

BRITISH MINING No.81

THE VAN MINES

by

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MONOGRAPH
OF THE
NORTHERN MINE RESEARCH SOCIETY
APRIL 2007

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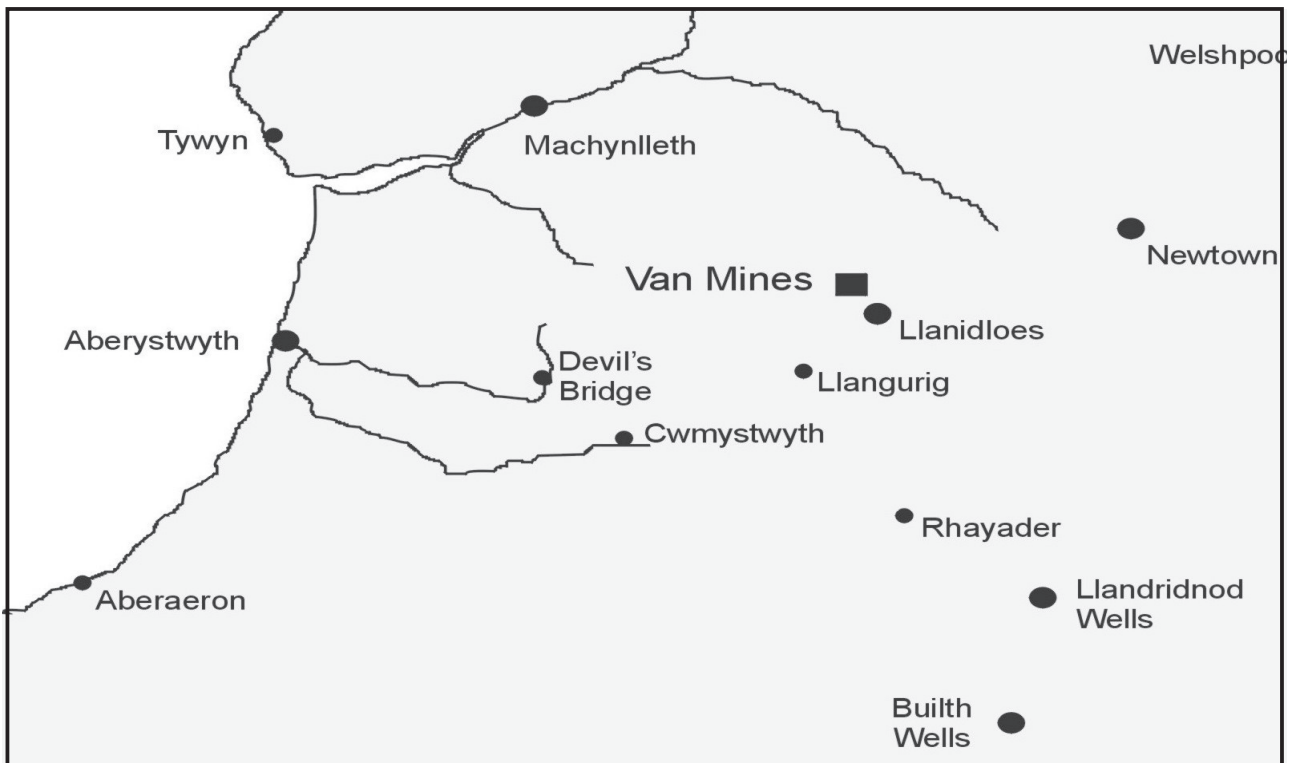


Figure 1. Location of the Van Mines SN 942 876.

ACKNOWLEDGEMENT

Two major sources of information have been used to produce the Van Mines story: the original documents of the companies held in the National Library of Wales in Aberystwyth and the collection of Mining Journals held in the Central Reference Library in Birmingham. To both these libraries I am indebted for help and kindness over the years.

