

The Location of Edward Jones' 1799 Tramroad – An assessment based on contemporary correspondence.

The lease [1], granted to Edward Jones in 1796 by Sir Charles Morgan, clearly defines the boundary of an area within which the tramroad must have lain. The area is that which was occupied by Risca Farm.[Appendix 1] It is worth noting that the farm was simultaneously leased to Rowland Phillips for agricultural purposes. Jones' lease merely allowed him to construct a tramroad across the land to the canal.

This arrangement caused friction between the two lessees and resulted in Jones writing a letter to Evan Phillips (the agent for Chas Morgan) in December 1797 [2] [transcribed at Appendix 6]. The wording of this letter makes it possible to identify a particular field which Jones wished to cross. He offered to purchase the agricultural lease and leave Rowland Phillips free to use the farm house and 'all the land to the north of the wheatfield (opposite my pit)'. The field is also referred to as 'immediately fronting my work'.

The geology of Machen Mountain [3] and [Appendix 2] reveals that all the coal seams (in the local series) outcrop on the lower slopes. The Sun vein at ST 232913, opposite the current (2015) fire station, is the lowest and the Rock vein at ST220913 is the topmost. The intervening seams (Red, Grey, Big, Black etc) outcrop in turn. All of them dip by about 25 degrees in a westerly direction.

In Dec 1797 Jones wrote that 'the men are now working coals on the Sun vein and I therefore much want the road', This can only mean that his mining operation had recently expanded to include the Sun vein and the extra output increased his need for the tramroad. More importantly, it indicates that his initial mining activity was not on the Sun vein.

In the absence of any better information, if the mid point of the remaining veins (from Hard vein to Rock vein) is taken as his starting point, it is possible to define his haulage problem. (The 1880s OS map [Appendix 3] is used to illustrate this paragraph. In 1796 none of the bridges, tramroads, railways or embankments existed, of course.) The direct route from this mid-point to the canal crosses the river (and the level bottom of the valley) before ascending some 70 feet to the towpath. The final gradient is about 1 in 6. This can be reduced to 1 in 10 by traversing the slope in an easterly direction. (The westerly option is less favourable). The east/west extent of Risca Farm allows a little adjustment of the positioning of this traverse but it is going to meet the towpath somewhere near the canal bridge at Greenmeadow. The 1813 OS drawing [Appendix 4] shows it meeting the towpath some 50 yards before the bridge at Greenmeadow.

The 1813 OS drawing also shows a bridge across the river, close to Risca Farm house. Its position correlates exactly with the description Jones gives of the wheatfield opposite his pit. There has been a bridge on that site right up to the present day. The remains of pier foundations for an earlier bridge are still visible in the river bed. It is likely that they are those of Jones' bridge.

Jones wrote a second letter in March 1800 [4] [transcribed at Appendix 7]. In it he gave a detailed account of his difficulties in establishing his tramroad. In all details his account correlates exactly with this location of the tramroad. It also describes an earlier attempt to build his bridge further to the west. This first bridge was dismantled and shifted east. This may have been an attempt to mollify Rowland Phillips or perhaps it suited Jones anyway as he extended his mining operation to the east. Whatever the reason, it suggests that Jones' first attempt to mine may have been even further to the west than the

mid-point above. (There are masonry remains on the south bank of the river, some 50 yards downstream of the confluence of Ebbw and Sirhowy. They may have been associated with Jones' first bridge but this is conjecture.)

There have been suggestions in the past (notably by Rattenbury [5]) that the river bridge and tramroad were sited much further east and that the up-incline to the canal was direct and steep. It is possible that Rattenbury did not have ready access (in 1983) to Jones' letters or the 1813 OS drawing because there is no logical reason for Jones to choose such a route. It is also difficult to ascribe a motive, to anyone but Jones, for building the bridge south of Risca Farm House.

The provenance of the 1813 OS drawing makes it an authoritative source of information. It was commissioned by the government and carried out by professional surveyors of the corps of engineers. It suffers from some local distortions because of the large scale of the first triangulated survey but the precision of the detail is remarkable. The drawing depicts a Risca Colliery above the canal, complete with associated incline, tramroad and bridge feeding into the Sirhowy tramroad. The arrangement is clearly designed to export coal etc down the valley. However, it must have been short-lived because there is no other obvious reference to it.

