The Hetton Colliery Railway
The Hetton Colliery Railway

Updated and amended using the earlier works of:

‘The Hetton Dream’
By J. R. Sanderson

‘The Forgotten Railway’
By J. T. Kavanagh
THE HETTON DREAM

It was in the village of Hetton-le-Hole, in the County of Durham, that a group of men had a "dream" that was to revolutionise the world.

The forming of the Hetton Coal Company was the beginning of that dream. Their dream was the building of a steam driven railway line to carry coals away from the collieries that they intended sinking in the Hetton area.

The company was formed in 1819 and was composed of Messrs Archibald Cochrane, R. Scruton, Alexander Whalley Light, W. Hayton, T. Horn, John Dunn, W. Stobart Jnr., W.E. Cochrane, R.W. Darnell, J. Wood and William Lynn Smart.

Bore holes were put down and it was decided to sink two shafts at Hetton Lyons (pictured below). George Stephenson (picture opposite), one of the area’s leading railway engineers was employed with his brother Robert, to build the railway. This was a partnership that was to change the face of England and the World.
The first Mineral Railway using steam power throughout was about to be built, by using steam driven locomotives and stationary steam engines.

Sunderland being the nearest port was the obvious choice, a distance of 8 miles from the proposed site to the River Wear where coal staithes were to be built.

The brothers began to survey the route they had to take and quickly realised the enormity of the task they had undertaken. The contours of the land showed this to be no easy task.

From the Colliery site there was a level run of about three miles to the bottom of Copt Hill, then a steep climb to the top of the hill to another level run of about half a mile to the foot of Warden Law, the highest point in East Durham.

Over this point the land fell away towards the North Moor in a series of gradients, from where it levelled out as it reached the river and the proposed staithes.

Hundreds of workmen were brought in, and so began the task of building the railway line. As the workmen began the task of clearing the land and the laying of the tracks. the area around the Colliery site was a hive of activity.

The first seam of coal had been reached on September 3\textsuperscript{rd} 1822 at a depth of 109 fathoms. This was the first time ever that coal had been reached beneath the limestone rock beds that covered the areas of East Durham.

This seam was 6ft 6” thick and of the highest quality. Other seams reached were 4ft thick at 131 fathoms, and 4ft 6” at 148 fathoms. The success of this operation pioneered the sinking of
all the mines on the eastern side of the county where the limestone had been a serious problem for the shaft sinkers.

At the Colliery site a small community was being built. Houses for the workmen, a shop, two licensed premises as well as engine sheds for building and housing the locomotives.

All the while the track moved forward snaking its way towards the Port of Sunderland and the staithes.

Initially, three locomotives were built by Stephenson (most probably at Killingworth then assembled at Hetton), and these were called the Puffing Billies.

At the top of Copt Hill was set a stationary engine with four winding drums to pull the coal trucks up the incline and along the foot of the Warden Law incline. The Warden Law engine then drew the wagons up to the summit. From there was a series of four self acting inclines to get the full wagons to the sidings at the North Moor, where they were taken to the staithes on the river.

So on the 18th of November 1822, the first Steam Locomotive Railway in the world was opened out.

There were spectators from all over Britain and the line was lined with cheering crowds as the Billies chugged their way to the port of Sunderland.

In 1825 the line was extended to take in the newly sunk Elemore Colliery (picture above in 1905) at Easington Lane.
and a branch line laid to Hetton's Eppleton Colliery (below).

In 1938 – 39 a branch was laid to take in the Silksworth Colliery. So what had started as a dream of the Hetton Coal Company was now a reality.

The Railways were born.

Let us follow the route . . .

Let us now take a nostalgic ride along that famous old line, on the footplate of a Puffing Billy.
We start at the furthest point from the River Staithes: Elemore Colliery. The photo below is one of the early locomotives at the Elemore Sidings in 1902.

From amongst the surface workings of Elemore we move off with our load, smoke billowing from the locomotive as we pass the many branch lines that lead to different parts of the Colliery.

One of these branch lines led along the Flatts to Easington Lane High Street where a coal depot stood just behind what was for many years the Library, which stood alongside the War Memorial Clock. This depot was used to supply the pitmen with their free coal allowance.

The main line on leaving the Colliery had a very slight gradient of about half a mile to the Easington Lane to Hetton Road (the A182). Two big Crossing Gates and a crossing keeper's cabin were erected there. This point was and is still known as the Whites Gates Crossing (pictured right), due to the gates always being painted white.
On leaving this crossing we have a level stretch of about three hundred yards to the Hetton to Murton Road (B1284). This crossing also had a crossing keeper's cabin. A red flag was used at this point when the engine was passing.

