British Railway network and standing engines were used exclusively until the last decade of the 19th century at which time locomotives became powerful enough to take over the task of pulling the loaded trucks up the gradient.

There is no doubt that this part of the country was instrumental in fulfilling the early development of locomotives and standing engines which led to the adoption of a wider industrial railway network through the United Kingdom. Thus both Hetton and Pittington can only be described as important nodal points along this rail system.

Drawing of Hetton Colliery (Lyons Colliery) by T.H.Hair in 1844 during his tour of the Great Northern Coalfield.

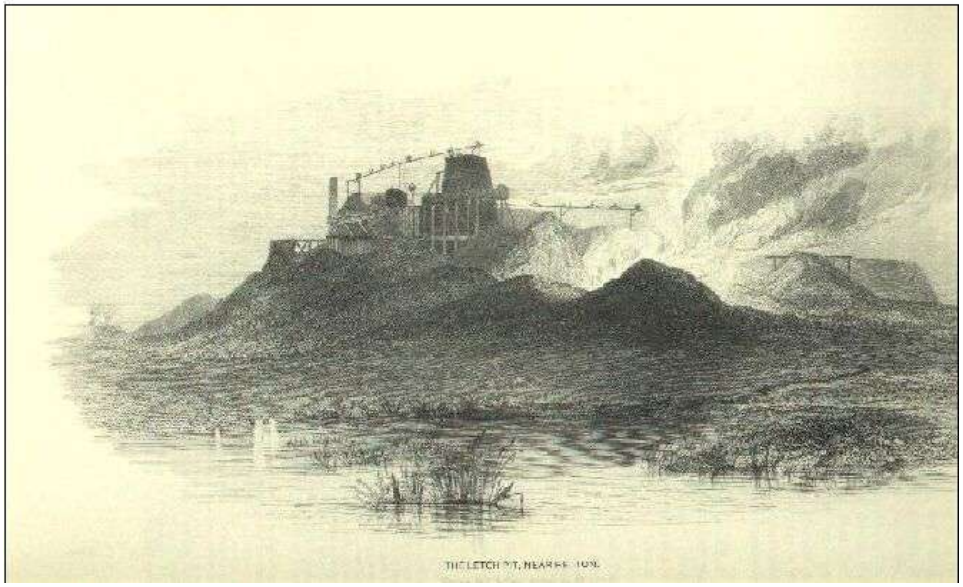
Moorsley Colliery

Chaldron Waggon.

Chaldron Waggon similar to those used on the Londonderry and Lambton waggonways. This one, on display at Hetton Golf Club belonged to the Hetton Coal Company. These waggons generally carried between 2.5 and 4 tons of coal.

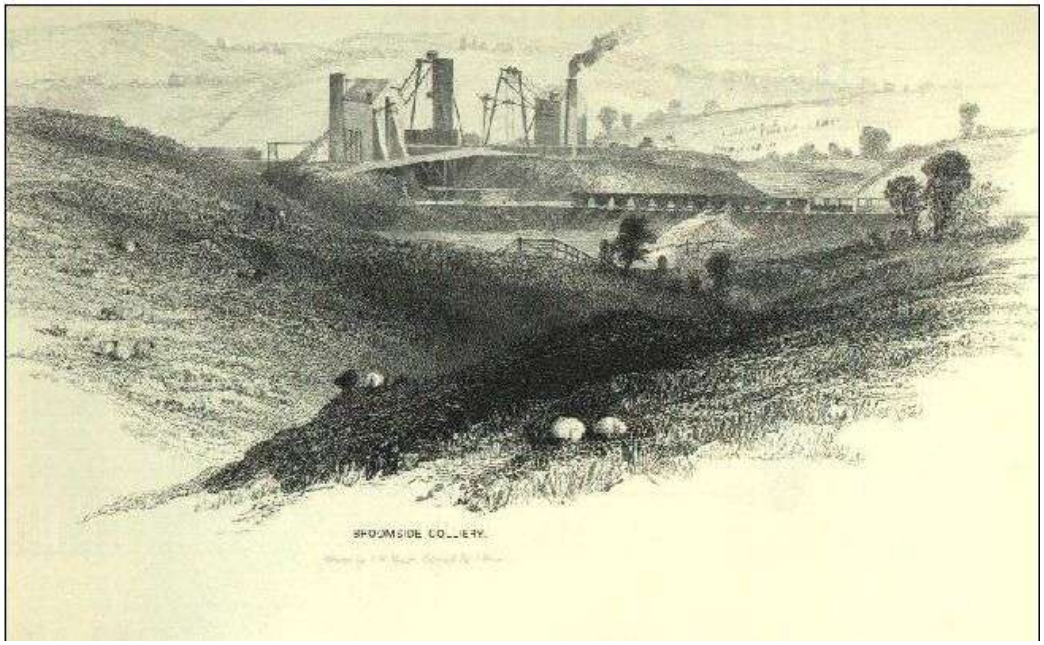
Note the rudimentary braking system and the extended brake handle on which men sat when the brake was applied.

