

HEATON COLLIERY JOURNALS
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Bud-44-2

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1.

– Wednesday 21st. Oct^r. 1812 –
 N^o. 21. Workings

A Pit Gibson – – 292 – £203.. 1..11
E ditto Dotchen – 341 169..18..7½
 633 £373.. 0..6½

Vended By Spout – 439
 Keels – 661
 1100

Formerly – – 22076

Total – – – 23176

Amo^t. of Pay Bill £1121.. 0.. 6½

– Saturday 24th. Oct^r. 1812 –

2.

be vigorously pushed.

– Wednesday 28th. Oct^r. 1812 –
 Down the **E** Pit. – There now
 appears to be about 20 Juds re-
 maining to work, which will
 last about a month, or five
 weeks.

There does not seem
 to be the least Fistling or un-
 easiness in any part of the
 Waste – the falling of the
 Benton Stone Drift, had merely

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Ordered the exploring Drifts in Lawson's-main, to be discontinued as there is no prospect of findg. more Coal; and the Feeders of water from the Roof are daily increasing The South middle and N. Drifts, in Heaton must

arisen from the failure of the Timber.

The Bore-hole Feeder from Benton old waste seems to continue very regular. Ordered the Rods to be run thro' the hole again to see if all is

3.

clear, and a guaging Box to be placed, to enable us to ascertain the quantity of water discharged.

– Wednesday 4th. Nov. 1812 –
 N^o. 22. Workings viz.
 A Pit Gibson – – 329 – £206..12..4½
 E ditto Dotchen – 386 181..12..6½
 715 £388.. 4..11
 Vended By Spout – 287
 Keels – 887
 1174
 Formerly – – 23176
 Total – – – 24350
 Amount of Pay Bill £1378.. 6..6
 – Wednesday 13th. Nov. 1812 –
 Lined and levelled the Rolly way from the old Pit Shaft to the head of the Roll Bank, with a view of endeavouring to make some

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4.

improvement in it, to enable us to reduce the Number of Rolly Horses
 – Wednesday 18th. Nov. 1812 –
 N^o. 23. Workings viz.
 A Pit Gibson – – 321~~xx~~ – £218.. 6..9
 E ditto Dotchen – 372 175..16..7
 693 £394.. 3..4
 Vended By Spout – 203
 Keels – 861
 1064
 Formerly – – 24350
 Total – – – 25,414
 Amount of Pay Bill £2388..17..4
 – Wednesday 25th. Nov. 1812 –
 Made a thorough survey of the old Pit, and found the Workings in a very good State, in every respect. The Seam is clean, and the Coal hard and firm, so that by paying attention to make the

5.

men work Fair, a very large proportion of Ship Coals must be produced. As the Far Pit will be finished this week, after which this Pit must necessarily be set on double Shifts, it is requisite that every possible facility should be given to the dispatch of Coal work. At present it is much interrupted at the Shaft, by the Horsekeepers when leading the Hay & Corn to the stables, and when bringing the Dung out, – I therefore propose to make another passage from the Shaft to the Stables, by ridding out the old Stable Boards. When this is done the Horsekeepers may carry on all their operations without interrupting the work in the Rolly Way.

6.

Examined the Mothergate and 1st. S^o. Board as far as they are access to the E. of the Shaft – From every appearance, I think we will be jus-

7.

the Bore-holes will not feed themselves.
 The average thickness of the F. In.

8.

From an accurate Plan, and propose of the Rolly way in the West Mothergate of this Pit, it appears that an inclined Plane may be made

tified in attempting to rid out the Boards, with a view to obtain a part of the Crept Pillars to the Eastward of the rise Trouble, as well as the N.E. Barrier next Walker Henry Pit Workings.

Started the North Drift into the Creep from the W. side of the Shaft – This is preparatory to a new Water-level thro' the Creep, to drain the Pillars to the N. and N. East.

The Exploring Drifts to the West, are perfectly dry in the Face, and the Coal is remarkably Strong – the Coal is so dry that

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Seam in this part, is about 5 .. 9 consequently an acre will contain 3092 Ch.

To work with 10 yard Winn^s.
6 Wall and 4 Boards – the Walls to be holed at 20 yards – 0.46 of the Seam will be obtained by the first working, that is 3092

$$\begin{array}{r} 0.46 \\ 18552 \\ \hline 12368 \end{array}$$

1st. Working 1422.32 Ch. P. Acre
3092 – 1422 = 1670 Ch. remain in Pillars: Then supposing $\frac{1}{3}$ of Pills. to be obtained = 556 Ch. and 1422 – 556 = 1978 but say 2000 Ch. P. Acre total Produce

Suppose $\frac{1}{10}$ of Small = 200, then 200 – 200 = 1800 Ch. neat Produce of Ship Coals P. Acre.

from the rise side of the Westm^t. Dyke, to the East Side of the 8 feet Dyke (157 yards) and the Rolly way made with so gentle a des[cent] from thence, that an Horse will be able to take 4 Corves at a Pull, with ease – the Plane will have descent enough to enable the Full Corves to draw up the empty ones. If this Plan was carried into effect, I have little doubt of its' laying off 10 Horses P. Shift or 20 P. day, double Shift. – It may be accomplished in about 4

9.

Months, and will cost £420. See the Estimate on the next Page.

Supposing that leave can be obtained, to work off the Heaton S^o. Barrier in the old Pit, and as much of Walker Barrier adjoining, as to leave 44 yards against Walker Waste; the quantity of Coal to be obtained therefrom, will be as follows. Ch. Ch.

Walker Barrier 4½ Acres, @ 1800 = 8100
Heaton Ditto –
average Brae: 147
Length 4550 7 Acres @ d^o.12600

10.[&]11.

Nov.12th.1812, Estimate of the proposed alteration

In the old Pit, W. Rolly-way
Blowing down 110 yards of Post, to level }
the Swelly ----- @16/- £88.. 0..0
Cutting up 32 yards of Thill, 4 feet thick }
on the average ----- @11/- } 17..12..0
Stone Drift 6 feet square, in Thill 23 }
yards ----- @50/- } 57..10..0
Blowing down 40 yards of Post, 4 feet }
thick, on the average ----- @16/- } 32.. 0..0
Stone Drift, in Thill 6 feet square 19 }
Yards ----- @50/- } 47..10..0
Blowing down

12.

– Thursday 26th. Nov. 1812 –
At a meeting of the Owners held this day at the Colliery, Present
M^r. Pearson M^r. Geo. Fenwick
M^r. Potts M^r. Th. Crudace
Jn^o. Buddle

It was resolved that the projected Inclined Plane, in the old Pit W. Rolly way should be carried into execution as soon as convenient

That the Pillars in a certain Part of the Long Benton Liberty E, Pit, should be wrought.

Whole Coal, already explored	} Ch.	<u>20700</u>
to the Westward 25 Acres @ 1800		45000
15½ Acres Pillars --- @ 500 =		<u>7750</u>
		<u>52750</u>

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Stone Drift, in Post, 6 feet thick 35 } Yards ----- @45/- }	78..15..0
Stone Drift in Thill, 30 yards -- 50/-	75.. 0..0
	<u>396.. 7..0</u>
Inclined Plain Machine, and fitting up –	33..13..0
	<u>£ 430.. 0..0</u>

N.B. No charge is made for the Coal driftg as it is to be presumed that the Coals to be obtained will pay the Expenche. Whether this is carried fully into effect, or not the Swelly must be levelled up.

[Text Aligned Transversely]

That the cutting out of the old and middle Pit Creeps sh^d. be continued, and every endeavour made to work the remaining W[ork] out of the same

13.

That M^r. Buddle should apply to M^r. Watson for leave to work certain Parts of Walker Barrier – Monday 30th. Nov. 1812 –

Begun to repair the Stone Drift E Pit, leading to the Pillars which it is proposed to work out of Benton Liberty

Set out some stowing for the further security, of the Colly. when the above Pillars are wro^t.

As the water from the bore-Hole, into the Benton old Waste, does not diminish – Plugged the hole to facilitate the repairs of the Stone Drift (thro' which the Water passes to the Engine) – this will

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14.

enable us to set the Engine on Single Shift again.

– Saturday 5th. Dec. 1812 –
Applied to M^r. Watson as viewer to the Corporation of Newcastle for leave to work off the reserved part of Heaton Barrier and also to work so much of Walker barriers as may be deemed prudent.

– Tuesday 8th. Dec. 1812 –
Down the old Pit, and set out the work to be done in large Swelly, W. mothergate agreeable to the Plan laid before the Owners on the 26th. Ulto.

15.

– Wed. 2^d. Dec. 1812 –
N^o. 24. Workings this Pay viz.
A Pit Gibson --
d^o. Dotchen --
E d^o. d^o. – _____

Vended By Spout –
Keels – _____
Formerly – – 25414
Total – – _____

– Tuesday 15th. Dec. 1812 –
Down the old Pit – the W. exploring Drifts still continue to go on well.
Now since the Pit has gone on double Shift much interruption and delay is occasioned by there being no other commu-

16.

nication between the Shaft and the Stables, than by the Rolly way. The taking in of the Hay & Corn, and leading out the dung retards the Coal work very much; I therefore resolved to form a new line of communication from the Shaft to the Stables, by ridding out the first Board to the S^o. of the Mothergate.

– Wed. 16th. Dec. 1812 –

N^o. 25. Workings

A Pit Gibson – –

ditto Dotchen – _____

Vended By Spout –

Keels – _____

Formerly – – 25414

Total – – – _____

[Bud-44-2]

17.

– Thursday 24th. Dec. 1812 –

This being the Xmas Eve, laid off the Pit for the holidays. The raising of the Swelly in the old Pit and the Stowing in the Far Pit will however be carried on during the holidays.

– Wed. 30th. Dec. 1812 –

Down the old Pit inspecting the blowing down of the Stone in the Swelly &c.

– Thursdy. 31st. Dec. 1812 –

N^o. 26. Workings viz.

A Pit Gibson – – 128.. 0 – £108.. 8.. 2½

d^o. Dotchen – 158..11 134.. 9..10

287.. 1 £242..18.. 0½

Vended By Spout – 64

Formerly – – 26690

Total – – – 26,754

Amo^t. Pay Bill £2585.. 3..7

[Pages 18 & 19 are Blank]

20.

– Tuesday 5th. Jany. 1813 –

Down the old Pit inspecting the work at the Swelly – it is in great forwardness, but, I think all this week will be required to complete it.

There is a great want of ventilation in the Stables I therefore ordered another wall to be holed from the head of the Stables Board, into the Mothergate – when this is done the whole Air course may be thrown thro’ the Stables by keeping a pair of main doors in the Mothergate.

– Wed. 13th. Jany. 1813 –

Down the old Pit this mornng. the weighing up of the Swelly

21.

in the W. Mothergate has improved the Rolly way very much but it still requires a little more work at it’s W. end.

The exploring drift still continue to look very promising

The alterations and improvements about the Stables are in progress. Ordered a wash-hole to be made in the 1st. S^o. Wall from the Shaft

N^o. 1. Workings

A Pit Gibson – – 67 – £68..14.. 0½

22.

– Thursday 21st. Jany. 1813 –

Examined the situation of the Far Pit.

The Rolly & Tram Way are laid ready for beginning the Pillars in the N.E. way as fixed on the 26th. Nov. last

The Barrier to the North of this district of Pillars is stowed, but the W. Barrier is not yet far enough advanced to allow of the working of the Pillars being commenced

23.

the W. Barrier will be Far enough advanced to admit Coal Work being begun.

The Colliery Plan shews the situation and extent of the above Barriers.

Pointed out an alteration of the Air Course, which will give greater safety to the working of this district of Pillars.

The Feeders of water from the E. workings in Benton

d°. Dotchen – 59 69.. 0.. 3
126 137..14.. 3½

Vend By Keels – 184
 Spout – 206
 Total – -- 390

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The Men employed in the alterations of the Stables in the old Pit must be bro^t. to assist in this business but it will be 10 or 12 days yet before

Liberty has abated very much. The Timber in the Stone Drift is in a very indifferent State – it rots very soon

24.

– Wed. 27th. Jany. 1813 –
 N°. 1. Workings viz. –
 xx.
 A Pit Gibson – – 241 – £167.. 8.. 0½
 d°. Dotchen – 231 167.. 6.. 7½
472 335..14.. 8

Vend By Keels – 40
 Spout – 269 309
 Formerly – – 390
 Total – -- 699

– Monday 8th. Feb. 1813 –
 Started the Far Pit in the Broken this mg. –
 – Wed. 10th. Feb. 1813 –

N°. 3.
 A Pit Gibson – – 229 – £178..19.. 9½
 d°. Dotchen – 145 106..12.. 7½
 E d°. d°. – – 84 50.. 8.. –
693 £336.. 0..0½

Vend By Keels – 549
 Spout – 318 867
 Formerly – – 699
 Total – -- 1566

[Bud-44-2]

25.

– Thursday 11th. Feb. 1813 –
 Examined the Far Pit workings in the Broken.
 The innermost course of Walls (3 Pill. long, is nearly wro^t. off, and so far all things look as favourable as possible. – Give directions on several matters connected with the working of the Pillars &c.

– Saturday 13th. Feb. 1813 –
 Changed the Air in the Far Pit as pointed out Pa. 23.

– Monday 15th. Feb. 1813 –
 Set away two S°. Drafts from the Rolly way Bank old Pit out of which when far enough over the Inclined Plain B^d. is to be turned.

26.

– Tuesday 16th. Feb. 1813 –
 Through the old Pits work^s. Ordered the middle & North exploring Drifts to be thrown wth. a Single 3 y^d. B^d. each, with overlapped Brattice – I conceive this Plan to be stronger and consequently safer than the double Drifts.

Getting very well forw^d. in the Far Pit.

– Tuesday 23^d. Feb. 1813 –
 Through the Far Pit Workings The working of the Pillars is going on very well – 3 courses of Walls are now wro^t. off and the 4th. is begun to – the Goaf has Fallen pretty freely

27.

and appears as if it would break down completely. No pressure whatever upon the

28.

undue pressure upon the walls.
 – Saturday 6th. Mar. 1813 –
 All matters have remained nearly

29.

– Saturday 13th. Mar. 1813 –
 The Goaf in the Far Pit, does not yet fall so freely as might be

walls yet.

– Wed. 24th. Feb. 1813 –

N^o. 4. Workings

A Pit Gibson – – 325 – £227..16..6

E d^o. Dotchen – 353 178..18..–
678 £406..14..6

Vend By Keels – 872

Spout – 366 1238

Formerly – – 1566

Total – – – 2804

– Saturday 27th. Feb. 1813 –

The Goaves in the Far Pit, do not break down so completely as might be expected, as yet, but there is not the least appearance of

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in the same state this week in the Far Pit broken.

– Tuesday 9th. Mar. 1813 –

Through the old Pits' Workings set away, by Compass the inclined Plane Drift, in the Coal.

The exploring Drifts are going with a gentle rise, and look as favourable as possible.

– Wed. 10th. Mar. 1813 –

N^o. 5. Workings

A Pit Gibson – – 320 – £216..12..6

E d^o. Dotchen – 404 186..19..3
724 £403..11..9

Vend By Keels – 900

Spout – 380 1280

Formerly – – 2804

Total – – – 4084

wished or expected.

– Tuesday 16th. Mar. 1813 –

The Goaf in the Far Pit Broken

Fell this mornng. with a terrible crash; – 7 Walls in Breadth were off, and nearly 4 Pill. in length. – about 70 yd^s. by 80

The Fall was not so high as might be expected, but the adjoining Pillars appear to be relieved from pressure.

The inclined Plane Board in the old Pit is going on very well.

– Saturday 20th. Mar. 1813 –

Called the Binding of the Pitmen

30.

and hired all the men in a few Hours.

– Tuesday 23^d. Mar. 1813 –

Down the E Pit – The Goaf seem now to have fallen completely, and with the exception of the next wall to it on the S^o. Side, there does not appear to be the least pressure up the walls on the Outby side of the Goaf, and upon the whole I think appearances as favourable as possible.

Down the old Pit also –

The inclined Plane Board is in progress, and the exploring Drifts are going on well.

31.

communication to the Stables.

– Wed. 24th. Mar. 1813 –

N^o. 6. Workings

A Pit Gibson – – 286 – £199.. 8..5½

E d^o. Dotchen – 380 180.. 9..11
666 £379..18..4

Vend By Keels – 853

Spout – 470 1323

Formerly – – 4084

Total – – – 5407

– Tuesday 6th. Ap: 1813 –

Down the Far Pit – Within the last two or three days, considerable pressure and uneasiness has taken place on the Walls 4 in Number, on the outby Side

32.

outside of the Barriers.

I attribute this pressure and uneasiness on the Pillars, to the want of a Fall in the last wro^t. (4) Goaves, but think they will fall shortly, and relieve the pressure.

– Wed. 7th. Ap. 1813 –

N^o. 7. Workings

A Pit Gibson – – 318 – £226..18..8

E d^o. Dotchen – 396 179..19..9
714 £406..18..5

Vend By Keels – 902

Spout – 355 1257

Formerly – – 5407

£2133..3..9 Total – – – 6664

The S°. Jenkin from the Stables to the Shaft is holed: and forms a very commodious line of
[Bud-44-2]

of the Goaves. – The Thill is also heaving a good deal but all remains quiet on the

The late wro^t. Goaves in the E Pit have fallen partially, but the pressure on the Pillars is

33.

not relieved.

– Friday 9th. Ap. 1813 –

The Creep became so active on the E Pit Juds this Mornng. that the Men were obliged to leave off work – As there dis not seem to be the least prospect of getting into the Juds again began immediately to get out the Timber, Plates &c.

– Saturday 10th. Ap. 1813 –

The Creep was discovered this Mornng. to have passed over the Barrier to the W. and N.W. and to be making rapid progress.

This being the Case there can scarcely be a doubt of its over running the whole of the
[Bud-44-2]

34.

Pit Workings. I therefore ordered the Horses and Materials to be drawn to bank.

– Sunday 11th. Ap. 1813 –

The Creep is making away to the N. and West, but does not seem to be going rapidly to the South. It is much easier on the Coal Barrier to the S°. of where the Juds are wro^t.

The Principal from the Creep, is, that by stopping the Stone Drift, it may prevent the Benton Water from getting to the Engine, and let it slip to the old Pit En. which I fear it would over po[wer]

To guard against this as much as possible, the Dams in the S°.

35.

coal Barrier must be rammed close up to the Roof with Clay which, as the Creep cannot I think affect, the Barrier, may probably force the Water up to the Level of the Engine even if the Stone Drift should be closed. As no time should be lost in accomplishing this pri[] the Carts were set on this afternoon to lead Clay for the dams.

– Tuesday 13th. Ap. 1813 –

Down the E Pit – found the Creep proceeding rapidly towards the Shaft in the S°. West direction It is within 11 winnings of the Shaft Barrier.

It has not yet affected the Stone Drift.

36.

– Saturday 17th. Ap. 1813 –

The Creep reached the Shaft wall (Barrier) about Thursdy. mg. last & seems dwelling there for the present

– Wed. 21st. Ap. 1813 –

N°. 8. Workings

A Pit Gibson – – 271 – £191.. 0.. 0

d°. Dodgson – 180 180..15.. 8½

E d°. Dodgson – 33 30..14.. 1

484 £350.. 9.. 9½

37.

– Saturday 24th. Ap. 1813 –

The Creep seems now nearly ad[] to the N. and W. of the E Pit Shaft, but is working slowly E. down towards the Stone Drifts.

– Tuesday 27th. Ap. 1813 –

Through the old Pits' Workings In the middle exploring Drift a very serious Feeder of Water has come off, in the course of the

38.

Drift for the present; and it is questionable, whether a frame Da[] ought not to be put into this Drift with a view to relieve the En. by stopping back a part of the Feeder.

Thursday Tuesday 4th. May 1813

Through the old Pit Workings measured the Feeders of Water issuing from the middle explorg.

Vended By Keels – 462
 Spout – 413 875
 Formerly – – 6664
 Total – – – 7539

The Creep in the E Pit keeps slowly advancing.
 – Thursdy. 22^d. Ap. 1813 –
 Holed the inclined Plane Drift in the old Pit thro' the high trouble
 [Bud-44-2]

last Week – it has nearly given Full employment to the Engine and if any more Feeders come off in the other Drifts, or in the Workings, I fear that the En. will be overpowered. Under these Circumstances, I deem it advisable, to stop the middle

Drift to 25 Gallons P. min.
 Marked out the situation for a Frame Dam to stop this Feeder back, but will wait, the event of 2 or 3 Weeks before we put in the Dam.
 The Engine draws the Water, but requires to be kept almost constantly going.

39.

– Friday 7th. May 1813 –
 Broke 2 Spears at the old Pit Engine this Mg. In consequence of this the Water rose at the Shaft.

– Satdy. 8th. May 1813 –
 The Water was so high this mg. that the old Pit could not go to Coal Work – the Engine Started in the afternoon.

– Sunday 9th. May 1813 –
 The Engine lowered the Water about 10 In. last night

– Monday 10th. May 1813 –
 The Engine drew the Water low enough to allow the back Shift to go to work.

– Saturday 15th. May 1813 –
 The Engine has kept the water
 [Bud-44-2]

40.

down all this week
 – Tuesday 18th. May 1813 –
 Through the Workings of the old Pit this mornng.. – As there is every appearance of an increase of Water in the S^o. West exploring Drifts next Lawson's-main, I order-ed them to be stopped for the present. As there is less ap-pearance of Water to the North the Workings must be pushed in that quarter as much as possible

The inclined Plane in the Rolly Way is in progress, but it will be nearly a mo. before it is finished

The Engine has gone re-markably well for some days as

41.

has kept the Water down; but the En. Pit is much out of repair especially at the quick Sand.
 Ordered the Sinkers to commence the repair of the En. Pit without delay.

– Wednesday 5th. May 1813 –
 N^o. 9.

A Pit	Gibson	– –	252	–	£181..15..5
–	Dotchen	–	<u>211</u>	<u>165..</u>	<u>8..0½</u>
			<u>666</u>	<u>£347..</u>	<u>3..5½</u>

Vend By Keels – 96
 Spout – 105 201
 Formerly – – 7539
 Total – – – 7740

42.

– Wednesday 19th. May 1813 –
 N^o. 10.
 A Pit Gibson – – 212 – £160.. 9..1

43.

from the Creep in the Far Pit having by some means stopped the water back.

44.

and W. workings of the old Pit, together with the risk of raising more, that a powerful Engine

– Dotchen – 250 164..14..2
462 £325.. 3..[4]

Vend By Keels – 721

Spout – 613 1334

Formerly – – 7740

Total – – – 9,074

Through the old Pit Workings yesterday Mornng. – the Feeders of Water from the North part of the Colliery have diminished fully as much as the increase in the West Way; so that at present the Engine can draw the Water in 16 hours out of 24. I am at a loss to account for this circumstance, unless it arises

[Bud-44-2]

The Sinkers have commenced a thorough repair of the old Pit Engine Shaft which is very much out of order

– Tuesday 25th. May 1813 –

At a general meeting of the Owners held this mornng. at M^r. Pearson's in Westgate Present
M^r. Johnson M^r. Potts
M^r. Fenwick M^r. Croudace
M^r. Pearson J.B.

The situation of the Colliery was fully considered, and discussed It was resolved in consequence of the great increase of Water issuing from the exploring Drifts

capable of working one 16 or 2 – 12 In. set of Pumps should be erected on the middle Pit, without a delay. The object of erecting this Engine is not only to ensure the working of the whole Coal to the W. of the old Pit, but also to attempt the draining of old Benton, or Heaton Wastes, or perhaps both.

As the erection of this En. will in all probability enable us to obtain a considerable quantity of Coal out of the Crept Pillars

45.

it was agreed that an applicatⁿ. should be made to S^r. T.H. Liddell Bart. and P^{rs}. for the abatement of Rent on such Coals as we may be able to obtain out of the Crept Pillars

– Monday 21st. May 1813 –

Examined the exploring Drifts &c. with M^r. Dodds, and explained to him fully the situation of the Colliery, and the Co^s. Views in the erection of the new Engine &c.

Down the middle Pit, and gave directions for the preparatory measures for sinking the East Shaft for the new Engine Sump &c.

46.

– Wed. 2^d. June 1813 –

N^o. 11.

A Pit Gibson – – 245 – £166..18..4

– Dotchen – 258 182.. 2..8
503 £349.. 1..6

Vend By Keels – 299

Spout – 449 748

Formerly – – 9074

Total – – – 9,882

– Monday 7th. June 1813 –

Set out the Foundation of the new Engine at the middle Pit

– Friday 11th. June 1813 –

Begun to cut out the Foundatⁿ. of the new Engine at the middle Pit – Set out the Cistern holes for the high Set Cisterns

47.

– Tuesday 15th. June 1813 –

Bought 9 – 13 In. Pumps, 60 Fa. of 9 In. Crab Rope, Sundry Engine Barrs, &c. &c. at Craw-crook Sale for the new Engine at the middle Pit.

Cutting out the Foundation of the new Engine – also the high Set Cistern Hole.

– Friday 18th. June 1813 –

Set out the Staples in the middle-Pit, for the Stone Drift to bring the Water home from the W. Swelly to the Engine Sump.

– Tuesday 22^d. June 1813 –

Examined the inclined Plane in the old Pit, and pointed out certain points of adjustment, which

[Bud-44-2]

are essential to it's completion.

48.

Wrote The Count – de - Sesp[oney] and offered him £2100 for the Pensher Pumping Engine, paym^t. in 3 Ins^{ts}. of £700, each, at 6 – 12 – 18 Months.

– Wednesdy. 16th. June 1813 – N^o. 12. Workings.