Several of the reports and other documents were provided by Steve Oliver of Llangurig for which I send my thanks. My thanks go also to Simon Hughes of Talybont for information and useful discussions on the subject of Van. Graham Levins supplied a fine example of a share certificate for Central Van. To date I have yet to find a Van share certificate. Steve Rawson supplied the superb photograph of the Van Mines. Thank you very much gentlemen.

I am grateful to the late David Bick for providing photograph and information. I also owe David a great deal more; his books on the lead mines of mid Wales were my introduction to the hills and valleys of this wonderful part of Wales. Rest in peace, David.

INTRODUCTION

Of the nineteenth century Welsh metalliferous mines, the name of Van Mines is the most celebrated and yet to date no major written work on their history has been produced. The following is offered in an attempt to fill that gap. Having on several occasions wandered over the site and pondered on its history and the personalities involved, I became interested in learning more. Having access to several secondary mining sources for the period, I began to study a collection of monthly reports by the mines' managers to provide a basic history for my personal interest. When the reports for Van were compared with those from other Welsh metal mines that strived over the years to raise a few tons of lead ore, then the output from the Van Mines was something most of the other mines could only dream of. Van during the 1870's was producing 200 tons of concentrates per month with the declared aim of producing 280 tons of concentrates per month. However, collapse of the price of lead forced the company to run the mine on a paying costs basis during the late nineteenth century, while hoping for better days in the future. This robbed the mine of the opportunity of exploiting its great potential, which could have flooded the market with Welsh-produced lead. During the latter half of the nineteenth century, Van produced 95,739 tons of lead concentrates, 28,424 tons of zinc blende and 756,142 ozs of silver. It was said that to produce this output around one million tons of rock were mined and processed. It is proposed throughout the following work to refer to 'lead ore' as the raw material raised from the mine and to use the term 'lead concentrate' to refer to the processed product ready for market.

The name of the mine was derived from that of a mountain nearby called 'Y Fan.' This is understood to mean in Welsh, 'the place' or 'the spot', being said in the Welsh traditions to have been a place marked out as special for some reason. Several stories are told that the mountain held a fabulous treasure, whether this was of lead ore or not remains unrecorded. Y Fan was certainly a place of legend before the finding of the Van Mines. However it ought to be noted that the Welsh word 'Fan' means mountain and it could be that 'Fan' was corrupted, at some time, into 'Van.' The Mining Journal of the nineteenth century was full of such mangling of the Welsh language.

THE LONDONDERRY FAMILY

The Londonderry family were holders of large estates in Ireland, having their family seat at Stewart's Court and Ballylawn in County Donegal. In 1816 Robert Stewart, 1st Earl of Londonderry (1739-1821) was created Marquess of Londonderry. He was succeeded in 1821 as the 2nd Marquess of Londonderry by his son, Robert Stewart, Viscount Castlereagh (1769-1822), who commenced his political life as an Irish M.P. He became Secretary for War in 1805, supported the rise to power of the Duke of Wellington and was much involved in the Treaty of Paris after the defeat of Napoleon. Later he became Foreign Secretary and was much disliked for introducing a series of unpopular bills into Parliament. After an attempted assassination, he took to carrying pistols wherever he went. In 1822 he committed suicide, leaving no heirs; the estates then passed to his half brother.

Charles William Stewart (1778-1854) became in 1822 the 3rd Marquess of Londonderry and later the 1st Earl Vane. He had a distinguished army career, being Adjutant General to Sir John Moore during the Peninsular War in Spain. He married his second wife, Lady Frances Anne Vane-Tempest, a wealthy heiress with huge coal-bearing estates at Seaham in County Durham. He was to develop these estates into one of the greatest coal producing areas of the country and in order to ship coal to London he developed the Seaham Harbour complex. He took the surname of Vane in place of Stewart.

Frederick William Robert Stewart (1805-1872) became the 4th Marquess in 1854 and continued the development of the Seaham estates. He was a Member of Parliament for County Down, in 1834-5 a Lord of the Admiralty and in 1835 a Privy Councillor. During 1862 he developed mental problems and was eventually confined to a home in Hastings for the last years of his life. He died in 1872, childless, and was succeeded by his half brother.