Letch Colliery nr. Hetton



A drawing by T.H.Hair of the Lecht Colliery situated a half mile north of High Moorsley.

Broomside Colliery



T.H.Hair's drawing of Broomside Colliery with the Durham & Sunderland Railway passing by. Note the mixed train of chaldron wagons as well as small carriages.

The Durham & Sunderland Railway

Durham Elvet station in the 1950s around the time of closure

Elvet station welcomes a train for the Miner's Gala in 1948

Sherburn House station around 1910.

The Durham & Sunderland Railway

Pittington Station, regular service 1948

Pittington Station 1951, Gala special

Pittington Station platform 1969

(Photographs courtesy of Nick Catford)

The Durham & Sunderland Railway

Hetton Station in the 1920s.

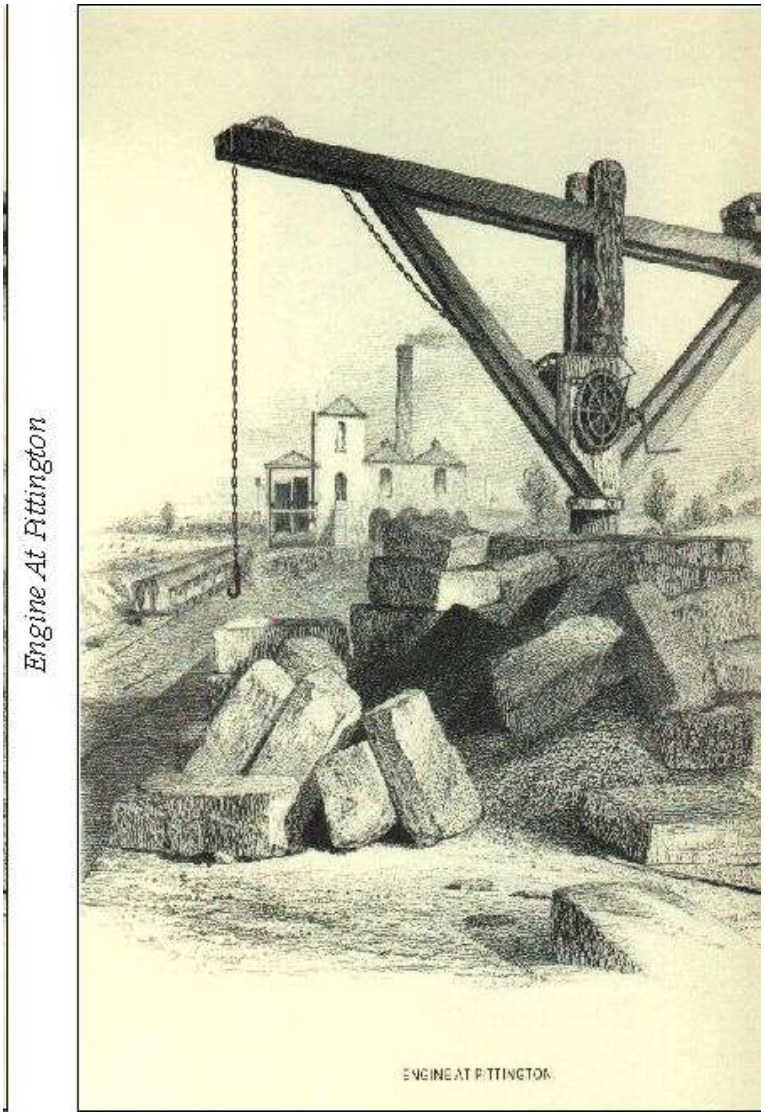
Hetton Station looking east prior to closure

The Durham & Sunderland Railway

Hetton station in the 1950s. The bridge in the distance carries the traffic along the Hetton Colliery Railway

Hetton Ticket Office after closure in 1953 (Photo Nick Catford)

