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TEESSIDE MINING COMPANY

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SYNOPSIS

From a series of reports which appeared in the contemporary mining press, it has been possible to piece together the history of one of the innumerable public mining companies which rose and fell in the 19th century. Their brief lives almost always exhibit a similar pattern: initial optimism followed by a brave battle, often with the twin adversaries of fickle geology and the elements, followed by the last minute 'puffs' to raise more capital and the inexorable decline into obscurity.

In Cornwall and Wales, for example, such companies were legion and, it should be pointed out, in many cases tarnished with fraudulent machinations of a handful of speculators; activities which nowadays would lead to jail sentences, but then were regrettably part and parcel of the metal mining scene. Other articles in this publication bear this out all too clearly.

However, mining in the Northern Pennines was mainly the province of large private companies who were under no obligation to divulge the ins and outs of their activities to an investing public.

Being a public company - although seemingly in no way tainted by the evils normally associated with many of their contemporaries - the Teesside Mining Company's short history remains available to any reader of the Mining Journal, both now and in the 1850s and 1860s. This is their brief story.

The sett consists of an area of about 1000 acres near the source of the river Tyne not far from the Cross Fell Mountain. Grid Ref. NY 762 338. The southern boundary is formed by the river Tees and the Crook Burn.

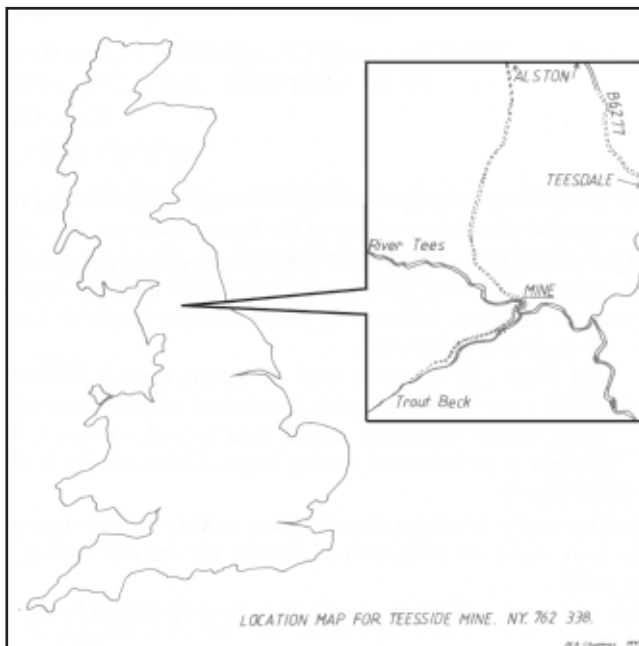
The Old Man had sunk a shaft about 24 fathoms deep finding and raising a considerable quantity of lead ore. Also he had driven a level 55 fathoms as a cross cut towards a series of lead veins but had not reached them. The major workings had been from the shaft on a vein that, for about 10 fathoms eastwards, had been stoped and a sizeable output raised.

However, the poor state of the machinery, coupled with the low price of lead, had eventually forced a closure during 1829.

In July of 1852 a new company called the *Teesside Mining Co.*, consisting of 4800 shares and working to the Cost Book system, had obtained a lease from the Greenwich Hospital Commissioners.

Their first action was to commission Evan Hopkins of Austinfriars London, a noted geologist and civil engineer, to visit the mine and produce a report. This was dated December 13th 1851 and commenced by mentioning that the property contained the local strata from the Scar Limestone down to

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the Jew Limestone with the probability of containing several lead veins. The southern part of the sett had several veins at surface with indications that some had been tried in the past. A level had been driven from the river Tees towards the major series of veins but had been abandoned before reaching them. He suggested the purchase of a crushing mill to reduce the lead ore and the continuation of the driving of the level. In the river several other veins were noted that would require the installation of pumps for drainage prior to being worked. He suggested the pumps could be driven by a waterwheel of about 30 to 40 feet diameter; this could be installed in a year or so. The immediate operations it was suggested should centre on the veins at surface or above the water table.

