

CARROCK SYNDICATE LTD.

MINES : CARROCK FELL, 7 MILES FROM TROUTBECK, C. K. & P. RY.

TELEGRAMS : THORNTHWAITE MINES, KESWICK.

MANAGING DIRECTOR—

ANTHONY WILSON,

THORNTHWAITE MINES,

KESWICK.

SECRETARY & REGISTERED OFFICE—

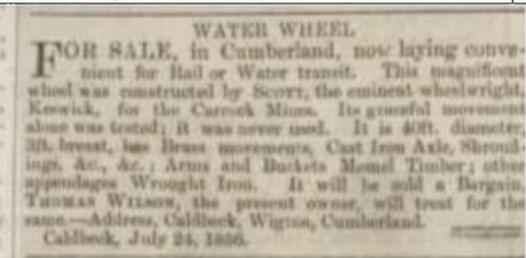
J. HARDING,

MUSGRAVE HALL,

PENRITH.

(Headed notepaper used by the Carrock Syndicate during the First World War period of mining)

Carrock Fell Mine Chronology

16 th c	Some lead and copper mining in the Brandy Gill area	Adams 1988, 95	
1569	In 1569 six kibbles of unspecified ore were carried from Fechtenbach's Nick in 'Brandgil' at 6d per kibble by the carrier Richard Hudson of Threkeld to the smelters in Keswick . Bridge suggests that this might have been tungsten	Bridge 1991, 38	
1698	Dr Edward Wright of the Company of Royal Mines was experimenting with smelting using coal and may have mined copper at Carrock End mine	Cooper and Stanley 1990, 35, referencing Shaw 1970, 46	
c.1724	Brandy Gill Mine worked by Thomas Hillary	Adams 1988, 95	
1852	F.W.Emerson of the Trereife Chemical Works, Penzance, starts mining for copper and lead at Brandy Gill and another vein near the foot of the Gill running E-W	Adams 1988, 95	
1854	A road to the mine is constructed by this date. A legal wrangle over mineral rights brings works on lead and copper to a halt so Emerson starts looking for tungsten – the vein is now named after him	Adams 1988, 95 1 st ed OS ???	
1856	F.W.Emerson, manufacturing chemist near Penzance, Cornwall and of Carrock Mines near Penrith, Cumberland is listed as bankrupt	Westmorland Gazette - Saturday 16 February 1856	
1856	 <p>FOR SALE, in Cumberland, now laying convenient for Rail or Water transit. This magnificent wheel was constructed by SCOTT, the eminent wheelwright, Keswick, for the Carrock Mine. Its graceful movement alone was tested; it was never used. It is 40ft. diameter, 3ft. breast, has brass movements, Cast Iron Axle, Stroudings, Ac., Ac.; Arms and Buckets Moulded Timber; other appendages Wrought Iron. It will be sold a Bargain. THOMAS WILSON, the present owner, will treat for the same.—Address, Caldbeck, Wigton, Cumberland. Caldbeck, July 24, 1856.</p>	Carlisle Journal - Friday 25 July 1856 8.8.1856	Possibly Carrock End mine which had a large waterwheel to drain its 24 fathom deep shaft from 1840? However this wheel never used by 1856. See Adams 1988, 83

1859	<p>Lease drawn up between:</p> <ol style="list-style-type: none"> 1. George William Richard, Earl of Pomfret 2. Sir Francis Shuckburgh of Shuckburgh Park, Warwick 3. Sir George William Denys of Draycott Hall 4. Charles Edward Symonds of no. 56 Stones End, Southwark, color manufacturer and Frederick William Emerson of Haltcliff Town End in Caldbeck, mining engineer <p>Parties 1, 2 and 3 to party 4 All the mines and mining ground on Caldbeck Fell bounded thus: from the point where Carrock Beck enters the Haltcliff enclosed land up the middle of Carrock and Drygill Becks to a point 150 yards north of Dry Gill vein where it crosses Dry Gill Beck to Carrock Fell then north west and parallel with Dry Gill vein by a straight line from the currack of stones on High Pike to the head of the north grain of Dry Gill Head and so south west to the mouth of Crownpoint level then south east to the north west corner of the boundary claimed by Mr Hassell (where a boulder mark must be set up) then east by that line to Carrock East and West Pikes and so by a straight line to the north west corner of the enclosure fence of the Stone Ends estate then north by the fence to the point on Carrock Beck where the boundary began</p>	NYRO ZLB/39/1/17	
1859	<p>Lease drawn up between:</p> <ol style="list-style-type: none"> 1. George William Richard, Earl of Pomfret 2. Sir Francis Shuckburgh of Shuckburgh Park, Warwick 3. Sir George William Denys of Draycott Hall 4. The Dry Gill Mining Company <p>Parties 1, 2 and 3 to party 4 All the mines and mining ground on Caldbeck Fell within boundaries thus: from the point where Carrock Beck enters Haltcliff enclosed land up the middle of the stream of Carrock and Drygill Becks to a point 150 yards north of Dry Gill Vein where it crosses Dry Gill Beck to Carrock Fell then north west and parallel with Dry Gill vein by a straight line from the currack of stones on the top of High Pike to the head of the north grain of Dry Gill Head then north west to the aforesaid currack of stones on High Pike and south west to the mouth of Crown Point level then south east to the north west corner of the boundary claimed by Mr Hassell (where a boarder mark must be set up at the cost of the lessees) then east to Carrock East and West Pikes and then by a straight line to</p>	NYRO ZLB/39/1/15 1859	

