

Llandudno Mine

John Taylor Reports: 1854 - 1857

KF385

PLANDUDNO MINE.

RESOLUTIONS OF GENERAL MEETING

AND
REPORT.

Held 22d December, 1884.

LAYTON, PRINTER, COLEMAN STREET.

KF385

116993

LLANDUDNO MINE.

A General Meeting of the Adventurers, held at No. 6, Queen-street
Place, on Friday the 22d December, 1854:

P R E S E N T :

Mr. LUKE BARTRUM,
Captain BRYAN,
Mr. W. T. FAWCETT,
Mr. A. A. HANKEY,
Mr. HARRISON,
Mr. JOHN HEAD,

Mr. W. B. HUGHES, M.P.	Mr. JOHN TAYLOR, jun.
Mr. NINNIS,	Mr. W. V. VENABLES,
Mr. JOHN PHILLIPS,	Mr. S. J. WALEY,
Mr. H. BEAVER ROBERTS,	Mr. R. WYNNE WILLIAMS,
Mr. CHARLES ROBERTS,	Mr. THOMAS WOOD.
Mr. JOHN TAYLOR,	

P R O X I E S :

Mr. BARRY - - - for Captain VERNON, M.P.
Mr. HEATHFIELD - - - " Mr. YOUNG.
Mr. PARKINSON - - - " Messrs FIELDING and FORBES.

Mr. ROBERT WYNNE WILLIAMS in the Chair.

READ, the notice convening the Meeting.

Read, a Statement of the Accounts from the commencement to the end of November last, duly audited, the books of details of the same being laid before the Meeting.

Read, the Managers' Report on the present state and prospects of the adventure.

Read, a Report from Captain VIVIAN on the state and prospects of the mine.

Read, a Letter from Mr. JOEL WILLIAMS.

RESOLVED, That the Reports and Statement of Accounts, as audited, be received and approved.

RESOLVED, That in anticipation of a new law to regulate partnerships, which has been announced by the Government, a short set of rules be now adopted. That upon the passing of an Act for the better regulation of Mining Companies and for limiting the liability of shareholders, a General Meeting of the Adventurers shall be convened, and their opinion be taken as to the propriety of reconstituting the Company in accordance with such Act.

RESOLVED, That the following rules and regulations be now entered in the Cost-book:

1. That this adventure be divided into 8000 shares, and for the present be conducted on the cost-book principle; and that no person be recognized as an adventurer whose name is not duly registered in the cost-book.

2. That Messrs JOHN TAYLOR and SONS be the managers and pursers of the concern.

3. That a Committee be elected and appointed annually for superintending the general affairs of the concern, who shall be convened from time to time by the Managers, as occasion may require; and that the following gentlemen do form the committee for the ensuing year: Messrs John Addis, Edward Budd, W. T. Fawcett, James B. Fenwick, William Bulkeley Hughes, M.P., Charles Morris, Charles Roberts, John Taylor, Robert Verity, M.D., Robert Wynne Williams, S. J. Waley, and Thomas Wood; three to be a quorum.

4. That General Meetings of the Adventurers be convened by order of the Committee, one of which at least shall be held in each year.

5. That such General Meetings of the Adventurers be held in London; and that a report upon the state of the mine, with a statement of the accounts, and of the financial position of the Company, shall be produced by the Managers at all such general meetings.

6. That the Managers' and Pursers' Accounts shall be audited before every General Meeting by two members of the Committee, and one shareholder not on the Committee.

7. That all leases, &c., which have been or shall be purchased or taken or otherwise belong to the Company shall be held by two or more Trustees on behalf of the Company.

8. That no agent employed in this concern shall be allowed to derive any profit or emolument from the supply of materials or the performance of work at the mines, or in any other way to receive advantage or perquisite beyond his salary.

9. That any shareholder desiring to withdraw from the adventure shall give one month's notice to the Secretary or Managers of such his intention, and pay up the proportion of all costs and liabilities due on the shares held by him at the end of the then current month; and the said adventurer shall then be released from all further liability, and shall be entitled to such proportion of the tools, tackle, materials, ores, halvans, monies in the managers' and pursers' and bankers' hands, and of all other the appurtenances to the mine or adventure belonging, as the shares relinquished shall represent, the same being valued and paid for in the customary manner.

10. That the cost-book shall be kept by the managers and pursers, and be at all times during the hours of business open to the inspection and examination of the adventurers.

RESOLVED, That the 500 shares which were not taken up be left at the disposal of the Managers under the direction of the Committee, to be by them appropriated in such manner and for such purpose as they may deem best for the benefit of the Company.

RESOLVED, That the Reports and Statement of Accounts be printed, together with the proceedings of this meeting, and a copy sent to each adventurer.

ROBERT WYNNE WILLIAMS, Chairman.

RESOLVED, That the thanks of this meeting be given to the Chairman for his conduct in the chair.

R E P O R T.

THIS Mine passed into the hands of the present Company in the month of May last year, and the complete transfer and legal conveyance of the lease were made to the two junior members of our firm, in trust for the Shareholders, on the 15th June, 1853. We had no sooner been placed in possession than a difficulty arose between ourselves and the agents under us, and the workmen. We discovered that the men had been allowed to come to and go from the mine at almost any hours they pleased, and to devote but six hours' labour out of every twenty-four to their bargains in the mine. So contrary was this system to any known to us in any copper mine in Great Britain, or in any mine whatever where we are concerned, either as partners or as managers, that we decided at once to take a decided stand against it, and to insist upon a full eight hours' work *per diem*, which is customary in all well-regulated mines throughout the United Kingdom. At the same time we assured the men that fair, nay liberal, earnings would be allowed for a good day's work. Unhappily the men were badly advised, and they stood out, and resisted our rules almost through the whole of last year. As the autumn came on a few offered to work, and we induced several strangers to the neighbourhood to take bargains; but Winter had almost come upon them before the main body of old and accustomed hands offered to take their bargains upon tribute, in conformity with the regulations which we had laid down.

Deeply mortifying as this delay and loss of six or seven months was, it was still a matter of such paramount importance, that we felt we had but one course to pursue; and we are now glad to be able to state that the men are perfectly satisfied with our rules, and do not hesitate to express their bitter regret at the suffering which they caused to their families, and the annoyance to which they subjected us. We have entered thus fully into the account of this untoward beginning, that you may understand why we have not called an earlier General Meeting of the Shareholders; and the accounts which we have placed before you will show that it was not until January and February last that any regular or extensive working commenced.

Our first efforts in this extraordinary old mine were to clear and cut, and to repair the shafts and the levels which had been choked up by refuse thrown into or left behind in them, during a long series of years. The mine had been worked solely upon tribute; that is to say, that each set of workmen took one half, two thirds, or in most cases in this mine four fifths of the value of any ore they could work out, and did this without any regard to the state in which they left the ground for any successors. The consequence was that all road-ways, or even air passages, were blocked up, and many of the most valuable parts of the mine were completely inaccessible. In the accounts, the item of tutwork bargains shows the sum which has been laid out upon clearing and opening ground; and, although much has been done, a good deal still remains to be effected, in order to make room for a constantly increasing number of tributers.

We have great pleasure in reporting that the progress already made is highly satisfactory. We have proved that the workings will not be confined to one lode or vein, but that the strings, as they are locally termed, are numerous; and that if they are pursued at those points where the peculiar strata lie, known to be favourable to deposits of copper ore, they promise to be fairly remunerative. A very accurate knowledge, and a very close

examination of all the beds which compose the Great Orme's Head limestone mountain, as well also of the direction and the dip of the various veins, is required to guide the miner in his search for the most productive points; and we are pleased to report that in Captain Vivian, the agent we have selected, the Company possesses a man admirably qualified for the post he fills, not only as a miner determined to master these peculiar difficulties, but as a general superintendent of the Company's affairs.

We do not propose to enter at length ourselves into a detail of the underground workings, but will read to you Captain Vivian's report, and will give you also the views and opinion of Mr. Joel Williams, who ably conducts the cashier's department for us. We will however shortly state our own views of the course which we propose to pursue in the further prosecution of the mine, and refer also to the financial position of the concern.