A second report was drawn up by John Walton of Nent Hall who provided a lot of local information regarding the mine. The sett was near the Hardshins mine at the time being worked by the London Lead Co. and adjoining the Green Hurth Mine that had only recently opened. Already this mine had produced ore to the value of £650.

He went on to mention the names of veins found on the sett, Old Dow Green, Hardshins, New Vein, Robinson's and Emersons. On the southern area of the sett was the Metal Band vein, which had been worked along the outcrop prior to a 20 fathoms deep shaft being sunk on it.

Regarding the above mentioned level he believed that to continue the driving for a further 15 to 20 yards would intercept the veins and produce quantities of lead.

Operations on site followed the recommendation of these reports, with Captain John Woodmass undertaking the role of manager. By the A.G.M. on October 26th 1852, a new manager, Captain Joseph Collom, had replaced Capt. Woodmass because of the latter's poor health. Capt. Collom delivered a superb report regarding the mine and covered operations to date.

They had cleared the water from the bottom of the mine and were removing the rubbish from the Providence shaft. Each side of this shaft was said to be standing on splendid ribs of ore. A whim was being erected to wind from the shaft with already about 50 bings of ore to wind.

As regards the Metal Band workings they would develop a completely new mine at depth. To this end, a proposal was put before the A.G.M. to raise the necessary capital for this venture. It was also suggested to continue activities at Teesside, thereby developing two mines at the same time. The proposal was to create a further 1600 shares of 30 shillings each in the concern and to offer them to the existing shareholders; then to release any left to the public. This proposal was carried unanimously and the funds promised.

With the money raised it was intended to place a waterwheel at the Teesside shaft and to provide a steam engine to help continue the sinking to 50 fathoms. A second wheel was to be erected at Metal Band to drive pumps and the crushing stamps. Any money left was to be spent on the mining.

During the winter and into 1853 the construction of the surface plant and the development of the underground workings was pursued with as much vigour as was possible.

The steam engine was delivered to the mine and erected on the Providence Shaft. On May 19th the engine was first steamed and commenced to pump the water from the shaft. After a few hours the water was so reduced that the miners were able to enter the higher levels connecting to the shaft. Naturally they were reported to have found some excellent examples of ore. Because of the difficult transport conditions, the boiler was fuelled on two thirds peat to one third coal. They were happy to mention that the peat was cut within 100 yards of the boiler.

At the Metal Band workings lead ore had been produced and was available for crushing, when they had a crusher!

The steam engine axle broke during early July and at the same time a pumping spear failed, bringing pumping to a halt. Repairs were effected and pumping resumed, removing water to the 20 fathoms level and the

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workings were examined. The miners found tram rails and wagons standing in the level, all in good order and ready for work. This level had been driven for 35 fathoms eastwards from the shaft in a vein of 12 inches of lead and 2 feet 6 inches of fluorspar mixed with ore.

Metal Band miners were driving the level in a vein of about 2 feet wide consisting of ore mixed with fluorspar in sufficient quality to pay for the working.

During the summer the levels from Providence shaft were driven east and west, resulting in the production of small quantities of lead ore. Similar operations were carried on at the Metal Band workings with ore being won from a vein they had intercepted. During September the company's carpenters and blacksmiths were employed constructing a whim to wind from the Metal Band shaft.

The late autumn saw a visit to the mine by John Hartland of Marrick who had been asked to prepare a report for the Directors. The main recommendation in the report was to replace the steam engine at Providence shaft with a large waterwheel leaving the engine to supply power during droughts. The estimated cost of the wheel was expected to be from £1,000 to £1,500 but it would crush, wind and pump, repaying the initial cost in two years.

At the monthly meeting on December 3rd at Newcastle-on-Tyne, with Ulrick Vipond in the Chair, a contract for the supply of the wheel and crusher was let. The Secretary was able to report that 800 shares had been sold bringing in £2,400 to boost funds.

Early December was marked by the first winding of bouse from the mine with an output of about 28 tons. The following year was one of a steady development of workings from the Providence and Metal Band shafts. However, the production of lead ore was also very steady meaning that the mine followed an erratic course between profit and loss. October of 1855 was spent in altering the shaft pumps to permit the deepening of the shaft below the bottoms of the mine.