	the north west corner of the enclosure fence of the Stone Ends estate and on north by the enclosure fence, to the point where the boundary first began		
1862	Lease drawn up between: 1. George William Richard, Earl of Pomfret 2. Sir George William Denys of Draycott Hall 3. Sir Francis Shuckburgh of Shuckbrugh, Warwick, the lessors 4. Jesse John Tustin and John Robert Tustin, both of 83 Upper Thames Street, London, merchants, the lessees Parties 1, 2 and 3 grant to party 4 The Dry Gill mines (including Carrock End mines)	NYRO ZLB/39/1/17	
1863	Messrs Leicester and Hutchinson sub let the mines from Emerson	Adams 1988, 95	
1864	Emerson who renews his lease	Adams 1988, 95	
1864	The Caldbeck Fells (Consolidated) Lead and Copper Mining Company Ltd seeks shareholders to work more extensively the valuable mineral properties known as the Roughten Gill, Dry Gill, and Carrock-End Mines	Carlisle Journal 1.4.1864 30.12.1864 13.1. 1865	
1864	<i>The Mining Journal</i> of the 17th instant states that a prospectus has been issued of the Caldbeck Fells Consolidated Lead and Copper Mining Company (Limited), with a capital of £60,000 in 30,000 shares of £2 each, which, how-ever, it is not expected that more than £1 per share will be required. The properties to be worked include the Roughton Gill Mine, the Dry Gill Mine, and the Carrock End Mines [not Carrcock Mine]. The purchase money of the properties is £20,000, half payable in cash, by instalments, and half in shares. The chairman of the new company is Sir Robert Brisco, Bart., Crofton Hall, Cumberland; and the directors also include the name of Mr. A. Schoales, director of Great Wheal Vor. The solicitors are the Messers. Calthorp, of Whitehall Place. A large proportion of the shares are already taken up — one landowner in the district taking 1,000.	The Whitehaven News 29 th December 1864	
1865	Lease drawn up between: Francis Shuckburgh of Shuckburgh Park, Warwick, the lessors	NYRO ZLB/39/1/18-19 25 Mar 1865	

	<p>2. John Thomas Campbell of no. 15 Park Lane, Essex, esq. and William Jeffrey of Caldbeck, miner, the lessees</p> <p>Party 1 to party 2</p> <p>All that mine and mining ground on Caldbeck Fell called the Driggeth mines and bounded thus: from the point where Priestman's Gill enters the enclosed land to a spring at the head thereof then to a currack of stones on the top of High Pike then in a line to the north side of Dry Gill mine boundary and by the same side of Dry Gill mine boundary to Carrock Beck and by that beck to where it enters the enclosed land of Haltcliff town and then by the fences of the enclosed land to Priestman's Gill where the boundary began</p>		
1865	On December 19 th a deputation visits the mines at Roughten Gill, Dry Gill, and Carrock-End Mines and are satisfied with the quality of the lode	<i>Carlisle Journal</i> Fri 29 Dec 1865	
1866	17 th November, a meeting of the board of directors of the Caldbeck Fells Consolidated Lead and Copper Mining Company (Limited) admits to difficulties and notes the abscondment of the company secretary and poor price of ore. Subsequent meeting dated 12 th December discusses findings so far or irregular cheque signing and filling vacant director's posts	The Whitehaven News 29 th Nov 1866 And 13 th Dec 1866	
1870	By 1870 the lead and copper mines at Upper Brandy Gill Mine (NY322338) were abandoned	Adams 1988, 92	But he also says that all lead or copper mining was finished at Carrock Fell by 1900. Presumably two different sites?
1872	Company name changed to M. Hutchinson and Co and work continues until 1877	Adams 1988, 95	
1872	A small output of 4 tons of lead ore is recorded from South Carrock and Brandy Gill	Cooper and Stanley 1990, 42 citing Burt et al 1982	
1874	5 ½ tons lead produced	Adams 1988, 95	
1898	The demand for tungsten increases for the production of high speed steel and tungsten cutting tools Some extraction took place from Coombe Height crest forming a large surface	Blundell 1992, 107 Tyler 2003, 32	