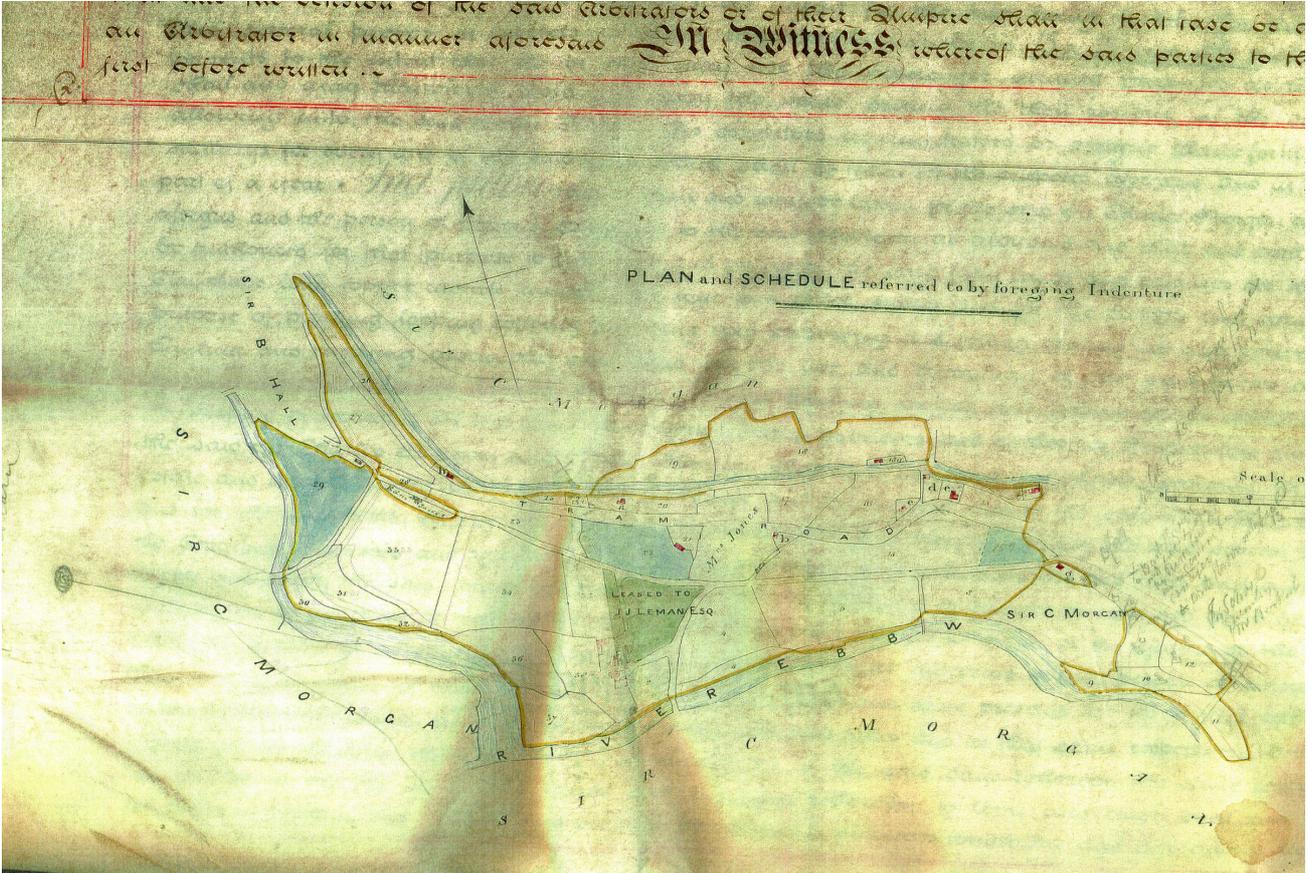
The result of this assessment is superimposed on the 1880s OS map at Appendix 5. Archdeacon Coxe commented upon it when he passed through the area in the Autumn of 1799. (See [6] and Appendix 8). His reference to an 'engine' probably described a horse whim. (The word had been in use for centuries. Samuel Johnson's dictionary defined 'engine' in 1755).