By November 17th 1855 the sale of lead ore had brought in £174 14s while calls on the shareholders had drawn in £193 5s 9d. Unfortunately costs had been £701 11s 2d. So a call of 1s 6d per shareholders was demanded. A report was read from a Capt. William Jeffery to the effect that the Providence shaft was 17 feet below the 24 fathom level and being sunk deeper by eight men working in the bottom.

The severe winter stopped operations during December when frost brought the Providence wheel to a halt, as a result the water rose to within 5 fathoms of the surface.

This problem did not affect the miners driving in the Main Vein at Metal Band. They were still producing small quantities of lead ore ready for the crusher to reduce.

During the next year the Metal Band section of the mine was to prove to be the most productive, particularly in the south east area of the workings. The reports as ever are always referring to favourable signs, tomorrow always seems to be a better day.

Operations in the Metal Band shaft were commenced during 1857 with the intention of sinking it deeper. First of all the rubbish of previous miners had to be removed and the bottom found. This was achieved during June with a total depth of 19 fathoms 4 feet recorded. The lode at this point was stated to be 6 feet wide composed of stone, spar, clay with spots of lead.

The level was being driven east in a vein of 18 inches wide, again composed of clay, and spar with spots of lead while in the roof the vein was said to be poor.

At this stage the returns from the mine were very poor forcing the directors to approach the Greenwich Hospital Commissioners for easier terms. At the time the duty on lead mined was 1-7th above water and 1-10th below. This was reduced to 1-10th and 1-15th respectively. Activities continued at the mine with 10 tons of lead ore going to Alston in the middle of June.

Having cleared out the Metal Band shaft a cross cut level was driven towards the North vein and a rise put up into stoped ground under the 10 fathom level. Capt. Bray, who was by now the Manager, had high hopes for this part of the mine and commenced driving west on two veins towards their intersection. Through the summer and early autumn 6 men were employed driving west on a vein in this part of the mine, producing small quantities of ore.

On the surface the foundations were dug and stone cut locally to build a set of stamps to reduce the bouse from the workings. During September the mason was on site constructing the necessary stonework and the ironwork was daily expected. This did not prevent lead ore from being crushed and sent away to Alston. At the same period 3 tons was dressed on the floors here.

A period of mining of the lodes now set in with small amounts of ore being produced and dressed. The dressed ore would appear to have been sold to Newcastle metal dealers in small amounts over the years. With the construction of the stamps the dressing of the ore could be done more cheaply and quickly instead of the former hand crushing methods.

After a period of working, the mines were stated, during February of 1859, to look promising with the shareholders likely to receive some returns for the money invested. A stope in the 20 fathom level was producing 1½ tons per fathom while the stope on the 24 fathom level was capable of producing a similar output. The engine shaft was sunk on the junction of two lodes and the bottom was expected to produce

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from 1½ to 2 tons per fathom. At the time it was intended to sink the shaft a further 10 fathoms and drive levels off east and west under the ore ground stoped above. This was expected to make Teesside a good and lasting mine.

By the beginning of April 10 men were employed underground raising ore from the Providence shaft to a good profit. Over the next month 10 tons of dressed ore was sent away to Alston. The need for some form of haulage was now felt, so a horse joined the company!

A report for the middle of July records the setting of bargains for mining as follows:- driving east of engine shaft by 4 men at 130s per fathom. At the junction of the two lodes, the ore looked promising and was believed to be worth £10 per fathom, while the average yield in the stopes was 1¼ ton per fathom. Six miners had been set to wheel, fill and land all their ore at 105s per fathom. Prospects must have been better in the 20 fathom level as the two miners driving east were on 120s per fathom against the 130s for the 24 fathom level.

While operations underground seem to be improving, the office had been moved to London, probably to appeal to the share buying public and to give the company a better name. Early in 1860 the secretary, J.H. Robinson was replaced by Jonathan B. Reynolds, who discovered a few problems with the book keeping. It appears that the secretary was to chase up the calls demanded, especially the non-payers, and if necessary repossess the shares. This side of activities had been neglected and £350 to £400 was owed in the calls. Mr Reynolds had either forced them to pay or acquired the shares; he then sold them on behalf of the company to his friends. This had been done without Mr Reynolds drawing any salary from the company, so for services rendered, he was presented with 75 shares at the next monthly meeting. A further problem with the previous management had been the lack of regular pays to the miners. This was a cause of much complaint but was now being rectified.