	trench on the back of the vein. Wolfram removed by pick and shovel. A Mr. Barker of Carrock Mine purchased a wheelbarrow and a wheel from the saw mill at Mungrisedale (now the Mill Inn) Also some extraction of umber in Gransgill Beck at 1450ft OD on the southern bank. Level now lost.		
1900	All lead or copper mining was finished at Carrock Fell by 1900.	Adams 1988, 92	
1902	A prospecting licence is granted to James Harding, J. W. Wilson and R.H. Hudson of Penrith who operates under the name of Carrock Mines Ltd. Workings are small scale only	Adams 1988, 96	
1904	Boss and Boehm negotiate investment in the mining company, possibly with German government backing	Tyler 2003, 34	
1906	Mine taken over by two Germans William Boss and Frederick Boehm who form the Cumbrian Mining Co. Ltd. Tungsten increasingly important in building up German armaments A rail track is laid from the underground workings and a new mill is constructed. The existing road to the mine was substantially rebuilt.	Adams 1988, 96	
1907	By 1907 four main levels on Coomb Height had been driven directly on Harding vein and above the top level, the vein had been extensively worked on the surface up to the crest of the ridge. A level was also driven into the Emerson vein and ore was transported by horse drawn tubs to the new mill. The workforce increased to 105. The market crashes shortly afterwards and miners are laid off.	Tyler 2003, 35	
1910	The market picks up again and the workforce increases to 18. No.2 level is now choked with rubbish. William Boss is declared bankrupt	Tyler 2003, 36	
1910	The mine is inspected on the 7-9 th June and a copy of the report sent to Anthony Wilson	DX 95 5/2	
1911	Production ceased	Blundell 1992, 109	
1912	The company went into liquidation with only the caretaker, William Wilson of Caldbeck, remaining on the payroll. Boehm and Boss are pursued for debts	Blundell 1992, 109 Tyler 2003, 36	
1913	The Cumbrian Mining Company Ltd is in	Tyler 2003, 50	

	liquidation. Anthony Wilson sends a signed option agreement and a cheque for £50 to the liquidators 17.9.1913 Mine reopened by the Carrock Syndicate and is run by Anthony Wilson and partially funded by government. In next 5 years, ore is produced in quantity to meet the war effort. The Carrock Syndicate introduced an air compressor driven by a gas engine to power three rock drills so that the rock drilling no longer had to be done by hand.	DX 95 5/2 Adams 1988, 96 Blundell 1992, 108	
1913	Company No: 131527; Carrock Syndicate, Ltd. Incorporated in 1913.	The National Archives, Kew BT 31/21756/131527; BT 34/3942/131527	
1914	Walter Hemingway listed as the mine manager of the Carrock Syndicate in 1914	Kelly's Trade Directory 1914, 227	
1916	The north and south ends of Harding vein have been driven continuously. War badges at obtained for the men of fighting age so that they can be retained at the mine.	Report from A Wilson to Carrock Syndicate 10.6.1916 DX 95 5/3	
1916	A report on the mine is prepared by geologist Prof Henry Louis on May 31 st	DX 95 5/2	
1917	Autocar magazine run a story regarding a British Geology surveyor being captured by locals who thought he was as spy	Adams 1988, 96 citing Autocar 27 th January 1917	Next gap is between wars
1918	Introduction of Special Rules to prevent the escape of dust into the air of the mine: Special Rules. — The ores of tungsten at the Carrock mine in Cumberland are found in a quartzite rock which during drilling and blasting operations generates a silicious dust. Mechanical drills are in general use, and special rules, on similar lines to those established at Greenside lead mine in Westmorland during the previous year, have been put in force to prevent the escape of dust into the air of the mine.	<i>1918 Mines Inspectors Report and</i> http://www.dmm.org.uk/incident/c926-918.htm	
1918	Drought conditions in June and July resulted in the water drying up bringing production to a close. The workforce is reduced to 25 divided between the mine and dressing floors. Mine manager T E Turner has left and Wilson takes over operations with the dressing master and underground foreman. Post drought - Bismuth is also being mined at	DX 95 5/3 and Tyler 2003, 56 Report by A Wilson to Carrock Syndicate 19.11.1918. DX 95 5/3	