A Pit Gibson – –	238 xx .	–	£172..11..7½
Dotchen –	<u>248</u>		<u>177..13..11</u>
	<u>486</u>		<u>£350.. 5..6½</u>

Vend By Keels – 604

Spout – 426 1030

Formerly – – 9822

Total – – – 10,852

– Wednesday. 30th. June 1813 – N^o. 13. Workings viz.

A Pit Gibson – –	221	–	£154..15..1½
Dotchen –	<u>220</u>		<u>177.. 0..5</u>
	<u>441</u>		<u>£331..15..6½</u>

Vend By Keels – 152

Spout – 516 668

Formerly – – 10852

Total – – – 11520

[Bud-44-2]

49.

– Friday 2^d. July 1813 –

Set out the En. Level Drift from the 1st. Stap. in the middle Pit.

Depth of Stap: feet – the Drift to be driven in the Metal Coal from the Stap, to the Eastward, and as far in the Seam to the W. as the Level will allow

Section of Metal Coal –

Splint – – – 0..5

Band – – – 1..6

Coal – – – 1..8

3..7

The Band will not bear the Water, and I am doubtful that the Splint is not to be depended on as a secure Roof for the Drift; but I think the Coal is firm enough to carry a Brick Arch.

50.

[Diagram of Brick Arch]

When the Drift leaves the Seam the Side Walls must be continued from the Bottom.

– Monday 5th. July 1813 –

After saving a little more of the metal Coal, I am in doubt whether it will bear the Wall after the Water passes thro' the

51.

Drift for the length of time – I therefore resolved to build the side Walls from the Deal Flooring at the Bottom of the Drift, and ordered the Drift to be driven sufficiently wide for that purpose.

The First Staple sunk for 45/-

52.

off 9 Horses P. Shift in the first instance, but I expect more to be laid off by and by.

The Cistern Holes in the middle Pit are finished, and the Foundations of the Engine is in progress.

Bo^t. the Pensher Engine of

53.

– Wednesday 7th. July 1813 –

Sent W. Miller down the Far Pit to examine the state of the Creep.

He reports that all is quiet to the W. of the Shaft; where the Creep has passed the W. mg^t. to the Westw^d. But it is still

P. Fath.

Let the Drift @ 7/- P. yard – the undertakers to find Candles, and deliver the Coals &c. at the top of the Staple.

Started the inclined Plane in the old Pit this mornng.

– Tuesday 6th. July 1813 –

Down the old Pit this morning The inclined Plane answers very well, but some trifling matters require adjusting – it has laid

[Bud-44-2]

M^r. Lambton for £2200.

Let the Masonry of the Foundation to W. Fothergill – to find Stones, and workmanship as follows Ashler work – – – – – 6^s/ 4^d. P. y^d.

Walling run in Courses 2/ 2

Common Walling – – – 2/ 6

The common walling not to exceed 2 feet – if more to be paid in proportion.

Offers to lead the Stones at 1/ 6 P. Fath.

going on languidly to the East of the Shaft from which it is still 5 Pillars distant. As the preservation of the Engine Standage is now of little consequence, I think it advisable to endeavour to work the Pillars formerly left for its' protection, as well as the walls left to the S^o. W. adjoining the middle Pit Barrier. No time must therefore be lost in laying

54.

the Rolly way to the S. West, where it was Formerly; which may be [neading] done, as the Passage is upstanding

We can pick up a Shift of Men from Jarrow &c. and the Horses laid off by the Plane in the old Pit, can put the Coals.

The first of the Air must be put thro' the Juds, and the work about the Shaft, in the last of the Air must be done with Steel Mills.

– Friday 9th. July 1813 –

The Wet Spears of the Low Set old Pit Engine broke this afternoon and doubling in the Pumps they could not be gotten out – it therefore become necessary to draw

[Bud-44-2]

55.

8 pumps to get them disengaged – Saturday 10th. July 1813 –

Did not get the broken Spears out 'till this Mornng. – The water rose so rapidly that we were obliged to draw the Horses, one of which was drowned, by getting from the Horsekeeper and running into the Water beside the Cistern

– Monday 12th. July 1813 –

Got the Engine started about 5 o' clock this Mornng., but getting a gag in the low Clack, and stopping leaky joints, prevented her getting thoroughly underway 'till about 2 o' Clock P.M.

Being obliged to put out the middle Pit Furnace on Satdy. the Drifts &c. in the middle Pit

56.

are Stopped

Getting forward in preparing the Far Pit for work.

– Tuesday 13th. July 1813 –

The Engine went very well 'till about 4 o' Clock this Afternoon, when the High Set Spears broke

– Wednesday 14th. July 1813 –

Got the Engine to work again at 5 o' Clock this Mornng.

The S^o. W. Way in the Far Pit has cleaned very well, and bears the Candles – expect to get all ready for beginning Coal work tomorrow afternoon – 7 Horses must be put down the Pit in the Mg.

Begun on Monday to lead the Engine Materials from Pensher.

Begun also to Sink the middle Pit for the Engine Sump.

57.

58.

59.

– Wednesday 19th. May 1813 –
N^o. 14. Workings

A Pit {	Gibson – –	118	–	£107..12..6
	Dotchen –	<u>113</u>		<u>91.. 1..1½</u>
		<u>231</u>		<u>£198..13..7½</u>

Vend By Keels – 120

Spout – 326 446

Formerly – – 11520

Total – – – 11966

– Thursday 15th. July 1813 –
Started Coal work this Afternoon
at the Far Pit. The old Engine
continues to go very well

– Friday 16th. July 1813 –

The old Pit Engine has gone very
well since yesterday – the water
has lowered about 14 Inches.

– Monday 19th. July 1813 –

The Engine had lowered the Water

[Bud-44-2]

below the Roof in the old Pit this
Mg. Got the Air round the
Workings which are very Foul.

– Tuesday 20th. July 1813 –
Set on a water-Fall this Mornng.
at the old Pit

– Wed. 21st. July 1813 –

The workings in the old Pit W.
way clean very slowly

The Air Course keeps very
steady in the Far Pit.

– Thursday 22^d. July 1813 –

Got the middle Pit Furnace lighted
this Mg. – Sent 8 Horses down
the old Pit, to assist in cleaning
the Rolly Way &c. Several Falls
have taken place while the Pith
as been off work.

The Wrights getting forward with
the new En. Framing.

Finished the Setting of the Boiler
for the locomotive Engine.

– Satdy 24th. July 1813 –

Got all the Horses down the old
Pit, and every thing ready for a
start next Monday.

Set out the Piling for the
Foundation of the new Engine at
the middle Pit.

– Monday 26th. July 1813 –

Started Coal work again this
mg. In the old Pit

– Tuesday 27th. July 1813 –

Down the Far Pit – Thro' all
the S.W. waste, and found the
Air Course very clean. The Juds
will be ready for Work by about
Thursdy. Mornng. next.

As large a Proportⁿ.

60.

possible must be taken off the
Juds in the S^o. W. way, as nothing
can be obtained from the S^o. E. [dis]
of the Shaft owing to the prop[]
which the Creep is making in
that quarter.

– Saturday 31st. July 1813 –

Agreed with the M^r. Ch. Ni[c]on for
a 15 feet Boiler at Callerton and a
Set of 13 In. Pumps.

The Boiler to be £100.

The Pumps 10/ 6 P. Cw^t.

Payment by Bill at 2 mo.

– Monday 2^d. Aug^t. 1813 –

61.

Engine Foundation at the middle
Pit.

– Satdy. 7th. Aug^t. 1813 –

Finished the Foundation of the new
Engine at the middle Pit, and got
the Shear Legs hoisted.

– Tuesday 10th. Aug^t. 1813 –

Thro' the old Pits' Workings, and found
all things going on very well.

All matters going on well in
the Far Pit also, but there is little
certainty of the continuance, as a
Creep may be daily expected.

Began the Masonry of the

62.

– Wed: 28th. July 1813 –

N^o. 15. Workings

A Pit Gibson – – 75 – £49.. 0..8½

Dodgson – 52 39..13..6½

E Pit { Gibson – – 150 – 89.. 6..7½

{ Dodgson – 153 96.. 0.. 9

430 £272.. 1..7½

Vend By Keels – 457

Spout – 218 675

Formerly – – 11,966

Total – – – 12,647

– Wed: 11th. Aug^t. 1813 –

N^o. 16. Workings

A Pit { Gibson – – 224 – £164..19..5

Bought a Set of 12 In. Pumps of
M^t. Th. Fenwick for 11/- P. Cw^t.
The Pumps are lying at Walker
– Tuesday 3^d. Aug^t. 1813 –
Finished the Piling of the new

[Bud-44-2]

new Engine at the middle Pit
– Thursday 15th. Aug^t. 1813 –
Resumed the Engine Level Drifts
in the middle Pit

	Dodgson –	218	134..10..5½
E –	Smiths –	253 –	122.. 0..3
		<u>695</u>	<u>£421..10..1½</u>
	Vend By Keels –	557	
	Spout –	519	1076
	Formerly –	–	12641
	Total –	–	–
			<u>13.717</u>

63.

– Tuesday 24th. Aug^t. 1813 –
Lined the old Pit West Way.
All matters going on very well in
this Pit, as well as in the Far Pit
The Wrights are laying the Pipes
from the old Pit injection Cistern to
the Boiler of the Locomotive Engine
– Wednesday 25th. Aug^t. 1813 –
N^o. 17. Workings

A Pit	Gibson –	–	245	–	£166..12..7
	Dodgson –		239		170.. 7..2
E –	Smith –	–	<u>316</u>	–	<u>156.. 7..9</u>
			<u>800</u>		<u>£493.. 7..6</u>

Vend By Keels – 114
Spout – 171 285
Formerly – – 13717
Total – – – 14002
Pay Bill £1080..5..2

[Bud-44-2]

64.

– Wed: 25th. Aug^t. 1813 –
The upright Flange of the Buckett
Door, high Set – old Pit Engine broke
this Morn^g. – It was impossible to
repair it, in consequence of which, it
became necessary to draw the Set
immediately to put in a new Barrel
Tree.
Took the Buckett Tree from
the Pensher Set, at the middle Pit
for this purpose.
– Saturday 28th. Aug^t. 1813 –
Got the Engine ready and Started
work this Evening, but in a few
Strokes a Joint low down in the
high Set gave way, and the whole
Set nearly narrowly escaped falling
down the Pit. – 10 of the top
Pumps hung in the Collarings,

65.

the lower ones were parted from
them 3 feet, and were lying across
the Shaft. The Pumps were with
difficulty secured from falling down
the Pit by Ropes. – 3 of the
Spears were broken.
– Sunday 29th. Aug^t. 1813 –
Drawing the Pumps out of the
Pit.
The Pit was laid off Coal
work last Thursday, by the rising
of the Water, and the Horses
were then drawn. – I ordered
the middle Pit Air to be thrown
round the Workings immediately, in
the same way as when the En. was
stopped before. By this measure
we shall be able to continue the
En. level Drifts at the middle Pit

66.

and also to keep the Workings ven-
tilated.
While the Pit is off the Rolly
way near the Shaft must be raised
by shooting down the Post – this

67.

The Far Pit is beginning to
turn very uneasy in the Pillars
We must just work as long
as we can with safety, and
then abandon her

68.

this week out
– Wednesday 8th. Sep. 1813 –
N^o. 18. xx.
E Pit, Smith – – 314 – £167..13..4¼
Vend By Keels – 423

I expect will enable us to lay off the dragging of the Rollies.

The Stone Drift thro' the Swelly in the W. Mothergate must also be enlarged so as to admit the high wheeled Rollies.

– Monday 30th. Aug^t. 1813 –

The Water was so high this mg. as to put a Stop to the blowing down of the Stone in the Swelly near the Shaft

– Tuesday 31st. Aug^t. 1813 –

Started the old Pit Engine at 3 o' Clock P.M.

[Bud-44-2]

– Saturday 4th. Sep. 1813 –

One of the dry Spears of the middle Set broke this Mornng.

It was repaired in 9 hours and the Engine Set to work again – The Water Corves very Slowly.

– Tuesday 7th. Sep: 1813 –

Were obliged to Stop the old Engine 6 Hours this mg. to clean the Furring out of the Sink Pipe.

The Far Pit is very uneasy but I hope the will last

Spout – 365 788

Formerly – – 14002

Total – – – 14790

– Thursday 9th. Sep: 1813 –

The Engine got the Water below the Baln Stone at the old Pit this Morning.

– Sunday 12th. Sep: 1813 –

The Engine having drawn the Water below the level of the Rolly-way at the old Pit; Put the Horses, Corves &c. down

69.

to be ready to start Coal to Start Coal Wk. in the Mornng.

Were driven out of the Far Pit by the Creep yesterday Have wrought ~~xx~~. of 20 Peck Corves out of the S^o. West Pillars.

– Tuesday 14th. Sep: 1813 –

Begun Coal Work yesterday mg. at the old Pit

Holed with the Rods, out of the S^o. W. exploring Drift into the Waste – It was the front hole which holed at 9½ yards

I conceive this holing, to be into Workings made from Lawson's-main, or old Byker

The Creep is considerably

[Bud-44-2]

70.

abated in the Far Pit – I therefore gave directions for opening out an Air Course from the Engine Shaft up the narrow B^b. on the N. Side of the Shaft Barrier – if the Creep should subside measures must be suggested for cutting thro' the Thrust to gain the W. Barrier preparatory to proceeding on ulterior operatⁿ.

– Saturday 18th. Sep: 1813 –

The old Pit Engine has gone very steadily this week, and has kept the water down with great ease.

Are getting very well forward with the Framing of the

71.

new Engine at the new Pit.

The Locomotive Engine arrived at Newcastle.

– Tuesday 21st. Sep: 1813 –

Through the middle Pits' workings which are in very good trim – examined the En. Level Drifts in the middle Pit – not above 90 yards including the open cast now remains unfinished to complete the W. Drifts from the En. Sump to the bottom of the Swelly. – This may be finished before the Engine can be completed – say 10 weeks.

Set out the East Staple, for the En. Level Drift to loose the Water to the Eastward of the Pits

72.

The depth of this Staple &c. cannot be determined until the exact rise of Colliery from the old to the middle Pit is ascertained. But it will be nearly 5 Fa. – say to the Metal Coal – Ordered the Stap: to be put in progress immediately

The Creep in the Far Pit has been more active to the W. of the Shaft for 2 or 3 days past than formerly – it will not therefore be right to proceed in ridding out the W. Mg^t. until the Creep entirely subsides – The opening out of the Drift on the N. Side of the Shaft Barrier, from the Engine Pit may however go on, as at 2 Pill: [west] I hope to be able to intercept

[Bud-44-2]

73.

the West Way Feeders of Water, and to conduct them into the En. Sump which will relieve the old Pit En. considerably

Ordered the arching of the En. Level Drifts at the middle Pit to be begun to immediately.

The fixing of the main and tail Crabs, at the middle Pit was completed to day – The Crab Rope will be laid on tomorrow, and the main Beam of the Engine hoisted up.

Preparing the Anchors &c. for holding the Chain of the Locomotive Engine, and getting other matters in readiness for setting it to work as soon as possible.

74.

– Wed: 22^d. Sep: 1813 –
 N^o. 19. Workings viz.
 A Pit { Gibson – – 169 – £130..10..8½
 { Dodgson – 208 142.. 0..3
 E – Smith – – 22 – 14.. 7..4
 399 £286..18..3½

Vend By Keels – 287
 Spout – 435 722
 Formerly – – 14790
 Total – – – 15512

– Friday 28th. Sep: 1813 –
 The Locomotive Engine bro^t. home to the Colliery.
 – Tuesday 28th. Sep: 1813 –
 Measured the depth of the old and middle Pits, and took the bank Level between them

75.

also, and found the result as follows – viz

Depth of old Pit from the Landry Box, to the Rolly-way plate – – –	}	Fathoms	82..0..0
Rise of Surface from d ^o . to Landry Box of middle Pit Engine – – – – –			
			<u>4..2..7¾</u>
			86..2..7¾
Depth of middle Pit f ^m . to Landry Box, to Thill of Seam – – – – –	}		<u>80..0..0</u>
Rise of Seam from old to middle Pit – – – – –			
			<u>6..2..7¾</u>

76.

it sufficiently extended to the S^o. East will drain the old Pit Shaft – Wednesday 6th. Oct^r. 1813 –

N^o. 20. Workings viz.
 A Pit { Gibson – – 237 – £193..4..0
 { Dodgson – 257 168..13..9
 E – Smith – – 31 – 21..10..3
 525 £383.. 8..3

Vend By Keels –
 Spout – 107
 Formerly – – 15512 Ch^s.
 Total – – – 15619

– Friday 8th. Oct^r. 1813 –
On Sinking the East Staple at the

77.

the Staple, the Top of which is 3 feet lower than the bottom of the Shaft and as the Metal Coal is low enough to drain off the Water on the North, or dip side of the 10 feet Trouble, I determined to drive the Drift in the Metal Coal. – It will cost upwards of 40/- P. y^d. Less than the Stone Drift below the Seam.

The Beam, Cylinder, Air Pump and Condenser of the new Engine at the middle Pit are now fixed in their Places, and the new Boiler is in progress.

The Engine Level Drift must be set away at 6½ Fa. below the Thill of the middle Pit

This is the East Drift, which

[Bud-44-2]

middle Pit below the Metal Coal an exceeding hard Stone has been met with. – A Drift in this Stone would cost 50/- P. yard. The Fa. Feet Metal Coal is about 4 .. 4 deep at

– Tuesday 12th. Oct^r. 1813 –
Through the old Pits workings. Resolved to put a new Set of double Corf Rollies, with 18 In. wheels into the Far Way, and to wear out

78.

the present Stock of low wheeled Rollies in the middle Pit way.

By this change we expect that a Horse will draw 6 instead of 4 Corves at a Pull.

The Timber at the Sand in the W. Coal Pit Shaft is failing. The Pit must be stopped on Friday back Shift, and it must be thoroughly repaired.

Have gotten a considerable part of the N.W. way water in the Far Pit into the Engine Sump; but the whole of it cannot be caught 'till the cutting out of the Creep is continued further up towards the W. Boundary. – This will be done as soon as the Creep is sufficient at rest.

[Bud-44-2]

79.

– Tuesday 19th. Oct^r. 1813 –
All matters going on well in the Pits.

Set away the Engine Level Drifts out of the Staple East of the middle Pit, in the metal Coal – let to Ra: Hall P^{rs}. @ 10/- P. y^d. including the drawing, and Stowing of the metal – they also find their own Gunpowder and Candles, and put in the Brattice.

N^o. 21. – Wed. 20th. Oct^r. 1813 –

A Pit	Gibson – –	212	–	£193..10..6
	Dodgson –	217		166..13..6
		<u>429</u>		<u>£323.. 4..0½</u>

Vend By Keels – 681

Spout – 379 1060

Formerly – – 15619 Ch^s.

Total – – – 16,670

Amo^t. Pay £2190..16..4½

80.

– Tuesday 26th. Oct^r. 1813 –
Examined the Jenkins, & in the middle Pit – the Walls in which the W. Jenks are going, are very firm, and the [lo] work a very fair proportion of Roin[]

According to all appearance a considerable quantity of Coal may be obtained from this quarter. The distances from the old Pit is however a great objection – it would therefore be a very great accommodation to have a Machine put upon the middle Pit.

If a second hand Machine can be obtained on moderate terms, it will be right to secure it for this purpose

The water level Drifts &c. are going very well, and the new Engine is great forwardness.

81.

The Sinkers are employed in securing the quick Sand in the Engine Shaft old Pit which is likely to fail

I expect they will be able so secure it effectually.

82.

– Friday 5th. Nov. 1813 –
Begun to make preparations in the Far Pit, for cutting thro' the Creep, due West from the Shaft to the Barrier

83.

– Sunday 14th. Nov. 1813 –
Tim: Dodgson, Overman, and Geo: Robson, Deputy, burnt this mornng. in the N. exploring Drift – Dodgson's Way – old Pit.

– Saturday 30th. Oct^r. 1813 –
The Sinkers have finished the repairs of the old Pit En. Shaft

– Monday 1st. Nov. 1813 –
The Sinkers begun to alter the Brattice at the top of the middle Pit, and to repair the W. Shaft
– Wed. 3^d. Nov: 1813 –
N^o. 22. Workings – viz.

	xx.		
A Pit {	Gibson – –	249 –	£176..19..3
	Dodgson –	<u>254</u>	<u>185..13..3½</u>
		<u>503</u>	<u>£362..12..6½</u>

Vend By Keels – 6
Spout – 168 174
Formerly – – 16679 Ch^s.

£2035..3..2½ Total – – – 16853

[Bud-44-2]

This is with the view of cutting thro' the Creep to proper place for tapping Heaton old Waste to let the Water off to the new Engine.

– Monday 8th. Nov. 1813 –
Geo. Laws and burnt this morn^g. in the N. West narrow Board, old Pit Gibson's way, by going in advertently into the Face of the Board which happened to the Foul. No injury was done to the Pit

The Drift crossed a Hitch a few days ago from which a small Feeder of Foulness issued, and had Fouled the Drift. In going their Rounds this mg. Dodgson & Robson went into the Drift without looking at their Candles, and when near the Face were Fired upon un-awares, – Robson was severely burnt, but Dodgson received little injury. The Fire was heavy and Shattered the most of the Brattice in the Drift as well as in the adjoining narrow Board to pieces

84.

it also knocked down 4 Board End Stoppings to the North of the Mg^t.

This Fire happened entirely thro' the carelessness of the Parti[] themselves.

– Tuesday 16th. Nov. 1813 –
Lined the N.W. (Gibson's) Way in the old Pit

The Levels &c. for conveying the Water from the W. way of the old Pit, to the new En. Levels at the middle Pit is in forwardness. The W. line of Water level Drift from the Swelly to the middle Pit Sump will be completed in about a Fortn^t.

85.

the Sump to the 1st. Staple.

The Sinkers have now got the repair to the midd: Pit, West Shaft finished below the Clay, and as little but fresh nailing of the Timber is wanted below, they will soon finish.

Are getting very well forw^d. in cutting out the Creep to the West of the Far Pit Shaft.

As the Waggonmen have little to do, ordered them to be employed in leading, the Spare Small Coals from the old, to the middle Pit, to be in readiness for the new Engine
Resolved to build another Boiler

86.

Parker orders accordingly.

– Wednesday 17th. Nov. 1813 –
N^o. 23. Workings viz.

A Pit {	Gibson – –	265 –	£192.. 9..11
	Dodgson –	<u>256</u>	<u>178..19.. 2</u>
E –	Smith – –	<u>31</u> –	<u>17..17..10</u>
		<u>552</u>	<u>£389.. 7.. 0</u>

Vend By Keels – 182

Spout – 165 347

Formerly – – 16853

£1280..1..8 Total – – – 17200

– Tuesday 23^d. Nov. 1813 –
Begun to draw the Water out of the middle Pit Sump preparatory to setting the Pumps.

– Wed: 24th. Nov. 1813 –
Begun to set the Low Set, 19 In. []

As well also the E. Drift from
[Bud-44-2]

for the new Engine, and gave

in the middle Pit

87.

Are getting very well forward in cutting through the Creep to the Westward of the Far Pit – the Jenkins are nearly 5 Pillars W. up fm. the Shaft. At present there are only two Jenkins, but ultimately there must be three to enable us to Air the Drifts more Safely. In the first instance however we shall only push two up to the Face of the W. Mg^t. which is 8 Pill. up from the Shaft

– Tuesday 30th. Nov: 1813 –

Down the Far Pit – found the cutting thro' of the Creep to the W. going deal crushed, and the Post broken, but the Thill is unimpared and firm – this is

[Bud-44-2]

88.

very favourable as it does not heave any to break the Timber
It is also favourable that the Creep is so clean as to allow Candles to be used in the Face of the Jenkins.

Have gotten the low Set of Pumps into the middle Pit, and are putting in the middle set Bunton to day.

– Wed: 1st. Dec. 1813 –

N^o. 24. Workings viz.

A Pit { Gibson – –
 { Dotchen –

E – Smith – –

£

Vend By Keels –

Spout –

Formerly – –

89.

– Friday 3^d. Dec. 1813 –

Holed the W. En. Level Drift at the middle Pit into the Swelly
It is about 4 feet higher than intended but is low enough to draw off the water to the same level as the Pumps.

Holed the E. Drift also from the 1st. E. Stap. into the Engine Sump.

– Wed: 8th. Dec: 1813 –

Through the old and middle Pits Workings.

The W. Jenkin in the middle Pit, are much retarded by the great discharge of Styth which has discharged itself from the Creep, since the Jenkins

90.

approached the Hitches.

Set out the 2^d. Stap: for the En. Level Drift on the East side of the Shaft.

– Wed: 15th. Dec: 1813 –

N^o. 25.

A Pit { Gibson – – 226 – £181.. 1..9
 { Dodgson – 215 175..14..4

E – Smith – – 51 – 33.. 3..4

492 £389..19..5

Vend By Keels – 381

91.

– Friday 24th. Dec. 1813 –

Laid off the Pits this Eveng. for the Xmas. Hollidays – to begin work on Mondy. 3^d. Jany. next.

In the mean time the old Pit W. Rolly way, must be prepared for the reception of the double Corf Rollies; and the Rolly way must be extended to the Face of the

92.

– Thursdy. 30th. Dec. 1813 –

Finished the setting of the Pumps at the middle Pit.

– Friday 31st. Dec. 1813 –

N^o. 26.