The line then passed a granary, stackyards, stables and the Hetton Brickworks on the right before joining the Hetton Colliery (left).

Lyons, the small village around the Hetton Colliery, was criss-crossed with branches off the main line. These would lead to the Hetton Brickworks, the Gasworks, Colliery Blacksmiths and Joiners shops, and one branch led to the Engine Repair and Wagon Sheds.

This passed within a yard of the front doors of a street of houses.

Another branch ran up Lyons Avenue (pictured left) towards Easington Lane for about a hundred yards. This was used for shunting and storing wagons.

Back on the main line a quarter of a mile of level track takes us to the village of Hetton-le-Hole past the sidings as shown in the photo below.
The line then cuts through the centre of the village, passing through Richard Street, John Street, Union Street and Pemberton Street.

It also cuts through Caroline Street (left). On approach of the train red flags during the day and red lamps at night were used to control the crossing points.

Two crossing keeper's cabins were built, one in Richard Street, and one at the bottom of Caroline Street (left).

None of this part of the track was fenced.

Leaving the centre of Hetton and the Caroline Street crossing behind us, the line ran level between the gardens of Houghton Road and Barrington Terrace, before crossing an iron bridge over Regent Street (right)
After crossing the Regent Street Bridge the line was joined a few yards further on by a branch line from Eppleton Colliery. Half a mile of level running brings us to the foot of Copt Hill. This was the terminus for the locomotives. The photo to the left shows the line running down from Copt Hill to the Hetton Dene. At the foot of Copt Hill the full coal wagons were coupled into sets of five. Haulage ropes were hung onto the front of the set. The same was done with the empty wagons at the top of the hill.

On the signal being given, the brakesman set the four drum engine in motion.

Photo shows the wagons travelling along Copt Hill.

The loaded set was hauled up the incline and the empty set descended. The sets passed each other at a loop half way
Single track was used at the bottom half below the loop, and above the loop a three rail system was used. A level crossing was formed where the line crossed the Houghton to Seaham Road. The length of this incline was 940 yards and graded 1 in 17.

From the sidings at the top of Copt Hill (see right alongside the stationary engine house) the wagons were hauled in sets of ten along a slight gradient of about 1 in 50 for about 800 yards to the foot of Warden Law. The distance to the top of Warden Law was 760 yards and graded 1 in 19.

Looking towards Warden Law

The wagons were hauled up in sets of five. Still in sets of five they were now to be transported down the self acting inclines. These were simply
worked by passing a haulage rope around a single engine drum with a brake attached.

One end of the rope was coupled to the rear of the loaded wagons and the other end was coupled to the front end of the empty wagons. The method was for the weight of the full wagons going down the hill to pull the empty ones up.

The length of these gradients were between 1,000 and 1,300 yards and graded between 1 in 33 and 1 in 41.

One of these gradients was not steep enough for the system to work properly so a horse was used to help the full wagons down the hill. Next stop the sidings at the North Moor (right). At the North Moor the full wagons would be joined in sets of twenty ready to be taken by locomotive the three miles to the River Staithes.

Leaving the North Moor the line crossed a bridge near Silksworth Hall.

This bridge spanned the Silksworth to East Herrington Road. A short distance on and a branch from Silksworth Colliery joined the main line.

The line dipped under the road at the
bottom of The Sunderland Children's Hospital Bank and emerged opposite the Barnes Hotel. The photograph below shows a coal train heading back towards the Barnes Hotel having passed Eden Vale.

Passing various streets it crossed over a bridge at Sunderland's Chester Road (above), then finally arrived at the coal staithes on the river (below).

The speed of the line was four miles per hour in 1822 by 1829 it had speeded up to twenty nine miles per hour and was capable of carrying 2,880 tons of coal in an eight hour shift.

Finally in 1950 the old Hetton Lyons Colliery closed, leaving Elemore, Eppleton and Silksworth Collieries still using the line.
In 1959 the new Hawthorn Mine was opened and the coals from Elemore and Eppleton were taken off the line and transported underground to this new mine.
The last train of coals from the Hetton Collieries left the North Moor sidings at 1.40pm on Wednesday September 9th, 1959. There were no spectators.

The old line that had served the Hetton Collieries so well was doomed.

Dismantling of the line soon started and by the end of 1959 there was very little left.