References

- [1] NLW, Tredegar, 43/20
- [2] NLW, Tredegar, 43/12
- [3] British Geological Survey, 1850
- [4] NLW, Tredegar, 50/133
- [5] "Jones' Tramroad, Risca", G. Rattenbury, *Railway and Canal Historical Society Journal*, **22** (9), 1983, pp 288-290
- [6] "An Historical Tour in Monmouthshire", by William Coxe, first published by Cadell and Davies, 1801, p. 258.

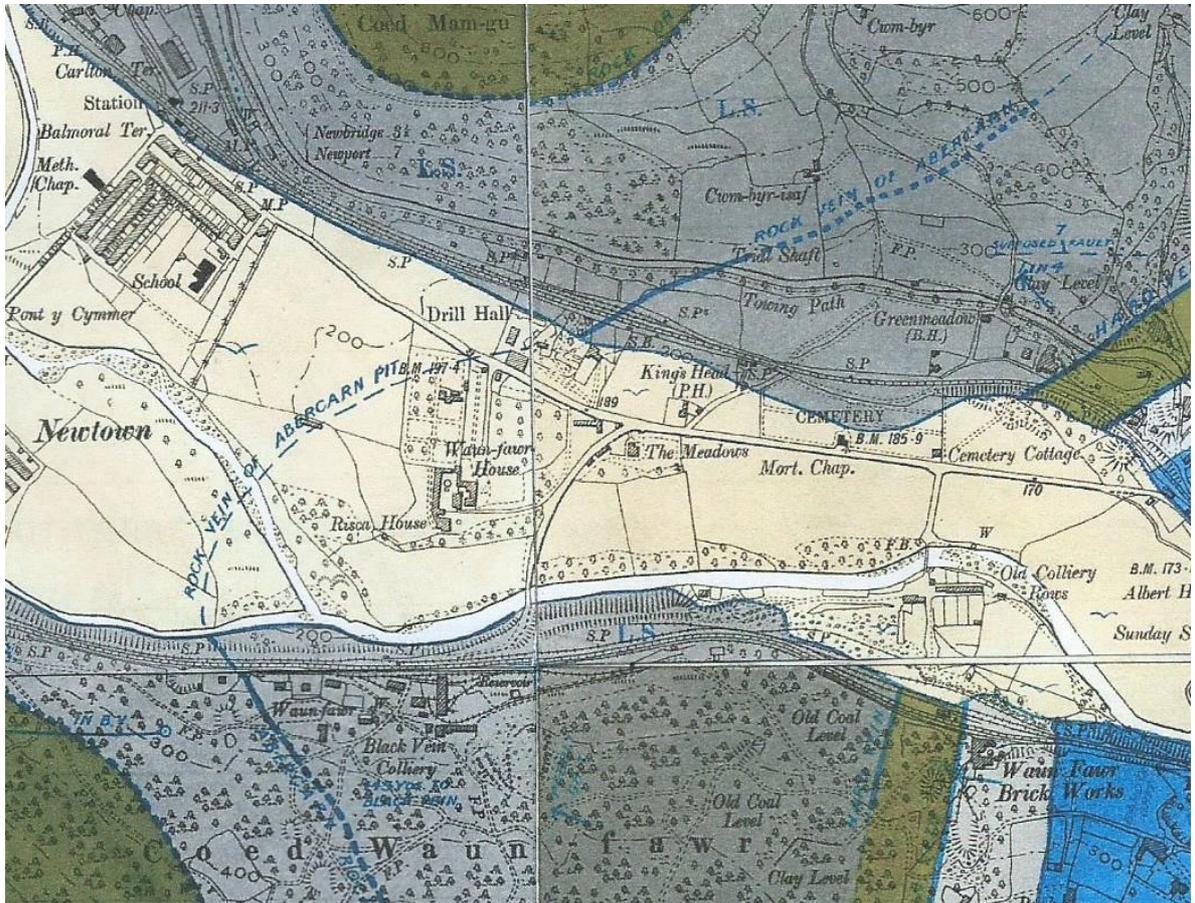
Appendix 1

1842 lease plan, Risca Farm



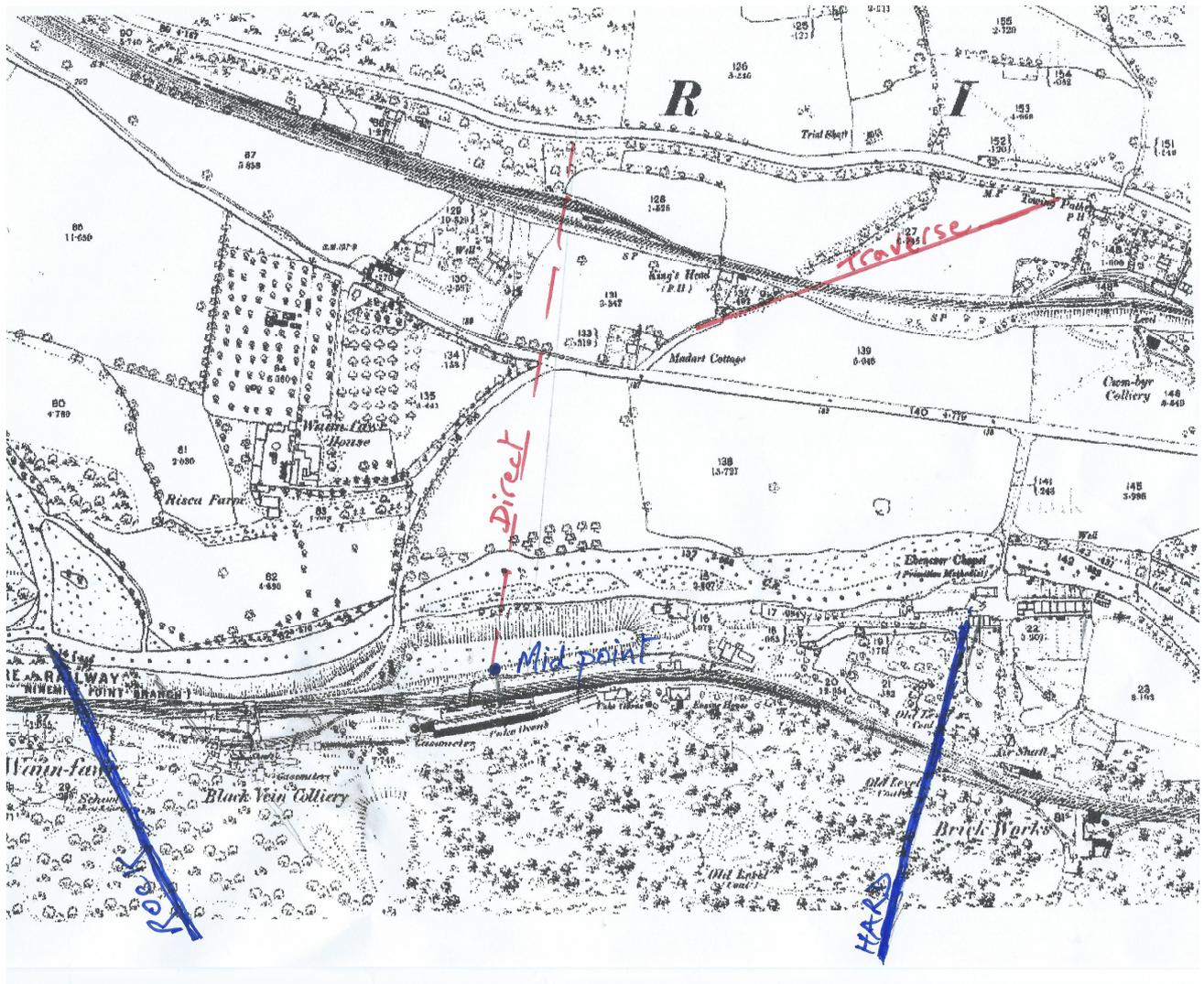
Appendix 2

1899 Geological Survey



Appendix 3