The main operations for the next twelve months will be the driving forward the great day level or deep adit to a point directly below Treweek's Shaft, and to sink that shaft as rapidly as possible, to effect a communication with the adit. It should be remembered that this deep adit was driven in from the sea level several years ago, at a great cost, and that it drains the southern parts of the mine for a depth of 140 yards and upwards. At Treweek's Shaft the adit will be 175 yards deep, and it will drain a height and an extent of ground rarely equalled anywhere. As soon as the communication abovenamed is effected, a trial of all the productive veins, which lie, some to the east and some to the west of Treweek's Shaft, must be made by a bold crosscut, and regular levels will then be driven forward upon those of best promise. Several of the veins are now yielding good ore at the points lately reached at the 110-yards level; and we fairly assume that, in the next sixty-five yards below, some very valuable discoveries will be made.

At the surface, the machinery has been put into good order generally. The only thing wanting is a new boiler for the steam-engine, which must shortly be added. The dressing-floors have been rearranged by Captain Vivian, and have been greatly improved; and great facilities are now afforded to the tributers, both for drawing and for preparing their lots of ore for market.

The accounts will show that there has been a gradual but constant increase in the value of the returns for several months past, and those for the coming year will show a still further and more marked improvement. The monthly costs are now almost balanced by the sales of ore, and if we should be not less fortunate in discovering and opening productive veins than we have been, very satisfactory results may be reckoned upon.

The capital of the Company was fixed at 16,000*l.*, divided into 8000 shares of 2*l.* each. The whole of the shares were allotted, and 7500 have been paid upon. The allottee of 500 shares declined to take them up after the lapse of several months, and we therefore obtained from him a formal relinquishment of his claim to them. The money raised has sufficed for all purposes; and, as is shown by the accounts, a balance of unexpended capital out of the 15,000*l.* paid up, of 1945*l.* 11*s.* 3*d.* remains, after payment of the mine's costs, and every other liability whatever, excepting our salaries and charges for rent and clerks at this office. We recommend that the 500 unissued shares should still be held in reserve, and should only be disposed of in case of any peculiar requirement.

In conclusion, we venture to express our pleasure at the prospect the mine presents, and our conviction that it will ere long become a profitable and very durable investment.

JOHN TAYLOR AND SONS.

London, December 22d, 1854.

Llandudno, 18th December, 1854.

Sir,

In presenting you the following detailed Report of our operations from the commencement, I beg to remind you that we found the mine entirely out of working order; it was practically an abandoned mine; there was not ore enough in sight in any place in the mine to pay for working; and everything was so much out of repair as to require considerable labour and expense, before we were able to make any trials on the mine for ore. Shafts and levels have been cleared and secured with timber; ladder-ways have been repaired, and new ones put in where required; eleven plots have been made at different shafts, and thousands of kibbles of refuse have been brought to surface, to clear communications for air and open places for working.

On surface we have repaired the engine, by boring the cylinder and fitting it with a new metallic piston, new condensing work, &c.; repaired the boiler, cleaned out the engine-pools, &c., the engine being now in good working order; laid out a new floor at the Crusher; put on new run of pulleys to Treweek's Shaft; altered the steam-whim cage, and fitted it with a wire rope, which answers our drawing purposes admirably; and also laid a new dressing-floor at Treweek's; constructed a new horse-whim; repaired roads, and various other minor details.

Before describing our underground operations, I beg to remark that the ground generally is expensive for working; prices *per* yard in the shafts have been from 5*l.* to 11*l.*; levels and winzes from 3*l.* to 5*l.*; consequently, it requires considerable time and expense to make a comparatively small trial. We have sunk and driven 800 yards, besides stopping levels, and where necessary to enlarge, or for making trials.

Our principal operations at the different shafts have been as follows:

Afnant Shaft has been sunk from the 50-yards level 23 yards deeper, to a large shale bed; the 50-yards level has been driven south 45 yards; the 60-yards level 10 yards south. At this shaft the string has at several times looked promising, and we have saved a few kibbles of ore; but, to economize our labour, and to concentrate our operations at Treweek's, where seemed to be our quickest chance of success, we have suspended operations there since June last.

Roman Shaft, 55 yards deep.—Here two crosscuts have been driven, with a view to intersect the strings east and west of the shaft: the western cross, 20 yards; several strings, but small and unproductive: the eastern cross, 15 yards; and, I am sorry to say, the latter remarks will apply to this cross also. On a string west of the shaft 27 yards have been driven and sunk, the string sometimes showing stains of ore; but I fear that the ground at the present depth at this shaft is too blue and compact to be very productive. I have an opinion that the copper-bearing ground from the south part of the mine is dipped below our present depth at this shaft; this will be proved by extending our works northwards from Treweek's.

Owen's Shaft has been sunk by us 32 yards, its present depth 65 yards; from the bottom of the shaft we have driven a cross east 12 yards to cut string Cefn; the string looks poor, and we have suspended it, and removed the men to another part of the mine. At 33 yards from surface we have driven a level north and south for a considerable distance on a western string, which has yielded a few tons of ore: at present there are only two men working here at a high tribute. At a point 40 yards deeper than this shaft we have opened a level and driven a few yards northwards from the boundary of the New Mine, on string Cefn; the string looks promising, but the dip of the bed is so great, and being troubled with water and foul air, we have suspended the tutwork there until we are able to effect communication with it from our workings northwards: there are two men here on tribute also.

Higher Shaft.—This shaft we found crushed together from the 60 to the 90-yards level, and, from the adit-level 20 yards above, filled with refuse; we have cleared the latter, and put in a firm collar beneath the crushed part, which is therefore secure from further danger; and now, having communications with Treweek's, we are not pressed for the want of this part of the shaft at present. At the 40 and 60-yards levels we have crosscuts east to Jones's string, and at the latter level we are driving south on the string, which is large and promising; we have also driven the 40-yards level south a few yards, and sunk a winze from this level to the 60, which has ventilated the workings and opened some good tribute ground. We have one pitch here working at 6*s.* in 20*s.*, and two others at 8*s.*, and others at higher tributes. We are driving the 95-yards level north on Hughes's string, producing occasionally good stones of ore, and is within a few yards of the supposed junction with Jones's string, as a reference to section No. 3 will show; this is considered a favourable trial. The zigzag line on the same section shows the old workings north on the strings, from which we took up

our 110-yards crosscut to meet Trewick's. The adit-level north of this shaft towards Trewick's has been driven nearly 60 yards; this level has been exceedingly hard for driving; the bed in it is highly crystallized and the string poor; we have lately had but four men working in it, but we have again put six men to hasten it on, as this is an important level to drive, although poor at present.

Trewick's.—This shaft was 76 yards deep, it has now been sunk 35 yards deeper, and there is still 64 yards to the adit-level, total 175 yards, which will be a high piece of ground to work dry, if productive. Nos. 2 and 3 sections will give an idea of the positions of strings, with some of the workings thereon. At the 50-yards level a crosscut has been driven 42 yards, to communicate with Lester's workings; since which the levels have been extended north on several of the strings, some of them have yielded a few tons of ore. There are now two bargains on tutwork, and fifteen men on tribute at this level. At the 76-yards level we are driving a cross cast, and have intersected a string, but poor; I am not sure whether this is the string which is productive at the next level below, as we have not done enough on it to define its underlie as yet, and this middle course of strings is scarcely seen in our 50-yards cross. Referring again to sections 2 and 3 for our operations at the 110-yards level, it will be seen that we have driven the cross west 41 yards to meet the shaft, and since we have holed it have driven a few yards north and south on string Cefn, or rather supposed to be, as also a few yards on the middle course of strings, which for distinction we call Ellis's. The shaftmen are now cutting a plot here at this level, after which we propose to drive on the strings again, and as soon as possible begin to sink the shaft deeper.

While speaking of the Higher Shaft, I omitted to mention the crosscut we have driven at the 130-yards level east to Jones's string, length of cross 44 yards; I am sorry to say the string looks poor, but our trial on its course has been only 10 yards north. Probably this is worthy of trial at some future time.