Over the last year the share buying public had taken a greater interest in the concern with a rise from 1700 to 2218 shares being held. Probably the change of office, aided by the Reynolds share pushing methods, had something to do with this.

At the mine, the lode at the shaft bottom was now 4 feet wide, of which 18 inches was good ore. By the end of July the Providence shaft was down 10 fathoms below the 24 fathom level and worth about £36 per fathom. Dressed ore was being sold to Messrs Locke and Blackett of Newcastle for £12 7s 6d per ton. The middle of September saw the lowering of the pumps to drain the sump at the shaft bottom to permit further sinking into the lode. At this point the lode was 5 feet wide of 'congenial' spar, jack, hard hazel (limestone) and grey stone beds

impregnated throughout with small blotches of lead ore. The best part of this was being taken to the stamps for reduction.

Towards the end of October the Greenwich Hospital Agent paid a visit to see operations and check on the output; he also collected the duty due on the ore sold, which amounted to 16 cwt. Another visitor at this time was a Captain Jeffrey, a man of considerable mining experience who was employed by the Committee of Management to produce a report on the mine.

The Hardshins level was mentioned at this period with 6 miners driving at 95s per fathom. They very quickly cut a string of lead on the north side, which was believed to be the North Vein. Just before Christmas, the Agent R. Bray accepted an offer from Messrs Locke and Blackett of Newcastle of £11 2s 6d per ton for a parcel of ore delivered at Alston station to their agent, cash to be paid in 14 days from the 13th of December if delivered in time. Heavy snow fell in the meantime preventing the carts from reaching the mine to collect the ore. This severe weather lasted over into the New Year but did not stop operations in the Hardshins level.

While driving north in the Hardshins level early in January a cross vein was encountered with 'strong strings' of lead so more miners were sent to drive east along the vein with all speed.

Late in January the Monthly Meeting disclosed a credit balance of 11s 10d but liabilities were £13819s 3d so a call of 1s per share was demanded. Messrs Hemming, Bird, Proctor, Crick, Provis and Batters were appointed to be the Committee of Management. Captain Jeffrey had been on site again and gave a favourable report on the prospects for the mine. But he stated that the mine had to be better managed than previously or they would suffer.

February brought in better weather so the Providence wheel was repaired prior to pumping operations recommencing, as it was intended to sink the shaft deeper. Later in the month the Hardshins level found a junction of veins to the east but very little ore was cut. A trial was made along the course of the vein to find ore.

Captain Jeffrey offered to take over the management of the mine for a percentage of the profits and this was accepted by the company. How the previous manager, Captain Bray, felt is not recorded, he however continued to furnish the reports for the *Mining Journal*. The appointment of Capt. Jeffreys was expected to have a good effect on the shares.

The new Captain started with a report suggesting the sinking of the Providence shaft a further 6 fathoms below the 24 fathom level, then drive east and west on the lodes, when he expected the mine would begin to show profits. Operations still continued at Hardshins level on a lode composed of spar and hazel post of 2 feet wide.

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During mid March the water was removed from the Providence shaft or “forked” as the report terms it. Then a heavy fall of snow stopped operations. Into April the wheel began turning, the water forked and sinkers got into the shaft bottom. They were 5 fathoms 1 foot below the 24 fathom level by the beginning of May on a promising lode of 2½ feet wide. It was composed of spar and limestone with stones of lead from 8 to 10 lbs weight. The sinkers were getting £30 per fathom by this stage.

By June the weather was so dry that it proved difficult to find enough water to operate the wheel. Because of this enforced stop, the water underground rose to the 20 fathom level. Later in the month the wheel was turning again and the water pumped from the shaft. By the end of the month the lack of water caused further problems, but sinking continued when possible. A collapse of the shaft side broke part of the pump rod and stopped activities for a while.

Mining continued into August with the men cutting down the east end of the shaft. While doing so a cavity was located near the shaft bottom and some soft spar and stones of lead were discovered. The ground was described as very hard and too wet for blasting. Later in the month the wheel was stopped for repairs, letting the water rise to 3 fathoms above the 20 fathom level. Once the repairs were complete it was stated that most of the week would be needed to pump out the water again.