Sir George Henry Charles William Vane-Tempest, Viscount Seaham (1821-1884) had a career as an army officer. In 1846, he married Mary Cornelia Edwards, the daughter of Sir John Edwards M.P. who resided at Greenfields, Machynlleth. Sir George & Mary settled at Greenfields, renaming the house Plas Machynlleth and managed the estates of Sir John. These included quarries near Corris and much of the area that would become the Van Mines. He helped to promote the Corris railway and was involved in the development of railways in the area, joining the board and becoming chairman of the Cambrian Railway. It is ironic that one of his sons, Herbert Lionel Henry Vane-Tempest was to die in the Abermule train crash in 1921. Sir George supported the creation of the Van Railway, serving as its chairman and was a shareholder in the Van Mines. He became the 2nd Earl Vane in 1854 and the 5th Marquess of Londonderry in 1872.

His son Charles Viscount Castlereagh (1852-1915) became the 6th Marquess at his father's death and moved to Seaham Hall, Co. Durham to run the estates. He took the surname Vane-Tempest-Stewart and married Lady Theresa Talbot, daughter of the Earl of Shrewsbury in 1875. He was Lord Lieutenant of Ireland 1886-9. Postmaster General 1900-1902. President of the Board of Education 1902-05.

Charles Stewart Henry Vane-Tempest-Stewart (1878-1949) became an M.P. in 1906 holding various posts: Under Secretary for Air, Minister of Education for Northern Ireland and was for a short period Lord Privy Seal. He was said to be one of the richest men in the country, most of his wealth being based on the royalties from his collieries. In the late 1930's he was involved in establishing Anglo-German relations with the Nazi Party and suffered as a result.

GEOLOGY

The basic geology of the ore field has been recently described in detail by James¹ and consists of grits, mudstones and shales of Silurian and Ordovician age. These are divided into the following formations: in the Silurian, Cwm Ystwyth with an average thickness of 4,000 feet, the Frongoch with a thickness of 2,700 feet and the Gwestyn with a thickness of 750 feet. The Ordovician is represented by the Van shales of 2,400 feet thickness. The metalliferous ores of the Powys or Cardiganshire to Montgomeryshire mining field occur in veins or lodes that dip at around 35 to 40° from the vertical and have a basic north east to south west strike, although the 'flats' found in the Van Mine, in the grits of the Lower Van formation, were a major exception to this rule. In the case of the vein system under consideration, the veins appear to exist about one mile to the east of Van in the Glangwden Woods and can then be traced across the countryside for about nine miles where they become the Castell Vein system near Ponterwyd, Ceredigion. As we shall see this vein system coupled with the name of Van was to be used creatively in the late nineteenth century to develop mines and fleece shareholders.

The vein was found to be composed of three different sections, the 'flucan' or soft lode, was usually found on the south side and was a mixture of clay and fractured shale with a thickness of about 12 feet, which on occasions was up to 24 feet. It was believed to have been created by a destructive movement of the side of the vein in the slate rock. Deep in the mine the flucan was less than a foot in thickness. The middle section known as the 'bastard' lode was a mass of slate rock, generally of 4 to 5 fathoms in thickness sandwiched between the flucan and the regular lode. It was also a soft rock usually devoid of lead ore which probably accounts for its name. Within the slate were strings of lead ore, sometimes worth working as happened in the stopes above the 90 Fathom Level. In this lode the galena was mostly of potter's ore while in the regular lode the ore was more granular. The lode itself consisted of masses of shale with veins of galena, varying in size from thin strings to branches of one to two feet in thickness. In many places the lode was made up of fragments of slate cemented together by quartz, galena and blende in what is termed a 'brecciated' structure. In the lode the footwall was usually well marked and was often covered with slickenside dipping to the west.