1880s OS Map



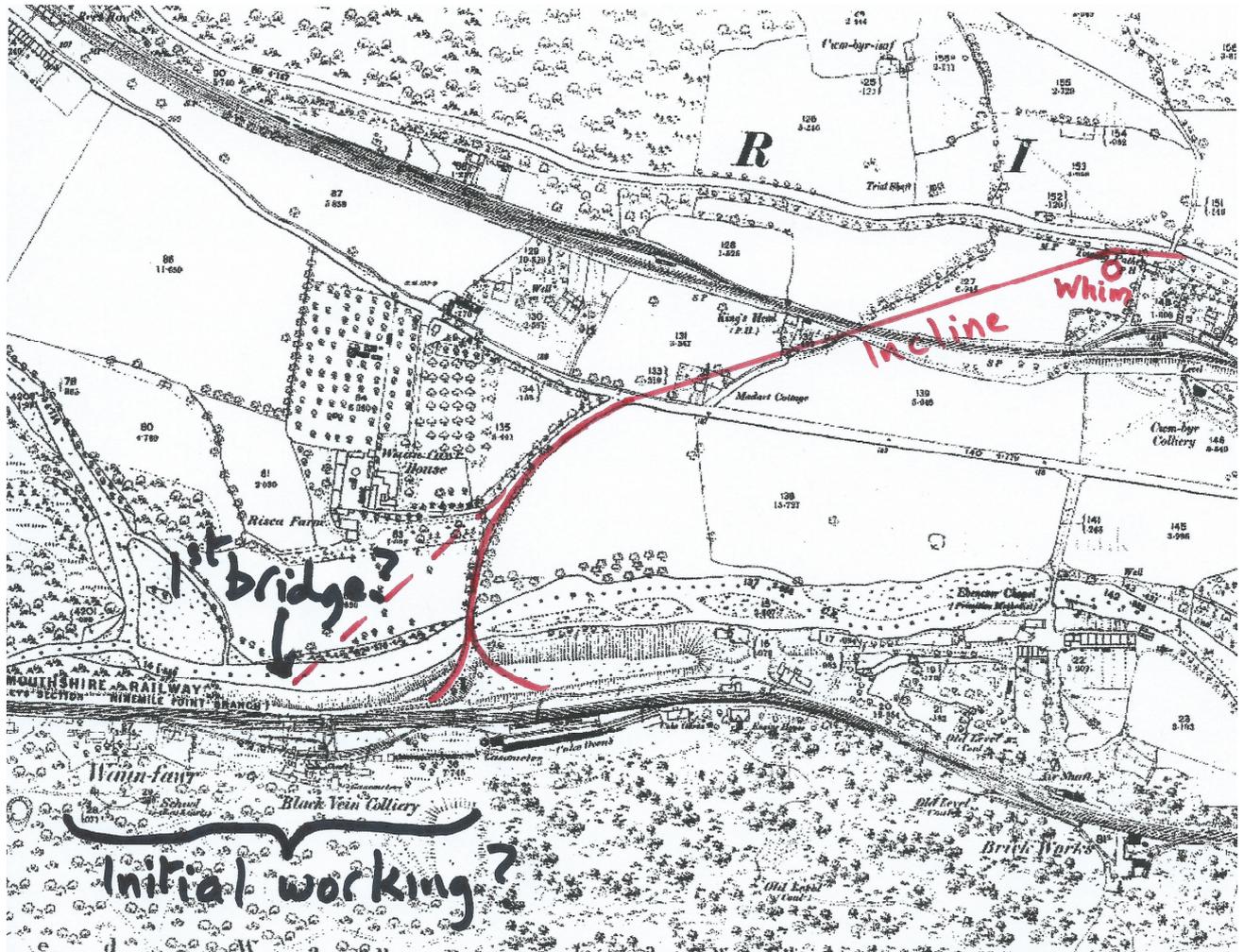
Appendix 4

1813 OS Drawing



Appendix 5

Approximate alignment of Edward Jones' tramroad. Deduced from assessment of his correspondence with Evan Phillips.



Appendix 6

Transcription of Jones' first letter.