Our returns from the commencement have been—best ore 225 tons, realizing 2033*l.*; waste ore 777 tons, worth 906*l.*, averaging 1*l.* 2*s.* per ton. Sampled last week: best ore, 90 tons; inferior ores, 50 tons; waste ore ready for shipment, 100 tons; estimated worth of the two months produce, 1200*l.* The cost for the two months working will probably be 1100*l.* or 1150*l.* I am sorry that the cost runs so high, but you are aware of the high price of materials and labour; the latter is this time increased with us, from the fact that the pitches have improved last taking, and several of the tributers have got extra wages; however, the improvement if sustained will be more to the Company's interest in future, as the Setting List last forwarded, to which I beg to refer you, will show. The tributes on some of the pitches have been reduced considerably.

Respecting our future operations, it has been already indicated that at Trewick's seems to be our most promising ground; the strings we have lately opened on there, if productive southward, of which they give good promise, will afford us 160 yards of new ground to the boundary of the New Mine, where they have paid well for working, but are now exhausted; and northward we have whole ground, as seen in the rough section No. 1. In the small box containing the sections, I have enclosed a few specimens, showing the nature of the ores from the different strings, as labelled. In sinking the shaft we expect soon to meet the Great Shale bed, to get through which we apprehend some trouble with the water in the shaft, but below that the adit-level coming in will most probably drain the ground. We conceive it will be a good trial to put a cross west at this level 110 yards, as there are several strings known to exist westward, although a cross driven 30 yards west at 60 yards from surface has not shown anything kindly; but the different beds so completely alter the character of the strings that it would be very unwise to condemn them entirely on the results of one bed. Of this Ellis's string is a striking example.

Looking at the prospects of the mine commercially, it will be seen we have made no great discoveries, but there has been a gradual improvement. Of the monthly cost for the last six months the average is 550*l.*, which I conceive is about as fair an estimate as we can make for the next six months; and of the future returns I beg to say that, as we have no reserves of ore-ground discovered, these must depend on the results of future workings, but believe I am safe in saying, with present prospects we shall be able to pay costs.

If I have omitted to state any of the foregoing particulars sufficiently clear, or if any additional explanations can be given, please let me know, and I will endeavour to supply it to you early.

I beg to remain, Sir,

Your very humble servant,

JOHN TAYLOR, Jun., Esq.

WILLIAM VIVIAN.

COSTS AND RETURNS OF LLANDUDNO MINE,

From commencement to the end of November, 1854.

Date.	Copper Ores.	Amount.	Deductions:		Net. Amount.	Costs.	Balance of Expenditure.
	T. c. q.	£ s. d.	Freight.	Dues.	£ s. d.	£ s. d.	£ s. d.
1853.							
May, June, and July ..						212 9 4	212 9 4
Aug., Sept., and Oct. ..						388 2 7	388 2 7
Nov. and Dec.						769 3 3	769 3 3
1854.							
January and February ..						896 14 3	896 14 3
March and April	129 12 1	507 5 3	12 9 2	29 14 2	465 1 11	1,212 2 1	747 0 2
May and June	265 18 1	305 8 11	23 8 3	15 2 8	266 18 0	1,090 3 9	823 5 9
July and August	159 4 1	625 4 1	11 4 7	37 5 1	576 14 5	1,236 6 0	659 11 7
September and October ..	207 17 0	614 6 6	20 12 10	37 0 7	586 13 1	1,025 17 0	439 3 11
November	279 7 3	952 0 0	26 19 9	55 3 10	869 16 5	534 11 5	
	1,041 17 2	3,034 4 9	94 14 7	174 6 4	2,765 3 10	7,365 9 8	4,935 10 10
Balance of Receipts (November, 1854)							335 5 0
Net Balance of Expenditure							£ 4,600 5 10

Particulars of Costs and Returns, from commencement to the end of November, 1854.

	£ s. d.		Tons c. q.	£ s. d.
Agents' Salaries	335 17 6	Copper Ores ..	1,041 17 2 ..	3,034 4 9
Tutwork Bargains	2,493 16 3			
Bargains on Surface, Wages, &c.	689 1 10	Deduct Freight	94 14 7	
Carpenters, Masons, Smiths, &c.	337 4 0	Ditto Dues	174 6 4	
Carriage and Horse work	375 0 6			269 0 11
Materials	1,453 10 2			2,765 3 10
Engine or Water cost	206 5 4			
Expenses on Ores	434 5 5	Balance of Expenditure		4,600 5 10
Tribute Subsist and Balances ..	909 5 0			
Sundry payments	131 3 8			
	<u>£7,365 9 8</u>			<u>£7,365 9 8</u>

Dr.	LLANDUDNO MINE.			Cr.			
1853.	£	s.	d.	1853.	£	s.	d.
June 15. To paid for purchase of mine	8,500	0	0	May 10. By Call on 8000 shares, at 2l. per share	16,000	0	0
Interest on 8500l. at 5 per cent.	31	11	2	1854.			
Sundry payments	10	7	0	Interest on investment of Cash at Messrs Overend, Gurney, and Co.	87	15	3
Shares allotted and afterwards relinquished, 500 at 2l. each ..	1,000	0	0				
1854.							
Balance of Expenditure, nineteen months	4,600	5	10				
Balance	1,945	11	3				
	£16,087	15	3		£16,087	15	3

LLANDUDNO MINE.

RESOLUTIONS

OF ANNUAL GENERAL MEETING

AND

REPORTS for the Year 1855.

Held 13th June, 1856.

TAYLOR, PRINTER, COLEMAN STREET.

Supplementary Account for Four Months, ending April, 1856.

1856.	£	s.	d.	1856.	£	s.	d.
To Costs, January	426	10	7	By Balance from end of Decem-	886	0	7
To Costs, February	565	10	11	ber, 1855			
To Costs, March	605	18	1	By Copper } T. c. g. £ s. d.			
To Costs, April	573	1	2	Ores ... } 438 9 1 ... 1,653 5 0			
				Less Freight and Dues 133 17 9			
	2,171	0	9		1,519	7	3
Balance	234	7	1				
	£2,405	7	10		£2,405	7	10

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LLANDUDNO MINE.

The Annual General Meeting of the Adventurers, held at No. 6, Queen-street Place, on Friday the 13th June, 1856, adjourned from Saturday the 29th December, 1855 :

PRESENT:

Mr. LUKE BARTRUM,	Mr. W. L. LOWNDES,	Mr. TAYLOR,
Mr. WILLIAM DUFF,	Mr. CHARLES MORRIS,	Mr. JOHN TAYLOR, jun.
Mr. R. F. GOWER,	Mr. PAUL NINNIS,	Mr. W. V. VENABLES,
Mr. A. A. HANKEY,	Mr. JOHN PHILLIPS,	Mr. S. J. WALEY,
Mr. JOHN HEAD,	Dr. F. F. QUIN,	Mr. JOHN WARMINGTON,
Mr. W. B. HUGHES, M.P.	Mr. S. SWONNELL,	Mr. R. WYNNE WILLIAMS.
Mr. J. P. JUDD,		

Mr. WILLIAM BULKELEY HUGHES in the Chair.

READ and approved, the Minutes of the last Meeting.

Read, a statement of the Accounts for thirteen months ending December last, duly audited, the books of the same in detail being laid before the meeting.

Read, a Report from Captain VIVIAN on the state and prospects of the mine.

Read also, the Managers' Report.

RESOLVED, That the Reports and statement of Accounts be received and approved.

RESOLVED, That the Committee be authorized to dispose of the 500 unappropriated shares at par (*i.e.* 2*l.* a share) any time within two months from the present date.

RESOLVED, That in the event of the said 500 shares not being disposed of at par within the time specified, the Committee be authorized to borrow, for the purposes of the mine, a sum not exceeding 1000*l.**

* At the close of the meeting the whole 500 shares were taken at par by shareholders present.

RESOLVED, That the Managers be authorized to dispose of the Gogarth spring water to the Llandudno Improvement Commissioners or any other persons, for a sum of not less than 750*l.*, provided a sale be effected within three months.

RESOLVED, That Messrs John Addis, Edward Budd, W. T. Fawcett, James B. Fenwick, William Bulkeley Hughes, M.P., Charles Morris, Charles Roberts, John Taylor, Robert Verity, Robert Wynne Williams, S. J. Waley, Thomas Wood, and Dr. F. F. Quin be elected the Committee for the ensuing year.

RESOLVED, That the Report and statement of Accounts now read, together with the Proceedings of this meeting, be printed, and a copy sent to each adventurer.