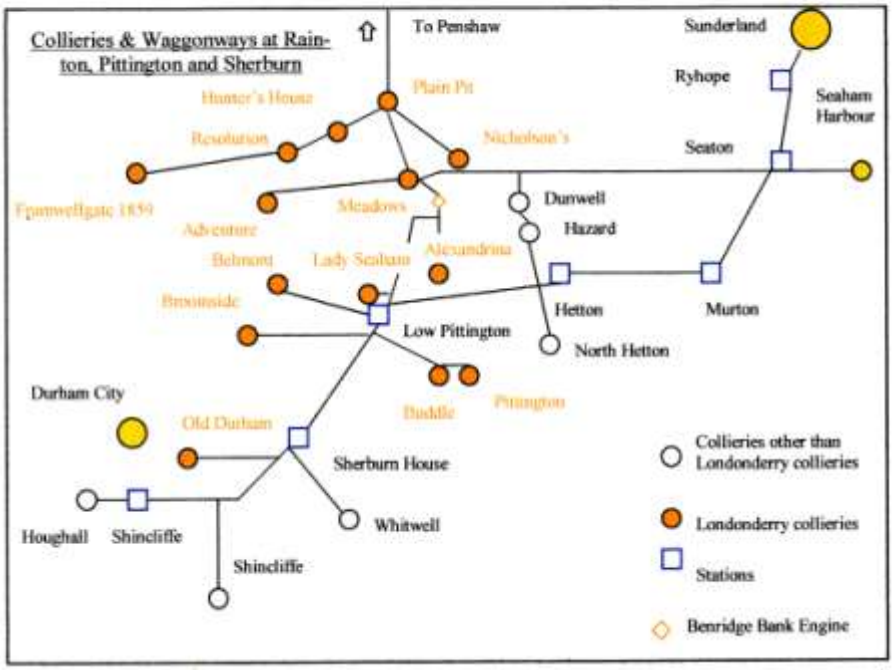
The Durham & Sunderland Railway.



The Pittington Stationary Engine. Note the rope drums on the side of the building and the small carriages similar to those in the Broomside Colliery drawing earlier.

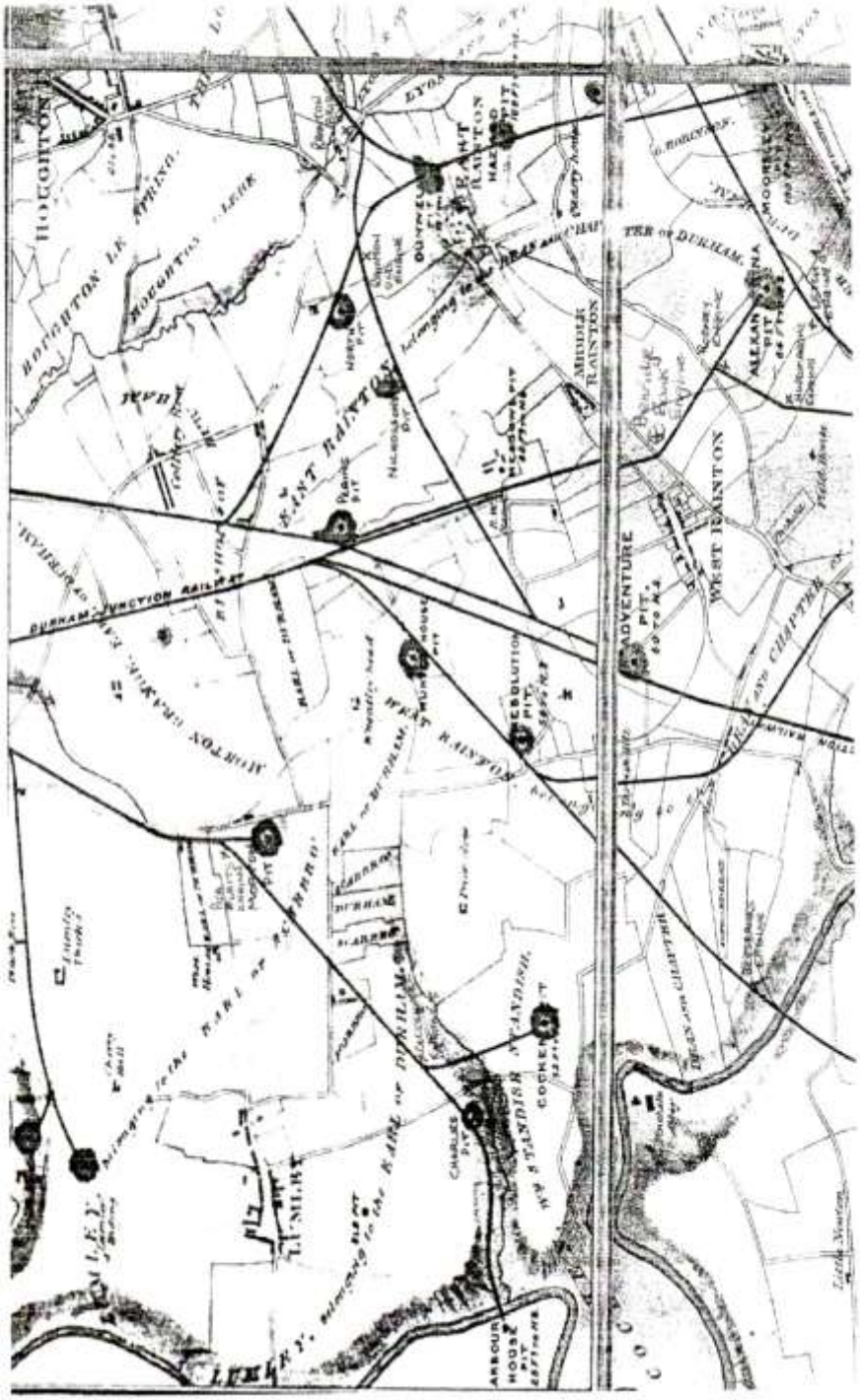
A photo of a winding engine.