The length of the ore ground in the Van Mine was proved to increase in depth from around 60 fathoms in length at the Adit Level to more than 200 fathoms at the 90 Fathom Level. However by the 120 Fathom Level, the lode had decreased considerably to the point of being worthless in terms of mining. Over the years, much has been made of the outbursts of gas produced by the vein. The gas, methane or fire-damp, was believed to originate deep in the Carboniferous rocks below the vein and to have travelled along fissures in the vein matrix. It accumulated in pockets within the vein structure and was liberated as the vein was worked. The gas occurred in every first drivage in the mine from the first adit onwards and was considered a sign of good fortune. On occasions the gas would explode with a loud noise or bubble out of pools of water. This was one of a few lead mines that had to be worked, on occasions, with the aid of safety lamps similar to coal mines.

IN THE BEGINNING 1846-1869

Our story commences in about 1846 when William Lefeaux discovered the continuation of the lead veins to the east of the Bryntail mine and developed the Pen-y-Clyn mine. Operations at the Pen-y-Clyn mine soon found a large mass of lead which returned profits of £18,000 over four years. However, this discovery failed to produce lead ore as the workings were taken deeper. During 1850 William Lefeaux took a lease of the neighbouring Van sett and 'fossicked' to the east of his existing workings. He reasoned that the veins they were working at Pen-y-Clyn headed for Van and, therefore, the continuation of the workable veins probably went in that direction. They spent about £700 in an unsuccessful search for the lode over about two years before they gave up. About two years later operations were resumed under the management of Captain Williams, the agent at Pen-y-Clyn and after a short period the lode was discovered by costeaning. This discovery prompted Mr E. Morris of Oswestry and his partner, Mr J. Howell of Hawarden to continue their operations with two men employed. By this date William Lefeaux had sold his shares and gone off to work the Nantiago Mine near Llangurig. After a period of three years the work of these two men was so unproductive that they were keen to abandon the enterprise. However, their agent, Capt. Williams, encouraged them to continue the speculation, providing his services free until the lode was cut. Operations by the two miners continued for a further eight years until during 1862 a winze sunk below the level cut into a fine lode containing good spots of lead ore. Unfortunately the influx of water was so great that the manager advised the suspension of operations at this point and instead he recommended the driving of an adit crosscut which had been abandoned by the first adventurers. When this crosscut was driven north for about 150 yards, it intersected the rich lode at a depth of about 60 yards from the surface. This occurred towards the end of August 1865. Probably the greatest mystery of the Van Mine was the continued persistence in the driving of these levels for year after year without any returns; it says a lot for the belief in eventually finding lead ore. Up to this time the total outlay on the mine was £1,680. This Deep Adit was driven nearly 130 fathoms, while the 15 Fathom Level above the adit was driven a considerable distance. During this period they also commenced the sinking of the Engine Shaft high on the hillside. Sinking was continued until the 15 Fathom Level was cut. From these levels they raised ore to the value of about £28,000².

The first ore from the mine was sold in 1866, the vein proving to be so rich that a 50 feet by 4 feet wide waterwheel christened Mary Emma was erected later in the year. Made by Leigh and Gilbert Howell of Bagillt Foundry it powered an ore crusher and machinery on the dressing floors. Morris & Howell appear to have decided to sell up and in the autumn of 1868 offered the mine to the