A Pit { Gibson – – 137 – £132.. 3..7½
 { Dodgson – 159 135..18..6½

E – Smith – – 28 – 25..13..5

324 £293..15..7

Vend By Keels – 839

Spout – 235

Spout – 70 451
 Formerly – – 17965
£2690..18..2½ Total – – – 18,416

Finished the setting of the middle Set of Pumps in the middle Pit

[Bud-44-2]

middle Pit Jenkins.
 The W. Mothergate Jenks^s. thro' the Far Pit Creep, has reached the W. Coal Barrier – the Coal is very firm but the Headways Course next the Face is much Fallen

1074
 Formerly – – 18416
£10096..14..0 Total – – – 19,490

Finished the setting of the high Sets of Pumps in the middle Pit
 The Engine Wrights will now proceed with the Spears
 The 2^d. new Boiler for this En.

93.

is in considerable progress.

[Bud-44-2]

94.

– Jany. 3^d. 1814 – Monday
 The Pits began Coal Work again this Mornng. after the Hollidays.
 – Satdy. 8th. Jany. 1814 –
 On trying the new double Corf Rollies, it is found that an Horse can draw 6 Corves on them as ~~say~~ easily as 4 on the old Rollies
 But the best of the Horses cannot hold more than 4 Corves down the Banks, without dragging.
 – Tuesday 11th. Jany. 1814 –
 Down the old Pit this Mornng. Examined the W. Rolly way – ordered certain parts to be lowered which will I expect enable the Horses to hold 3 double Corf Rollies down the Banks.
 It occurs to me that it may

95.

be practicable to make an inclined Plane down the N.W. Mothergate that is the farthest N.W.explorg. Drift. There does not appear to be sufficient descent for a Plane to act of itself, but it may do with the assistance of a Pony.
 A Plane in this situation will save 7 or 8 Horses P. Shift
 A Lining must be made to enable me to decide on the expediency of making a Plane in this situation.
 The Spears for the middle Pit Engine are nearly completed, but further proceedings will be stopped until Timber can be procured for the Balance Beams
 Are laying the Rolly way up the W. Mg^t. Jenkins in the Far Pit

96.

– Wednesday. 12th. Jany. 1814
 N^o. 1.
 A Pit { Gibson – – 167~~xx~~ – £134.. 3..10
 { Dodgson – 177 168..11..–

97.

one place, and that but for a short distance – after all the Coal Juds are taken off the Sides the Mg^t. will not exceed 5 yards wide in any

98.

– Wed. 26th. Jany. 1814 –
 N^o. 2.
 Old Pit { Gibson – – 110~~xx~~ – £118..13..10
 { Dodgson – 144 119..16..11

	344	272..14..10			
E Pit Creep --	28	22.. 1.. 6			
	372	£294..16.. 4			

Vend By Keels – 120

Spout – 30

£704..7..3½ Total – 150

– Thursday 13th. Jany. 1814 –

On Surveying the Far N.W. Mg^t. old Pit, it does appear that it will require much Coal to be taken off in any part to make it into a line for an inclined Plane, I therefore ordered it to be proceeded with as soon as convenient – it will not require quite 3 yards in any

[Bud-44-2]

place.

– Tuesday 18th. Jany. 1814 –

All matters going on very well underground. Have met with the long looked for rise Trouble in the middle Pit Jenkins – it is about Coal height, and will put the Barroway completely above Water mark in the Swelly.

– Saturday 22^d. Jany. 1814 –

Lowering the Rolly^ <way> old Pit, in several places, and making other alterations for the large wheeled Roll^s. which I am anxious to get to work as soon as possible.

E Pit Creep --

	254	£238..10.. 9			
--	-----	--------------	--	--	--

Vend By Keels – No Vend this

Spout – Pay

Formerly -- 150

P.B. £1017..9..5½ Total – 150

– Tuesday 1st. Feb. 1813 –

Through the old Pits' Workings this Mornng.

The high wheeled Rollies started yesterday, and promise fair to answer every expectation. The Horses go with 6 Corves, on them, more easily than with 4 on the old Ones. They run too quick with the Full Corves on the

99.

[sutly] side of the Stone Drift – to avoid Dragging, I would try Breach Bands – if they won't do we must resort to Limmers. The inclined Plane answers much better with these high wheeled Rollies, and as the Machine Ropes are nearly worn out, I think of trying a part of the Locomotive Engine Chain, before another pair of Ropes are ordered.

The measures of preparations for the inclined Plane, in the N.W. mg^t. are in preparation – fixed upon a change in the Air to lay aside the Doors on this Plane.

Have gotten a downcast Hitch in the N.W. winng. Head^s. it is not yet bared so that its'

100.

necessary preparations for setting thro' it. The middle Pit Jenkins are now going on very well – they are rising gently to the Westward over the Hitch.

Have not yet gotten the Crossing in the Far Pit completed for want of Bricks.

The new Engine at the middle Pit is quiet at a stand still for want of Timber for the Balance Beams; but expect to get some up from Shields in a day or two.

– Tuesday 8th. Feb. 1814 –

The Hitch in the N.W. Head^s. old Pit, proves to be a downcast of 18 Inches, and the Coal is streakg. away very level beyond it

101.

– Wednesday 9th. Feb. 1814 –

N^o. 3. Workings viz.

A Pit	{Gibson --	203	–	£175..14..5½	
	{Dodgson –	192	158..	3..7	
E Pit Creep --		22	22..	1..3½	
		417	£355..19..4		

Vend By Keels –

Spout – 33

Formerly -- 150

P.B. £1098..19..7½ Total – 183

– Tuesday 15th. Feb. 1814 –

Lined the old Pit N.W. way Have gotten a rise Hitch of 18 In. in the N.W. Heads. Yards from the Downcast – the Coal between them is very good, but the principal Downcast is, in my opinion yet to

size is not known – ordered the

[Bud-44-2]

be met with

The new inclined Plane

102.

is in considerable forwardness.

The East^t. Water Level Drift in the **E** Pit, reaches the Fissure of the 10 ft. Trouble this mg. from which a large Feeder of Water issued.

In all probability it will be best to let this Drift Stand for the present, and to hole into it from Ra. Hall's Drift when the Engine is ready.

The Wrights are now gettg. forward with the Balance Beams for the new Engine, and I expect that in about Six Weeks she will be ready for Work.

– Thursday 13th. Feb. 1814 –

The N.W. exploring Drift, old Pit was discovered to be Foul

[Bud-44-2]

103.

this Morning, without any apparent Cause – the Brattice is good, and apparently a sufficient Air Course going to keep the Drift clean.

Ordered the Drift to be railed off, and public notice to be given that the Drift was Foul, and no person to go there on any pretence whatever

– Satdy. 13th. Feb. 1814 –

A Fire took place in the N. W. exploring Drift this mornng. and Killed 3 Trappers viz Hall, Richardson, and Short

The Work was Stopping outbie, when it seems the 3 Lads had left their Doors in the working Headways Course

104.

and gone up the Drift (notwithstanding the public notice which had been given of it's being Foul) when a Fire took place which killed them on the Spot, and broke all the Brattice to attoms. No other injury was done except 4 or 5 Stoppings being knocked down in the Workings.

One of the Bodies was found about Pill up, very soon; the other two were not gotten 'till 7 o ' Clock in the Evening, after the Brattice was reinstated – they were very near to the Face of the Drift

105

– Sunday 20th. Feb. 1814 –

The 2^d. Set Spears of the old Pit Engine broke this mornng. close off at the Y, They fell down the Pit, and doubled in the pumps – it was impossible to get them out of the Pumps, and there was no alternative but to draw the Set.

Begun to draw the set about 2 o ' Clock P.M.

106.

were drawn, this Mg. and preparations made for putting the middle Pit Air round the Workings.

– Tuesday 22^d. Feb. 1814 –

The old Pit ingate was roofed this mg. with the water
Put the middle Pit Air round the Workings

The re-setting of the Pump was finished and the Engine

107.

at the old Pit, as to admit of the Horses being put down again.

– Monday 28th. Feb. 1814 –

The old Pit started work this mg. Soon after the Pit began, the Foulness from the E. Side of the Shaft Fired at one of the Lamps, and became a Standing Fire for about 3 Hours, – it was extinguished by letting the Engine Stand 'till the rising of the Water put it out

– Monday 1st. Feb. 1814 –
Finished the drawing of the Set
and got the 1st. Lift in again
about 4 o' clock P.M.

The Water is rising very
rapidly – it is only 20 In. from
the Baln Stone. – The Horses

[Bud-44-2]

set away again at 6 o' Clock
P.M.

– Saturday 26th. Feb. 1814 –
The Water was below the ingate
this Mornng. at the old Pit

– Sunday 27th. Feb. 1814 –
The Water was so low this mg.

The Rolly Horse standing at
the Shaft, when the Fire e[rup]ted
was so frightened that, he sprang
forward, and rushed into the Water
where he was drowned.

– Tuesday 1st. Mar. 1814 –
So much Foulness discharged from
the old Pit East way this mg. that
the Pit could not go to work.

108.

Down the Far Pit this Mornng.
The cutting out of the Creep is
going on very well – the W. Mg^t.
Jenkins reached the W. Barrier some
time ago, and the N. Headways Drift
is now about 70 yards along the
barrier

[Diagram Far Pit W. Barrier]

The Air Course
is very good, and
comes off the Foulness
from the Creep without difficulty

Not time must be lost in
pushing or the N. Drift, as old
Heaton Waste way be most con-
veniently tapped in that quarter

I expect the new Engine at

[Bud-44-2]

109.

the middle Pit will be ready in
a month or Six weeks – the main
Y, was put in this Mornng.

– Wed. 2^d. Mar. 1814 –

The old Pit could not be gotten
to work, 'till the back Shift this
day, on acc^t. of Foulness from the
E. side of the Shaft.

– Tuesday 15th. Mar. 1814 –

Through the Workings of the old
Pit this morning.

Every thing is going on
very well in the West Way.

The Creep Jenkins in the
middle Pit in the middle Pit have
reached the ^<large>rise Trouble. It appears
to be about 14 feet up, but as
there is reason to think from the
dipping of the Strata, that there

110.

is a dipper beyond it, at no great
distance, the drift must be carried
level for a few yards, 'till we
see how it turns out.

The Barrier Drift in the Far
Pit continues to go on favourably

All the dry Spears are now
gotten into the middle Pit Shaft.

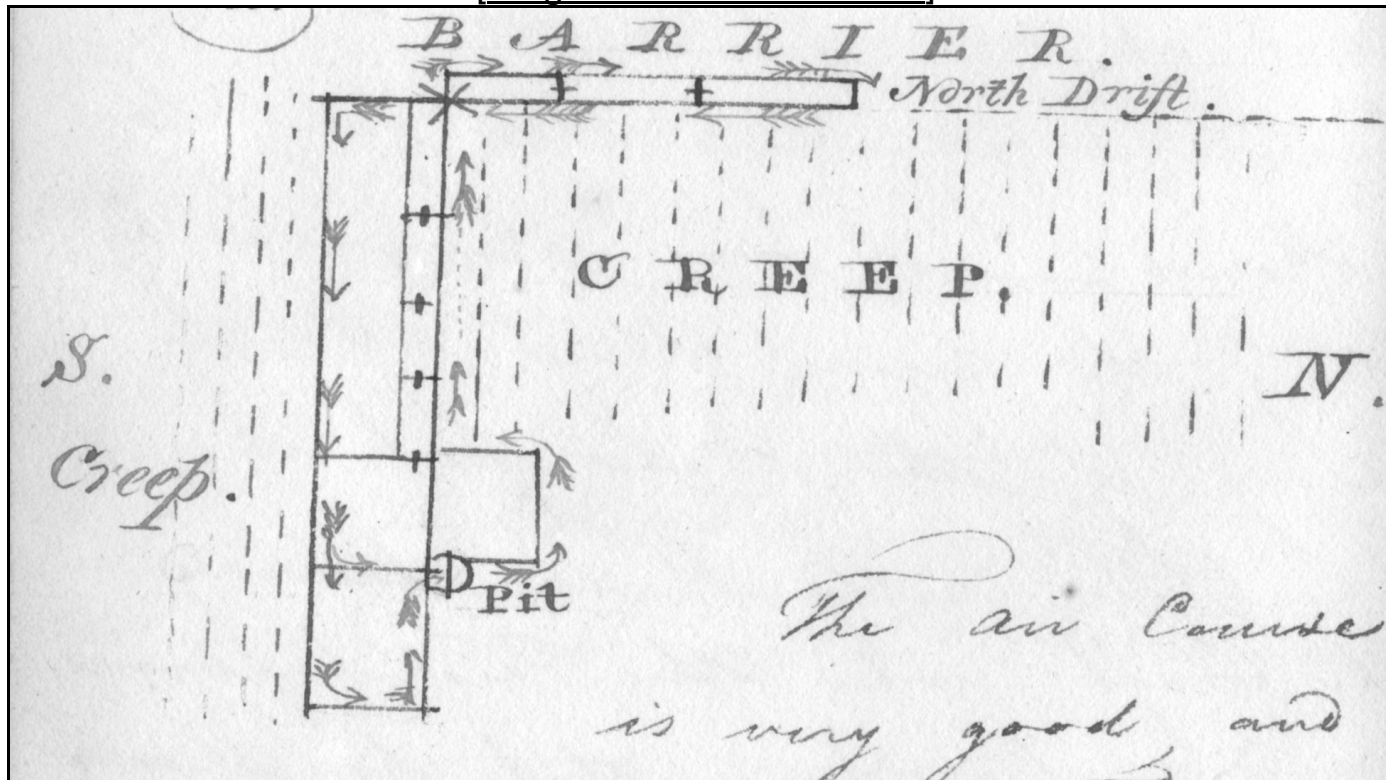
The Balance Beam will be put
up to day, and other matters are
in forwardness, so that I expect
the Engine will be ready for a
Start in about three Weeks.

– Wed. 23^d. Feb. 1814 –

N^o. 5.[4] Workings this Pay – viz.

A Pit	{ Gibson – – 152xx. – £128..17.. 10½
	{ Dodgson – 140 115..11.. 1½
E – Smith Creep –	<u>36</u> <u>29..16.. 7½</u>
	<u>328</u> <u>£274..19.. 7½</u>

[Diagram Far Pit W. Barrier]



111.

N^o. 4.

Vend By Keels	----	564
Spout	----	<u>350</u>
		914
Formerly	--	<u>183</u>
Total		<u>1097</u>

– Wednesday 9th. Mar. 1814 –

N^o. 5. Workings viz.

A Pit	{	Gibson	--	142xx.	– £111..	4..	9½
		Dodgson	–	<u>140</u>	<u>112..</u>	13..	6
				284	£223..	18..	3½
E Pit, Creep	–	<u>41</u>	<u>34..</u>	7..	11		
		<u>325</u>	<u>£258..</u>	6..	2½		

112.

60 yards.

The Balance Beams are now up at the new Engine, and the Boilers are filled – expect to be ready for a Start against Monday Week the 28th. Ins^t.

– Wednesday 23^d. Mar. 1814 –

N^o. 6. Workings.

A Pit	{	Gibson	--	110	– £156..	18..	9
		Dodgson	–	<u>221</u>	<u>160..</u>	18..	4½
				431	317..	16..	7½
E Pit, Creep	–	<u>23</u>	<u>24..</u>	2..	9		
		<u>454</u>	<u>£341..</u>	19..	4½		

113.

Hewers Candle, ran back into the Creep, and became a Standing Fire

No person was injured when the Fire took place, and the men and Boys got to bank as fast as possible. Just after they had gotten to bank, the Pit cast down suddenly, and continued to do so for a short time, after which the upcast went on as usual.

On going down the Bratticees and a Stenting Stopping or two were blown down, but the Fire

Vend By Keels ----- 649
 Spout ---- 184 833
 Formerly -- 1097
Total ---- 1930

– Saturday 19th. Mar. 1814 –
 Called the Binding this Mornng.
 Took 3^d. P. xx. off the putting price
 which reduced it to 17^d. P. xx. the first
 [Bud-44-2]

Vend By Keels ----- 24
 Spout ---- 44 68
 Formerly -- 1930
£597..0..5½ Total ---- 1998

The Barrier Drift in the high
 Pit fixed about 12 o ' Clock this mg.
 The Foulness oozing out of the
 cracks in the Coal Fired at the

was out.

It would appear that a
 partial Explosion must have taken
 place, after the men came away
 which had knocked down the Brattice
 &c. and at the same extinguished

114.

the Fire.
 – Friday 25th. Mar. 1814 –
 Filled the Boilers at the **E** Pit
 new Engine. Holed the West
 Water Level Drift into the En.
 Sump.

– Wed. 30th. Mar. 1814 –
 Started the new Engine on the
D Pit this Forenoon. All the sets
 delivered, and the Engine promises
 fair to go well, but requires a
 great deal of more Weight in
 the inner end of the Beam.

– Wed. 6th. April 1814 –
 Have put upwards of 3 Tons
 of Lead & Iron upon the inner
 end of the new Engine Beam
 at the **D**, Pit, the Engine was
 set to work again this afternoon
 and went very well. With the
 [Bud-44-2]

115.

3 Boilers she will go 12 Strokes
 P. minute very well.
 Ap. 6th. 1814. N^o. 7. Workings
A Pit { Gibson -- 230xx. – £164..17..11
 { Dodgson – 221 153..19.. 6
 451xx. £318..17.. 5
E Pit, Creep – 14 34.. 7..11
465 £346..15.. 1

Vend By Keels ----- 996
 Spout ---- 309 1305
 Formerly -- 1998
£1941..6..9½ Total ---- 3303

– Wednesday 13th. Ap. 1814 –
 Completed the Levels in the old
 Pit above the Dyke, and turned
 the W. way Water to the middle
 Pit Engine. This will afford
 us leisure by and by to[^]<upgain> the Shaps.
 Gear of the old Engine a tho-
 rough repair

116.

– Friday 15th. Ap. 1814 –
 The South Boiler of the new
 Engine **D** Pit, burnt this afternoon
 and unfortunately killed, Ja^s. Young
 & Geo. Shelaw, Putters.

They happened to be
 standing near the Fire Door
 at the time. Walt^f. Blacket the Fire-
 man was so severely scalded
 that his life is dispaired of

The Boiler was torn into 3
 Pieces and rendered completely
 useless. The Fire Door and
 Frame were blown out and
 all the Bricks of the casing
 and Seat, as low as the grate
 Bars were scattered about to
 a considerable distance.

I cannot ascertain the cause
 of this accident as no defect

117.

had ever been discovered in the
 Safety Valve, and this Boiler
 was in communication with

118.

of the middle Pit W. Jenkins are
 now within a trifle of being holed
 into the Air Course Drift

119.

employed there must be sent
 open out the Rolly way to the
 middle Pit Shaft.

the other two, thro' the Steam Chest.

– Tuesday 26th. Ap. 1814 –

Through the old Pit Workings and examined the State of the Engine Level Drifts &c. at the D Pit.

Nothing particular in the old Pit Workings.

Getting very well forward with the Timbering of the Water Level Drifts at the middle Pit Shaft. The West Drift must be arched with Bricks which may be taken from the Brick wall in the S^o. Head^s. From the Shaft which is now of no use.

The N. Head^s. Jenkin out

[Bud-44-2]

As there is every reason to expect that a considerable quantity of Coal will eventually be obt^d. from the Pillars in the middle Pit, a machine ought to be put upon her – the sooner the better

We must endeavour to buy a secondhand one cheap

Set out the ingate for the Rolly way into the W. Shaft which must be made by crosscutting the 1st. S^o. W. Stentg. wall. The S^o. Head^s. Must be ridded out into the W. Jenkin which will open out a Rolly way to the S^o. West & S^o. East Pillars. As soon as the N. Head^s. Jenkin is holed into the Air Course Mg^t. the men now

Got a parcel of narrow flat English Iron to plate the Wagg. Way up Lawson's-main Bank for the Locomotive Engine @ 24/- P. Cw^t.

The Bars are about 2 In. broad and $\frac{3}{8}$ In. thick – a yard in length of it weighs about 9½ lbs. = 2^s/ 1^d P. yard nearly.

– Monday 2^d. May 1814 –

The timbering of the E. Engine Level Drift from the Pit to the 1st. Stap. being finished – turned the North water to the new En. This will relieve the old Engine completely 'till the new middle Set Barrel & Cistern are put in

120.

– Wed. 4th. May 1814 –

With a view of obtain^g. More work resolved to put as many of the people on by the Score at the old Pit as possible.

Started the work at 23xx.

P. Shift or 253 P. Fortn^t.

Gibsons Shift

Overmens wages £6..2..0 = 6^d. P. xx.

The Onsetter 49/ 6 = 2½^d. P. xx.

Brakesman at Incline 38/ 6 = 2 P. xx.

4 Rolly-way men 36/ - = 7^d. P. xx. or 1¾^d. each.

Brakeman at the Mach^e. 35/-

P. Fort^t. = 1¾ P. xx.

Detchen's Shift will be the

121.

– Wed. 20th. Ap. 1814 –

N^o. 8. Workings viz.

A Pit	{ Gibson – – 171xx. – £133.. 2..7
	{ Dotchen – <u>213</u> <u>152.. 2..0</u>
	395 285.. 4..7
E Pit, Creep –	<u>11</u> <u>18.. 5..1</u>
	<u>395</u> <u>£303.. 9..84</u>

Vend By Keels – – – – 131 Ch.

Spout – – – 82 213

Formerly – – 3303

£1208..5..2 Total – – – 3516

– Wed. 4th. May 1814 –

N^o. 9. Workings viz.

A Pit	{ Gibson – – 242xx. – £173..19.. 3
	{ Dodgson – <u>229</u> <u>175..11.. 1</u>
	471 £349..11.. 1
E Pit, Creep –	<u>41</u> <u>40..18.. 9</u>

122.

– Friday 6th. May 1814 –

Broke a Spear in the middle Set of the old Engine this Eveng. – took this opportunity to put in the new Cistern & working Barrel into the Low middle-Set

– Tuesday 10th. May 1814 –

Started the old Engine again the morng.

– Thursday 12th. May 1814 –

Got the old Pit to Coal work

The Water was drawn out sooner than usual on acc^t. of the North way Feeders being turned to the new Engine.

– Saturday 14th. May 1814 –

The timber of the East Drift

same except Overmanship which will be 8^d. P. xx.

[Bud-44-2]

	<u>512</u>	<u>£390.. 9..10</u>
Vend By Keels - - - -	125	
Spout - - - -	<u>566</u>	691
Formerly - - -	<u>3516</u>	
£1927..0..8	Total - - - -	<u>4207</u>

at the middle Pit is finished & the walling of the W. Drift is begun
The Barrier Drift in the Far Pit is going on very well

123.

- Wednesday 18th. Ap. 1814 -
N^o. 10. Workings viz.
A Pit { Gibson - - 174xx. - £128.. 8..8
 { Dodgson - 162 126.. 1..1
 337 254.. 9..9
E Pit, Creep - 44 42.. 6..7
 381 £296..16..4
Vend By Keels - - - - 153 Ch.
Spout - - - 68 221
Formerly - - 4407
£1703..1..11 Total - - - 3303

- Thursday 19th. May 1814 -
A great quantity of Foulness was discovered in the Stables & E. Workings from the middle Pit this morning
It has come in all probability from the Far N.E. Thrust, in consequence of the Water being let off to the new

[Bud-44-2]

124.

Engine.
The E. Boards must be shethed & a better Air way made <above the Dyke> if possible^ to discharge this Foulness by the dumb Furnace
- Tuesday 31st. May 1814 -
Through the old Pit workings this mornng.
All the exploring Drifts are going very favourably and are dryer in the Face than formerly The new inclined Plane in Wellington Drift is nearly completed
The Foulness is not yet entirely expelled from the middle Pit - the only inconvenience which it occasions is, stopping the E. Stone, En level Drift
The Boundary Drift in

125.

the Far Pit is going very well altho' Slowly on acc^t. of the hardness of the Coal. Have begun to rid out the East mg^t. from the Far Pit Shaft.
- Wednesday 1st. June 1814 -
N^o. 11. Workings viz.
A Pit { Gibson - - 260xx. - £169.. 7..1
 { Dodgson - 257 188..15..5
 517 358.. 2..6
E Pit, Creep - 45 43.. 6..6
 562 £401.. 9..0
Vend By Keels - - - - 477 Ch.
Spout - - - 365 842
Formerly - - 4428
P.B. £1370..12..0 Total - - - 5270

- Sunday 4th. June 1814 -
One of the middle Set dry Spears at the D Pit broke, owing to the wood being decayed at the heart
Set the N. way Feeders

126.

to the old Pit again until the spear can be repaired
- Monday 6th. June 1814 -
The middle Pit Engine got to work again this mg.

127.

this hole - no more than from the other, but I am not certain that they were completely through into the Waste.
From the position in

128.

Standage to the Bore-holes into the Waste in the middle explorg. Drift, old Pit, and gave such directions respecting the same as were necessary. I hope in

– Friday 10th. June 1814 –
 Holed into the Waste from the Face of the Headway out of the middle exploring Drift. It was the Front hole which holed at 9 yard. – the Water dis not fly very strongly out of this hole
 Ordered a long Hole to be bored W. up out of the Face of the Headway.

– Satdy. 11th. June 1814 –
 Holed the above at 8½ yards out of the headway. The Water did not discharge very strongly from
 [Bud-44-2]

which these holes have holed, I am of opinion that they must have holed into old Heaton Waste
 Preparations must therefore be made for setting the new Engine to work with it. The only thing wanting is to get the new Set of Spears into the old Engine low Set.

– Thursday 14th. June 1814 –
 Examined the Line of the water Course from the middle Pit

the course of ten days or a Fortnight all will be ready for beginning to draw the Waste.