	<p>this time. Penny Level is being opened up and considerable length of ground in Harding Level is in the course of stoping. Wilson offers to give up salary to save costs.</p>		
1919	<p>The plant consisted of jigs, tables, vanners. The lode is mined, trammed to the mill, dead rock is picked out; the remainder is crushed and treated. "Chats" are recrushed in a small set of Rolls and a Huntington Mill. Concentrated are produced of wolfram, scheelite and arsenical pyrites. The Smith vein has been tested and shows rick wolfram but a good deal of arsenic too, so operations have been suspended here.</p>	<p>Report by A Wilson to Carrock Syndicate 28.4.1919</p>	
1919	<p>Despite Wilson's desire to construct a new mill and some attempts to sell the mine off, there was insufficient capital to speculate or improve the mine with the world tungsten prices plummeting. The mine was therefore put on care and maintenance and then closed.</p>	<p>Tyler 2003, 58 DX 95 5/3 Report by A Wilson dated 28.4.1919</p>	
1921	<p>Wilson suggests that the Company should be liquidated</p>	<p>DX 95 5/2 Report to the Directors of the Carrock Syndicate Ltd by Anthony Wilson dated June 30th 1921</p>	
1923	<p>Plant is sold off at Carrock</p>	<p>Tyler 2003, 59</p>	
1929	<p>Some interest is shown in the site by Consolidated Mines Selection Co. Ltd of London when prices start to improve briefly</p>	<p>Tyler 2003, 59</p>	
1934	<p>The price of wolfram starts to creep up as the world starts to re-arm</p>	<p>Tyler 2003, 59</p>	
1937	<p>Wilson looks to the British non Ferrous Mining Corporation to take over the mine from the syndicate while still retaining his own interest. He suggests to Mr. Allan of the NFMFC that three other parties are interested.</p>	<p>DX 95 5/2 Letters between Mr. Allen and Mr. Wilson dated 5th and 6th July 1937</p>	
1938	<p>Some quartz is reprocessed from the mill to sell as pebble dashing. The mine is now derelict.</p>	<p>Tyler 2003, 60</p>	
1939	<p>Messrs S. E. Hollingworth surveyed Carrock and a geological survey followed in order to test Carrock's ability to supply tungsten. Further reports were commissioned on behalf of the Ministry of Supply exploring the quality of the</p>	<p>Tyler 2003, 60-1</p>	

	<p>tungsten minerals. This was followed by ground testing of the ores under the supervision of Mr J.D.Willson and Mr. Pearson. The results were positive.</p>		
1942	<p>The capture of Burma by the Japanese created a significant tungsten shortage so Ministry of Supply re-opened the mine under the auspices of the Non-Ferrous Minerals Development Ltd with Anthony Wilson as consultant and still the leaseholder. They re-opened the mine and thirty-five Canadian Royal Engineers, used to working with hard rock, were used to drive the old levels forward connecting the workings by a cross cut. This still remains the main entrance to the mine; recently rebuilt by CATHMS. The Canadians were billeted in barracks built to the east of the mine. Under the Canadians' workmanship, a new crosscut level was driven to the Harding Vein (No.2 or The Canadian Level), some 60 feet below the old Harding (No.1) Level. The crosscut was extended to the Smith Vein, totalling two thousand feet at a cost of £5 per foot, with a further £5,000 spent on compressors, pipelines, buildings and roads. It was proposed to erect a small mill (suitable for expansion later) but this was never built. Sampling was carried out on the Harding Vein (north and south), Smith and Emerson Veins, proving the existence of 51,000 tons of wolfram in excess of 1.09% of mineral.</p> <p>Twenty-five of the Canadians left for other duties in 1942 and their places were taken by Spanish Pioneers and Italian POWs</p> <p>But supply of Tungsten improves and so the mine closes.</p> <p>Wilson sub lets a portion of the sett for quarrying but this is a mile from the Wolfram workings</p>	<p>Adams 1988, 96 Tyler 2003, 61</p> <p>Blundell 1992, 109</p> <p>DX 95 5/3 Letter from A Wilson to Lesley Williams of Matlock dated 27.1.1942</p>	
1943	<p>Plans for a new mill are drawn up by Messrs Chalmers and Fraser, but the costs are prohibitive</p>	<p>Tyler 2003, 69</p>	
1943	<p>Underground plans are produced of the mine by J Jackson and J.D. Willson along with vertical sections of the Harding and</p>	<p>DX 95 5/3 Report by Non-Ferrous Development Minerals</p>	