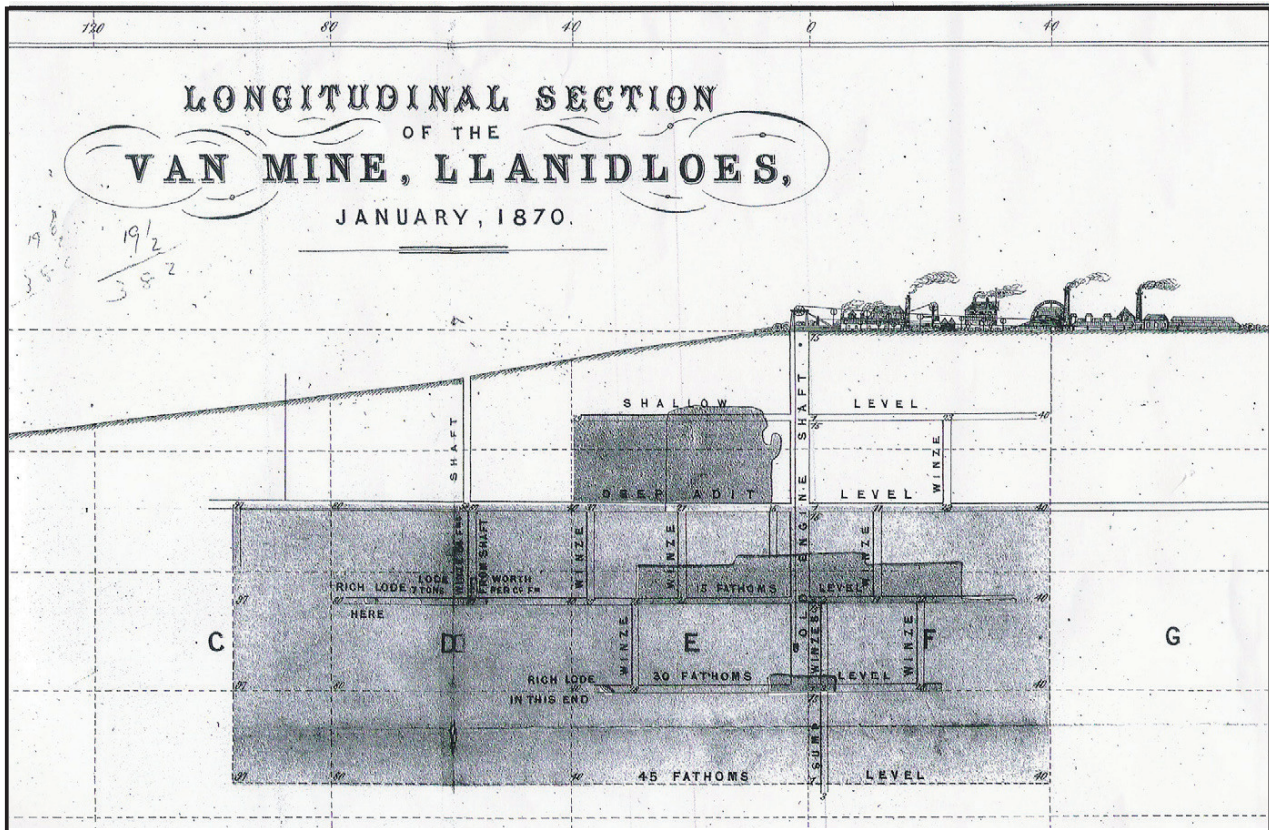


Figure 2 Van 1870. Longitudinal Section from Arthur Water's report of 1870. When published in 1870 this report created a sensation among mining investors as it gave an impression of the richness and potential of the Van Mine. The sketches gave some idea of the buildings on the mine.

eminent mining firm of John Taylor & Sons for £40,000. Fearing that the orebody would fail in depth as was common in the area, they declined the opportunity and Van changed hands in November 1868 for £46,000 to George Batters of the London Stock Exchange. He had made a highly successful speculation on the West Chiverton Mine in Cornwall and hoped his luck would continue.

References

1. James D.M.D., 2006, 'Lode geometry in the Plynlimon and Van Domes, Central Wales, UK: the relative importance of strike swing and relay linkage', *British Mining*, 80, pp. 33-59.
2. *Mining Journal*, 6 March 1869, p. 168.



Figure 3. ca. 1870. This superb photograph was taken looking down the hillside to the south. It shows the newly constructed buildings of the mine with the offices to the left. On the right is the flat rod system from the Mary Emma waterwheel to the Engine Shaft which operated the pumping and winding plant of the mine. This system was replaced in 1876 when the Cornish pumping engine was built and, therefore, dates the photograph prior to that date.