WILLIAM BULKELEY HUGHES, Chairman.

RESOLVED, That the thanks of this meeting be given to the Chairman for his conduct in the chair.

R E P O R T.

IN accordance with a resolution passed at the Annual General Meeting held on the 29th of December last, an adjournment was made in order to give time for the pumping out and clearing the deeper parts of the mine of water and rubbish. It was deemed prudent by the Committee and Shareholders who then attended, that some insight into the lower workings should be obtained, before any decision could be come to with respect to the further prosecution of the works.

We have now to report, that an additional steam-boiler was purchased; that the Engine-shaft, with its pump-work was put into proper order; and that the water has been completely drained, and the very deepest part of the shaft has been reached. We may further state that enough has already been seen to convince Captain Vivian, the resident manager of the mine, that the chances of success are very greatly increased by the opening of this deeper ground; and we will refer you to his full and clear report of the state of the old works, and of the mine generally, for a confirmation of these views.

It is a matter much to be regretted that an attack had not been made upon the deeper parts of the mine at the very onset, but so discouraging was the account given by a former agent of the quantity of water, and of sand, which was said by him to have burst in suddenly, that we doubted the power of our small steam-engine to cope with it. What motive the man can have had for putting forward statements so devoid of truth it is difficult to imagine; but Captain Vivian has found that in ten hours out of twenty-four the engine can clear the whole of the water, and during the remaining fourteen it can be employed in drawing either ore or rubbish from any of the shafts.

Captain Vivian's Report explains that the former workings below the adit were made almost entirely upon one vein or string; and he points out the great probability that some

of the other veins which are to be found at no great distance to the east will yield as largely as the one already opened upon. A crosscut towards them has already been commenced: the Engine-shaft is in course of preparation for being sunk upon the vein, and good appearances of ore are visible in the deepest point; and a level started off northward upon the vein, called String Grice, already yields from 15*l.* to 20*l.* worth of ore *per* fathom.

Enough has now been seen to justify us in recommending a vigorous prosecution of these works below the adit-level, and to enable us to state that our chances of a profitable working of this mine are greatly increased by the ground which is now being laid open. In the upper workings, which lie considerably to the north or in advance of that part just alluded to, no valuable discovery has been made for several months past.

The ground which has been opened upon several of the strings by Treweek's Shaft, and by the crosscuts and levels from it, yields a fair quantity of ore upon tribute, and will continue to do so; but it does not appear to offer such chances of any large or rich deposits, such as were met with, and such as we expect will again be found, below the adit. A return of about 40 tons or 340*l.* worth of best or cross ore, has lately been obtained from the various points above the adit, monthly; and an occasional parcel of the wash or slime ore will also be sold during the summer. The average return for the first four months of this year was a little over 400*l.* *per* month, whilst the average cost and dues, including the cost of the new boilers alluded to, and the work done in the repairs and alterations to the shaft and the pump-work, has been about 575*l.* *per* month.

The accounts placed before the meeting on the present occasion are in continuation of those printed in December, 1854: they are for thirteen months ending 31st December, 1855. They show that the costs were 6987*l.* 15*s.* 8*d.*, and that the returns for copper ores sold amounted to 5925*l.* 14*s.* 7*d.*, leaving a balance of expenditure upon the mine of 1062*l.* 1*s.* 1*d.* for the period stated.

The abstracted particulars of the costs show an increase under several of the heads; that of salaries, in consequence of the omission of any charge to ourselves as managers and pursers in the first accounts rendered. The other heads, such as tribute, carriage and horse work, and expenses on ores, are increased in proportion to the larger quantities of ore which have been raised and sold. For several months during the last summer the returns of ore more than met the costs, but several of the best points fell off, and, as is shown, a loss of 1000*l.* in the year was made.

The balance to the credit of the concern was however still 886*l.* 0*s.* 7*d.* at the end of 1855; and with that sum, and that which a sale of the 500 shares in hand would realize, we deemed it advisable to recommend the working of the deeper ground. The accounts laid upon the table show that 234*l.* 7*s.* 1*d.* only remained at the end of April, and that amount will be exhausted during May and June; it will therefore be necessary that the meeting should decide upon the terms upon which the 500 shares shall be sold, in order to provide the funds which will be required. We cannot estimate with any degree of certainty the precise sum which will be required for opening out the ground below the adit, but we think that an expenditure of 150*l.* *per* month in addition to the current returns, will bring the mine into a paying, if not a profitable, state in six months from the present date.

If the 500 shares could be placed at par, or 2*l.* *per* share, we should not fear that enough would be provided; or, even if they are taken at 30*s.* *per* share, which we are told is the last price at which they have been sold, it is probable the amount will suffice. The number is so small that it is difficult to distribute them ratably amongst the present holders; and it has been suggested to us that the Committee might invite tenders for them from the shareholders, and that they should be guided in the allotment of them first according to the prices offered, and next, according to the present number of shares

held by those who may tender. We mean that, if any tender or tenders for the whole number should exceed in amount that offered by others, that the shares should go to the highest bidder; but, if the offers made by several shareholders should be alike, then the shares should be divided amongst them rateably with their present holdings.

At the price named, or even at par, we look upon this mine as a very promising adventure; we think the chances of great success exist; and we should recommend the meeting by no means to accept less than 30s. *per* share for any of those in hand. It will be apparent to the shareholders that a very small addition to the monthly quantity of ore is now only required to ensure profitable working, and that there is every reason to expect that such will be found.

JOHN TAYLOR AND SONS.

London, 13th June, 1856.

Llandudno, June 2d, 1856.

SIR,

In offering you the following general Report of our operations and prospects since the last General Meeting of the Company to the present time, we beg to remark we have embodied the general Report which was made to you in December of last year.

Since the meeting above referred to we have conducted our operations principally about Treweek's Shaft, conceiving it would be advantageous to concentrate our efforts to prove the ground in that locality. Treweek's Shaft has been sunk 30 yards deeper, entire depth from surface 140 yards. In the upper part of the last sink we passed through a grey limestone bed, called by the miners the little yellow copper bed, from its being the only bed above adit that bears exclusively yellow ore. This bed is very similar to the beds that have been worked below adit; its thickness is six yards. Below this bed is the great shale, nine yards thick, which was so hard as to require blasting to sink through, but is of so decomposing a character as rendered it necessary to secure the shaft with timber after sinking through it. The next bed below is the black stone bed, one which proved very productive in the south part of the mine. On this bed, that is, at the bottom of the shaft, a crosscut has been driven to cut Ellis's strings, on which we have been raising ore at the 110-yards level; but although we have cut some strings, none of them have proved productive. It would still be desirable to extend this crosscut further east; but it has been suspended some months to enable us to start another level north from the shaft, in the bed above the shale, 120 yards from surface, in which the string held out promise of ore. This level has been driven 20 yards north, yielding good saving work, and continues to look promising. From the north end a crosscut has been extended six yards west, yielding good stones of ore throughout. There are nine men at work here, driving the level north, and rising in the back, the bed next above being very likely to yield carbonate ores. The workings here are altogether promising; and on this bed we purpose to drive a crosscut west to prove the western ground as soon as we conveniently can without interfering with the parties now at work.

The 110-yards level on Ellis's string is extended 28 yards north and 30 yards south, having holed southward to some old workings, which were made westward from an eastern course of strings for a short distance only; and we have resumed the driving of the level south by six men on tribute. This place also looks kindly, and, as there are some very strong cross-strings ahead, is considered a good trial. The north end is now driving by four men on tutwork, and yields saving work. The bottom of the 110-yards level, both north and south of the cross, have been stoped on tribute; about one third of our returns since the last meeting have been made from these tribute stopes. We may here remark, the runs of ore in this formation are so very irregular in their courses that as a general rule it is most advantageous to work all the ground that will set on tribute, setting tutwork only where it is necessary to push on main levels, or other general communications; this, therefore, has been our policy throughout.

In driving the 95-yards level north of Higher Shaft on Hughes's string, Jones's string, which crosses Hughes's at an acute angle, has been intersected. Immediately on the junction we raised 1000. worth of ore, and have since driven the level north and south on Jones's string, and raised and sunk

on the junction; but, although it often looked promising, has not proved productive, and is now stopped working on tutwork.