Collieries and Waggonways 1822-1845



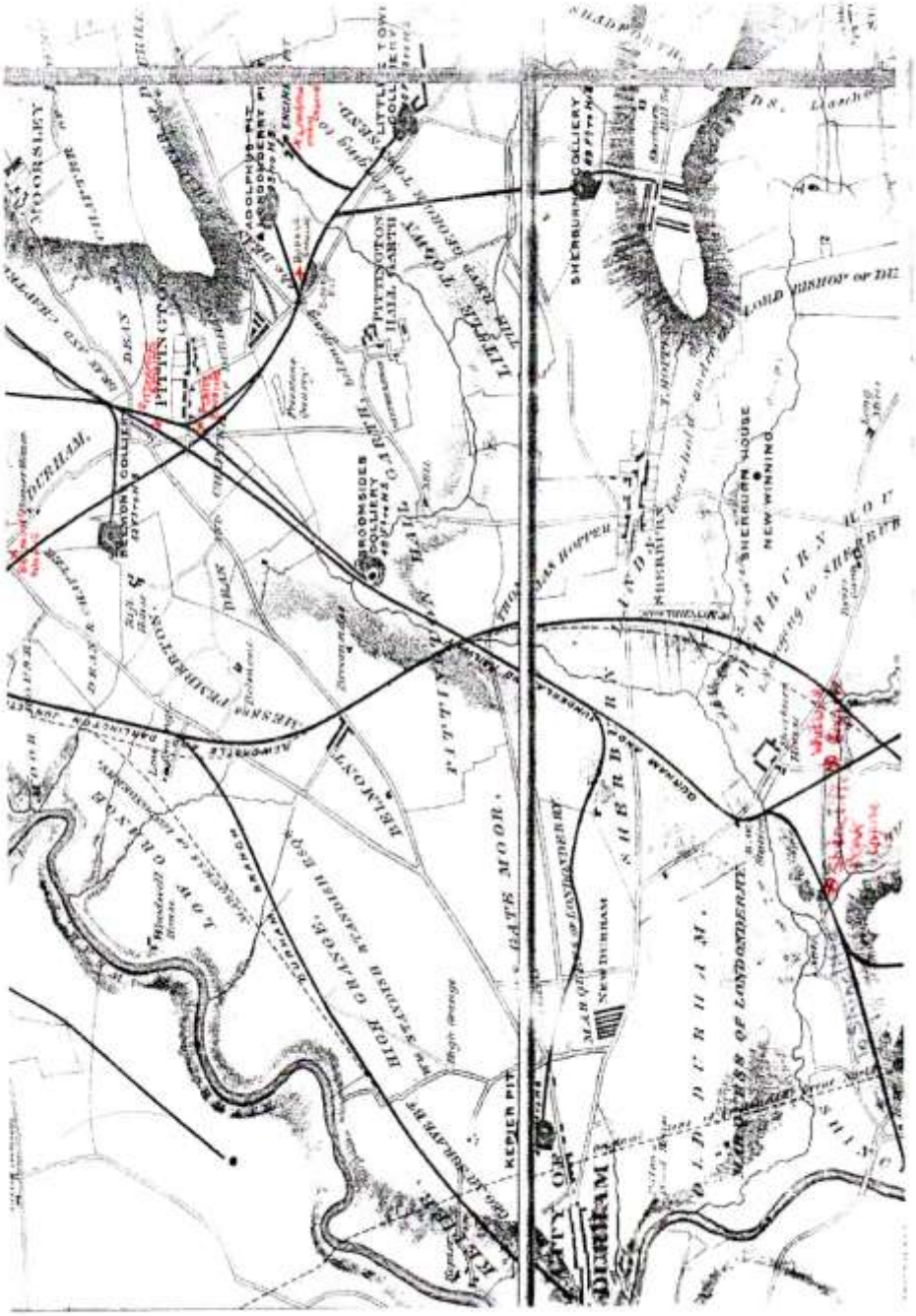
Part of the Londonderry waggonway just to the east of Nicholson's Pit. It is now a footpath provided by Sunderland Council.