– Wednesday 15th. June 1814 –
 N^o. 12. Workings
 A Pit { Gibson – – 254xx. – £185..13.. 4
 { Dodgson – 267 188..19.. 7
 521 374..12..11
 E Pit, Creep – 46 46.. 2..11
 14/ 10 P. xx. 567 £420..15..10
 Vend By Keels – – – – –
 Spout – – – 363 363
 Formerly – – 5270
 £1597..1..2½ Total – – – 5633

129.

– Monday 6th. June 1814 –
 Holed the Barrier Drift, Far Pit, into the W. narrow Boards Found them much fallen at the Face.

– Saturday 25th. June 1814 –
 Drew a Plug in the W. hole out of the S^o. Exploring Drift old Pit, and set the Water to the new Engine.

– Wed. 29th. June 1814 –
 N^o. 13. Workings

A Pit { Gibson – – 198xx. – £138..1.. 7
 { Dodgson – 248 172..9.. 0
 446 310..2.. 4
 E Pit, Creep – 49 57..2..11
 14/ 0½ P. xx. 495 £367..5.. 3
 Vend By Keels – – – – – 182
 Spout – – – 223 405
 Formerly – – 5633
 £1085..11..4 Total – – – 6038

130.

– Sunday 26th. June 1814 –
 Drew another Plug in the S^o. W. Drift. The Water Spouts nearly 3 yards – a great quantity of Styth comes off with the Water.

– Monday 27th. June 1814 –
 The Styth in the Bore-holes affects the Men's Eyes so much that they cannot work in the N. head^s. Exploring Drift.

– Friday 1st. July 1814 –
 Examined the Bore-holes in the S^o. W. Drift. Gauged the quantity of water discharged by measuring it's speed and dimensions of the Box thro' which it flows

By this measurement it appears that the Feeder was under 200 Gall. P. min. but I could not depend of the data on which I made my cal-

131.

culation, from the great velocity with which the Water passes, & the irregular dimensions of the Trough. The Engines however do not appear to have more than half going, I therefore unplugged another hole.

Levelled from the top of the inclined Plane, Gibson's Mg^t. the horizontal Length is 273 yards – the Feet In.

Fall 46 .. 7¼ or 2.04 In. P. yard.

The Rollies would not run with this descent, even with the assistance of a Horse – it is therefore necessary to make some alteration.

The Fall for 153 yards from F. In. the top of the Plane is 29 .. 9¾

132.

F. In.

which is too little by 8 .. 5¼ to make the descent 3 In. P. yard, at which fall it will act without assistance. I therefore propose to raise the Top of the Plane

F. In.

2 .. 6 and to lower the Bottom 6 ft. giving it a uniform slope

When this is done the same saving of Horses will be made as if the Plane would have acted the whole Length of 273 yards with the assistance of an horse The latter Plan is therefore preferable, as the safety of the Horse will not be risked.

– Monday 4th. July 1814 –

With 3 holes running the Engines are not fully supplied with Waste Water. I therefore ordered another

[Bud-44-2]

133.

Hole to be bored.

– Tuesday 5th. July 1814 –

Set out the cuts &c. in Gigson's inclined Plane this mg. As the Stone is very hard at 5 feet below the Seam, I resolved not to sink the bottom of the Plane more than 5 feet, which will make the job much less expensive – the fall must be increased a little at the top of the plane.

While this job is in hand Gibson's Shift of men must be sent to follow Dodgson's Men in It may be begun tomorrow.

Four holes are now open and the Engines seem capable of managing the Feeder. On examining the holes, one of them is

134.

not throwing the Water so Far by 3 feet as on on Friday last but I don't know whether this arises from the diminution of pressure, or from something having gotten into the Hole.

The drops of Water from the Roof near the Holes are taking off.

– Friday 8th. July 1814 –

The Waste Water from the Bore-holes has diminished so much since Tuesday last, that I found it necessary to widen one of the holes to 2¼ Inches

– Monday 11th. July 1814 –

The Engines manage the Waste Water with ease – it seems to be gradually diminishing.

135.

– Wednesday 13th. July 1814 –

N^o. 14. Workings – viz.

A Pit	{	Gibson – – 246 – – £158.. 7.. 4
		Dodgson – <u>256</u> <u>166.. 2.. 10</u>
		502 324..10.. 2
E Pit, Creep –		<u>50</u> <u>62..18.. 8</u>
14/ 0½ P. xx.		<u>552</u> <u>£387.. 8..10</u>

Vend By Keels – – – – 1020

Spout – – – 2853 1873

Formerly – – 6038

136.

dimished – the high holes are nearly dry.

– Saturday 23^d. July 1814 –

The high Bore-holes have now run themselves dry, and there is every appearance of the Waste being drained. The Water discharged from the holes seems to be the regular Feeder.

From the Waste being down

137.

to the South, at the present Bore holes.

– Wed: 27th. July 1814 –

N^o. 15. Workings – viz.

A Pit	{	Gibson – – 239 – – £161.. 6.. 8
		Dodgson – <u>255</u> <u>173..14.. 0</u>
		494 335.. 0.. 8
E Pit, Creep –		<u>45</u> <u>64..15.. 3</u>
14/ 10 P. xx.		<u>539</u> <u>£399..15..11</u>

Vend By Keels – – – – 8

Total --- 7911

The discharge of Water from the Waste has diminished so much that the Engines have only half going. I therefore ordered a 2¼ In. hole to be bored as near the Thill as possible
– Saturday 16th. July 1814 –

The discharge of Water from the waste still continues to
[Bud-44-2]

off in so short a time I suspect that the communication with the North Part, is interrupted by the Thistle Pit Dyke. This will be ascertained when we tap the Waste to the N.W. of the Far Pit – ‘till this is done it will not be prudent to make an opening into the Wastes

Spout --- 897 905
Formerly --- 7911
Total --- 8816

– Tuesday 2^d. Aug^t. 1814 –
Down the Far Pit. The Barrier Jenkin is now holed into the Far narrow Board. Ordered a Drift to be driven E. down on the N. Side of the Far narrow

138.

Boarded for 3 Pillars, when a Pair of N. Drifts must be driven over ‘till the Water is tapped.

The East Jenkins, are within a Pillar of the end of the Stone Drift.

The Waste Water is now so much diminished that the old and middle Pit Engines manage it, single Shift, with great ease.

– Tuesday 16th. Aug^t. 1814 –

Down the old Pit.

Drew the Plug out of the Bore-hole into Lawson’s one.

The Water scarcely projects 2 yards, which proves pretty clearly that Heaton & Lawson-main old Wastes communicate or that we have all along been

[Bud-44-2]

139.

drawing the Water from Lawson-main – nothing but a holing into Heaton Waste further to the North can decide this point

The 2^d. Inclined Plane will not yet run of itself

When the Crane is shifted again which will be in the course of a Fort^t. or three weeks the head of the Plane must be raised, so as to give it sufficient descent.

– Tuesday 23^d. Aug^t. 1814 –

The Water has taken off at all the Holes into the Waste, except the Lawson-main hole which is a certain proof that it is the same Feeder that was first tapped in the W. Holes.

140.

The E. Drift in the Far Pit is finished, and the N. Drift is set away – I expect it will tap the Waste in about 50 yards going.

– Wednesday 24th. Aug^t. 1814 –
N^o. 17. Workings – viz.

A Pit	{ Gibson -- 243 -- £163.. 5.. 3
	{ Dodgson -- <u>220</u> <u>143.. 9.. 7</u>
	463 306..14..10
E Pit, Creep –	<u>45</u> <u>62.. 3.. 5</u>
12/ 6¼ P. xx.	<u>508</u> <u>£368..18.. 3</u>

Vend By Keels ----- 751

Spout --- 796 1547

Formerly --- 9853

£1976..16..7 Total --- 11,400

Omitted, Wed: 10th. Aug^t. 1814

N^o. 16. Workings – viz.

A Pit	{ Gibson -- 249 -- £173..17..4
	{ Dodgson -- <u>260</u> <u>160.. 5..3</u>
	509 334.. 2..7
E Pit, Creep –	<u>43</u> <u>65.. 0..7</u>
14/ 5½ P. xx.	<u>552</u> <u>£399.. 3..2</u>

141.

Vend By Keels	-----	525	ch.
Spout	---	<u>512</u>	1037
Formerly	--	<u>8816</u>	
£1976..16..7		<u>Total</u>	<u>--- 9853</u>

– Tuesday 30th. Aug^t. 1814 –

Are making progress with the Creep Jenkins N. & S^o. from the E Pit E. Mothergate; but the old Goaves to the North are very troublesome to set through.

No alteration in the Feeder of Water from the Lawson-main Waste.

– Wed: 7th. Sep: 1814 –

N^o. 18.

A Pit	{	Gibson	--	243	--	£170..	3..10
		Dodgson	--	<u>284</u>		<u>177..17..</u>	<u>8</u>
				527		348..	1.. 6
E Pit, Creep	-			<u>53</u>		<u>72..11..</u>	<u>7</u>
		14/ 6 P. xx.		<u>580</u>		<u>£420..</u>	<u>3.. 1</u>

[Bud-44-2]

142.

Vend By Keels	-----	593
Spout	---	<u>403</u> 996
Formerly	--	<u>11400</u>
<u>Total</u>	<u>---</u>	<u>12,396</u>

– Tuesday 13th. Sep: 1814 –

Through the workings of the old Pit which are in a very good state

The Water from Lawson's-main Waste has fined off considerably and is now a very moderate Feeder – it has laid the W. holes completely dry.

Have not yet holed into Heaton Waste from the Far Pit N. Drift, but the Coal had began to bleed in the Face, and shows symptoms of being very near the waste.

143.

– Wednesday 21st. Sep: 1814 –
N^o. 19. Workings

A Pit	{	Gibson	--	258	--	£173..11..6
		Dodgson	--	<u>286</u>		<u>181.. 2..8</u>
				544		348..14..1

E Pit, Creep	-	<u>30</u>		<u>66..</u>	<u>0..3</u>
14/ 7¼ P. xx.		<u>574</u>		<u>£420..</u>	<u>14..4</u>

Vend By Keels	-----	459
Spout	---	<u>460</u> 919
Formerly	--	<u>12,396</u>
<u>Total</u>	<u>---</u>	<u>13,315</u>

Were obliged to lay off the Drifts in the Far Pit this week, to get the Engine repaired

– Tuesday 27th. Sep: 1814 –

Are raising the Head of the Plane in Gibson's way this week to endeavour to make it act without assistance – the men

144.

are sent into Dodgeson's way in the mean time.

– Tuesday 4th. Oct^r. 1814 –

Down the old Pit – the alteration in the inclined Plane, Gibson's way is not yet finished. All things going on very well.

– Wed: 5th. Oct^r. 1814 –

N^o. 20.

A Pit	{	Gibson	--	289	--	£187..	8..5
		Dodgson	--	<u>300</u>		<u>190..16..7</u>	
				589		378..	4..1
E Pit, Creep	-			<u>27</u>		<u>64..</u>	<u>8..6</u>

145

– Saturday 8th. Oct^r. 1814 –

Holed into heaton waste with the Rods, at 8 yards, from the Face of the N. exploring Drift in the Far Pit. The pressure is not so heavy as when the waste was formerly tapped, but the hole runs something stronger than the old Pit-holes – it flies about 4 yd^s.

Plugged the hole until the Engine Sump is cleaned.

– Monday 10th. Oct^r. 1814 –

Cleaned out the Far Pit Engine

146.

into Heaton waste from the Far Pit N. Drift.

– Thursday 13th. Oct^r. 1814 –

It was observed this morn^g. that the water had left Gosforth En.

– it is to be presumed that the tapping of old Heaton Water must be the course of this change

– Saturday 15th. Oct^r. 1814 –

The Bore-holes in the Far Pit are visibly abating – the water spouts nearly a yard Shorter than when first tapped; but the Feeder

<u>616</u>	<u>£442..13..1</u>
Vend By Keels ----	1012
Spout ----	<u>591</u> 1603
Formerly --	<u>13315</u>
£1400..9..10	<u>Total</u> ---- <u>14918</u>

[Bud-44-2]

Sump.
 – Tuesday 11th. Oct^r. 1814 –
 The Far Pit Engine Sump
 being cleaned, unplugged the
 Borehole into Heaton waste.
 – Wed 12th. Oct^r. 1814 –
 Ordered another hole to be bored

has not yet found it's way to
 any of the Engines.

147.

– Wednesday 19th. Oct^r. 1814 –
 N^o. 21. Workings viz.

A Pit	{ Gibson --	262 --	£181..11..	5
	{ Dodgson --	<u>269</u>	<u>176..14..</u>	<u>10</u>
		531	358..	6.. 3
E Pit, Creep --	<u>12</u>	<u>44..</u>	<u>2..</u>	<u>3</u>
	<u>543</u>	<u>£402..</u>	<u>8..</u>	<u>6</u>

Vend By Keels ---- ~~202~~
 Spout ---- 638 840
 Formerly -- 14926
 £1541..10..0 Total ---- 15766

– Tuesday 18th. Oct^r. 1814 –
 Down the Far Pit this mg
 The water from the Bore-
 holes is projecting as far as
 ever – the apparent abatement
 last Satdy. must have been
 occasioned by some obstruction

[Bud-44-2]

148.

in the holes – there is no
 appearance of the water yet
 having made its' way thro' the
 Creep even as far as the E Pit
 E. Mothergate; but a great quan-
 tity of Foulness is coming off
 which arises from the water
 displacing it. Ordered another
 hole to be bored into the waste
 – the water tinges very [r]ed
 The discharge of water
 seems to be overlaying the
 way-gate tho' the Creep, as
 it is rising at the Drift end
 and is likewise coming thro'
 the Stopping in the 2^d. Board
 from the Far Side into the

149.

Headways Jenkin. From this
 place it will make its' way
 along the Jenkin to the West
 Mothergate from the Shaft
 down which it must becar-
 ried into the En. Sump.
 – Saturday 22^d. Oct^r. 1814 –
 Have been occupied this
 week in putting the E Pit
 main Engine into repair
 No appearance of the
 Water yet at the middle
 Pit Engine
 Bored the 3^d. hole into
 the waste this morning.
 This water tinges as
 Red as possible – the water
 from the S^o. holes in the

150.

old Pit was quite clear, only
 leaving a little white sedening
 From this it would seem
 that the two parts of the
 waste have no communi-
 cation.

151.

the Water, which is delivered
 at Bank as red as a Tile
 – Tuesday 1st. Nov: 1814 –
 Through the old Pits' work^s.
 The Boards in the Chance
 Coal are very much intersected

152.

the Bore-holes.
 – Wednesday 2^d. Nov: 1814 –
 N^o. 22. Workings – viz.

A Pit	{ Gibson --	280 --	£183..17..	4
	{ Dodgson --	<u>293</u>	<u>185..</u>	<u>7..4</u>
		573	379..	4..8

– Saturday 29th. Oct^r. 1814 –
 The 3 holes in the Far Pit have run constantly since this day week, but the Water has not yet found it's way to the middle Pit Engine nor is there any visible alteration in the discharge from the holes. The Far Pit Engine is pumping

[Bud-44-2]

by Troubles and bad Coal, and the innermost is turning wet, I therefore ordered this place to be bored, as it must be drawing very near to the old Workings

The Waste Water from the N. Holes has not yet found its' way thro' the Creep to the middle Pit.

There is no visible change in the discharge of Water from

E Pit, Creep –	<u>20</u>	<u>42..17..6</u>
£1177..5..2	<u>593</u>	<u>£422.. 2..2</u>
Vend By Keels – – – –	599	
Spout – – –	<u>344</u>	943
Formerly – –	<u>15766</u>	
Total – – –	<u>16,709</u>	

– Friday 4th. Nov. 1814 –

The Water from the Far Pit barely made its' appearance at the middle Pit Engine in the course of this Day

153.

– Monday 7th. Nov: 1814 –
 No increase of Water at the middle Pit since Friday, but it is rising at the tail of the Far Pit Engine Standage which shews clearly that the communication thro' the Creep to the middle Pit is obstructed

I propose to allow the water to rise even as high as the Far Pit Scaffold if necessary to endeavour to force the Water thro' the Creep to the middle Pit by pressure

The Water is already so high to the East of the Far Pit as to intercept the ridding out of the Benton

[Bud-44-2]

154.

Stone Drift. The men must therefore be employed in driving two Jenkins in the Creep to N. from the Pit – the one to be in the Steng. Wall of the N. winng. Heads. The other to be in the old Rolly way Head^s. – they are 4 Pill. asunder.

– Friday 10th. Nov: 1814 –

The water has made a partial communication since Monday thro' the Creep from the Far Pit to the middle Pit – it is now about 8 Hours work P. day for the Engine with two Boilers. I however still continues to rise at the

155.

Far Pit.

– Tuesday 15th. Nov: 1814 –

Lined the N.W. way in the Far^{<Old>} Pit. the Regent exploring Drifts are now 200 yd^s. beyond Heaton Hall to the Westward – they have become quite level in the Face, and from appearances cannot be far from the Waste I should think.

The Coal in the Chance District continues to be very much intersected with Troubles

Ordered the innermost W. Board to be bored, as it must be approaching very near to the Chance Pit Workings. Ordered the Chance Headwayses to be bored also. Measured the

156.

thickness of the Seam – in
F. In.
the Chance Coal it is 5 .. 8 – in
the mid way between the Re-
gent & Willington Drifts it is
5 F^t. 10 In.

There is very little in-
crease of water at the middle
Pit since Friday – it still con-
tinues to rise a little at the
Far Pit.

The Waste Water is
very destructive to the Far
Pit Engine Buckets – especially
the high Set the Barrel of
which is very bad. In this
set the Buckets never last
more than 2 Days, but are
frequently off in 24 hours. A
new Barrel should therefore
[Bud-44-2]

157.

be put into this Set & it is
for consideration whether it
should be of Brass or Iron.
– Wednesday 16th. Nov: 1814 –
N^o. 23. Workings – viz.

A Pit { Gibson – –
 { Dodgson – ____

E Pit, Creep – ____

Vend By Keels – – – –
 Spout – – – –
 Formerly – – – –
 Total – – – –

– Friday 18th. Nov: 1814 –

The Water still continues to
rise at the Far Pit & is above
the Bucket Door this Mornng.
The low Set Clack has gone

158.

off and being drowned, it can-
not be drawn, as there is no
Ring upon it, until the water
is below the Door; and as it
is ascertained that the Water
cannot find a free passage to
the middle Pit, I ordered the
Holes into the Waste to be
plugged until the Low Set
Clack can be changed.

– Wednesday 23^d. Nov: 1814 –

Got the Clack out of the high
Pit Low Set this Eveng.

Since the Holes were plug-
ged the Water has lowered 6 ft.
perp: at the Far Pit

The Drift out of the En.
Sump into the Standage is

159.

choaked up. It will therefore
be right to endeavour to clear
it out, which I expect will
not be difficult to do as it
seems to be choaked up by
the sediment of the water
only, and not by the Creep.

– Saturday 26th. Nov: 1814 –

Opened out the 1st. Stap. on the
Stone Drift out of the Far Pit
En. Sump, but found the Drift
fallen and crushed together
The Water Still continues

160.

Set flush so that the Bucket
and Clack may now be changed
at the top of the Set.

– Wednesday 30th. Nov: 1814 –

The Water in the Far Pit still
continues to lower, and is now
nearly clear of the Benton Stone
Drift – it continues to run
without abatement to the middle
Pit Engine.

Ordered the Engine Level
Stone Drift to be cleaned out from
the Sump to the 1st. Stap. If

161.

N^o. 24. Workings – viz.

A Pit { Gibson – – 295 – – £199.. 3..10
 { Dodgson – 285 190.. 1..11
 580 389.. 5.. 9
E Pit, Creep – 20 34.. 5.. 5
 600 £423..11.. 2

Vend By Keels – – – – 645
 Spout – – – 291 936
 Formerly – – 17628
£1377..4..2 Total – – – 18564

– Saturday 3^d. Dec: 1814 –

The Water from the high Pit
continues to flow as freely as ever

to lower, and is running thro' the Creep to the middle Pit in the same way as when it was at it's greatest height

The En. Wrights have made the Clack & Bucket doors of the low

[Bud-44-2]

this can be effected at a moderate Expencc, the drift must also be cleaned out from the 1st. Stap. to the Tail of the Level When this is done the Engine will be able to draw the Water out of the original Standage

to the middle Pit Engine.

– Monday 5th. Dec: 1814 –

The Timber at the Quick Sand in the old Pit Shaft gave way in the Engine Pit this Afternoon, but Miller and Higget did not think it so bad the Pit might continue to

162.

work till 2 Ships which had begun to load were finished

– Tuesday 6th. Dec: 1814 –

The Timber at the quick Sand broke completely in the old Engine Shaft this Mornng. The cleading Deals fell across the Shaft, and rested against the high Set Pumps, and low and middle Set Spears, and against the E. Coal Pit Brattice which it broke – the Pit was of course laid off immediately

On examining the Fracture I found it about 5 Fathoms from the top of the Pit, occupying nearly the whole of the Engine Shaft, and the Timber as well as the Brattice all the way from the top of the Pit was sprained & warped. The

[Bud-44-2]

163.

taps of the middle and low Set of Pumps was carefully & the Staying of the Pit in the direction of the Brattice Bunttons was immediately begun to

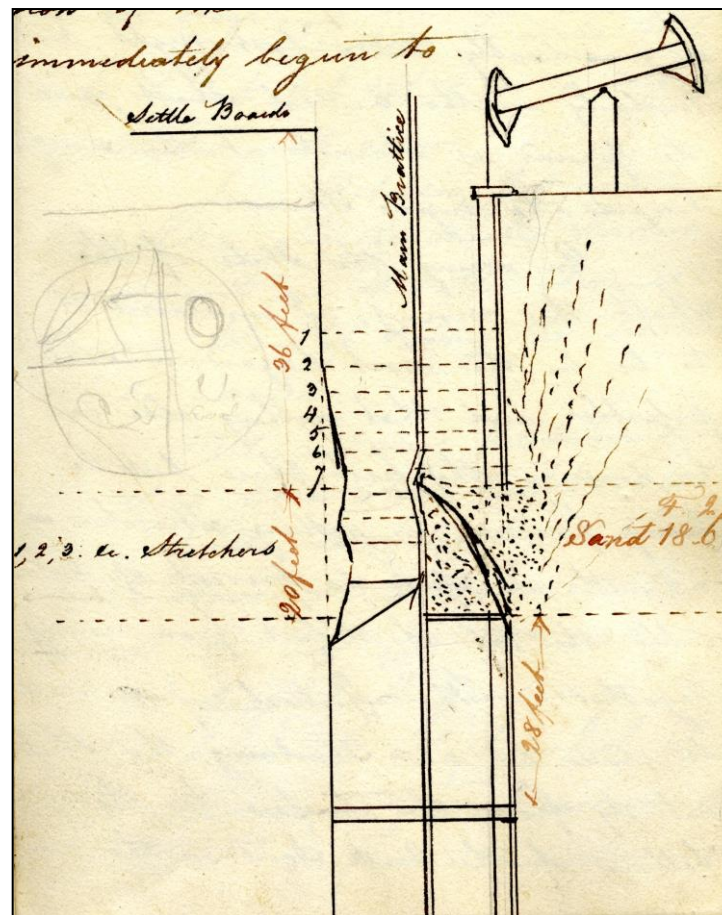
[Diagram of Engine Shaft, Quick Sand]

164.

– Wednesday 7th. Dec: 1814 –

The Sinkers & En. Wrights were employed all last night in putting in Stretchers, but the Pit has come in considerably since last night, particularly in the E. Coal Shaft, and the Ground is shrunk at the Surface towards the Engine House.

On seeing the State of the Shaft this mornng. I considered it to be in the most hazardous state possible, and that nothing else can be done in the first place but to hurry forward in getting Stretchers in with all speed to prevent if possible the top of the Pit from runng. together. The effectual repair must be made by new Timbering the Shaft entirely from the Surface to the bottom of the Quick Sand – the new



[Diagram of Engine Shaft, Quick Sand

165.

Timber to be put within the old which may be done I expect, and still leave the Shaft 12 feet Diam. in the clear.

I propose to make the Cribs of Oak 6 In. thick & as deep as the Timber will allow

John Robinson, Ja^s. Smith W^m. Miller, and the master Sinkers concur with me that the above is the only Plan of saving the Pit that can be adopted.

166.

exertions to get the Stretchers into the Shaft.

As there is now no other prospect than that of a long interruption of Coal work, set about distributing the Men & Boys to the neighbouring Collieries

When the stayings of the Pit is finished an attempt must be made to draw the Horses; but if they cannot be gotten up the old Pit, the Way must be made possible for

167.

has placed it in a state of comparative security

On a general Consultation it was resolved to renew the Timber from the top of the Shaft to the bottom of the Sand, and to keep the Pit the original size as far down as possible, by putting in new Cribs 14 feet Diam. This will allow an opportunity of piling through the Sand if necessary.

Sent an express to M^r. Th.

While we were deliberating on the above Plan about half Past 10 o' Clock A.M. the main Pillar of the Engine House Shrunk forward towards the Pit, and the arching of the Crab Drift gave way at 6 feet from the Shaft, which shews that there is a general movement up to the Surface – redoubled our
[Bud-44-2]

them to go to the middle Pit.
6 o' Clock P.M. observed very little alteration in the Pit since the Morn'g. and the Engine Ho: &c. remains nearly in the same State – great progress has been made during the Day in getting the Stretchers into the Shaft which

Croudace to enquire if any of the Pensher Crib wood yet remained unsold, and on receiving informatⁿ. from him that a considerable quantity still remained, ordered the Waggon & 3 Carts to be sent off early in the mg. for it
The Sinkers &c. to continue

168.

strengthening the Shaft with Stretchers all night

One of the Low Set dry Spears at the middle Pit broke this Eveng. but fortunately no further damage was done.