The adit-level is extended north to the point where Treweek's Shaft will meet it when down. The ground in this level is composed of compact white limestone, unpromising for ore. It was from the unfavourable character of this bed, and some others above it, as seen in the shafts south of this already sunk through, that we recommended the suspension of this level and Treweek's Shaft for the present, believing that there are other more promising points in the mine for trial.

Several other small trials have been made on the eastern string, at the 110-yards level at Treweek's, some of them yielding a little ore, and proving that copper-bearing strings exist through the entire length of the crosscut driven west at the 110-yards level to meet Treweek's Shaft, holding out great promise for the north ground, as well as for the deeper beds in the bottom of the mine.

Of the tribute generally I beg to remark that most of the pitchers are poor, working at high tributes, consequently our returns of ore have fallen off lately; and it was after carefully considering our position and prospects, that, at the close of last year, we expressed to you our opinion that the ground we had laid open by sinking Treweek's Shaft, driving the several crosscuts to the strings at the 50, 76, 110, and 140-yards levels, with many other important trials made, would facilitate the working of the upper ground for a long time to come, and which would pay to work on tribute, although it might not pay to work on an extensive scale of tutwork operations. With this view we recommended the curtailment of the tutwork in the upper ground, and called your attention to the many reports we had heard of the very promising character of the deeper beds below the adit-level. Besides others, we have obtained some information from Mr. Worthington, the former proprietor of the mine, who told us that, during the working below adit, he paid 12,000*l.* as one-eighth royalty; and though he sold the mine, it was not because he had any fears of it as a speculation; on the contrary, he had the highest opinion of it; but, being sole proprietor, and not having an agent in whom he could place confidence, he sold out to relieve himself of anxiety. We explained to him our past operations, and he expressed his entire approval of them, saying, if he had continued in the mine, he intended doing what we have done, to prove the upper ground; but he always entertained the highest opinion of the *bottom* workings. He said moreover, tell your Company I first worked the mine *at a loss*, but afterwards made *good profit*.

From Mr. Worthington and others, as well as from observation, we learn that the workings were almost entirely confined to one large run of ore, working it at two points deeper than the shaft and bottom crosscut, without exploring any other ground with a view to make discoveries. We need not remind you that, under such a system of working, there is scarcely a mine in the world would continue long to be productive; as a consequence, as soon as the course of ore became comparatively poor, the bottom workings were suspended, and the water allowed to rise to adit-level.

Before commencing to pump out the water it was found necessary to have a new boiler for the engine, erect new shaft heads, repair the shaft, change and repair the pitwork; for though the old pump work had been left standing in the shaft, it was found to be worse than useless; the plunger-rod having broken off under water, it was an obstruction in the way of dropping new pumps, which we were obliged to do, and could only remove them a little at a time as the water was got down; and unfortunately, as the water was nearly out, the new boiler burst, happily without any injury to life or property beyond the cost of repairs and the delay occasioned. On getting out the water our attention was first directed to the clearing of refuse, the bottom workings being literally *full*, the miners not only having been allowed to fill their workings as they pleased, but also to throw down refuse as the water rose; and afterwards, consequently, we have had to clear almost every yard as we proceeded with any work, aiming first at what we deem the most important.

We next endeavoured to secure a reservoir to hold the water while the engine is employed drawing the stuff. This has been done by stoping the bottom crosscut, and making forks or dams of the small workings made by the tributers below the cross, so that now the pumps are laid in the cross, and the windbore is drawing the water from a reservoir or dam 40 yards distant from the standing or plunger-lift, obviating the necessity of otherwise having flat-rods, which would greatly increase the load of the engine, and thus enabling us to sink the shaft, and have ample time for drawing. We are able to keep the water in twelve hours pumping out of twenty-four, and we hope, as the ground becomes more drained, the water will still be easier. You will no doubt be reminded of the false report of the abundance of water, and the inability of the engine to keep it, that was made to you at the commencement of your operations here.

The enclosed plan and sections of the workings, which we have made out from observations since the water has been pumped out, will, we hope, inform you of the relative positions, with a general idea of the whole. You will perceive the large course of ore extended from south to north, dipping down from one bed into another, until the lowest workings extended some yards below the shaft and

bottom level; this they were enabled to do by the aid of flat-rods and pumps connected with the engine to keep the water, but which they found so inconvenient and troublesome, that, we are informed, although there is a good course of ore in the bottom, they could not work it to advantage by that mode of working. We now propose to sink the shaft as fast as possible, and cut the strings in deeper beds than have yet been seen. You will observe we have shown the principal groups of strings in their positions, and by the names by which they are known; but we would remark, these must not be understood to include all the strings, as the whole of the ground laid open by the crosscuts, from the shaft to the most western point seen, is intersected at short intervals by strings, some of which have yielded ore, and may probably prove productive in deeper favourable beds. It seems that the bottom of the shaft, which we hope to see shortly, looks very promising for ore, the ground being filled with cavities containing crystals of sulphuret of copper. Besides the sinking of the shaft, it is highly important to drive a crosscut east to prove the eastern ground; for although there are several productive strings known to exist there, having yielded thousands of pounds worth of ore near the surface, not one of them have been seen below 50 yards down; thus presenting 150 yards of high ground entirely unexplored, and known to have strings that have yielded good returns of ore in the upper ground: certainly this offers a first-rate chance for ore, heightened we think by the fact, that there exists a bed of shale, from six to nine feet thick at the bottom level, which we purpose driving the crosscut partly on, taking in also part of another bed, and are now cutting ground by the shaft to commence driving.

Another important trial is to open a level northwards from the bottom crosscut on the principal course of strings, as indicated by the dotted line on the plan; this level will come under some of the old workings, and open a general communication with the north ground, from which we may rise and sink, or drive short crosses to the other strings. Most of the northern workings on the strings, as shown on the plan, were not made in connection with the bottom cross, but were sunk down diagonally from the upper cross, 19 yards above. We have now four men driving this level, and we hope soon to get ore in it. Thirty yards further west in the crosscut, or rather northwest, for it is nearly in that direction the level has been driven, a string has been intersected and driven a few yards on, which yielded a little ore; this is probably one of the Grice or Cefn strings, which have proved good in higher beds; and further south in this place a level is just started northward by four men, which will apparently pay for driving. Ten men are working below the adit-level on tribute at 10s. and 13s. 4d. in the pound, and we expect to set others as soon as they can be cleared of refuse.

You will perceive by the position of the Higher Shaft on the plan, that should the ground continue productive northward, which there is every reason to hope for, it will soon be advantageous to sink that shaft, already communicated to the adit-level.

We trust the plan and sections forwarded with these explanations will give you an idea of our state and prospects, and render it unnecessary for us to say more than express our belief that the Company possesses a highly valuable mine in the bottom, as proved by its former productiveness and the small extent of ground explored. Indeed it may be said that no ground has been wrought more than has proved productive; and that now the mine is cleared of water and laid open, with the machinery and pit-work in good working order, there is every reason to hope that a little time may serve to make such discoveries as will restore the mine to its former character, of a good dividend-paying mine; certainly, as a mining speculation, it stands almost, if not altogether, unrivalled.

Our shipments of waste ore have been upwards of 1300 tons since the Meeting in December, 1854, leaving some profit thereon, and which will explain the cause of the apparently large items of cost charged to the dressing of ores and surface bargains.

I beg to remain, Sir,

Your humble servant,

JOHN TAYLOR, Jun., Esq.

WILLIAM VIVIAN.

COSTS AND RETURNS OF LLANDUDNO MINE,

For Thirteen Months, to the end of December, 1855.