Mining was very much in evidence during September with a drift being driven from the bottom of the Providence shaft towards the east on the Sun Vein. This was worth 25 cwts of ore per fathom. Again, the ground was described as very hard and troublesome to drive, requiring the use of explosives.

The beginning of December found operations continuing on the Hardshins lode driving east. This was 18 inches wide, composed of spar, with spots of lead and feeders of spar coming in from the north and improving the appearance of the lode. On the surface, hard frosts and showers of snow had stopped activities. By the middle of the month the miners were still driving east on the Hardshins lode with the ground improving. While making a new cut, they had discovered another ‘strong’ string of ore coming from the north. It was claimed that here was the most promising vein since the last cutting of the junction of two lodes.

At this promising situation the reports end; it can only be suggested that the concern went on finding very little or less than was necessary to pay the bills until the majority of shareholders refused to pay the calls. But the company did not finish at this point. An attempt was made during February of 1863 to put the workings on a sound footing by

several of the shareholders. A long description was published reminding readers of former very profitable workings and pointing out the possibilities of future riches.

The Providence shaft was said to be 30 fathoms deep with a course of lead ore discovered in the east end worth £20 per fathom and 6 fathoms deep, giving every promise of continuing to the 34 fathom level; it would take 4 months to prove, at a cost of about £150. In the east, under the 24 fathom level, the lode to the west was very promising and further west a cross vein formed a junction similar to one of the lodes at the Nether Heath Mine. Dow Green vein could be seen on the surface, in the river Tees, containing almost enough lead to pay for working but strangely had not been worked.

The Hardshins Level was also promising, but the great prospect was the Providence shaft, which, if prosecuted in the Spring, with its abundance of water, would develop the concern into a profitable mine and leave enough money for activities on other areas of the sett.

Of interest was the mention of a steam engine having been recently purchased for £400, indicating the former engine at Providence shaft had been removed, probably to raise money.

The report continues by suggesting that if the mine was operated in a miner-like manner instead of throwing money away as had recently been done in useless operations, the shares would soon be worth 30s or up to 40s. From these remarks it would appear that Captain Jeffrey was no longer in charge. It also suggests that very little had been done in the workings since the end of 1861 when the reports finished. Nothing further is to be found regarding the concern until the middle of 1866 when it was stated:- "Lead mine for sale by private contract including the lease, plant and machinery of the Teesside Mine in Alston Cumberland. The sett is very extensive and has several veins crossing it, one of them yielded 1,000 tons of lead ore from a shaft 20 fathoms deep and on an area of ground of about 50 fathoms in extent, at 1-7th dues." The present dues were stated to be 1-20th.

On the sett were lodgings for miners, workshops and stabling, all ready for immediate occupation. This concludes the available information. What happened after this date is not recorded. Probably very little. The buildings would supply stone and materials to the local farms and the mine disappears into the legends of the area. The evidence available suggests a lack of lead ore in the veins to make a viable mine from the beginning. It seems that profits were always around the corner but never materialised. Only small amounts of dressed ore being dispatched are mentioned. The other question to ask is did anyone make any money from the concern? Here, the evidence is totally lacking. All

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that can be said to that is some of the local miners, for a period, found employment!

Mineral Statistics for Teesside Mines

Year	Dressed Ore	Lead	Silver
1854	26- 9	18- 0	108 ozs.
Metal Band	13- 6	9- 0	5
1855	4-11	3- 0	21
Metal Band	10-19	5- 0	64
Teesside and Metal Band combined			
1856	38- 4	27- 0	189 ozs.
1857	36- 6	25-13	179
1858	15- 3	10-10	73
1859	41-19	29- 1	203
1860	15- 0	10- 5	72
1861	3-15	2-12	17

The mine is then listed without any output until 1872 then it disappears.

REFERENCES

This article was compiled from a series of reports in the *Mining Journal* from Volume 22 to Volume 36 (1852-1866). These volumes are held in the Science and Technology Department of the Central Reference Library in Birmingham. My grateful thanks to the staff of this Department for the kindness and help shown to me over several years.

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