Agreed to allow the Horses to remain in the old Pit till all the Forrage is eat, as they cannot be drawn up the Shaft on acc^t. of the Stretchers and must therefore in all probability be taken thro' to the middle Pit, where they may either remain below or be drawn to bank as circumstances may require

– Thursday 8th. Dec: 1814 –

From the number of Stretchers put into the Shaft last night, I expect

[Bud-44-2]

169.

that it is placed in a State of to-learnable Security. Begun to remain the Settle Boards, Brattice &c. from the Top of the Pit.

A number of ready made 14 feet Cribs were very fortunately met with at Pensher

– Friday 9th. Dec: 1814 –

Employed in clearing away the rubbish from the top of the Pit. No change has taken place in the Shaft since Wednesday

– Saturday 10th. Dec: 1814 –

Having got the top of the Pit cleared and a length of Brattice out laid the first new Crib at 6 P.M.

Determined to leave all the old backing Deals & Cribs in, and as much of the rough cleading as is perfectly sound and good.

The new Cribs & cleading

170.

to be put in before the old Timber
– Tuesday 13th. Dec: 1814 –

Finished the new timbering of the Shaft as far down as the top of the Sand viz 36 feet, but on examining the Shaft below found it utterly impracticable to get a Scaffold laid below the fracture, nor could any further progress be made in timbering downwards without incurring the most imminent hazard of setting the whole to break away.

It was intended to have laid a Strong Scaffold below the Sand in the sound Timber & to have filled the Pit up to the new timber at the top of the Sand, and then to have re-Sunk her thro' the Sand which was to have been effectually secured by Pilery &c.

171.

The State of the Pit was so serious, that it was thought pru-

172.

lay the main Scaffold, and they immediately begun to cut

173.

doubts were entertained as to the strength of the Cribs &c.

dent by M^r. Potts and myself to take the opinion of Mess^{rs}. Dodds, Watson, & Hill, – these Gentlemen were therefore requested by Letter to meet at the Colliery at 10 o ' Clock in the mornng.

– Wednesday 14th. Dec: 1814 –

The weather during last night having continued dry, the Pit was more settled this Mg. and Ja^s. Smith – Ra. Witherington & Gardiner volunteered to attempt to lay a Scaffold below the Fracture. By 10 o ' Clock A.M. Ja^s. Smith completed a temporary Scaffold on which to Stand to

[Bud-44-2]

the Bunton Holes for the main Scaffold.

By 6 o ' Clock P.M. the main Scaff^d. was completed – 3 Buntions each 12 In. Sq^r. were laid across the Pit in the direction of the quarter Brattice Buntions – their ends resting upon the Cribs & rough Clead^g. – clacks were placed under the middle of the Bunt^s. which rested upon the Brattice Bunt^s.

A double flooring of 3 In. plank was laid upon the B^s. and to close it effectually a quantity of Straw was laid upon the planks. As some

on which the Bunton's rest, it became necessary to find out the lightest material for filling up the Shaft above the Scaff^d.

Shaft Coal and Engine ashes were thought of – on weighing a gallon of each, the former weighed 7 lb. – the latter 4½ to 5½ lbs. both being wet

It was therefore decided to fill the Pit with Ashes – previous to filling up, measured the depth as follows – viz

From Surface Crib to	Fa. feet	In.
Top of Fracture – –	6	.. 1 .. 6
From top to bottom of d ^o .	3	.. 0 .. 6
– bottom of d ^o . to Scaff ^d .	4	.. 4 .. 0
	<u>14</u>	<u>.. 0 .. 0</u>

174.

Diam. of Pit 12 f^t. = 4 yards
4 X 4 X 7854 = 12.566 yards area
12.566 X 2 = 25.132 Cubic yards
P. Fathom

After deducting for the Space occupied by the Pumps Brattice &c. suppose that portion of the Shaft which is to be filled up to be equal to 6 Fathoms or say 150 Cubic yards

A cubic yard contains 165.429 Gall^s. – say 165.43

5.5 lbs.

82715

82715

2240 / 909.865 / lbs. P. yard

13865 0.406 Tons

175.

The scaffold could not be laid nearer to the fracture than 28 feet on acc^t. of the shattred State of the Brattice &c.

Ordered the front of the heap stead to be cleared away during the night to admit free access with Carts to the Shaft – a large spout also to be fixed at the top of the fracture to guide the ashes into the W. division of the Shaft.

A Cart I presume will hold nearly a cubic yard of ashes 150 Cart load Sh^d. therefore fill-up the Shaft.

The weather continued dry

176.

further shrinking of the Gro^d. this day.

The gentlemen whose opin^s. was taken this mg. Approved all that had been done.

– Thursday 15th. Dec: 1814 –

Commenced the filling up of the Pit at day light this mornng. and continued without interruptⁿ. 'till 5 o ' Clock in the Eveng. – in this time 158 Fath^s. of ashes were put into the Pit, but a great Number of them were Single Horse Carts

The weather was tolerably dry all day & no further Shrink took place in the ground.

Begun in the Eveng. to

425 150 yards
 20300
 406

Total Weight of arches 60.900 Tons
 [Bud-44-2]

all day & drippery of the water
 from the Sand diminished – No

complete the rough cleadg. of
 the Pit down to the top of the
 fracture.

Drew part of the Horses

177.

at the middle Pit this Eveng.

Ordered the Rollies, Trams,
 Pitmen's Geer &c. to be brought
 through to the middle Pit.

– Friday 16th. Dec: 1814 –

The rough cleading being finishd
 to the top of the Sand this.

morning, cut thro' the old rough
 cleading at the top of the Sand

– at first it had the appearance
 of being very quick, but of further

examination it was found to
 be firmer than expected. Dug

down 4 feet in the rubbish &
 on trying the Sand thro' the

cleadg. there found it tolerably
 firm, and found the original

backing Deals also standing –
 apparently very firm. 4 feet

[Bud-44-2]

178.

the Rubbish was then sent to
 Bank, and the cutting out of
 the Brattice and Timber with a
 view to get in a 4 feet Length
 of new Timber commenced about
 4 o' Clock P.M.

Got all the middle Pit houses
 but 6 to bank in course of
 this day – the Gin drew a
 Horse in about 10 Minutes.

– Saturday 16th. [17] Dec: 1814 –

Made good progress towards get-
 ting the 4 feet length in 'till 2 o' '
 Clock this mg. when the Clay
 on the En. Side of the Shaft
 shot in forcing the old backing
 Deal about 16 Inches forward.

The men were very much
 alarmed and immediately placed
 Stages against the new fractures

179.

On examining the Pit in the day
 light the aspect of the affairs was as
 alarming as possible – all the
 people in whose judgement I
 could depend upon were of opi-
 nion that nothing more could
 be done.

W^m. Gargner, Ra. Wither-
 ington & his two sons were so
 alarmed at the idea of giving
 up the Pit for lost, that they
 volunteered to attempt to put
 her thro' the Sand by short
 lengths of Timber; and offered
 to give their labour if the
 Owners would find timber &c.

This I consented to subject
 to the approbation of the owners
 and promised if they succeed

180.

in securing the Shaft thro' the
 Sand – 8 or 9 feet in Diam. that
 they should have a Present of
 £50 over & above their wages

Held a meeting at Loftuss
 Present

M^r. Pearson M^r. Potts
 M^r. Johnson J.B.

181.

Newcastle Garner & prs. had
 succeeded in getting the 4 feet Leng.
 of backing deals and 3 Cribs in.

But on examining the work
 I found the Pit of an oval for
 being flat on the Engine Side

– the Diam. in that Direction
 feet

182.

Sawyers were immediately set
 to work with them, and the
 Cribs of the 4 feet length being
 secured with Lath Deals, the
 work in the Shaft was suspended
 'till the mornng.

– Saturday 18th. Dec: 1814 –

Through the Course of this day a

The State and prospects of the Colly. were discussed. It was agreed that Gardner & P^{rs}. should be allowed to proceed as above

The meeting was adjourned 'till 12 o ' Clock on Tuesdy. next when I expect to be able to lay an estimate of the quantity of Coal remaing. unwro^t. in the Colly. – the expence of workg. &c. before the meetg.

During my absence at

[Bud-44-2]

being only 11 .. 5½ – the Diam. in the opposite direction being 12 feet

On holding a Consultation we agreed to reduce the Pit to 10 feet which would enable us to get the Cribs in, truly circular, – we thought it much better to make the work completely secure even at a less size of Shaft, than to leave it in any risk.

As the Cribs are to make of a proper size for carrying the above Plan into effect – the

7 feet Length of Timber with 10 feet Cribs was gotten in with backing Deals, well chocked up behind, and the Cribs were put in truly by the Centre Line.

– Monday 19th. Dec: 1814 –

It took all last night and 'till 4 o ' Clock to complete the rough cleading of the 7 feet Length, and the scale Length above it – the 3 bottom Cribs of this Length were

183.

laid within 3 In. of each other, being below the new timber of the 4 feet Length which is of course doubled by the 7 feet Length coming in before it. The Space between the Cribs & backing Deals and foreside cleading was stuffed with Straw to prevent the soft clay &c. from oozing thro' the joints.

Begun to dig out the ashes and clay again at a little past 4 o ' Clock P.M. with a view to get in a 4 feet Length of Timber

A discharge of inflamable air has taken place thro' the Scaffold – about 2 o ' Clock this Mornng. a Snuff of a Candle

[Bud-44-2]

184.

fell on the rubbish at which the inflammable Air immediately Fired but was of no consequence further than to shew that caution is necessary

I therefore ordered Miller to examine the State of the Air and if there should be any shew of Foulness, either to work with Steel Mills, or to put Air Boxes into the Shaft.

I imagine this Foulness comes up the Shaft from the water being roofed at the ingate and the Blowers in the Shaft having no other vent than up-wards thro' the Scaffold.

185.

Weighed a Gallon of the Spungy Clay as it came out of the Pit it's weight was 16 lbs.

– Tuesday 20th. Dec: 1814 –

Got very well forward during last Night, and at 10 o ' Clock this mg. the bottom Crib and backing Deals of a 3 feet Length of Timber was completed. The Soft Clay spunged in less during this operation than could have been expected.

Mess^{rs}. Pearson, Potts, Johnson and myself met at the Colliery this Mornng. and the general State of affairs was discussed.

It was resolved that a Machine should be put upon the middle Pit capable of drawing a double 20 Peck Corf, with as little delay

186.

187.

188.

as possible

A Drift of communication to be driven from the W. Jenkins in the **D** Pit, into the present N.W. workings of the old Pit by which means the whole or any part of the Coal, West of the Thistle Pit Dyke, may be wrought by the middle Pit

These measures will cost about £1500, and will require 20 Weeks to complete them.

The whole of this day was spent in finishing the 3 feet Length of Timber, the Cribs of which we put as close as possible.

– Wednesday 21 Dec: 1814 –

By 8 o' Clock this mornng. a 2 feet length of backing Deals was got in, with 3 Cribs – this operation
[Bud-44-2]

was effected with the utmost difficulty owing to the spunging in of the soft Clay and Sand; it was however effectually done at last.

The Ground on the Engine Side of the Pit has gone down better than 4 Inches since yesterday mornng. but the front Wall of the Engine does not appear to have moved.

Begun at 8 o' Clock this Eveng. to send away the Rubbish with the intention of getting in a 3 feet Length of Timber

– Thursday 22^d. Dec: 1814 –

After much difficulty and great exertion succeeded in getting in a 2½ feet Length of Timber which was finished by 5 o' Clock this Afternoon. Before that

Length of timber could be closed. a large quantity of Clay Spun-ged in all round the Shaft except the S.W. quarter – but most on the N.E. quarter

This occasioned a general Settling in the Ground from the Surface, particularly on the S. East Side of the Pit where Cracks appeared in the Surface at 20 feet from the top of the Pit

The new Timber parted also at the 2^d. Joint from the top for about half the Circumference of the Pit from the S^o. Side in the widest part the joint had parted 5 Inches the but

189.

ends of the cleading Seals being that far asunder.

As soon as the 2½ feet Len. of Timber was finished, I ordered the broken joint to be crossed with cleading, and the Shaft Frame which had shrunk, to be stayed before any more Rubbish is taken out of the Pit

On forcing an Iron Rod down in the N.E. Side of the Pit, the Clay appeared much stronger at about 3 feet down – this leads me to hope that the next length of Timber will

190.

the Heap walling &c.

– Saturday 24th. Dec: 1814 –

Employed yesterday & this day in getting in a 2½ feet length of Timber, which has placed the Pit in a State of safety, being, completely thro' the Sand and Swelly. Clay into the Strong Clay

The Ground and Engine house have not shrunk any more

Ordered the front wall of the Engine to be wedged up near the foundation where it had given way, and to be secured to the Side and back

191.

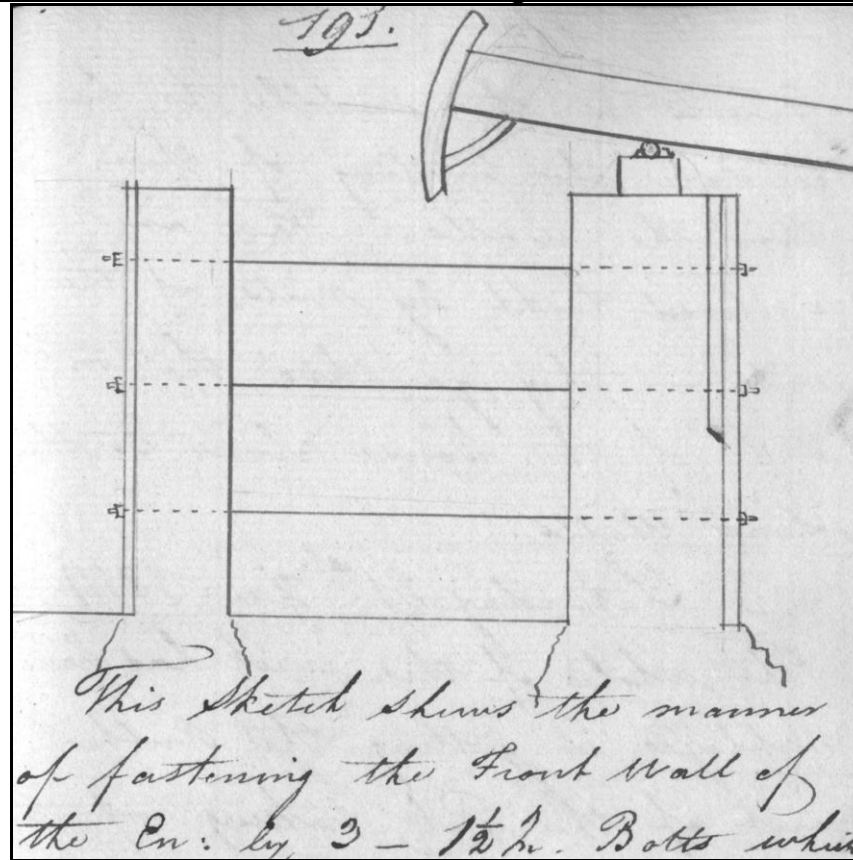
[Sketch of Manner of Fastening Front Wall of Engine]

This Sketch shews the manner of fastening the Front Wall of the En. By 3 – 1½ In. Bolts which are passed thro' holes drilled in the front & back Walls – the ends of the Bolts passing thro' upright Balks of Timber which embrace the out sides of the Walls. The Bolts have offtake

about set us through the fracture. Have lightened the Top of the Pit considerably by taking
[Bud-44-2]

walls by Iron Bolts and Timber so as to bind the whole together.

[Sketch of Manner of Fastening Front Wall of Engine]



192.

joins in the middle to facilitate the putting of them thro' the walls. They are secured tight by Nuts at the ends. - they go thro' the inside of the house close to the

193.

they rested upon the Cribs.
- Wed: 14th. Dec: 1814 -
N^o. Workings
A Pit { Gibson - -
 { Dodgson - -

196.

- Sunday 1st. Jany. 1815 -
Started the Engine this mornng.
about 8 o' Clock. She works very well altho, the balance Beam is not on, and the high Set of Pumps is so much out

side Walls.

– Saturday 31st. Dec: 1814 –

The whole of this week has been employed in getting the Rubbish out of the Pit, taking up the Scaffold, and making the En. ready for work The main Brattice was also completed

The Scaffold Buntons did not appear to have sustained much pressure, as they were not marked at the ends where
[Bud-44-2]

E Pit, Creep – _____

Vend By Keels – – – –

Spout – – – _____

Formerly – – _____

Total – – – _____

– Satdy 31st. Dec: 1814 –

N^o.

[Pages 194 & 195 are Blank]

of centre that the Spears rub heavily against the side of the Pump.

The Engine house stood perfectly firm when the En. was set away – no shrink whatever took place.

– Monday 2^d. Jany. 1815 –

The En. Having gone constantly the water was below the in-gate this mg. and the Air was put right in the Eveng.

197.

– Tuesday 3^d. Jany. 1815 –

The Engine went without interruption, and the water was all off the Rolly way at the Shaft this Eveng.

Every possible exertion is making to make the mach^y. ready to get the Brattice into the Pit, and the heap-Stead finished

Gave notice to the Men at the different Collieries to bring their Geer home so as to be ready to start work on Mondy.

– Friday 6th. Jany. 1815 –

Put the Horses down the old Pit again – finished the Heap-Stead, and got all in readiness for drawing the Coals

[Bud-44-2]

198.

which has been teemed out of the Corves in the Rolly way – tomorrow so that all may be ready for Coal work on Mondy. mornng.

– Monday 9th. Jany. 1815 –

Started Coal work at the old Pit this mornng.

– Tuesday 10th. Jany. 1815 –

Down the old Pit – examined the Shaft which is in a very good State considering all things – the West Side Shaft is much contracted at the Sand, but not so, as to impede the drawg. of the Coals.

Resolved to push away the N. Creep Jenkin from the

199.

Shaft.

Resolved also to make preparations for working the whole Coal Barrier next Lawson's-main Waste, and to hole into the Waste so as to ascertain whether any Pillars worth working remain.

Ordered a pair of Jenkins to be set away in the Far Pit to endeavour to get to the 1st. Staple on the Benton Stone Drift

Ordered a new Iron workg. Barrel to be got for the Far Pit high Set, with a view to make another attempt to draw off old Heaton Waste which there is reason to suppose we had nearly accomplished before, as the water has not yet

200.

returned again to Gosforth En.

Examined the bottom of the middle Pit and gave directions for making the Rolly way &c. into the Shaft when the Mach. is put upon the Pit.

– Wednesday 11th. Jany. 1815 –

N^o. 1. Workings – viz.

A Pit	{	Gibson – –	78	– –	£50..	4..	7
		Dotchen –	<u>45</u>		<u>36..16..</u>	3	
			123		87..	0..	10
E Pit, Creep –		<u>16</u>	<u>32..</u>	<u>7..</u>	<u>11</u>		
		<u>139</u>	<u>£119..</u>	<u>8..</u>	<u>9</u>		

Vend By Keels – – – – 32

Spout – – – 52 84

Pay Bill £399..8..6

[Bud-44-2]

201.

– Friday 20th. Jany. 1815 –

Got an upcast Dyke which takes out all the Coal in the Stable Headway, at 40 yards beyond the last lining mark.

This Dyke seems to be a continuation of the 5 Fa. Dyke from the middle Pit, which must have crossed the Roll Bank Dyke. And I think there can Scarcely be a doubt but it is the Dyke which must have stopped the workings of old Heatⁿ. Colliery to the Southward of the Chance Pit

– Tuesday 24th. Jany. 1815 –

Through the workings of the old Pit. Ordered the Stone to be blown down in the Stable Head^s. to explore the Dyke, but if it

202.

should prove to be more than 6 feet up, 3 or 4 yards of Stone Drift must be driven in horizontally, and a Boring made upwards to the Coal.

There is no appearance of any of the exploring Drifts holing into waste.

Are getting very well forward with the Creep Jenkins both with the, old and Far Pit

Gave directions for a new working Barrel to be got for the high Set of the old Pit

In the course of a month or 6 weeks when the days get longer, this Set must be drawn – the new Bunton & Cistern must be put in, and the Pumps.

203.

reset in the truest situation Position that the State of the Shaft will admit.

– Wednesday 25th. Jany. 1815 –

N^o. 2. Workings – viz.

A Pit	{	Gibson – –	253	– –	£193..	15..	1
		Dotchen –	<u>273</u>		<u>176..10..</u>	6	
			526		370..	5..	7
E Pit, Creep –		<u>43</u>	<u>52..</u>	<u>1..</u>	<u>5</u>		
		<u>569</u>	<u>£422..</u>	<u>7..</u>	<u>0</u>		

Vend By Keels – – – – 290

Spout – – – – 290

P.B. £559..14..10 Formerly – – 84

204.

will turn out to be an upcast of 5 Fath^s.

– Tuesday 31st. Jany. 1815 –

The Coal in the Face of the Chance Drift having become very Soft, and the Roof bad – also a little water I stopped the Drift lest we should get the Waste Water at the Fissure of the Trouble & not be able to stop it again. I think it will be safer to set over this Trouble in the Stable Drift, as there is less chance of the old People

205.

of the Chance Drift tinges red from which I suspect that this Dyke must be the Barrier between the N. and S^o. parts of Heaton old Waste – the Water to the S^o. tinges white.

– Wed: 8th. Feb. 1815 –

N^o. 2. Workings – viz.

A Pit	{	Gibson – –	250	– –	£172..	19..	11
		Dotchen –	<u>269</u>		<u>180..16..</u>	8	
			519		353..	16..	7
E Pit, Creep –		<u>54</u>	<u>55..</u>	<u>5..</u>	<u>7</u>		
		<u>573</u>	<u>£409..</u>	<u>2..</u>	<u>2</u>		

Formerly 399.. 8.. 6 Total --- 374
£959.. 3.. 4

– Saturday 28th. Jany. 1815 –

Got the Metal Coal at the Dyke
in the Stable Headway – the bottom
of the Metal Coal is level with
the top of the main Coal Seam
so that in all probability this Dyke

[Bud-44-2]

having bared it opposite the Stable
than the Chance Drift – if pos-
sible we must hole into the
Chance Pit Workings in good
Coal.

The Water from the Roof

Vend By Keels ----- 801
Spout --- 305 1106
Formerly -- 374
Total --- 1480

Pay Bill --- £1463..3..4

Formerly -- 959..3..4

2422..6..8

206.

– Monday 13th. Feb: 1815 –

Begun to draw the high Set of
Pumps at the Far Pit, to put in
the new Barrel

– Thursday 16th. Feb: 1815 –

Unplugged the Boreholes into old
Heaton waste in the Far Pit

N.B. The Water got back to the
Gosforth Engine on the 1st. Ins^t.
from the 11th. Oct^r. viz 112 Days
It left Gosforth Engine the same
day that the Far Pit holes were
opened.

– Friday 17th. Feb: 1815 –

Finished the re-setting of the
high Set of Pumps at the Far
Pit, and set the Engine to work

– Tuesday 21st. Feb: 1815 –

Down the old Pit this mornng.

[Bud-44-2]

207.

On duly considering all the cir-
cumstances of the old waste to the
S^o. West of the old Pit, and the
workings adjoining, I resolved on
holing into the old waste with
the Picks, at the S^o. W. Holes.

Found the fresh Air pressing
very strongly into the Holes.

The Water from the waste
has not yet reached the Far Pit
Engine.

– Wed: 22^d. Feb: 1815 –

The waste water reached the
Far Pits Engine this mg. – the
Engine goes very well – about
9 – 7 feet Strokes P. Minute

The water does not appear to
be quite so red as formerly

208.

N^o. 4. 22^d. Feb: 1815 –

A Pit	{	Gibson -- 278 --	£186.. 0.. 7
		Dotchen – <u>263</u>	<u>168..19.. 5</u>
		541	355.. 0.. 2
E Pit, Creep –	{	<u>41</u>	<u>55.. 5.. 1</u>
		<u>582</u>	<u>£410..10.. 3</u>

Vend By Keels ----- 871

Spout --- 244 1115

Formerly -- 1480

Total --- 2595

Pay Bill --- £1053.. 9..10

Formerly -- 2422.. 6.. 8

£3475..16.. 6

– Satdy 25th. Feb: 1815 –

Holed into the old waste at the
S^o. W. holes in the old Pit with
the Picks.

Found an upstanding Band
which had been won out to the

209.

North and driven E. down

Found the Waste open for
nearly 3 Pill. West and 4 Winn^s.

– Thursday 2^d. Mar: 1815 –

The Waste water from the Far
Pit made it's appearance at the

210.

Determined to endeavour to rid
a passage thro' the old workings
along by the skirt of the whole

S°. where it is much fallen and close Metal Ridged. The old waste has been wrought with 10 yard Winn^s. But the walls are not left more than 3 yards wide and seem to have been partially worked. The Air alternates some times pressing inwards and some times outwards.

Ordered another holing to be made into the waste, at the middle hole which is 200 yd^s. to the East of the above, with a view to get an Air communication thro' this part of the waste

[Bud-44-2]

middle Pit En. this mg.
– Saturday 4th. Mar: 1815 –

Holed again into the old waste at the middle Bore-hole, but could not force the Air round

– Tuesday 7th. Mar: 1815 –
Examined the old waste

Travelled a considerable distance into the old workings from the middle hole, from which we ascertained that the Pillars have been wro^t. and there is every reason to believe that the work^s. we have holed into, are a Trespass from Lawson's-main

Coal, to ascertain its' Boundary and also to make an Air way thro' it. It is cleaning gradually, and the Air seems to be passing into the old Workings.