VAN MINING COMPANY

As a member of the London Stock Exchange, George Batters was able to recruit investors with capital to form the 'Van Mining Company' with a capital of £50,000. Thomas Clement Munday, also a member of the Stock Exchange, became the first chairman and William J. Lavington was appointed secretary. The shares numbering 12,000 had a value of £4 5s. each. The company was registered on 29 January and took over operations at the mine from 1 February 1869. At the time the workings consisted of an adit crosscut driven 152 fathoms into the hillside before it cut the lode. A deep adit which was 15 fathoms below the crosscut was driven for 136 fathoms, (72 fathoms east and 64 fathoms west of the shaft) through a lode of 8 to 10 fathoms width. A further

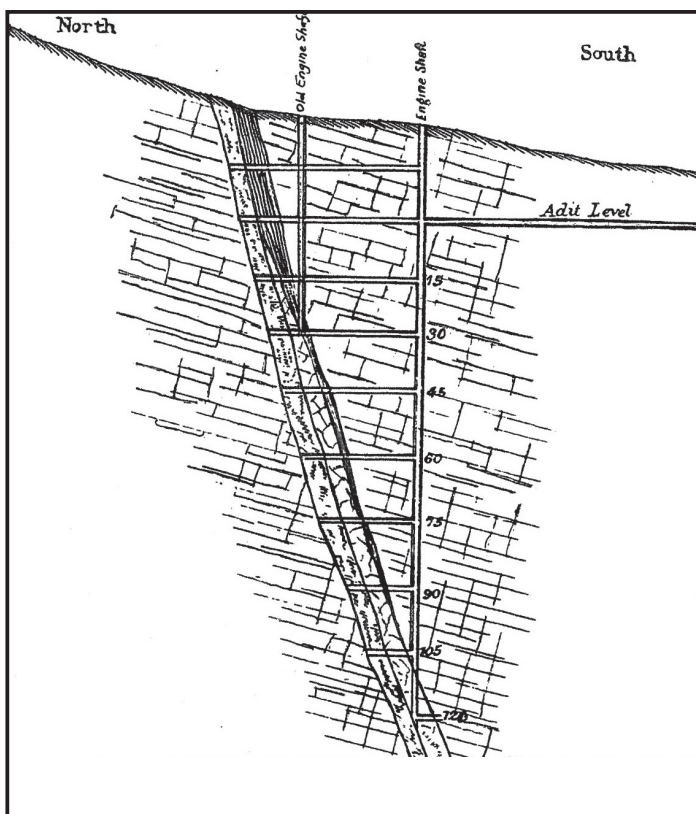


Figure 4. Cross Section of the Van Lode. From 1869 the Engine Shaft was sunk to explore the vein. Later a new Engine Shaft was sunk further south to reach the base of the vein.

15 fathoms below the adit was a level driven 33 fathoms east and 37 fathoms west into the lode with stopes producing about 150 tons of ore per month. The Engine Shaft had been sunk 4½ fathoms below the 15 Fathom Level and was continued at the rate of about 2 fathoms per month. To pump the mine water from the shaft a flat rod system was connected to the Mary Emma waterwheel on the dressing floors and terminated with a quadrant placed on the edge of the Engine Shaft. Until 1875 the Mary Emma wheel pumped the mine dry and supplied power to one of the dressing floors.¹

The machinery on the mine consisted of a 30-inch cylinder steam engine and the 50-foot diameter waterwheel with associated dressing floors, all erected under the guidance of Captain Williams. The new company was

looking for a greater output and wanted at least 150 tons of concentrates per month, requiring the development of the 30 Fathom Level and improved machinery on the dressing floors. It was proposed to erect a larger steam engine with an extra crusher and stone breaker and to extend the dressing floors. These activities were expected to take six months to complete.²

The first general meeting of the company was held on 10 May 1869 at their offices in Bishopsgate St. London with Mr. Thomas Clement Munday in the chair. He reported to the meeting on progress at the mine. The Engine Shaft had been sunk 6 fathoms 2 feet through the lode, producing 2 to 3½ tons of ore per fathom. They intended to continue sinking until the 30 Fathom Level was cut which would improve the haulage