Crumlin Dec 5th 1797

Sir

Agreeable to my promise when I last had the pleasure of seeing you herewith send you copy of the bond which I believe you will find agreeable to what we fixed on. The blanks for the names etc you will of course fill up and if you will have the goodness to let me know what day you will get the bond executed I will attend you to receive that with the other lease. I could much wish to have the pleasure of being with you on Thursday as I proposed but that is now impossible as I am obliged to go to Bristol for a few days – which I intended doing last week – but I found my attendance at the coalery so necessary that I put it off. The men are now working coals on the Sun Vein and I therefore much want the road but I can no way get a determination from Sir Chas Morgan or Mr Brown or Rowland Phillips on the subject and I now think that it will be in vain to expect anything done unless by your application to Sir Chas Morgan and I must earnestly request that you will immediately do this and obtain Sir Chas Morgan's permission for me to have the Farm or else that part of it more immediately fronting my work or else fix with R Phillips to permit me at any time and in any place – to sink pitts – take ground for laying the coals down and hauling them away – which is the language of my lease and if I cannot act accordingly to the tenor of my lease of what use is it to me. I shall feel myself much obliged to you if you will be kind enough to represent the matter to Sir Chas Morgan in the way you would feel it if you were in my situation and I have too high an opinion of him to think he will put you off – he will certainly determine one way or the other.

I have found Rowland Phillips to be an obstinate, troublesome and quarrelsome neighbour and therefore I cannot but wish he was removed and to prevent me any further trouble if Sir Chas Morgan will grant me a lease upon the farm (even at some little advance of rent) I will if Sir Chas wish it let R Phillips retain the house and other buildings and all the land north of the wheat field (opposite my pit) till he can be accommodated with a farm elsewhere – this will prevent any further dispute. I shall be able to go on with my business comfortably and Sir Chas Morgan or R Phillips cannot be injured. I am therefore in expectation of your immediate interference and of the matter being accomplished to my wishes in the course of a few days – the account of which I shall be in hopes of receiving soon to guide me how to proceed.

I am with much esteem

Sir

Your most humble servant

Edward Jones

Appendix 7

Transcription of Jones' second letter.

Stow Hill Newport
March 13. 1800

Dear Sir

Agreeable to your request I herewith send you account of coals raised at Waun Fawr Coallery to 21st December last. I should have been glad to have sent you the accounts before, but my time is so fully taken up that it really was no trifling matter to take off an account of every days transaction at the coallery for 3 ½ years. I must wish I had good cause to be pleased in the making out this account and I should have been pleased if the produce of the coallery had but enabled me to pay 3 years rent; even if beyond that I had not cleared one shilling. On the contrary this account only tends to bring to my recollection the loss of more than 3 years of the most valuable period of my life; the spending of several thousand pounds without any valuable return yet produced and the making of a contract to pay Sir Chas Morgan several hundred pounds for a place which hath not hitherto, by the most trifling profit, enabled me to perform that contract. I do not blame Sir Chas Morgan – I do not blame you – I have no cause – and I am confident that you have not yet – nor ever will have cause to blame me. I certainly have done all in my power to bring the coalery to perfection. I have laboured in my mind night and day, I have spared no expense, I have given it a daily personal attendance. But I have had to contend with the varied seasons of the year, with misinformation, with an obstinate man as to my railroad, with unfinished wharfs at Newport and with a bad constructed, ill managed, unfinished canal on which I had placed my very dependence and on the navigability of which I had made my first calculation. Nor were those calculations singular. Every proprietor of the Monmouthshire Canal 3 years ago supposed that the canal on its present plan was equal to any business that the coal owners or iron masters should find themselves capable of doing. But in this their calculations were erroneous as well as mine, which have proved by experience and which is confirmed by the sentiment or report of Mr Outram who declares the canal to be in an imperfect state and says that he is confident that the improvements he recommends will be found absolutely necessary before an extensive trade can be established. On an extensive trade alone, I have calculated to be enabled to pay the rent and produce a profit – and I doubt not you will recollect when you first sent me a map of the coalery that you stated thereon that 100 tons of coal besides iron might be produced and sent down the canal every day – I believed you was right and I am satisfied the quantity maybe raised but I am certain if the canal remains in its present state the quantity cannot be sent down; when all the otherworks are opened to their intended extent. Through the want of water, frost, repairs and alterations, the Crumlin line of the canal was not navigable last year above 8 months. Thus if a man intended to send down 100 tons per day, through the year, he must send down 150 tons per day, every day the canal is open so that a greater quantity of men, horses and boats must be kept than would be sufficient if the canal was complete. I have got the coalery equal to send off 25 tons per day but to send this off, I am obliged to keep men, horses and boats equal to send down ten boats of coal per week when the canal is navigable; consequently I am at a much greater expence than I should be if the canal was finished. Added to this it costs me every day the canal is shut £2-10-0 you will easily be able from this to form a judgement, what profit I have derived from the sale of coals towards paying the gallage or rent. I have but one consolation – I know Sir Chas Morgan is not a hard man. I entertain the highest opinion of him and I feel confident he will not expect of me more than is equitable. I shall therefore state the quantity of work that has been done and what the gallage would be if I had no plea to ask for a deduction.