– Friday 10th. Mar: 1815 –
The old Waste had cleaned so much this morn^g. that Miller was enabled to travel 10 win^s. S°. from the middle hole.

He observed that the walls in this part had not been wro^t. except those next the far side; and they appeared to be a regular thickness.

211.

– Wed: 8th. Mar: 1815 –

N°. 5.

A Pit	{ Gibson – – 257 – – £175.. 6.. 3
	{ Dotchen – <u>262</u> <u>182..12.. 1</u>
	521 357..18.. 4
E Pit, Creep –	<u>47</u> <u>56..13.. 5</u>
	<u>568</u> <u>£414..11.. 9</u>

Vend By Keels – – – – 103

Spout – – – 239 342

Formerly – – 2595

Total – – – 2937

Pay Bill – – – £875..15..9

Formerly – – 3475.. 6..6

£4351..12..3

– Saturday 11th. Mar: 1815 –

The low Clack at the Far Pit went off this mg. which stopped the Engine 12 hours – the wa-

212.

necessary to plug one of the bore holes into the waste

– Tuesday 14th. Mar: 1815 –

The Far Pit Engine having lowered the water considerably drew the plug again, so that all the 3 holes are running now.

– Wed: 15th. Mar: 1815 –

Holed into the waste with the Rods – unexpectedly – in the S°. W. exploring Drift old Pit next the Wellington Drift. This shews the Trespass from Lawson-main to be greater than was at first imagined – very little water came off. And I ordered the place to be holed with

213.

the making of an Air Course thro' the old workings.

– Saturday 18th. Mar: 1815 –

Opened the above place with the Picks but the Styth came off so strong, they were obliged to close up the hole again immediately

Ordered the drift to be doubled in order to get this part of the Waste ventilated.

– Wed: 22^d. Mar: 1815 –

N°. 6.

A Pit	{ Gibson – – 218 – – £154.. 3.. 1
	{ Dotchen – <u>285</u> <u>183.. 5.. 8</u>
	503 337.. 8.. 9
E Pit, Creep –	<u>46</u> <u>51..14..10</u>
	<u>549</u> <u>£389.. 3.. 7</u>

Vend By Keels – – – – 223

ter rose so fast, that it was

the Picks, as it will facilitate

Spout	---	332	555
Formerly	--	<u>2937</u>	
Total	---	<u>3492</u>	

[Bud-44-2]

214.

N^o. 6. Amo^t. of Pay Bill -- -- £853..11..9
 Formerly -- -- 4351..12..3
£5205.. 4..0

– Wed: 29th. Mar: 1815 –

The Far Pit Holes have run very regularly since the 14th. Ins^t. but the Engine Beam having gotten low on one Side from the Brass wearing – plugged up one of the holes this morn^g. ‘till the Beam is put right again – as yet there is no visible change in the discharge of water from the holes.

The Binding was finished without difficulty on the 18th. Ins^t.

– Tuesday 4th. Ap: 1815 –

The Air having been put thro’ a part of the old Waste – that last holed into from the old Pit W way

[Bud-44-2]

215.

travelled into it as far it was accessible

The workings into which this holing is made, is from a Single Kead^s. which has won out 7 or 8 Boards to the North – E. and W. Boards are turned out of it but not holed. There appears to be more workings to the Westw^d. so that in all probability, only a thin Barrier of Coal remains between the places we have holed into & the workings further West

No Water whatever seems to come from the North.

Only two bore holes are now run^g. from the waste in the Far Pit – the Engines not having drawn the water down since the Beam was raised.

216.

– Wednesday 5th. April 1815 –

N^o. 7.

A Pit	{	Gibson	--	252	--	£170..	9..	1
		Dotchen	--	<u>276</u>		<u>182..</u>	<u>18.</u>	<u>1</u>
				528		353..	7..	2
E Pit, Creep	-			<u>49</u>		<u>58..</u>	<u>4..</u>	<u>3</u>
				<u>577</u>		<u>£411..</u>	<u>11..</u>	<u>5</u>

Vend By Keels ----- 550

Spout --- 772 1272

Formerly -- 3492

Total --- 4764

Amount of Pay Bill --- £1960..17..5

Formerly -- 5205.. 4..0

Total £7166.. 1..5

– Sunday 9th. Ap: 1815 –

Broke one of the high Set Stears this mg. in the middle Pit – got it repaired and the Engine Started in the Evening again.

217.

The main Pillar of the middle Pit Engine is shrinking – the Stones are breaking, and on wedging up the Sole Trees of the Framing the N. Side Wall yields, outwards.

It seems expedient in the first instance to support the North Side Wall with a Strong Butm[ent]

218.

impressions of the Horses Feet as well as of the Sledges, are quite fresh.

– Tuesday 18th. Ap: 1815 –

Have made further progress in the old Waste to the S^o. and West – at nearly 60 yards West from the Lining Mark, there is every appearance

219.

N^o. 8. Vend By Keels ---

Spout ---

Formerly -- _____

Total --- _____

– Tuesday 25th. Ap: 1815 –

The Bore-holes into the Waste in the far Pit, don’t seem to abate at all.

– Monday 10th. Ap: 1815 –
 Lined the old waste, as far as it was accessible – about 6 Pillars West and 15 Pillars North and S^o.
 Found the Workings to be very irregular, and the walls generally speaking very thin
 The Timber in the waste is in a perfect State of preservⁿ. and the Wall Sides are not tinged in the least degree
 In several places the

[Bud-44-2]

of being near to an old Pit
 The Coal is cast up again in the Stable Drift, and lies very irregularly.

– Wed: 19th. Ap: 1815 –

N^o. 8.

A Pit { Gibson – –
 { Dodgson – — —————

E Pit, Creep – — —————

Amount of Pay Bill – – –

Formerly – – —————

£ —————

The East Jenkins in this Pit have reached the Benton Stone Drift. – it is fallen up to the Seam in the middle Siding
 X Have gotten the bottom of the Seam in the Stable exploring Drift at the upcast Trouble – a small bleeding of water from the Coal – great care to be taken in boring.

220.

– Tuesday 2^d. May 1815 – X
 Miller and the Wastemen having gotten the old Waste so Far cleaned as to be able to take Candles 4 or 5 Winnings S^o. from the Mark **A**, and about 60 yards West, I fixed with him to line it tomorrow afternoon

Miller informed me that they had now gotten into the Coal in the Stable Drift, and that the bleeding of Water was much as usual, but that the Coal was tolerably dry in boring. X

– Wed: 3^d. May 1815 –

At a little before 5 o ‘ Clock this Mornng. the Water from Heaton old Waste, burst into the Stable Drift with such violence

[Bud-44-2]

221.

that the Hewers Putters &c. inby had not time to escape. In little more than half an hour the water was 10 Fa. up the old Pit Shaft

The following individuals only escaped this Catastrophe

- | | |
|---|-----------------|
| Jn ^o . Bell | } Drifters |
| And ^w . Cadwell | |
| W ^m . M ^c Cay Boy | |
| T. Curtis – Jo ^s . Harrison Hewers | } Rolly Way Men |
| W ^m . Rutter | |
| Th Carr | |
| Th. Wilkinson | |
| John Pratt – Onsetter | |
| 15 Rolly Drivers and Trappers | |
| 24 in all | |
| 75 perished | |

222.

The two men that escaped from the Drift gave the following acc^t.

Miller was with them about 20 min. before the accident happened – they observed to him that there was a greater bleeding of water than usual, and thought it advisable to bore the Drift.

He replied that the 9 o ‘ Clock Men sh^d. bore, but that he wished to have 2 feet of Coal on before he bored.

After he had left them 20 min. a discharge of water took place from the W. Side of the Drift – in the Coal – like the Spout of a Garden Pot, with a

223.

224.

225.

loud hissing noise – this discharge was from a Back in the Coal *

This did not alarm them & they remained for some time when the Coal broke away & the Feeder increased to the size of a Pump with a noise louder than the En. Steam

This alarmed them & they came out of the Drift & Sent their putter Boy to alarm the People at the Cranes – at the same time they came out to the old Crane – about 110 yards from the Face of the Drift

* about 2 yards back from the Face the Drift was going in a N. head^s. Direction and the water broke in from the West Side.

[Bud-44-2]

after waiting here a Short time John Bell determined to go back to see the State of the Drift but just as he reached the Sheth Door, the water broke in with a noise like Thunder & the Wind blew him down: he then made the best of his way to Cadwell &c. and they scrambled outby as well as they could in the dark – their Candles being blown out by the violence of the wind which continued very violent as long as they were in the Pit

They reached the Shaft with difficulty, accompanied by their Putter Boy, and W^m. Holt the

Rolly way Man in the Far N.W. mg^t. came out with them

They also bro^t. several Rolly Drivers & Trappers out with them but old Edw^d. Gibson the Rolly way Man was not able to come so quick as them & perished.

About 15 Min: before the accident Tim: Dotchen saw Miller & asked him to ride with him but he replied that he was going to stop a while.

All the Wastemen were waitg. of Miller to go into the old waste with him.

When Th. Curtis and Ja^s. Harrison reached the Shaft, no water was

226.

there, but in a very short time afterwards it was at the scaff^d. and in a few minutes roofed From the time when the water burst away until it roofed at the old Pit; the Banksmen observed that both Shafts cast up with great force.

The Water continued to rise in the Shaft with great rapidity 'till 1 P.M. when it rose slower 'till about 5 o ' Clock when it again rose rapidly & at 9 P.M. it was better than 20 Fa. up the old Pit Shaft.

Almost immediately on the accident happening, the following

227.

old Pits fell in

The Chance – Old Engine – Thistle – Knab – Venture – Bank The Chance seemed to have been scaffolded, and appeared to be open nearly to the Bottom Balks were laid across and preparations made for securing the top of the Shaft with a view to get down the Pit But about 5 P.M. the top of the Pit – being Sand – broke away and continued to run without ceasing 'till it formed a complete Crater 60 feet Diam: & filled the Pit up. This would be about 8 o ' Clock P.M.

228.

– Thursday 4th. May 1815 –

About 2 o ' Clock this mg. the old N. Engine Pit broke in with a tremendous Crash.

It is to be remarked that when the S^o. En. Pit broke in yesterdy. mg. the air rushed in for about an hour with the utmost violence

A violent Torrent of Water seemed to be rushing past the Bottom of the Venture Pit last Night, but it could not be heard this mg. Whether this might arise from the bottom of the Pit being choked up by the Rubbish which fell from the top, or

[Bud-44-2]

from the Water having run off

229.

is uncertain.

Spent this day in measuring the depth of the old Pits – levelling &c.

The top of the Chance Pit above Landry Box of old Pit Engine -----	Fa.	5
Depth of old Pit to Thill		<u>82</u>
Top of Chance above bottom of old Pit -----		
Rise of Seam from old Pit to top of Roll Bank ----	Fa.	14
Dip Hitch -----	1..4	
Rise Dyke -----	5	3..2
From Stable Drift to Chance Pit 180 yd ^s . at 4 In. -----		<u>10</u>
Calculated depth of Chance Pit -----		27..2
Rise Hitch -----		<u>59..4</u>
Say 60 Fath ^s .		<u>1..1</u>
		<u>58..3</u>

[Bud-44-2]

230.

Depth of old Pit -----	Fa.	82
Rise to Chance Pit -----		5
		87
Fall from Chance to old En. Pit -----	Fa.	<u>16..2..6</u>
		70..3..6
Plummed to Rubbish in old En. Pit -----		<u>30.. --</u>
		40..3..6

May 4th. Plummed the old Pit at 11 o ' Clock A.M., and found

	Fa.	Feet	In.	Rise
the Water, up the Shaft	29 ..	5 ..	2	Ft. In.
At 3 P.M. -----	29 ..	5 ..	0	4 ..10

May 5th.

At 8 A.M. -----	30 ..	2 ..	0	3 .. 0
1 P.M. May 5 th . --	30 ..	3 ..	2	1 .. 2
¼ past 3 P.M. ----	30 ..	3 ..	½	0 .. ¾

231.

– Thursdy. 4th. May 1815 –

Water in Engine Pit	Fa.	Feet	In.
30 min. past 10 AM. --	29 ..	5 ..	2
40 min past 3 P.M. --	29 ..	5 ..	0
8 P.M. --	30 ..	2 ..	0

May 5th.

1 P.M. --	30 ..	3 ..	2
¼ past 3 d ^o . --	30 ..	3 ..	5½

N.B. This seems to have been the summit Level of the Water, as from the latter point it began to lower

– Friday 5th. May 1815 –

The Far Pit Plugs were examined last Night at 9 o ' Clock, but the Water seemed as Strong as ever – the Holes were therefore Plugged up again. The Engine was lowering the Water rapidly

At 11 o ' Clock this mg. the Engine seemed to have gotten more Water. Measured the depth

232.

of the Far Pit and found it to be by the Line from the Settle Boards to the Scaff^d. ----- 78 Fa.

Fall of Gro ^d . from D ^o . to Settle Bd ^s . of middle Pit		<u>10..2..9</u>
Bottom of Far Pit below top of middle Pit ----		67..3..3
From top of middle Pit to Surface of water --		<u>56..2..6</u>

233.

to prevent the breaking of Spears &c. The middle Clack of the old En. began to fail about 1 P.M. – as this Clack cannot be changed up thro' the Barrel; a drop Clack was prepared.

Bored several holes in the course of this day in search of the Matthew Pit; but without

234.

Forcing it's way thro' the Creep Found the Kenton Pit by boring this Eveng. – the Shaft seems to be Scaffolded at the Stone-head, about 3 Fath^s. down.

– Satdy. 6th. May 1815 –

At 6 o ' Clock this mg. the water was found to have lowered in the old Pit better than 2 feet since yes-

Water in middle Pit above }
Far Pit Bottom ----- } 11..0..9

From the above it would appear that the water is stopped back by the Creep between the middle and Far Pit

The middle Pit Engine can go 14 Strokes P. min. with ease, but I thought right to limit her to 12
[Bud-44-2]

success.

Depth of Pits – viz. Fa.
Far Pit – Settle Bd^s. to Thill – 78
Middle d^o. – Land^y. Box to d^o. 80
Old Pit – d^o. – to d^o. – 82
The Water in the Far Pit had risen 6 yards – tail water at 12 o ‘ Clock this day, from which I conclude that it is

terday Afternoon at 3 o ‘ Clock.

The Engines have gone without interruption all Night, and the middle Clack of the old En. is still good – it must have been a Gag which injured it’s operation yesterday.
Opening out and Securing the top of the Kenton Pit – bored

235.

through the Scaffold, when a considerable quantity of inflammable Air discharged from the Shaft.

Plummed the Shaft, and got the Line 38 Fa. down – there must be 16 or 17 Fa. of Rubbish in the Pit, as from the Levelings the Shaft appears to be about 55 Fa. deep.

Plummed the old Pit, and found the Water to have lowered 3½ feet from ¼ past 3 P.M. yesterday to ½ past 5 P.M. this day – that is in 26¼ Hours.

– Sunday 7th. May 1815

The Engines went very well all last Night, and this day

[Bud-44-2]

236.

and the Water lowered, but from the stretching of the Line it could not be accurately ascertained It appeared however at 8 o ‘ Clock P.M. not to have fallen less than 3 to 3½ feet since ¼ past three yesterday.

Made a Mark on the Brattice at the Surface of the Water to measure from in future

Got the Second length of timber put into the Kenton Pit – the Styth comes very Strong up the bore hole thro’ the Scaffold.

The tail Water at the Far Pit has risen 20 yards since the evening of the 5th. Ins^t. but it is on a very flat place

237.

– Monday 8th. May 1815

At 6 o ‘ Clock this mg. the water had lowered 1 foot; but the old Engine had stood 5 hours to clean the Jack-head Cistern &c.

At 6 P.M. the Water had

F. In. F. In.

lowered 1 .. 3, makin 2 .. 3 in all since yesterday Eveng. at 8 o ‘ Clock.

Got the Kenton Pit cleared out to the Scaff^d. this Morn^g. and took up a Plank; but the Styth came out so Strong as nearly to kill W^m. Patterson

The making of Air Boxes immediately commenced, and the work was suspended until the Ventilation of the Shaft can be effected

238.

Measured the probable extent of Heaton old Waste on the Colliery Plan, and found It to contain on a liberal scale of measurement 247 acres
 New Workings say – 60
 In all – – – – 307
 Supposed to be already }
 drawn off – – – – – } 57
 Remains to be drawn – 250
 – Tuesday 9th. May 1815 –
 F. In.

The Water has lowered 2 .. 7 from 6 o ' Clock last Eveng. to 6 this Eveng.

The middle Pit Engine was stopped to change Buckets about 2 hours, and went 5 hours with two Boilers only – 9 Strokes
 [Bud-44-2]

239.

P. min. until the 3^d. Boiler was cleaned and repaired
 At 6 o ' Clock this mornng. the water had risen 1 foot perp. at the Far Pit – it is now on the Scaffold.
 Occupied all day in putting Air Boxes into the Kentⁿ. Pit – took out the Scaffold – Wednesday 10th. May 1815 –
 Got the Scaffold in the Kentⁿ. Pit out and finished the timbering of the top of the shaft
 Got nearly 30 fath. of Air Boxes into the Pit, which cleaned the Shaft so much as to allow the men to go 20 Fa. down. The Timber is all

240.

Standing; and is sound and good, but the Cleading requires to be fresh nailed.
 From an old View Book which Rich^d. Donkin gave me yesterday, the Kenton Pit would seem to be about 43 Fa. deep in which case there is not more than 4 Fa. of Rubbish in the Bottom.
 The Wind has blown strong – from the West to day which has enabled the Air Boxes to clear the Shaft, and I have gotten the small Air Pump from Walls-end in readiness to apply to the Boxes in calm weather. The Air

241.

Pump is 18 In. square, with a F. In.
 2 .. 3 Stroke – two men can work it 35 double Strokes P. min. with ease
 1.5
1.5
 75
15
 2.25 area
2.25 Stroke
 1125
 450
450
 5.0625

242.

300 = 10.62 feet of the 28.26
 Shaft to be cleared P. min. by the Pump – say 10 feet Depth of Pit supp. 43 Fa. or 258 feet ÷ 10 = 25.8 min. required to clean the whole Shaft, supposing the Boxes to be perfectly tight, but as this cannot be the case, I will suppose it to require 35 min. to clean the Shaft F. In.
 The Water has lowered 2 .. 11 in 24 hours from 6 o ' Clock yesterday Eveng. but it has

243.

passage thro' the Creep.
 Plummed the Water in the old F. F In.
 Pit, and found it to be 28..2..8 deep
 Greatest depth on the 5th. – 30..3..5
 Has lowered in 5 days – 2..0..9
 – Thursday 11th. May 1815 –
 The Engines went well all last Night & at 9 o ' Clock this mg. had lowered the Water 2 feet; but about 12 o ' Clock the middle set ~~Bucket~~ Clack of the old Pit Engine went off, and in drawg. the Bucket to put in a dropt

2 – double Stroke
10.1250 – say 10 Cubic Feet
35 X 10 = 350 Cubic feet P. min.

Suppose loss
by Valves – 50
300 D°.

The Shaft is 6 feet Diam

0.785

36

4710

2355

28.260 Area of Shaft

[Bud-44-2]

risen 2..4 in the Far Pit perp.
in the same time – this shews
that it is finding a freer

Clack, it Stuck fast in the
Pumps, just above the Surface
of the Water – there was
no alternative but to draw

244.

the Pumps which was immediately
commenced. Sent to the neigh-
bouring Collieries to find some
13 In. spiggot Pumps.

Got the Air Boxes to the
Bottom of the Kenton Pit, and
applied the Air Pump which soon
cleaned the Shaft. The Men got
the Shaft secured to meetings

Ordered them to continue at
work all night with the Steel
Mills.

Got M^r. Straker's Gin from
Ouse-burn – Set up ready to
draw the Rubbish out of the
Bottom of the Pit.

– Tuesday 12th. May 1815 –

During last night got several
of the middle Set Pumps out
of the old Pit, and found some

[Bud-44-2]

245.

13 In. Pumps at Long Benton

Had not an opportunity of measg.
the reduction of the water exactly
but it has lowered a little.

It still continues to rise in
the high Pit, and is now above the
Roof there; but is still between 5 &
6 Fa. below it's true Level when com-
pared with the middle & old Pits.

Got to the Bottom of the Kentⁿ.
Pit this Evg. about 8 o ' Clock, and
began to send away the Rubbish

The Air Pump has kept the Shaft
very clean

There is a Ring in the
old Shaft at the top of the Rubb.
from which I conclude that the
Bottom is very near

More Air Boxes must be
prepared, as I believe the best

246.

mode of penetrating the old work^s.
will be by extending Air Boxes into
them.

– Saturday 13th. May 1815 –

Got down the Kenton Pit this
mornng. And in the course of the
day were enabled to advance 52
yards, along a N. Headway.

The workings of this Pit
are close crept, and it seems that,
the North Headway has been
cut out for an Air Course to
another Pit.

It is impossible from the
crushed State of the waste to
make out the manner in which
the workings have been conducted
– the only Wall which I could
see distinctly was about 7 feet thick

The H. Course was cleaned

247.

about 50 yards before the Boxes but the atmosphere was in a very favourable State – the Barometer standing at 29.6

Decided upon continuing the Air Boxes underg^d. in preference to Brattice &c.

The water in the far Pith

F. In.

as risen 2 .. 7 on the last 24 Hours.

Finished the resetting of the middle Set Pumps in the old Pit

The water is still lowerg. in this Pit, but it has not been measured to day.

Both the middle and Far Pit Engines have gone very well during the last 24 hours

[Bud-44-2]

248.

– Sunday 14th. May 1815 –

Made about 40 yards further progress in the N head^s. From the Kenton Pit.

Finished the setting of the middle Set at the old Pit, but after a few Strokes of the Engine the dropt Clack rode & the pump of course would not draw any Water. The Engine Wrights &c. being all exhausted, further proceedings were given up for the Night.

– Monday 15th. May 1815 –

Begun to draw the middle Set of Pumps again this mg. at the old Pit – to fix the Clack at the Surface of the water, and to work the Buckets in a Pump above it – a Bucket Tr[] Price was put in at the Surface

249.

of the water for this purpose.

Measured the Water this afternoon and found that it had fallen in all Feet In.

32 .. 8 – it is still rising in the old Far Pit, but no so rapidly as before.

Got to the en. of the open Head^s. in the Kenton Pit – directed the Men to endeavour to find out an open Board to the East.

– Wed: 17th. May 1815 –

Got the Engine at the old Pit started this Eveng. but the middle Set works very badly on account of the Air joints not being tight this we expect to remedy.

Have holed one wall in the Kenton Pit, beyond where the Hesd^s. was open, and reached another

250.

– Thursday 18th. May 1815 –

Lined the Kenton Pit mg.

N.B. the proper name of this Pit as appears by an old Plan, is the Moor Pit.

The whole length ridded out – from the Shaft is 99¾ yards

On laying this down at Bank – the Face of the Ridding seems to be 97 yards from the nearest open part of the waste which was travelled before the accident.

The old Engine was set away this mg. after the Air joints

251.

the Machine at the Far Pit.

– Fri 19th. May 1815 –

Employed the most of this day in laying Tram way in the Kenton Pit to stow the drift Coals – the Coal is firmer in the Face which leads to the supposition of it's being a Barrier as it is nearly under the Boundy. Line between Heaton & Byker.

Changed the middle Set Bucket in the old Pit, which has enabled this Set to keep the high Set solid.

Overhauled the North middle Set ^<Spears> of the middle Pit Engine, as also

252.

– Satdy. 20th. May 1815 –

At 9 o ' Clock this mg. the water had fallen 13 In. since last night

A great discharge of Styth and Foulness took place in the Kenton Pit this mg. which compelled the Men to leave off work – it came off very suddenly, and it was with the greatest difficulty that the men escaped. The Air Pump could not control the discharge and in a few minutes the Pit was Foul up to the surface.

Ordered the Air Pump to be laid off, and the Funnel to be applied

had been wedged, and the middle Set draws better, altho' it cannot keep the high Set solid

Borrowed 3 – 55 Gall. Tubs fm. Backworth to draw water with

[Bud-44-2]

the Balance Beam Chains

Up to this Evening the water seem to have fallen about 6½ Fa. in all – in the old Pit Shaft

as during the turbulent State of the Weather which has occasioned this discharge of Foulness I think it is better calculated to expel it than the Pump.

The wind blue strong

253.

from the Westw^d. with heavy squall sand occasional flying showers; but the barometer did not fall

All the Engines went very well till about noon when one of the Far Pit Boilers burst – this Stopped the Engine 'till 9 o ' Clock P.M.

– Sunday 21: May 1815 –

The water in the Far Pit seems to have reached it's summit Level last Night, as it was found to have lowered 10 In. this mg.

All the Engines have gone well during the last night, and the Water has lowered – at 11 o ' Clock Fa. feet. In. A. M. 7 .. 2 .. 8 on all, leaving 23 Fa. 9 In. in the old Pit.

The Kenton Pit vomited a great quantity of Foulness thro' the course of the day.

[Bud-44-2]

254.

– Monday 22^d. May 1815 –

A great quantity of water was discovered this mornng. to be running into an old Pit, in Rennolds[] Mill – wheel-hole.

It was discovered some time ago that this water had a direct communication with Gosforth Colliery, and of course with old Heaton. The inlet in the wheel hole was rammed up with Clay by the Gosforth People, which relieved their En. very much, but the Clay is now washed out & the water finds an entrance in considerable quantities when the Mill is a work
A fresh ramming of Clay

255.

must be put in, until something more effectual can be done.