John Thomas/ William Bell 1843.
(North Area).



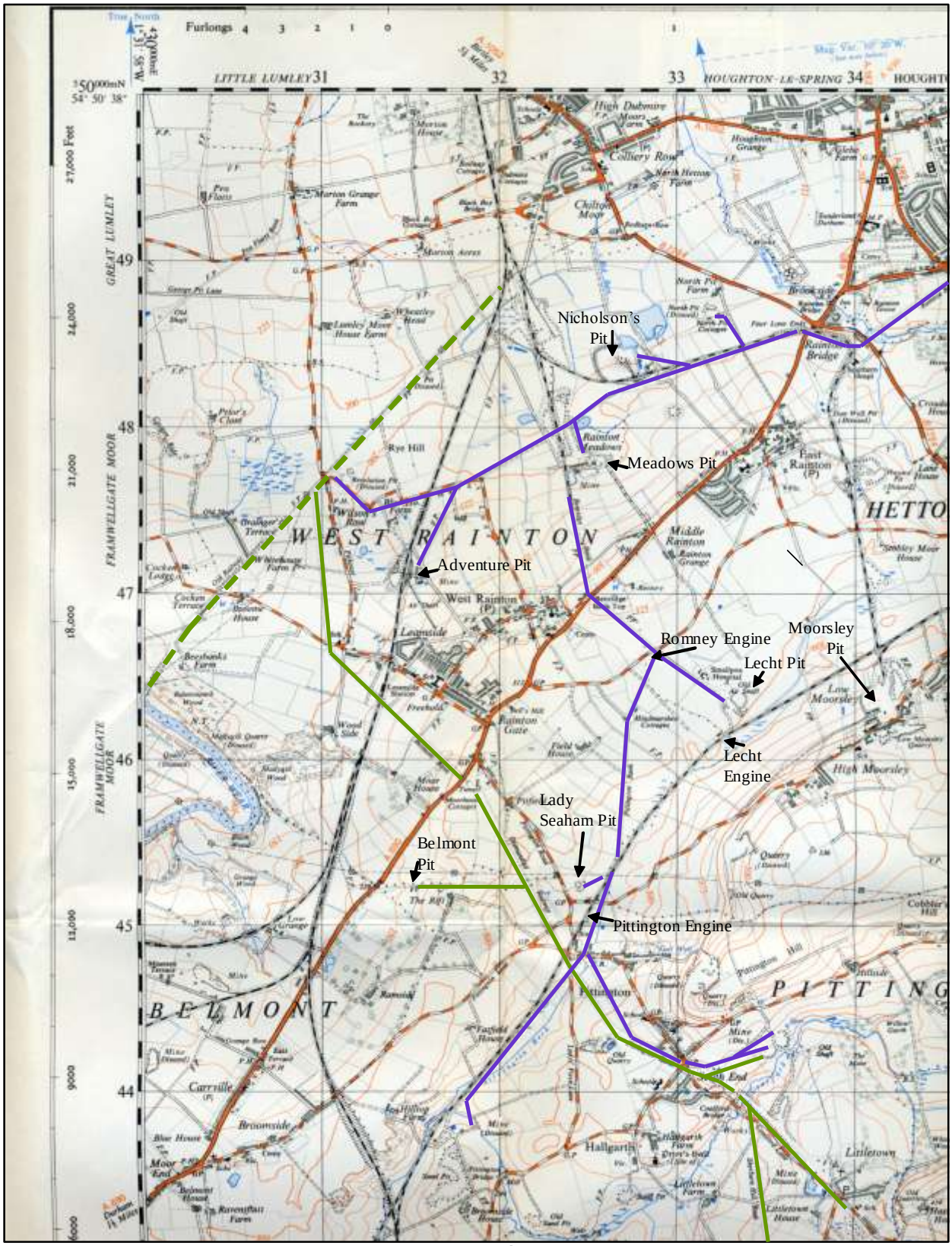
Collieries, Waggonways and Standing Engines

John Thomas/William Bell 1843.



South Area
Collieries, Waggonways and Standing Engines.

1959 O S Map with superimposed waggonways and railways to the west of Hetton



O.S.Map 1959

Key

The views from Moorsley Hill