An Acct of Coals raised at Waun Fawr Coalery

	Tons
1796 sold at the coalery 11779 carts or 736 tons	736
97ditto.....9078.....503 sent down the canal 64.....	567
98ditto.....11094.....693.....ditto.....886	1579
99ditto.....7702486.....ditto.....3503.....	<u>3989</u>
	Tons 6871

But against this I must beg leave to mention to Sir Chas Morgan that when I took to the coalery, there was no bridge over the river to go to it. I was consequently obliged to be at considerable expence in building a bridge and when I had finished it, Rowland Phillips would not let me have a road through his farm to the bridge. I was therefore to please him, obliged to take the bridge down and rebuild it in another place at a heavy expence and when I had rebuilt the bridge he would not then let me have a road through his farm to the canal until Sept 98 and the winter coming on, I could not get the railroad finished 'till March 99. Thus I was a whole year idle after I had got coals from March 1798 to March 99 sending off only 886 tons of coal instead of 5000 tons which I could have done if I had got my railroad in proper time and the canal had been navigable. I had boats, men and horses equal to the work the whole time. The Canal Co. indeed made me an allowance on the boats, as there was not water to navigate them. Yet my expenses were very heavy. Add to this the 64 tons of coal sent to canal in '97 the 886 tons in '98 and 154 tons in '99 were hauled in carts and sent on horses backs at an extra expence of 1/6 per ton – so that my account with Sir Chas Morgan would run like this.

1796 to 1799 To gallage on 6871 tons of coal @ 1/- £343-11-0

Deduct an allowance towards pulling down one and building two bridges - Cost near £100

Ditto an allowance for want of railroad to carry off coals from March 98 to March 99

Ditto an allowance for extra expence of hauling coals 1104 tons at 1/6 per ton £72-16-0 this through the want of railroad made a loss on the coals instead of profit

Ditto an allowance towards 4 months expences of boats, horses and men in 1799 through the unfinished state of the canal

I must of course leave these blanks for Sir Chas Morgan to fill up according to his wonted liberality, but he will give me chance to be satisfied with his decision.

As to the commencement of the rent I scarcely know what to say. I should indeed feel happy whether the canal was finished or not, if the quantity of coals I could get down would but enable me to pay the rent. But to pay the rent when the canal, the only road to profit, is not navigable certainly cannot be pleasing.

In a few months I shall be able to send off 50 tons of coal per day this if the canal was always navigable would leave me a profit thus.

Appendix 8

Transcription of Coxe's observations.

In my way to Risca, I crossed a bridge over a rail road, lately formed by Mr. Edward Jones, who rents under Mr. Morgan of Ruperra some mines of lead, calamine and coal, in Machen Hill, on the opposite side of the Ebwy. The expedition and security with which the cars are conveyed up and down the steep side of the precipice, appear singular to a spectator on the bridge. Two parallel rail roads are carried from the canal to the opposite side of the Ebwy, along which two cars are drawn up and let down at the same time, by means of an engine; they appear to pass each other alternately, like buckets in a well; a boy descends with the empty car, nearly midway, and after adjusting the machinery is again drawn up with the loaded car, which empties the coals into the boats of the canal.

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