F. In.

The Water had lowered 1..4 in the old Pit, and 5 In. in the Far Pit during the last 24 Hours – to 9 o ' Clock this Mornng.

Got into Face of Drift in Kentⁿ. Pit at 10 o ' Clock A.M. but at 12 o ' Clock Foulness began to come off again, and the Men could only work at intervals 'till Midnight when they were obliged to leave off

The old Pit Engine went very badly all day, on account of the middle Set being so heavy upon Air – they are obliged to work her by hand

256.

– Tuesday 23^d. May 1815 –

The Water at the old Pit had lowered 13 In. this mg. in 24 hours and 4 Inches at the Far Pit. but the old Engine drew kittle water

257.

new Bucket put in

The W. Boiler at the Far Pit burst in the Forenoon, and other two could only drive the Engine 5 & 6 Strokes P. min. all day.

258.

short, canted & slipped down on one Side; this fastened the Bucket in the Barrel, and it was not got out & a new Bk^t. put in 'till 6 o ' Clock in the

on account of the middle Set drawing so much Air.

Put the Bucket of the midd. Set at the old Pit into the Bucket Tree, which made the Set draw pretty well with a 6 feet Stroke.

– Wednesday 24th. May 1815 –

The middle Set Bucket at the old Pit went off during last night and it was with great difficulty it could be gotten out. It took the whole of this day and great part of the Night to get the

[Bud-44-2]

Had not an opportunity of measg. the Fall of the Water to day.

Holed thro' the wall in Face of the Drift – Kenton Pit – with the Picks – the holing is apparent[ly] into a Goaf – not fallen but nearly close crept.

– Thursday 25th. May 1815 –

Got the 3^d. Boiler at the Far Pit on again this Forenoon.

Just on Starting the old Pit Engine, at 3 o' Clock this mg. the hoop of the middle Set Buck[et] – from the Cross-Bar being too

Evening. Got the Engine fairly underway between 7 & 8 o' Clock – the Water has lowered 23 In. since Tuesdy. mg.

– Friday 26th. May 1815 –

The old Pit Engine drew very little Water all day, as the middle Set would not Supply the High Set – the Water lowered 9 In. in twenty Four Hours in the old Pit but nothing in the Far Pit.

Got through the Goaf into another Coal Wall in the Kenton Pit.

259.

– Saturday 27th. May 1815 –

The Water lowered 12 In. during the last 24 Hours, altho' the old Engine has scarcely drawn any Water

As it seems impossible to make the middle Set of the old Engine, work with any effect until the Clack is fixed at the bottom of the working Barrel, it was determined to endeavour to draw out the old Clack

It was therefore hooked by the Fish-head; but after heaving to the utmost sprain the Tackle would bear it could not be moved; the Fish-head was therefore disengaged, and we resolved to draw another Clack which the Bow of the old one would prevent from going below

[Bud-44-2]

260.

the bottom of the working Barrel To prevent this Clack from riding it must be loaded with a quantity of Lead – say 2 Cw^t.

The men have scarcely been able to get into the Face of the Drift in the Kenton Pit, to day, on acc^t. of the great discharge of Foulness from the old Waste.

– Sunday 28th. May 1815 –

Got the drop Clack into the middle Set – old En. about 4 o' Clock this Mg. and the Engine Set away.

It stood very well, and the Engine was going her full Stroke at 8 A.M. – 11 Strokes P. min. – the middle Set kept the high Set quite solid.

261.

The Men have not been able to get into the Face of the Drift in the Kenton Pit all night – they got in this Mg. at 8 o' Clock.

Examined the Race of Rennoldson's Mill this Mg. where the Water has frequently been seen to run into the Rock; but found the ramming of Clay which was put in on the 22^d. Ins^t. to be effectual.

However determined to have the Side Walls of the wheel Hole plastered with Tenace or some other Water cement, to a little above the flow of the water; as well as the outside Wall next the Burn.

For a considerable extent the

262.

bottom of the Bourne has been planted here, in a very substantial manner In some places the flooring is double. Tradition states that a Creep in Jesmond Colliery brought down the Bourn at this place, and that the Fracture was floored over to keep the Water out.

– Monday 29th. May 1815 –

The Engines went very well all yesterday and last night, but the Water only lowered 8 Inches.

Could not keep constantly in the Face of the Drift – Kentⁿ. Pit, through the course of this day.

– Tuesday 30th. May 1815 –

All the Engines went well during the last 24 Hours, notwithstanding

[Bud-44-2]

263.

which the Water only lowered 15 Inches.

Got into another Coal Wall in the Kenton Pit.

– Wed. 31st. May 1815 –

The Engines have gone well the last 24 hours, but the Water only lowered 1^F/ 2^{In}.

The middle Clack at the old Engine got loose, and began to ride about 7 o ' Clock this mg.

An attempt was made to draw it, but it could not be gotten into the Bucket Free with all the Force that could possibly be applied to it

Nothing could be done but to try the effect of dropping another Clack upon it.

Got thro' the Wall into

264.

another board in the Kentⁿ. Pit – the Board is close Crept – the Wall was 7 yards thick.

– Thursday 1st. June 1815 –

Another Clack was dropped in the old Pit middle Set, and got the Engine started again this mornng. but, the Set draws very imperfectly, & does little more than half supply the high Set.

The Water only lowered 6 In. during the last 24 hours.

– Friday 2^d. June 1815 –

The Water only lowered 6 In. last 24 Hours. – the old Engine draws very little water.

Have gotten into the 4th. Cola Wall in the Kenton Pit

– the Workmen still continue to be very much interrupted by the

265.

bad Air from the Waste

On the 21st. May the Water from the old, and middle Pits, began to emit a putrid smell, which has continued, and increased since.

The Waste Water is injuring the Boilers very much at all the Pits.

– Saturday 3^d. June 1815 –

The old Engine has gone rather better since 6 o ' Clock last night and the Water has lowered 8 In. this mg.

Discovered the Water going into

266.

or Clay.

– Sunday 4th. June 1815 –

The Engines have gone very well since yesterday Mornng. and the Water has lowered 11 Inches

Have been frequently interrupted by bad Air during the last two days in the Kenton Pit; but have reached the 5th. Coal Wall from the Lin^g. Mark this mornng.

The Water has fallen in all up

	Fa. feet.	In.
to this Mornng. -----	9 .. 3 .. 9	
Now in Pit -----	20 .. 5 .. 8	

267.

with the drifting in Kenton Pit from the Foulness coming off.

Have gone thro' another Coal Wall into an open Board, out of which the Foulness discharges very strongly – it seems to be mostly inflammable Air, from which I imagine that this opening communicates with the open waste leadg. to the Workings.

Tuesday

– Monday 6th. June 1815 –

The Water lowered 10 Inches last 24 Hours – the middle and old

the crevices of the Rock, in two places near Hatherwick's Mill – in Floods the intake of Water in these places must be very great

Ordered the large Threads in the Bed of the Burn to be rimed and wedged – afterwards to be covered with a lining of Chalk Ballast,

[Bud-44-2]

Since this day week the Water has lowered 5 feet 8 In.

– Monday 5th. June 1815 –

The Water lowered 9 Inches since yesterday. – the Engines have gone very well

Getting very slowly forw^d.

Engines have gone very well, but one of the Far Pit Boilers burst which crippled the Engine a good deal.

So much Foulness continues to discharge into the Drift in

268.

the Kenton Pit, that the Men could not get into this Face all this day

I therefore determined to suspend out operations there for a few days to see if the Foulness will spend off. In the mean time the Air Funnel may be applied instead of the Air Pump, which under present Circumstances is I think better calculated to lift out the Foulness & will save the Expench of workg. the Pump.

The men may go to work at Walls-end, and 2 Deputies must remain to watch the Pit and observe what changes may take place

Have gotten the joints of the walling &c. of the Tail Race at Rennoldson's Mill pointed with Roman Cement, which will

[Bud-44-2]

269.

I expect effectually prevent the Water from getting in.

Began to secure the Bed of the Burn this Mg. near to Hatherwick's Mill in the two places where the Water seems to enter the Rock

Cleaned out the Bed of the Bn. and filled up the Fissures by scatg. Chalk Rubbish into them – the Bed of the Burn was also lined with the same material, after which a Stratum of Rubble was laid upon it; and finally the Bed of the B_n must be so levelled up by placing a Dam below the Fractures as to prevent the Water running over them in a torrent, by which I expect that

270.

our work will not be disturbed by any Flood.

Since Sunday last the 4th. Ins^t. the water has become more pure and the Engine Wrights think that it is not quite so destructive to the Leather of the Buckets &c.

– at the old Pit it is rather of a greenish hue.

– Wednesday 7th. June 1815 –

The Water lowered 6 In. last 24 Hours – the old Engine had a stop of 4 Hours to repair the Steam Valve.

The Foulness is standing near to the top of the Kentⁿ. Pit, but does not discharge into the Air.

The People are very

271.

impotent at this delay

– Thursday 8th. June 1815 –

The Kenton Pit has cleared so much

272.

During the last 24 Hours all the Engines have gone remarkably well and the Water lowered 11 Inches in

273.

to screw down the Piston Ring, and to graith the Air Pump Bucket &c.

The Venture Pit was discovered

this Mg. as to allow the People who were in attendance to go to the Face of the Drift

From this I am inclined to think that we have not yet got a free communication with the open part of the Waste which leads to the Work^s. I therefore thought it advisable to Set the Air Pump on again and attempt to proceed with the Drift. But as the Piston shank of the Pump is much worn I ordered it to be renewed with Iron – it will not therefore be ready ‘till tomorrow

[Bud-44-2]

the old Pit. But it lowered 23 In. in the Far Pit – it only lowered 2 In. in this Pit yesterday, and 7 the day before. From the irregularity in the lowering of the Water in this Pit I am inclined to think that it must be buoyed up by Compressed[^]<Air> and hope when the Pressure is a little more taken off that it will lower much more rapidly. And it is possible that the same cause may be operating to prevent the Water from lowerg. in the old Pit

The middle Pit Engine was stopped about 4 Hours this forenoon

to have run in at the Top, and filled herself up to within a few Fath^s. of the Surface, this mornng.

Plummed the S^o. Engine Pit
Fa. feet

Old Heaton – found her only 25 .. 4 deep to the Rubbish, with 6 feet 10 In. of Water upon it – above 12 Fa. of Rubish has gone down the Shaft since the 3^d. May – the Mornng. of the accident.

– Friday 9th. June 1815 –

The Engines have gone well – the Water has lowered 10 Inches – no progress made in the Kenton Pit Drift, as the Ventilation by the Air Pump will not clean the Drift

274.

– Saturday 10th. June 1815 –

The Water lowered 11 Inches last 24 Hours.

Left off working the Air Pump at the Kenton Pit, as it could not clean the Drift sufficiently to allow the Men to get to the Face.

– Sunday 11th. June 1815 –

Lowered the Water 13 In. – making
Fa. feet. In.

the whole reduction 10 .. 3 .. 5 – just about 20 Fathoms in the Pit

The Water in the Far Pit has lowered very irregularly, during the last two or three days – only about 10 feet is in the bottom this Mornng.

The Masons pointed up

275.

Fall of Water in old Pit Fa. feet. In.
up to 11th June 1815 --- 10 .. 3 .. 5

	1815 th	feet	In.	
June 12	---	0	..10	
	13	---	0 .. 9	
	14	--	} 0 .. 4	
	15	--		
	16	---	1 .. 1	
	17	---	1 .. 1	
	18	---	<u>0 ..11</u>	5 .. 0
Mo:	19	---	0 .. 9	
	20	---	0 .. 8½	
	21	---	0 ..10	
	22	---	1 .. 0½	
	23	---	0 .. 5½	
	24	---	0 .. 8	
	25	---	0 ..10	
Mo:	26	---	<u>0 ..10</u>	5 .. 3½

276.

– Tuesday 13th. June 1815 –

All the engines went with tolerable regularity from the 11th. to this afternoon, when the high Set Spears of the old Engine broke; or rather a joint slipped – below the bend in the Pumps. The Spear is not nearly so much injured by rubbing against the side of the Pumps at the crook in the Set as was expected.

The drift in the Kenton Pit continues Fou!.

The Water in the Far Pit rose 12 In. this Mornng. and very soon afterwards fell again 11 In. And as it appears to be agitated I expect that in a short time the compressed Air will discharge

more of the joints in the Walling & Rock at Rennoldson's Mill this mg. with Roman Cement.

[Bud-44-2]

27 --- 0 .. 6½
 28 --- 0 .. 3½
 29 --- 0 .. 9
 30 --- 1 .. 0
 July 1 --- 1 .. 0
 2 --- 1 .. 0 ----- 5 .. 5
 Forw^d. to Page 281. 13 .. 1 .. 1½

itself

277.

– Wednesday 14th. June 1815 –
 Could not get the broken Spears out of the old Pit high Set without drawing 3 of the Pumps

After this it was with the greatest difficulty that the Bucket could be gotten out – the whole day was occupied in these operations

The Foulness has discharged very strongly from the top of the Kenton Pit to day.

– Thursday 15th. June 1815 –
 Got the old Engine started again this Morning at 4 o' Clock.

– Sunday 18th. June 1815 –
 The Engines have all gone very well since Thursday, and the Water

[Bud-44-2]

278.

in the old Engine Pit is now so far below the middle Set Bucket door, as to allow the Clack to be changed

There is now only about 7½ feet of Water in the bottom of the high Pit. The Foulness seems to have been discharging itself thro' the water for several days past

Nothing more can be done in the Kenton Pit, as the discharge of Foulness still continues.

– Tuesday 20th. June 1815 –
 The middle and old Engines have gone constant, and well since Sunday; but the Boilers of the far Engine are in such a bad state that they cannot bear the strength of Steam requires to make the En. work above 5 or 6 Strokes P. min.

279.

The middle and W. Boilers are worn out, and must be replaced as soon as possible.

The compressed Air has been discharging thro' the water in the Far Pit for several days, in consequence of which the fall of the Water has been very irregular – it sometimes rose 9 In. or a Foot, and sometimes it fell 2 feet in the course of 24 hours – it was 6½ feet deep upon the Scaffold this Morning.

– Thursday 29th. June 1815 –
 The Engines have been frequently stopped by the bursting of Boilers &c. since the 20 Ins^t. – the Water has lowered as stated in Pa: 275

The Bottom of the high Pit seem dry this mornng. and as the machine Boiler will be ready by mondy. next

280.

the repairing of the Shaft will be commenced.

On an examination of the middle Boiler at the high Pit En: it is not found so bad as was expected – the

281.

Lowering of Water from Fa. feet. In.
 Page 275 ----- 10 .. 3 .. 5
 Mo: July 3^d. --- 0 .. 11
 4 --- 0 .. 4½
 5 --- 0 .. 8

282.

Bro^t. up ----- 16 .. 5 .. 1½
 Mo: 24th. July – 0 .. 1
 25 ----- 0 .. 7
 26 ----- 0 .. 8½
 27 ----- 1 .. 9½

long Plates & about $\frac{2}{3}$ ^{ds}. of the Bottom and Lagon are good. It seems though most advisable to repair the Boiler in her Seat, for which purpose two Shifts of Smiths must be employed.

– Sunday 2^d. July 1815 –

The Engines have gone very regularly since Thursday last – but slow, as both the old & Far Pits are working with two Boilers.

The Far Pit Engine is now ready so that the repairs of the Shaft will begin tomorrow.

[Bud-44-2]

	6	----	1 .. 2	
	7	----	1 .. 1	
	8	----	0 .. 11	
Sunday	9	----	1 .. 0	<u>1 .. 0 .. 1½</u>
Mo:	10	----	0 .. 11½	14 .. 1 .. 3
	11	----	1 .. 10	
	12	----	1 .. 10½	
	13	----	1 .. 4	
	14	----	1 .. 6	
	15	----	2 .. 2	
Sunday	16	----	<u>1 .. 6</u>	<u>1 .. 2 .. 2</u>
	17	----	1 .. 10	15 .. 3 .. 5
	18	----	.. 3½	
	19	----	2 .. 3	
	20	----	1 .. 7	
	21	----	1 .. –	
	22	----	<u>1 .. 1</u>	
			8 .. 0½	
	23	----	1 .. 4	<u>1 .. 1 .. 8½</u>
				16 .. 5 .. 1½

	28	----	1 .. 6½	
	29	----	1 .. 1	
Sunday	30	Neither rose nor fell	<u>5 .. 9½</u>	
Mo:	31	Neither rose nor fell	17 .. 4 .. 11	
Tu Aug.	1	– Fell –	0 .. 5	
	2	– d ^o .	<u>– 1 .. 6</u>	
			1 .. 11	
	3	– rose	<u>1 .. –</u>	
			11	
	4	– Fell –	1 .. 3½	
	5	– d ^o .	– 0 .. 5	
Sundy.	6	– d ^o .	<u>– 0 .. 3½</u>	<u>0 .. 2 .. 11</u>
				18 .. 1 .. 10
	7	– d ^o .	– 1 .. 2	
	8	– d ^o .	– 0 .. 7	
	9	– d ^o .	– 0 .. 4	
	10	– d ^o .	– 0 .. 4	
	11	– d ^o .	– 0 .. 8½	
	12	– d ^o .	<u>– 0 .. 11</u>	
			4 .. 0½	
Sundy.	13	– Rose	<u>– .. 11</u>	<u>3 .. 1½</u>
		Total Fall		18 .. 4 .. 11½
		Pa. 289.		

283.

– Saturday 8th. July 1815 –

The Water being below the middle Set Clack Door, in the old Pit this mg. all the dropt Clacks were gotten out and a new clack fixed properly in the Seat. The low Set Spears were also drawn, but the Bucket had slipped off – the Engine was set to work Full Stroke.

– Sunday 9th. July 1815 –

A new Bucket was put into the low Set of the old Engine this mg. – the old one still remaining

284.

– Sunday 15th. July 1815 –

The Far Pit Engine has gone very little this Week, on account of the badness of the Boilers; but the thorough repair of the middle one being completed & the other two being cleaned & repaired in a temporary way, the Engine got to work again last Night. The middle Engine has also gone very indifferently all the Week from the bad state of the Boilers, notwithstanding
F. In.

285.

Drift to be set away in the Stentg. Wall of the N. winning Head^s. and another in the old Rolly-way Headway.

Two West Jenkins must also be driven in the 4th. & 6th. N. Walls out of the N. wing. Head^s. Drift back W.

into the ^ N. Drift in the ^ Barrier

When this is completed, the Air Course will be much improved, & by turning it so as to put the first of the Air into the E. Drifts

in. The Set drew very well, but for a while at first the water came off very black, and thick It is to be hoped that the old Bk^t. will come out when, the clack has to be changed.

[Bud-44-2]

which the Water has lowered 8 .. 2 in 7 days

Begun to clean out the N.E. Creep Drifts in the Far Pit last Mondy. Examined the State of the Drifts &c. on Tuesday, and, found them much crept & the Wall Sides shaken. Ordered a N.

and return it by the Barrier Jenk^s. it is possible that the Furnace may be used, and part of the E. Drifts at least driven with Candles The Roof to the W. of the Shaft is much broken since the Water rose in this Pit.

286.

– Sunday 22^d. July 1815 –
The Water has lowered this week F. In.
8 .. 8½ – see Page 281. but during the last 24 Hours it rose 4 Inches.
This I conceive to be occasioned by the compressed Air in the rise work^s. the elasticity of which seems to be equal to the Support of a column Fa^s. feet
of Water 13 .. 4 high.

From this circumstance it is to be expected that when the column of Water is lessened by the operation of the Engines, that a violent eruption of inflammable Air will take place. The Engine Wrights &c. must therefore be particularly guarded and the Buckets, and Clacks must be changed in the Dark.

[Bud-44-2]

287.

– Sunday 29th. July 1815 –
F. In.
The Water has lowered 5 .. 9½ this Week – see Pa. 282. – the Engines have gone uniformly well, the Water is undoubtedly born up by the Air but it remains, as yet, quite still in the Surface.

– Thursday 3^d. Aug^t. 1815 –
The Water rose 1 foot, last 24 hours – during this time the middle Pit Engine stood 12 Hours, while the low clack was changed, and the old Pit Engine stood 4 hours – changed Buckets.

– Sunday 6th. Aug^t. 1815 –
F. In.
The Water fell in all this week 2 .. 11 – the Engines have gone as well as usual all the Week, except Thursdy. when the middle Pit Engine Stood

288.

8 Hours while the low Clack was changed, and the old Engine Stood 5 Hours – changed Buckets &c.
The Water must continue to be borne up by the compressed Air.
The middle Pit Boilers are now all in good repair, and the Smiths have begun to repair the W. Boiler at the Far Pit Engine.

– Sunday 13th. Aug^t. 1815 –
For the last Fortnight the Water has lowered very slowly, altho' the Engines have gone very well
The Water has taken off considerably at the Holes in the Far Pit – altho' they have been widened the Engine can draw the water in 15 hours a Day – going 4 and 5 Strokes P. Minute.

289.

	Fa. feet	In.
Fall of water from Pa. 282	18 .. 4	.. 11½
1815		

290.

Sep. 2 ^d . Depth of Water in	} Fa. feet	In.
old Pit this mg.		
Sunday 3 ^d . Sep – lowered	7 .. 1	1
	0 .. 0	6

291.

– Sunday 20th. Aug^t. 1815 –
The Water has fallen 12 feet /6½ this Week, altho' the Engines have not

Mo:	14	am	-	fell	-	1..	10½
	15	--		d ^o .	-	1..	7
	16	--		d ^o .	-	1..	8
	17	--		d ^o .	-	2..	0
	18	--		d ^o .	-	2..	2
	19	--		d ^o .	-	0..	9
Sunday	20	--		d ^o .	-	2..	6
						2 ..	0 .. 6½
						20 ..	5 .. 6
	21	--		d ^o .	-	1..	3
	22	-		Rose	-	1..	1
						0..	2
	23	--		Fell	-	0..	3
	24	--		d ^o .	-	1..	4
	25	--		d ^o .	-	0..	2½
	26	--		d ^o .	-	1..	6
Sunday	27	--		d ^o .	-	2..	5
						..	6 .. 10½
						22 ..	0 .. 6½
	28	--		d ^o .	-	2..	3
	29	--		d ^o .	-	1..	10
	30	--		d ^o .	-	2..	2
	31	--		d ^o .	-	2..	0
Sep.	1	--		d ^o .	-	1..	8½
	2	--		d ^o .	-	1..	2½ *
Sunday	3	--		d ^o .	-	0..	6
						1 ..	5 .. 8
						24 ..	0 .. 0½

* Plumbed the Water in the old Pit this
Fa. feet. In.

Mg. and found the depth 7 .. 1 .. 1

[Bud-44-2]

						7 ..	0 ..	7
	Water in old Pit	--						
Sep 4 th .	lowered	-		1..	1			
	5	--		d ^o .	--	1..	10	
	6	--		d ^o .	--	1..	0	
	7	--		d ^o .	--	1..	5	
	8	--		d ^o .	--	1..	11	
	9	--		d ^o .	--	1..	8½	
	10	--		d ^o .	--	1..	7	0 .. 5 .. 6½
Sunday	- In old Pit	-----				6 ..	1 ..	0½
	11	Lowered	-		0..	3½		
	12	--		d ^o .	--	0..	8½	
	13	--		d ^o .	--	0..	6	
	14	--		d ^o .	--	0..	9½	
						2..	3½	
	15	-		Rose	-	0..	3½	
						2..	0	
	16	Stationary	-		-			
	17	lowered	-		0..	9½	0 .. 2 ..	9½
Sunday	- In old Pit	-----				5 ..	4 ..	3

gone better than usual. No change in the Water, except that it is something less corrosive – it begins to Furr the Boilers &c. a little again.

- Monday 21st. Aug^t. 1815 -
Clack

The low Set ~~Bucket~~ of the old Engine went off this morning. and all endeavours to draw it, owing to the dropped Bucket lying upon it Failing – were under the necessity of dropping a Clack. This shortened the Stroke of the Engine 10 Inches.

The Engine was Stopped 10 ~~Inches~~ Hours on this occasion, during

292.

during which time the Water rose 21 Inches; altho' the middle Pit En. went all the time without losing a Stroke.

After the old Engine started again, the Water lowered 8 In. in 10 Hours.

293.

- Sunday 27th. Aug^t. 1815 -
F. In.

The Water has lowered 6 .. 18½ this
Fa. feet.

week – there is now about 9 .. 2½ in the old Pit, and 3 Fa. in the middle Pit.

294.

was Shortened about 8 Inches.

When the Engine Wrights went down the Pit to put in the new Bucket, they observed the Water in the Pit to be very much disturbed and the Air discharging thro' it with great Force.

The Water has taken almost entirely off at the Bore-holes in the Far Pit.

– Thursday 24th. Aug^t. 1815 –

The dropped Clack of the Low Set, old Engine, went down thro' the Barrel this Evening. Another Clack was dropped upon it, and the En: set away again after a Stop of 7 or 8 Hours.

[Bud-44-2]

The Bore-holes in the Far Pit, are now nearly quite dry.

– Sunday 3^d. Sep: 1815 –

The Engines have gone with great regularity all this Week, and the

F. In.

Water lowered 11 .. 8, but early this Mornng. the low Set Bucket of the middle Pit, dropped, the Shank having broke. It fell upon the Ring of the Clack, but it was not thought prudent to lose any time in endeavouring to draw it – a new one was therefore put in, but the Stroke of the Engine

compressed

As the ^ Air has begun to come off in this manner, I don't expect that any eruption will take place.

– Sunday 10th. Sep: 1815 –

The Engines have gone with their usual regularity this week but

F. In.

the water has lowered only 5 .. 6½ – see Pa. 290.