Date.	Copper Ores.	Amount.	Deductions:		Net Amount.	Costs.	Balance of Expenditure.
	T. c. q.	£ s. d.	Freight.	Dues.	£ s. d.	£ s. d.	£ s. d.
Dec., 1854, Jan. and Feb., 1855	188 1 3	1,077 14 4	15 14 4	64 12 2	997 7 10	1,926 8 9	929 0 11
Mar. and Apr. ..	217 12 3	1,174 5 0	28 17 8	69 11 6	1,075 15 10	1,218 17 3	143 1 5
May and June ..	324 18 2	1,227 16 10	31 0 4	71 15 1	1,125 1 5	1,046 7 2	
July and Aug. ..	364 0 3	1,156 7 11	31 12 9	66 17 8	1,057 17 6	853 1 5	
Sept. and Oct. ..	341 8 0	1,007 9 0	30 19 9	57 16 6	918 12 9	906 17 8	
Nov. and Dec. ..	237 14 0	818 0 4	19 7 4	47 13 9	750 19 3	1,036 3 5	285 4 2
	1,673 13 3	6,461 13 5	157 12 2	378 6 8	5,925 14 7	6,987 15 8	1,357 6 6
Balance of Receipts, May and June						78 14 3	
July and August						204 16 1	295 5 5
September and October ..						11 15 1	
Net Balance of Expenditure							£ 1,062 1 1

Particulars of Costs and Returns, for Thirteen Months, to the end of December, 1855.

	£ s. d.		Tons c. q.	£ s. d.
Agents' Salaries	531 13 4	Copper Ores ..	1,673 13 3 ..	6,461 13 5
Tutwork Bargains	1,114 15 9	Deduct Freight ..	£157 12 2	
Bargains on Surface, Wages, &c.	500 18 1	Ditto Dues	378 6 8	
Carpenters, Masons, Smiths, &c.	196 11 0			535 18 10
Carriage and Horse work	426 13 7			
Materials	979 16 0			5,925 14 7
Engine or Water cost	181 13 0			
Expenses on Ores	569 13 9	Balance of Expenditure		1,062 1 1
Tribute Subsist and Balances ..	2,181 4 7			
Sundry payments	321 1 9			
	7,004 0 10			
Receipts	16 5 2			
	£6,987 15 8			£6,987 15 8

Dr.	LLANDUDNO MINE.			Cr.			
1855.	£	s.	d.	1855.	£	s.	d.
To Balance of Expenditure, thirteen months	1,062	1	1	By Balance brought on from end of November, 1854	1,945	11	3
Balance	886	0	7	By Interest received on investment	2	10	5
	£1,948	1	8		£1,948	1	8

We, the undersigned, have examined the Accounts with the Vouchers for the thirteen months ending December, 1855, and find the Balance of £886 0s. 7d. to the credit of the Adventurers to be correct.

(Signed)

S. J. WALEY,
CHARLES MORRIS, } Auditors.

London, 11th June, 1856.

TAYLOR, PRINTER, COLEMAN STREET.

LLANDUDNO MINE.
RESOLUTIONS
OF SPECIAL GENERAL MEETING
AND
Reports for the Year 1856.
Held 20th March, 1857.

<i>Dr.</i>		LLANDUDNO MINE.	<i>Cr.</i>	
1856.	<i>£ s. d.</i>		1856.	<i>£ s. d.</i>
To Balance of Expenditure,			By Balance brought on from end	
twelve months	1,493 11 10		of December, 1855	886 0 7
Balance	392 8 9		By Call on 500 unappropriated	
			Shares taken by the Adventurers, at 2 <i>l.</i> per Share	1,000 0 0
		<u>£1,886 0 7</u>		<u>£1,886 0 7</u>

We have examined the Accounts with the Vouchers for the twelve months ending December, 1856, and find the same correct; the Balance in favour of the mine being £392 8*s.* 9*d.*

19th March, 1857. (Signed) CHARLES MORRIS, } Auditors.
P. D. HADOW, }

Supplementary Account for January and February, 1857.

1857.	<i>£ s. d.</i>	1857.	<i>£ s. d.</i>
To Costs, January	426 14 0	By Balance from end of Decem-	
To Costs, February	394 11 1	ber, 1856	392 8 9
		By Copper } <i>T. c. q. £ s. d.</i>	
		Ores .. } 278 20 3 .. 838 4 9	
		Less Freight and Dues 99 10 9	
Balance	309 17 8		738 14 0
	<u>£1,131 2 9</u>		<u>£1,131 2 9</u>

LLANDUDNO MINES.

A Special General Meeting of the Adventurers, held at No. 6,
Queen-street Place, on Friday the 20th March, 1857:

PRESENT:

Mr. W. R. A. BOYLE,	Mr. A. A. ILANKEY,	Mr. TAYLOR,
Captain BRYAN,	Mr. H. B. JONES,	Mr. JOHN TAYLOR, jun.
Mr. E. BUDD,	Mr. PARKER,	Mr. W. V. VENABLES,
Mr. GORDON,	Mr. JOHN PHILLIPS,	Mr. JOEL WILLIAMS.
Mr. R. F. GOWER,	Mr. CHARLES ROBERTS,	

PROXY:

Mr. HEATHFIELD - for Messrs J. C. WAKEFIELD and JOHN YOUNG.

Mr. CHARLES ROBERTS in the Chair.

READ, the notice convening the Meeting.

Read and approved, the Minutes of the last General Meeting.

Read, a statement of the Accounts for the year ending December, 1856,
as audited, the books containing the detailed accounts being laid before the
Meeting.

Read, Reports from Captain Vivian on the state and prospects of the mine.

Read also, the Managers' Report, and recommendation as to raising
additional capital.

RESOLVED, That the Reports and statement of Accounts as audited be
received and approved.

RESOLVED, That Messrs John Addis, E. Budd, W. T. Fawcett, William
Bulkeley Hughes, M.P., Robert Henty, Charles Morris, Charles Roberts,
John Taylor, Robert Verity, R. Wynne Williams, S. J. Waley, Thomas Wood,
and Dr. F. F. Quin be elected the Committee for the ensuing year.

RESOLVED, That it is expedient that further capital be raised by the
creation of new shares, for the further prosecution of the works, as recom-
mended by the Managers.

RESOLVED, That 4000 new or additional shares of 10s. each, to rank equally with the existing 8000 shares, be created.

RESOLVED, That the present Shareholders be entitled to the preemption of such shares so created, in proportion to the respective number held by them in this adventure.

RESOLVED, That every Shareholder who shall, on or before the 4th April next, pay the sum of 5s. *per* share upon every share taken by him or her in right of such preemption, and also pay the further sum of 5s. *per* share on or before the 4th August next, shall be entitled to ~~17th~~ 17th share for every 10s. so paid; but in case the second instalment shall remain unpaid on the 20th August next, the Committee be empowered to declare the first instalment so paid as aforesaid absolutely forfeited to the use of the Company.

RESOLVED, That if the whole of the 4000 shares so created shall not have been subscribed upon by the 10th April by the persons entitled to subscribe in respect thereof, then the Committee shall be at liberty to allow, in the first instance, any other shareholder, and afterwards any other parties, to subscribe for and pay upon any shares not then appropriated.

RESOLVED, That in case 3000 shares out of the 4000 shares now agreed to be issued be not taken up and paid upon by the 15th April, the Managers are directed to call another general meeting, to consider and decide whether the adventure shall be continued, or shall be wound up, and the lease and plant disposed of by public auction.

RESOLVED, That the Reports and statement of Accounts, together with the Proceedings of this meeting, be printed, and a copy sent to each adventurer.

CHARLES ROBERTS, Chairman.

RESOLVED, That the thanks of this meeting be given to the Chairman for his conduct in the chair.

CAPTAIN VIVIAN'S REPORTS.

Llandudno Mine, February 4th, 1857.

SIR,

I beg to offer you the following report of our operations in the mine since the General Meeting held in June last. I then reported that we had cleared the bottom workings of water and refuse, and that the principal points of operation there for the future working were the sinking of the Engine-shaft to open the strings in deeper beds than had been seen in the mine, to extend the 56-yards level north of the shaft on the main course of strings, and to drive a crosscut east to explore the eastern ground. Since that time the shaft has been sunk 20 yards; is still sinking by eight men, with three men at the windlass to draw the water and refuse. We propose to sink it a yard or two deeper, so as to have a 10-fathom back, and then to drive to cut the strings, which are, as shown on the small plan sent you at the last meeting, from 20 to 40 yards distant. This being the most important object now before us in the trial of the mine, we are pressing it with all possible dispatch.