Dismantling was completed in 1960, when the Sunderland Echo reported:

“This week saw the end of the old Hetton Mineral Line, as the last of the 90ft of track was hauled up. Thousands of tons of coal had been transported along the eight miles.”

The branch at Silksworth was left open and was used until this Colliery closed in 1971, and so ended a hundred and thirty years of railway history which had started with the dream of that long gone Hetton Coal Company and was put into operation by the skill and ingenuity of the Stephenson brothers George and Robert.

What they could not have foreseen was, that in a few years Britain and the world would be criss-crossed with railway lines taking goods and minerals to all parts.

Little now is left of this Railway that the history books tend to forget.

The areas of the Hetton Colliery is now landscaped into the Hetton Lyons Country Park, complete with cycling track and fishing lakes.

The oldest of the Engine Sheds was converted into the Lyons Youth Centre, which were demolished a few years ago following years of neglect and a fire.
Alongside where the line ran through Hetton-le-Hole, new houses are built.

The Hetton Lyons Trading Estate stands where the locomotives used to shunt the wagons at the Hetton Colliery and parts of the wagonways have been turned into walkways.

In a garden at the bottom of the Lyons Avenue lying unnoticed is the rim of the old Hetton Colliery Pit Chimney (see below) this has been turned into a fishpond.

On the wall of the Corner House (see below) of 'The Lyons' is a plaque with inscription Robert Stephenson the railway engineer lived here.
And so ended a chapter in railway history.
London’s Morning Chronicle of Thursday 28 November 1822 reported the first shipment of coals along the new railway as such:

HETTON COLLIERY, DURHAM—
On Monday, the 18th inst. The Hetton Coal Company effected the first shipment of their coals at their newly-erected staith on the banks of the river Wear, at Sunderland.

The wagon-way, which extends over a space of eight miles, from the colliery to the river, and in its course crosses Warden Law (one of the highest hills in this part of the country), was crowded with spectators to witness the first operations of the powerful and ingenious machinery employed for conveying the coal-wagons.

Five of Mr. George Stephenson’s patent travelling engines, two 60-horse power fixed reciprocating engines, and five self-acting inclined planes (all under the direction of Mr. Robert Stephenson, the company’s resident engineer), simultaneously
performing their various and complicated offices with the precision and exactness of the most simple machinery, exhibited a spectacle at once interesting to science, and encouraging to commerce.

The good quality of the coals is universally acknowledged; and the shipment of them has been anxiously looked for by the ship owners and fitters at Sunderland, who had the gratification of witnessing about 100 waggon loads (containing upwards of 100 tons weight conveyed along the iron-railway (which was furnished by Messrs. Losh, and Co.) with astonishing facility and dispatch, to the company’s staith, where the coals were shipped by their newly-invented self-discharging apparatus.

The crowds of people assembled on the occasion, the flags and colours streaming from every building, with the cheerful Newbottle band, rendered the scene most lively and exhilarating.

Extensive commercial speculations are as grateful to philanthropy as they are animating to science. Whilst they call forth the powers of genius, they, at the same time, afford subsistence and comfort to the laboring classes of society; and, we trust, there are none who will withhold the meed of praise from undertakings like the present, which has for two years given constant employment to many hundreds of individuals and their families, and opened a cheering prospect to the working part of the community in the coal districts. After the business of the days, the owners of the colliery, with about fifty of their friends, who had been invited to celebrate the event, sat down to an excellent dinner, at Miss Jowsey’s, the Bridge Inn, Bishopwearmouth.

The chair of the president and vice-president were filled by J.C. Tarleton and W. Charleton, Esqrs.

Among the guests were:- Colonel Nichol, Colonel Lascelles, Mr. Fox, Dr. Pemberton, Mr. A. Fenwick, the Rev. George Stephenson, &c. &c. The Hon. Captain Cochrane, the Hon.
Major Cochrane, Mr. Scruton, Colonel Light, Mr. Darnell, Messrs. Horn, Mr. Mowbray (the manager of the colliery), and most of the other partners in the concern were also present.

Many loyal and appropriate toasts were given in the course of the afternoon, and the hilarity of the entertainment was continued to a late hour in the evening.
The Hetton Colliery Railway
A joint venture between:

Elemore Colliery Banner Group
Easington Lane Community Access Point
Brickgarth, Easington Lane, DH5 0LE
Tel: 0191 526 1071
Email: elcap28@hotmail.co.uk
The Hetton Colliery Railway

Supported by Coalfields Area Committee