	Emerson Veins and a surface plan. Plans referred to in a report, but not seen.	Ltd – Carrock Wolfram Mine	
1946	Willie Shaw arranges to meet Anthony Wilson to discuss finding investors in the mine. Wilson has been poorly in the recent past.	DX 95 5/3 Letter from William Shaw to AW dated 9.4.1946 in response to letter from AW to Shaw on the 6.4.1946	
1946	Fraser and Chalmers Engineering Works provide a quote for plant at Carrock dated 3 rd May 1946 amounting to £14,000	DX 95 5/2	
Early 1950s	The Korean War cuts off an important source of Tungsten so the price rises rapidly. Durham Chemical want to mine, but the application process takes longer as site now in a National Park. By the time it is resolved, the price has dropped	Adams 1988, 96-7	
1954	Carrock Fell, Cumberland: development of tungsten mine by Durham Chemicals Ltd registered with Ministry of Minerals	The National Archives, Kew TS 63/8	
1954	On the 10 th November 1954, Anthony Wilson died, aged 82 having worked with the mine for 40 years.	Tyler 2003	
1971	WECO Development Corporation of Denver, Colorado leased mine through its UK subsidiary World Wide Energy (UK) Ltd. £250k spent on a new mill and a little underground development is carried out. Between June 1971-2 the price of ore drops by 33% and work stopped	Adams 1988, 97	
1972-6	Mine held on care and maintenance basis	Adams 1988, 97	
1976	WECO granted the Carrock Fell Mining Co. Ltd, a subsidiary of Amalgamated Industrials, a one year lease of the mine with an option to enter into a joint venture		
1977	Production increases and joint venture exercised	Adams 1988, 97	
1977	In 1977 the deposits were re-assessed by Robertson Research International Ltd, with some northward extension of the Harding No.2 level and some new rises	CATMHS 3 year inspection notes, issue 2.	
1978	Mine profitable for first six months. Carrock Fell Mine is purchased by the National Carbonising Ltd and mining continues but tungsten prices become depressed	Adams 1988, 97	
1979	A planning application is submitted to the LDNP for the expansion of the site to include two pump houses, explosive	Tyler 2003, 119	

	store, two Portakabins, a Portaloo, a 4,000 gallon oil tank, loco shed, compressor house, fitter's workshop, generator shed, crushing shed and mill		
1980	The company came before the magistrates' court in October 1980 for polluting the beck through an unauthorised pipe outlet into the beck	Tyler 2003, 129	
1981	Works start to clean up the site to prevent pollution; the slimes are disposed of down the old stopes of the Coomb Height workings. New electrics are installed in the mine. Waterfall level is dug with the spoil covering the old Emerson trial at the bottom. Tungsten drops in price and the first redundancy notice is served on 10 th September 1981 on Eric Mattinson. Mine ceases working in October and put into care and maintenance. The mine was never to work again.	Adams 1988, 97 Tyler 2003, 131	
1982	Mine sold to Minworth of Derbyshire and remained in care and maintenance until 1988 (at least). Large amounts of spoil are taken away in April by Wilson's Haulage and a basic plant and office brought to site. The price of wolfram was still too low and although planning permission was granted, no jobs were created.	Adams 1988, 97 Tyler 2003, 132	
1985	the new mill was dismantled along with much equipment from within the mine as a result of an ultimatum from the LDNP who required the company to start operating the mine or landscape it	CATMHS 3 year inspection notes, issue 2. Tyler 2003, 132	
1988	1988 the new mill site was levelled and the no.1 entrance sealed.	CATMHS 3 year inspection notes, issue 2.	
2002	The site is scheduled as an ancient monument	English Heritage SM documentation	
2011-14	CATMHS sign up to a management agreement for the mines with English Heritage for three years (until 2014)	CATMHS 3 year inspection notes, issue 2.	
2011	CATMHS restore the principle mine entrance with support from LDNPA and English Heritage	CATMHS 3 year inspection notes, issue 2.	