In this 20 yards sinking three distinct changes of ground are seen, the upper and lower of these especially look favourable for producing ore, being a highly crystalline rock, with large cavities in it, dotted with crystals of copper pyrites, and these are considered to be good indications for ore. The bottom level has been extended north 18 yards on the main course of strings, and has at times had a promising appearance, yielding good stones of ore; but the dip of the beds northward has brought down an unproductive bed in the present end, through which we have put up a rise to the next bed above, and have since sunk a little in the bottom, and stoped some ground adjoining it, which yielded a few tons of ore.

With a view however to retrench the cost as much as possible, we last week suspended the tutwork bargain there, and set the bottom to two men on tribute at ten shillings in the pound. Yet we think this level to be a most valuable trial, if the state of the funds would allow it, as, although a poor bed is now in the end, by continuing on this level north, it will open up higher beds, some of which have proved very good for ore in the New Mine south of us, and have not been seen in our mine, standing entirely whole northward.

It will no doubt be recollected that at the time of the last meeting we had just opened a level north of the crosscut on string "Grice," and that we valued the level at 15*l.* per fathom for ore: that ore only continued about a month afterwards; and, having driven it north nine yards, we removed the men to make other trials, one of which was the driving of 10 yards north on a string split from the main course. This place also yielded stones of ore at times, but nothing to value, and is now also abandoned. Besides these trials, several other places have been cleared out at the bottom, and a little ground opened on them to ascertain their character; all of them however have proved to be worked poor.

In reference to the ground east of the shaft, which we spoke of as affording a good chance for ore, we have not been able to make any trials on it as yet, partly because we were not in a position to employ any more men on tutwork than we had on, and partly because we should first have to cut a plot, there being no plot at bottom, which, with the time necessary to start the cross clear of the shaft, would greatly delay the sinking of the latter. This we did not think it advisable to do, and, there being no other point so far east as the shaft from which to open it, it has been postponed entirely. Our opinion of the eastern, however, is not less favourable than before expressed, but is rather strengthened than otherwise by the appearance of the ground in the sinking of the shaft; most of the water in the shaft coming out of the eastern side seems to indicate a connection with strings or open ground in that direction.

It will be remembered also that we mentioned the reports here of there being a good course of ore gone down at the lowest workings northward below the bottom level. This point we are not able to see from our using these workings as a fork for the water; and it must remain so for some time, to enable us to have time for drawing the stuff from the mine with the engine; and, when the proposed crosscut is driven west to cut the strings at the bottom of the shaft, we do not expect then to open immediately below this point, as it would greatly extend the length of the cross to keep it so far north, it being, we conceive, our best policy to drive in the most direct line to the strings, to save time. We hope, however, this ore may be available to the Company in the future.

We have just referred to the upper beds that were productive in the new mine, and had not been seen in ours. Not long before the bottom of our mine ceased working a rise was put up from the first crosscut below the adit-level, to lay open the workings brought on to the boundary of the new mine on these beds; but the water got up before this was opened. These workings are very difficult of access from the adit-level, and are now filled with refuse, so that we cannot get in to examine them; but, from reports, they paid very well to work as far as they are extended, and there are only a few yards to drive to communicate with them; so we have removed the men from one of the bargains at Treweek's to hole it through, hoping to open some ground for pitches.

The north ground about Treweek's Shaft is on the whole much the same as reported prior to the last General Meeting. The 120-yards level is extended 16 yards further north, and would have been driven much further, but the ore at this place opened out in scattered patches through the bed 12 yards wide; and, to save the ore, and effectually prove the ground, it was found necessary to carry all the breadth named. This place has yielded some hundreds of pounds worth of ore in the few months past; but the scattered nature of the ore made it more expensive to raise and dress than it otherwise would have been: a great deal of it was stoped on tutwork with the driving of the level. For the last two months it is stoped at 2*l.* per ton of picked ore, or equal to about nine shillings in the pound tribute, it being low-quality ore. There are ten men working in this place.

The 110-yards level north is extended 22 yards, and a winze sunk six yards to a deeper bed. This level has sometimes looked very promising, though on the whole it has but just paid the cost of driving it. It is not driving at present, there being eight men now employed stoping the bottom of the level, which seems at present to be the best bed for ore. If, when the stope is brought home to the end, this prove to be the case, we shall open the level in this bed. Since the last meeting the 110-level south of this shaft was worked for some time on tribute, and produced a great many tons of ore, say 40, in two takings; but for the last four months it has been poor, and it has been worked on tutwork. There is still a little ore in the end; and we believe it is worthy of further trial, but we last week removed the men to hole the piece of ground below the adit-level referred to.

These have been our principal tutwork operations; besides which, several small trials have been made in rising and sinking through different beds, to assure us that we are working on the best beds for ore; and a few trial shafts on the runs of some of the old productive workings at surface have also been sunk at a trifling expense. The number of tutworkmen generally employed since the last general report made was about forty. At present there are thirty-two.

I regret to say the number of tributers has fallen off; there are now in the old pitches twenty-one; except four, working at ten shillings in the pound, all the rest have the highest tribute, thirteen shillings and four pence: these are besides those stoping at *per* ton already mentioned. Though the pitches may be said to be poor, the decrease of tributers is not so much owing to the poverty of the pitches as partly to our being obliged to take some of the most suitable of the men to work the new tutwork bargains below the adit; and partly to the active competition there is here at present for men as labourers on the town improvements and buildings, work being offered them in many cases at three shillings *per* day, so that whenever a pitch does not hold out good wages in sight, it is abandoned. There is not any spirit of adventure among the men now they can earn certain wages on day-work, though I believe many of the abandoned pitches would pay quite as good wages on an average as the wages given in the town. The number of men and boys now employed in all the departments, including tutwork, tribute, artizans, raising slime, and dressing halvan ores, &c. is 110.

Having endeavoured to explain our past operations, I beg to state what seem to me to be our present position and prospects. You will perceive that the outlay that has been made in the lower part of the mine, in repairing the engine and pitwork, pumping out the water and clearing refuse, and in opening the ground on tutwork, has yet been without corresponding returns, except about 50*l.* worth of ore raised from this part. It has so far been a dead loss; indeed I may say the greater part, if not the whole, of the loss for the year is owing to the new work done here. You will please to observe that the main point, the sinking of the shaft, to open the main course of strings in deeper beds, is at present of no avail, nor can it be until the crosscut to the strings is driven. The shaft is now nearly deep enough for a 10-fathom level, or back, and we purpose to commence driving shortly.

You will perceive also on the small plan that the principal course of strings is from 30 to 40 yards distant from the shaft in the present bottom level, so it will probably take ten or twelve months to give this ground a full trial. I am pained to think our progress has been so slow on this important point, but we have had difficult ground and considerable water to contend with, and not the best of miners to work it, several of the men whose labour has not given satisfaction have been removed at different times, and others put in their places. But now, having sunk the shaft to a fair

depth for a level, I beg respectfully to urge the importance of continuing to push this work to the ultimatum for which it was commenced, and I still think the trial is exceedingly worthy of the cost of making it, to ascertain whether the immense bunch of ore of the former working may not make good again in the deeper beds.

I beg to remark of the returns that, besides the decrease in the number of tributers, and other circumstances above referred to, the falling off is partly owing to the drop in the standard in 1856. This seriously affected us, from the quantities of slime, waste, and other low ores sent away; and on account of the unfavourable weather we have had for several months, both for raising and shipping the slime, we have not yet derived any benefit from the recent rise in the standard. We hope however as soon as the weather becomes favourable, to send away considerable quantities of these low ores again, at the greatly enhanced price. We hope, also, that the present high standard may induce the tributers to work with greater spirit, so that we are perhaps safe in estimating the future bi-monthly returns at 750*l.*, less royalty.

The average monthly cost for the last six months of the year is about 440*l.* Though not an advocate for reducing the tutwork of a mine in general, we have lately stopped a bargain or two as above stated, so that our present cost monthly is but little over 400*l.*; this, compared with the probable future returns, will cause an estimated loss of nearly 100*l.* *per* month; and I think, with the present price of ore, that will be the outside of it: it may not be so much, as there is reason to hope, with the advanced price of ore, our returns will be increased. I may therefore venture to express my conviction that the value of the trials now before us is greatly exceeding the *probable* amount of loss to be incurred in making them.

I beg to remain, Sir,

Your humble servant,

JOHN TAYLOR, Jun., Esq.

WILLIAM VIVIAN.

March 16th, 1857.

SIR,

In my general Report of February 4th, I gave you a full statement of our operations from June last up to the latter date, and to that with other subsequent Reports I beg to refer you; and to add, as supplementary, with reference to the bottom of the mine and our prospects there, that since then we have sunk four yards in the shaft, the ground looking very promising—exactly like the former productive beds above, with crystals of copper pyrites in the cavities quite similar; though such crystals have never been seen so large at many yards distance from the bunches of ore.

The crosscut is now commenced driving to the strings; to the principal course from which the large bunch was raised it is about 40 yards; but there are other strings within that distance, which it is very probable may be found to be good in these lower beds. I have before mentioned to you the existence here of a mechanical break in the beds, called locally, the "Hanging Mawr," in English mining, the "great slide." From east to west it throws the beds up six yards, but it is more remarkable in its effects upon the copper-bearing strings, making them almost invariably productive wherever it crosses them. Its dip eastward is from 10 inches to one foot in a fathom, and it was not seen in our mine until it crossed the boundary passing through the great bunch near the bottom. Its history in the New Mine, as well as in ours, fully establishes its valuable character; for where the strings were not worth anything apart from it, and were scarcely seen, as soon as they came into contact with it they at once became rich. This was perfectly the case with the strings which form the lead of the great bunch; they had not yielded any ore, except perhaps at a few yards from surface, by the ancient miners, until this slide in its underlie eastward came near them at 150 yards from surface. The slide, in its regular angle towards the shaft at bottom, will, most probably, be seen at 25 or 30 yards driving west from the shaft, in close proximity with the strings. I send you a small section, which will, I presume, give a better idea of its underlie and effects than a description alone would give. With that before you, you will also perceive the position of the great bunch of ore relative to the shaft. It seems this bunch yielded not less than 100,000*l.* worth of ore at the then low price of copper ore. I am informed the average produce of a whole year's raisings was 15 *per cent.*, sold then for 11*l.* 10*s.* *per* ton, worth now 18*l.* It was worked down only a few yards below the 56-yards level to a bed of shale four feet thick, which was merely picked through in a few places and found to be poor. We have just started a winze on another point, to prove below the shale bed, and if we get ore at the bottom of the shaft, will push it down with

vigour to communicate with the crosscut now started at the bottom, 80 yards below adit, shown by the dotted lines. Besides the strings shown, there are others nearer the shaft, and it is believed on the east side also.

I send you a small box of stones taken from the bottom of the shaft, which, although bearing only crystals of copper pyrites upon the calc spar, are however in my opinion of greater value, as indications of what may be expected, than *solid* stones of ore might be under *some* circumstances.

I have always considered this trial to be a first-rate speculation; but, since we have met with this very promising ground and indications, I consider it almost a *certainty* that this ground will prove good; and in this opinion I am sustained by the miners, who have worked in this mine almost their whole lives. I have before expressed myself as being very sanguine about it, and this is still my deliberate and confirmed opinion.

The general operations of the mine are being carried on as usual.

I beg to remain, Sir,

Your humble servant,

JOHN TAYLOR, Jun., Esq.

WILLIAM VIVIAN.

THE MANAGERS' REPORT.

THE present Special General Meeting has been called in order to place before the Shareholders the position of the finances of the Company, and to take their decision upon the course to be pursued with respect to raising additional capital for the further prosecution of the trials of the deeper parts of the mine, or for taking other steps, in case such additional capital is not subscribed.

The Reports of Captain Vivian, now produced, give very full and clear descriptions of the state of the mines, and they show that his good opinion of the probabilities of valuable discoveries being made is in no degree diminished; and this favourable opinion is confirmed by all those best acquainted with this particular locality. The progress made towards the proof of the veins, at an increased depth to any heretofore reached, has been much impeded by several accidents to a steam-boiler purchased last summer. The workmen have been kept out of the bottom of the Engine-shaft for many weeks in consequence of interruptions caused by these accidents, and by a breakage also to the main shaft of the engine. These delays have led to a larger outlay of money than was contemplated, but the requisite depth for a proper crosscut-level to the veins has at last been reached, and the crosscut commenced, and there remains only to complete it, to prove whether or not this mine will again be profitable.

The length of the crosscut at the 80-yards level will be about 40 yards to carry it through the principal veins and strings on the western side of the shaft, and another crosscut in the opposite direction should be driven out simultaneously, to prove several strings known to be there also.

Our own opinion of these trials corresponds with Captain Vivian's most completely. We consider that there is a very fair chance of success, and that if success be met with it will be great. The main expenses of opening the mine, and of sinking the shaft, have been incurred; and we shall cheerfully contribute our quota of the cost of completing the trials.

The accounts laid upon the table show that the balance of expenditure, over the amount received for ores sold in 1856, was 1493*l.* 11*s.* 10*d.*, and this amount is further increased by 82*l.* 11*s.* 1*d.* for January and February of the current year. There remains now but 309*l.* 17*s.* 8*d.* to the credit of the concern, and this must speedily be exhausted if the works proposed are pushed forward with proper spirit. The course which we should now recommend to the Shareholders is, that an addition of 2000*l.* to the capital of the Company be made, and that this be raised by the issue of 4000 additional shares of 10*s.*

each, to rank equally with the existing shares, such shares to be offered rateably to the present proprietors according to their present holdings; and in case they are not accepted by them, then that they be offered to any of the present Shareholders, or to other parties. We are of opinion that the sum proposed will enable us to make an effectual trial of the mine; and as the money will not all be required at once, we would suggest that it be paid up by two instalments, 5*s.* *per* share upon allotment, and 5*s.* *per* share in four months time, say upon the 4th of August next.

A vigorous effort has been made to reduce the current expenditure, and several reductions have been made. Captain Vivian has voluntarily relinquished one quarter of his yearly salary; Mr. Joel Williams, the acting cashier in Wales, has given up his salary altogether during the progress of the trials, and we have diminished our own charge by one half. The money now to be raised will be laid out almost wholly in labour, and a result may be looked for in six or eight months' time.

JOHN TAYLOR AND SONS.

London, 20th March, 1857.

COSTS AND RETURNS OF LLANDUDNO MINE,

For Twelve Months, to the end of December, 1856.

Date.	Copper Ores.	Amount.	Deductions:		Net Amount.	Costs.	Balance of Expenditure.
			Freight.	Dues.			
1856.	<i>T. c. q.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>	<i>£ s. d.</i>
Jan. and Feb. ..	181 10 0	767 4 10	15 16 2	45 5 3	706 3 5	992 1 6	285 18 1
Mar. and Apr. ..	254 20 1	886 0 2	21 3 1	51 13 3	813 3 10	1,178 19 3	365 15 5
May and June ..	374 13 1	1,026 6 9	68 17 0	56 6 7	901 3 2	952 2 2	50 19 0
July and Aug. ..	286 9 3	722 6 7	51 19 6	39 4 2	631 2 11	923 13 9	292 10 10
Sept. and Oct. ..	152 17 2	562 2 6	23 13 0	32 4 5	506 5 1	818 13 1	312 8 0
Nov. and Dec. ..	315 11 0	799 1 9	53 15 2	43 12 6	701 14 1	887 14 7	186 0 6
	1,565 18 3	4,763 2 7	235 3 11	268 6 2	4,259 12 6	5,753 4 4	1,493 11 10

Particulars of Costs and Returns, for Twelve Months, to the end of December, 1856.

	<i>£ s. d.</i>		<i>Tons c. q.</i>	<i>£ s. d.</i>
Agents' Salaries	429 6 0	Copper Ores ..	1,565 18 3 ..	4,763 2 7
Tutwork Bargains	1,009 3 8			
Bargains on Surface, Wages, &c.	301 17 4	Deduct Freight ..	£235 3 11	
Carpenters, Masons, Smiths, &c.	190 17 0	Ditto Dues	268 6 2	
Carriage and Horse-work	508 18 6			503 10 1
Materials	1,090 10 1			4,259 12 6
Engine or Water cost	263 10 8			
Expenses on Ores	635 4 8	Balance of Expenditure		1,493 11 10
Tribute Subsist and Balances ..	1,200 18 8			
Sundry payments	198 12 4			
	5,828 18 11			
Receipts	75 14 7			
	£5,753 4 4			£5,753 4 4