On Tuesday the 5th. The noise of the Air discharging ceased at the middle Pit, and has since been

295.

silent.

– Tuesday 12th. Sep: 1815 –

Down the Far Pit – the 1st. of the Air being taken along the N.E. Jenkins, has cleaned them very much in the face and the Men now work with comparative comfort. But the return is still very Foul. The great bulk of Foulness evidently proceeds from the Eastward of the N. Headway's Jenkins.

The Jenkins are now 14 Winnings in to the North.

The Feeder of water from the N. Bore holes is very

296.

trifling

Jo^s. & Tho^s. Smith went down the middle Pit – the two bottom Lengths of the Shaft Brattice are washed out but the most of the deals are standing in the Shaft.

There appeared to be upwards of 2 feet of water in the Bottom, with a good deal of Sludge.

The water was not Striking against the Roof nor making any noise, but they observed it move from the W. Side of the Shaft every Stroke of the Engine

297.

Sunday 17th. Sep. In old Pit this mg. } Fa. feet In.
see Page 290 – ----- } 5 .. 4 .. 3

Sep. 18th. -- Fell – 0.. 9

19 --- d^o. – 0.. 6

20 --- d^o. – 0.. 3½

21 --- d^o. – 0.. 6

22 --- d^o. – stationary

23 – lowered – 0..10

24 --- d^o. – 0.. 3 0 .. 3 .. 1

Sunday in the Pit ----- } 5 .. 1 .. 1½

25 – lowered – 0.. 5

26 --- d^o. – 0.. 2½

27 --- d^o. – 0.. 4½

28 --- d^o. – 0.. 3½

29 --- d^o. – 0.. 2½

30 --- stationary –

Oct^r.. 1st. – lowered 0 .. 3 0 .. 1 .. 9

Sunday – in the Pit ----- } 5 .. 1 .. 4½

2^d. – lowered – 0.. 5

3^d. --- d^o. – 0.. 3½

[Bud-44-2]

4	----	d ^o .	- 0..	4½	
5	----	d ^o .	- 0..	1	
6	----	d ^o .	- 0..	1½	
7	----	d ^o .	- 0..	2½	
8	----	d ^o .	- 0..	6½	<u>0 .. 2 .. 0½</u>
Sunday – in the Pit -----					4 .. 3 .. 4

298.

– Thursday 14th. Sep: 1815 –
 The Water lowered upwards of 2 feet in the middle Pit, this mg. although it had only lowered 9½ In. in the old Pit – the Thill was bare at middle Pit Shaft which allowed an examinatioⁿ. of the Ingates – that on the W. Side of the Shaft was open, but that on the East Side was completely choked up with Rubbish.

The water lowered differently in the two Pits, is indicative of the passage between them being interrupted

About 7 o ' Clock this Evening the low Clack of the middle Pit Engine went off. Measures were immediately taken for drawing the dropped Bucket (Pa. 293) and it was

[Bud-44-2]

299.

looked, but on attempting to draw it the Crab Rope broke – at the Crab, and fell down the Pit. Fortunately no injury was done altho' 4 Men were in the Shaft – this happened about 4 o ' Clock in the Morning.

– Friday 15th. Sep: 1815 –
 The dropped Bucket, as well as the Clack were fortunately gotten out of the middle Pit low-Set and the Engine set to work again at 7 o ' Clock this Evening

– Sunday 17th. Sep: 1815 –
 F. In.
 The Water lowered 2 .. 9½ this week
 Fa. feet. In.
 and 5 .. 4 .. 3 remained in the old Pit this Morning

300.

– Tuesday 19th. Sep: 1815 –
 The **D** Pit Engine Struck the Water down in the Sump at 7 o ' Clock this Evening. The Engine stood 5 Men and Struck the Water down again in 20 Minutes

The Engine was then allowed to Stand for 30 minutes after which she went very well 'till 11 o ' Clock without striking the Water down when the middle North Bucket went off.

From the striking down of the Water it is but too evident that the Water-level Drift out of the Sump is interrupted.

– Wednesday 20th. Sep: 1815 –
 The **D** Pit Engine struck the Water down frequently thro' the course of this day.

301.

– Thursday 21st. Sep: 1815 –
 Jo^s. Smith got down the **D** Sump this Mg. when the Water was down – scarcely any Water is coming out of the W. Drift – all the Feeder which comes to the Engine is out of this

302.

– this is as Far as we can get for Water
 The Furnace arch and Walls are entirely washed down to the level of the Grate, and all about the Shaft is a compl^t.

303.

to keep her going more than 6½ Strokes P. min. since Tuesdy. last and at that rate of going Strikes the Water down 4 or 5 times a day. It must therefore be drawn off to nearly as low a level

E. Drift.

– Friday 22^d. Sep: 1815 –

Down the **D** Pit this morn^g.
The Sump is very much shattered, and filled with rubbish above the snore holes of the pumps

The Ingates on the North and E Sides of the Shaft are completed closed up with Rubb. The S^o. Headways as far as the W. Jenkin – 7 Winn^s. is open, but much Fallen

[Bud-44-2]

scene of ruin

The first thing to be done is to clean out the Sump, & make it safe to work in – the botttom Length of Brattice must then be repaired, and an attempt made to Force the Ait thro' the W. water Level Drift to the 1st. Staple

– Sunday 24th. Sep: 1815 –

F. In.

The water has lowered 3 .. 1½ this week, and the middle Pit Engine has not had Water

as the **D** Pit En: can at Present reach.

– Tuesday 26th. Sep: 1815 –

Finished the repairing and cleang. out of the D Pit Sump.

– Sunday 1st. Oct^r. 1815 –

F. In.

The Water has lowered 1 .. 9 this week altho' the **D** Pit Engine stood 13 Hours on Friday for repairs – this Engine draws the Feeders which can get to the Sump – going at the rate of 6½ Strokes P. Min. The Sump

304.

and Brattice being repaired, tried to force the Air thro' the W. water Level Drift – from the Sump to the 1st. Staple, last Wed: but could not succeed. I therefore decided to rid out the N. Head^s. from the Engine Shaft, with a view to getting the Air forced round to the N. & W. so as to enable us to get to the Staples

– Tuesday 3^d. Oct^r. 1815 –

Down the middle (**D**) Pit. The N. Head^s. is now ridded out for 35 yd^s. from the Shaft – it is still quite close being completely filled with the small Coals & Stones, which have been wro^t. out of the water Level Drifts, and Stowed in the mg^t. and Boards W. of the Shaft. From

305.

the torrent of water has forced them It now seems very clear that the **D** Pit Engine is drawing all the Waste Feeders, and that the old Pit Engine is drawing the West Way, or S^o. Heaton Water

– Thursday & Fridy. 5 & 6 Oct^r.

Occupied these two days in adopting the travelling Engine to draw the Rubbish with Chains at the middle Pit –

– got it to answer completely

– Saturday 7th. Oct^r. 1815 –

Resumed the ridding in the **D** Pit

– Sunday 8th. Oct^r. 1815 –

F. In.

The Water has lowered 2 .. 0½ in the old Pit this week – See Page 297.

306.

1815 Fa. feet In.

Oct^r. 8th. Sep. In old Pit this mg. 4 .. 3 .. 4

Oct^r. 9th. – lowered – 0.. 2¼

10 ---- d^o. -- 0.. 0½

11 ---- d^o. -- 0.. 0

12 Stationary – .. 5

13 -- Fell -- -- .. 4

11¾

14 – Rose --- -- .. 1

0.. 10¾

15 -- Fell -- -- 0.. 6 0 .. 1 .. 5¾

Sunday – in the Pit ----- 4 .. 1 .. 10¼

Oct^r. 16 -- Fell --- 0.. 2

17 -- d^o. --- 0.. 3¼

18 -- d^o. --- 0.. 5

19 -- d^o. --- 0.. 0½

20 -- d^o. --- 0.. 1

21 -- d^o. --- 0.. 5½

22 -- d^o. --- 0.. 6 0 .. 1 .. 11¼

Sunday – in the Pit ----- 4 .. 5 .. 11

Oct^r. 23 -- Fell --- 0.. 2

24 -----

[Bud-44-2]

25	--	Fell	---	--	..	1		
26	--	d ^o .	---	---	0..	9		
27	--	d ^o .	---	---	0..	3		
28	--	d ^o .	---	---	0..	7		
29	--	d ^o .	---	---	0..	1	0..	1..11
Sunday	-- in the Pit					---	3..	4..0
Forw ^d .	to Pa 311.							

307.

– Tuesday 10th. Oct^r. 1815 –
 Down the Far Pit – was enabled
 to take Candles all round the
 Pit, and into the last return of
 the Air at the Furnace. Deter-
 mined to light the Furnace as
 soon as all can be got ready
 The North Head^s. Jenkins
 are promising – the Roof is
 good – Post – and the Coal less
 crushed than might be expected
 – are now nearly 15 Winng^s. in.
 Have found Stowage in the
 middle Pit, and are getting very
 well forw^d. In ridding to the
 Westward.
 – Thursday 12th. Oct^r. 1815 –
 Lighted the Far Pit Furnace

[Bud-44-2]

308.

this Mg. without difficulty.
 The return of the Air must
 be carefully attended to and in
 case of it's turning heavy, it
 must immediately be mixed off
 by a Scale from the first of
 the Air, for which purpose a
 door is properly adopted on the
 W. Side of the Shaft.
 When the Furnace is thorough-
 ly under way, the Engine may
 be laid off.
 – Saturday 14th. Oct^r. 1815 –
 The Water has lowered little
 for two or three days at the
 old Pit, owing to the badness
 of the Boilers
 Have gotten to the tail
 of the Water in the middle

309.

Pit – it is to the W. of the 2^d.
 En. Staple.
 – Monday 16th. Oct^r. 1815 –
 No Foulness of consequence has
 yet appeared upon the Far Pit
 Furnace – the return of the Air
 continues in a very uniform
 State.
 Commenced the ridding out
 of the W. mothergate in the mid-
 dle Pit, with a view to get
 to the First Stap. – to endeavour
 to let off the Water from the
 West Swelly.
 – Satdy. 28th. Oct^r. 1815 –
 Have been employed since the
 16th. Ins^t. in ridding a way to
 the 1st. Stap. and in clearing
 it out – it was filled completely

310.

up with rubbish. The water-
 level drift is open from the En.
 Sump to the Stap: but to the
 West of the Stap. the drift is
crept nearly close.
 The Water has lowered during

311.

						Fa. feet	In.
	In Pit from Pa. 306	---	---	---	---	4 ..	3 .. 4
Oct ^r .	30	--	Fell	---	0..	5½	
	31	--	d ^o .	---	0..	5	
Nov.	1	--	d ^o .	---	0..	3	
	2	--	d ^o .	---	0..	4½	
	3	--	d ^o .	---	0..	4	

312.

	In Pit	---	---	---	---	2 ..	3 ..	11	
Nov.	20	--	Fell	---	0..	1			
	21	--	d ^o .	---	0..	3			
						0..	4		
	22	--	rose	---	0..	1			
						0..	3		

the last 14 days as stated in Pa.
306 – 311.

– Tuesday 31: Oct^r. 1815 –

Examined the State of the En.
level drift, to the W. of the 1st.

Stap. the brick Arch is so con-
tracted, and the flooring so much
hoben, as not to admit of a
man's body to enter. From the
hushing of the Water there ap-
pears to be a stoppage in
the drift within a few yards
of the Staple. Fo. 313.

[Bud-44-2]

	4 -- d ^o .-- -- 0.. 6¼			
	5 -- d ^o .-- -- 0.. 8	0 .. 3 .. 0½		
Sunday – in the Pit –	-----	3 .. 0 .. 11½		
	5 -- Rose -----	4½		
		3 .. 1 .. 4		
	7 -- Fell --- 0.. 7			
	8 -- d ^o .-- -- 0.. 4½			
	9 -- d ^o .-- -- 0.. 3½			
	10 -- d ^o .-- -- 0.. 3½			
	11 -- d ^o .-- -- 0.. 2			
	12 -- d ^o .-- -- 0.. 5	0 .. 2 .. 1½		
Sunday – in the Pit –	-----	2 .. 5 .. 2½		
	13 -- Fell --- 0.. 4	4		
		2 .. 4 .. 10½		
	14 -- Rose -----	0 .. 0 .. 7		
	15 -- Fell --- 0.. 6	2 .. 5 .. 5½		
	16 -- d ^o .-- -- 0.. 2			
	17 -- d ^o .-- -- 0.. 4½			
	18 -- d ^o .-- -- 0.. 4			
	19 -- d ^o .-- -- 0.. 2	0 .. 1 .. 6½		
Sunday – in the Pit –	-----	2 .. 3 .. 11		

	23 -- Fell ---- 0.. 6			
	24 -- d ^o .---- 0.. 6			
	25 -- d ^o .---- 0.. 6			
	26 -- d ^o .---- 0.. 5	0 .. 2 .. 2		
Sunday – in the Pit –	-----	2 .. 1 .. 9		
	27 -- Fell --- 0.. 2			
	28 -- d ^o .---- 0.. 6			
	29 -- d ^o .---- 0.. 3			
	30 -- d ^o .---- 0.. 3½			
Decemb 1 -- d ^o .----	0.. 6			
	2 -- d ^o .---- 0.. 6	0 .. 2 .. 8½		
		1 .. 5 .. 0½		
	Error in measurement ^t . as proved by putting a lath down the Pit -----	}		0 .. 1 .. 6
Sunday – in the Pit –	-----			– .. 12 .. 6½
Nov. 4 Stationary				
	5 – lowered -- 0.. 4			
	6 -- d ^o .-- -- 0.. 4½			
	7 -- d ^o .-- -- 0.. 7			
	8 -- d ^o .-- -- 0.. 5			
	9 -- d ^o .-- -- 0.. 9			
	10 -- d ^o .-- -- 0.. 5½	– .. 2 .. 11		
Sunday – in the Pit –	-----			.. 9 .. 7½

313.

There is evidently a Stoppage in
the drift between the 1st. and 2^d.
Staples, as the water is standing
9 feet deep in the 2^d. Stap.

Could only travel about 30
yards beyond the W. Stap. for
want of Air – the Foulness is
very strong – it seems to be
Styth only, as when taken up
in a Bottle it would not Fire.

I decided upon the complete

314.

Went to the East^d. of the Shaft
as far as I could get – about 2½
Pillars – the workings are com-
pletely closed by the swelling of
the thill. The flooring of the
Stable Boards is hove up against
the Roof.

Determined to rid away to
the 1st. E. Stap. with a view of
intercepting the N. Feeders of
Water, and turning them to the

315.

middle Pit Engine could draw
the middle of them at this time
– Friday 3^d. Oct^r. [Nov.] 1815 –
Reached the Stoppage in the W.
drift from the 1st. Stap. **D** Pit
at 4 o ' Clock this mornng. – it
is 11 yards from the Stap.

In a short time more water
was set off to the Engine than
she could draw with 2 Boilers
– 9 Strokes P. min. The 3^d. Boiler

renovation of the drift as far as it may be necessary – the Brick Walls and rubbish to be ridded out & the drift to be secured with planks – 3 feet square – inside Pit Plank of Scotch Firr will be the cheapest [Bud-44-2]

middle Pit Engine. This would greatly relieve the old Engine
It is an encouraging circumstance to find that the late heavy Rains have not increased the Colliery Feeders – if they could be collected the

was set on with all speed & the speed of the En: increased to 12 Strokes a minute
– Saturday 4th. Oct^r. [Nov.] 1815 –
The middle Pit Engine very soon struck the water down this morn^g. and keeps the

316.

Feeders with the same going as before – scarcely 5 Strokes P. minute.

Ordered an attempt to be made to force the Air thro' the Swelly, and round by the Jenkins. The Water is entirely run off at the 2^d. Stap. and the feeder has a free passage thro' it from the westward.

– Monday 5th. Nov. 1815 –

The Air found in a passage thro' the Swelly & round by the Jenks^s. in the **D** Pit. This enabled the Men to get to the end of the En. level drift – they found it nearly choked up with rubb. and timber The water is

[Bud-44-2]

317.

2 feet below the roof in the Swelly
M^r. Potts & myself met Col. Pullien at the Colliery with M^r. Watson. Our object was to obtain an abatement of the Colly. Rent from the time the accident happened 'till she may be at work again.

Col. P. seemed inclined to grant some amelioration, but wished first to know what S^r. T. H. Liddell Br^t. [ap^r.] would do.

– Tuesday 6th. Nov. 1815 –

The mouth of the Water level drift is so much choked up at the mouth where it enters the Swelly, that the water cannot be lowered any further, without incurring a great expence and

318.

delay of time in cleaning out the Drift; and as there is about 2 feet Air way above the water in the Swelly I don't think it necessary to spend any more time in clearing out the drift until we ascertain whether we can force the Air round the workings or not. This may be most conveniently done next Saturday night and Sunday. In the mean time the men must be employed in drifting down towards the 2^d. East Staple with a view of intercepting the North Feeders and bringing them into the middle Pit En. Sump

– Monday 13th. Nov. 1815 –

All was put right on Satdy.

319.

evening for forcing the Air round the West workings from the **D** Pit but it was first thought right to put it round by the Jenkins 17 Pill. W. as was done on the 5th. ins^t. but after percevering with a heavy

320.

could not get the low Set Clack of the old Engine out, which went off this mg. after 11 hours fruitless endeavours to draw it they were obliged to drop one upon it which shortened the Stroke of the engine

321.

creep is very close here – the following Stone is thinning so that I hope we shall get a post cover soon.

The Air course is very good, and it does not seem that

water fall 'till this mg. it could not be done, & the foulness – Styth backing out very strong to the Shaft

As yet I feel at a loss to account for this – whether it may be occasioned by a stoppage in the Air course, or by the state of the weather, which has been very boisterous with a S^o. W. wind I don't know. The barometer has been at 28.6 all this day & several Pits in the neighbourhood have been laid off work, by Foulness discharging. The En. Wrights

[Bud-44-2]

9 Inches.

– Tuesday 14th. Nov. 1815 –

Examined the proceedings in the Far Pit, which I found upon the whole in a very fair state. the N. head^s. Jenkins have reached the 22^d. board which is just thro' the stowed barrier. They are entering the Swelly, but I hope there will be level enough to let off the water so as to allow the drifts to pass without having much Stone to take down. The

so much Foulness has come off during the last two or three days as might have been expected considering the light state of the atmosphere

There is now about 40 Keels of Coals at this Pit & as the Ship owners do not seem to like them @ 24/- we must endeavour to get them off to the Yarmouth Men @ 21/-

Down the middle Pit – a great quantity of Foulness is still coming off from all quarters of this Pit. The Air will not

322.

yet lift it further W. than the 2^d. Strap.

Decided to rid out the N.E. wing. Head^s. from the Shaft, to the level B_d North to ascertain whether the N. Way Feeders are still coming down the Stone drift at the dyke & to see the state of the levels &c. – this will enable us to form a better judgment how to proceed, to get the Feeder conveyed to the Engine.

– Saturday 18th. Nov. 1815 –

Got ridded out to the level B^d. North of the D Pit Shaft, but the levels as well as the board were entirely filled with rubbish and no water to be seen. Were enabled to proceed along the even

323.

on N.W. wing. Head^s. to the dyke where a part of the N. way Feeder was coming out, but it disappeared amongst the rubbish and could not be traced which way it went

A search must be made in the bottom of the levels near the place where the water disappears, as I suspect it must be finding a passage along the levels thro' the rubbish. In this case a dam must be put into the levels which will I think turn the water to the west^d. by which means it may be conveyed into the 1st. W. Stap.

– Saturday 25th. Nov. 1815 –

On Sinking down in the levels North from the middle, Pit Shaft, the

324.

water was found in the bottom of them, a dam was put in but it could not be made tight, on account of the cracks & fissures in the Thill. It was therefore decided to open out the level board by taking a Jud off the North Wall side with a view to reach the 2^d. Staple as soon as possible – the distance will be about 100 Yards.

– Tuesday 28th. Nov. 1815 –

Examined the State of the middle Pit this morning, the level Board is now opened out about 10 yards – the board is quite close – it had been filled by the rubbish from the levels which the heaving of the thill has pressed to a hard body

Got along the W. wing. Head^s. to the dyke & saw the Feeder of

325.

water coming down the old rolly way cut – it appears to be about 9 Gall^s. P. minute, but there seems to be a great deal more in the back headways. It is practicable to convey the greatest part of the Feeder to the Shaft by wooden boxes – the Air boxes in the Kenton Pit, would answer the purpose; an effort must therefore be made to get them out of the drift & the tram way plates of which there is a great want in the Far Pit may be taken out at the same time. Before this can be attempted the Air Pump must be repaired; at the same time the opening out of the level Board must be pursued unremittingly – to get better forward with it, it

326.

must be let – 2/ 6 P. yard will be a fair price without the Coals – the Owners to find millers.

Made an attempt to go West to the Swelly, but could not get further than the 1st. Pump, on account of the great body of Styth, which has remained Stationary for upwards of a fortnight, altho' the whole pressure of Air is upon it. I took down the bearing Stopping at the 2^d. Stap. which gave the current of Air a free passage & improved the ventilation round the Shaft very much.

Down the **E**, Pit – got into all the W. jenkins with Candles and found them so clean, and the pressure of Fresh Air so decidedly towards the N.W. (from the Men)

327.

as to justify me in ordering these places to be wro^t. with Candles

Also ordered the jenkins to be laid out wide; by this we shall get rid of the yard Price, and the Coals will be wro^t. much rounder. The hewing in the jenkins will now be at the ordinary Score price – Say 3/- P. xx.

– Tuesday 5th. Dec. 1815 –

The jekin in the middle Pit level Board is now a Pillar & a half down, and the water is standing level with the thill; this does not look well as it rather appears as if the water was stopped back further East. It is also indicative of the Engine level drift being stopped to the East of the Shaft.

– Wednesday 6th. Dec. 1815 –

Examined the engine level drift out of the E. Side of the **D** Pit; found

328.

it opened and in good repair to the 1st. Stap: which is as far as it could be travelled for want of Air; but there appears to be a stoppage in it, a little to the E. of the Stap. – most likely at the trouble.

The 1st. Stap: appears to be open to the top, I therefore decided to rid a way to it from the level board, to enable us to rid out the drift in case of need.

329.

Dec 10 In old Pit from.	}	feet	In.
see Page 312 – – –		9 .. 7½	
11 th . – – rose – – –		0..	2
12 – lowered – – –		0..	2
13 – – D ^o . – – – –		0..	3
14 – – d ^o . – – – –		0..	1
15 – – d ^o . – – – –		0..	2
16 – – d ^o . – – – –		0..	4
17 – – d ^o . – – – –		<u>0..</u>	<u>3</u>
Sunday – in the Pit – – – – –			<u>1 .. 1</u>
18 th . – lowered – –		0..	6
			8 .. 6½

330.

– Saturday 9th. Dec. 1815 –
M^r. Pearson was not at the meetg. yesterday; but agreed to the arrangements made with M^r. potts this mg.

– Sunday 10th. Dec. 1815 –

The low Set Clack at the old Pit went off this mornng. and after persevering for 20 hours in endeavouring to draw it were obliged to give it up, and drop a Clack upon it. This shortened the Stroke

– Friday 8th. Dec. 1815 –

A meeting of the C^o. took place at loftus's this mg. present M^r. Potts M^r. Johnson, M^r. G. Fenwich, M^r. Geo. Featherstonhaugh and Jn^o. Buddle

M^r. Potts agreed to advance £5000 to carry on the Concern, as required on condition of being allowed £200 a year additional Salary, making him in all £500. for which he is to manage both fitting & Colliery agency

[Bud-44-2]

19 -- d^o.----- 0.. 3
20 -- d^o.----- 0.. 4½
21 -- d^o.----- 0.. 5
22 -- d^o.----- 0.. 5½
23 -- d^o.----- 0.. 1
24 -- d^o.----- 0.. 2

2 .. 3
6.. 3½

Sunday By measurement
found the depth of water
on the Scaff^d. This mg. to be 5..11

Mo: 25th. – lowered -- 0..11

26 -- d^o.----- 0.. 4

27 – Stationary -----

28 – lowered --- 1.. 2

29 -- d^o.----- 0.. 6

30 -- d^o.----- 1.. 3

31 -- d^o.----- 1.. 2_ 5 .. 4

On the Scaffold this morn^g. --- - .. 7

of the Engine 11 Inches

– Monday 11th. Dec. 1815 –

The water had risen 2 In. this mg. in consequence of the long stop of the Engine yesterday. In a few hours after the En. Started dropped the low bucket, in drawing of which the hoop & Leather slipped

331.

off and could not be gotten out – this occasioned a great Stap.

– Tuesday 12th. Dec. 1815 –

The water was at the same level this morn^g. as on Sunday Mg.

The Bucket-tree of the high set – old Engine Split, but it was speedily hooped again.

– Wednesday 13th. Dec. 1815 –

The high wind last night made the air so bad in the middle pit as to prevent the men from work^g. in the E. water-level jenkins, all night and a great part of this day but they were enabled to get into the Face again in the Eveng.

– they are now pretty far advanced in the 3^d. Pillar.

332.

middle Pit E. jenkins yesterday, I therefore decided to cut levels from the 1st. E. Staple into the water levels from the N. – about 38 yards with a view to intercept the water in it's passage to the Eastw^d.

I examined the Situation of the Staple &c. this morn^g. and have every reason to expect that the above plan may succeed.

A great quantity of Styth or [arate] is now discharging from the East^d. I think it is the latter as it extinguishes the Candles at the roof

– Monday 18th. Dec. 1815 –

The high Set bucket-tree of the old Engine Split further yesterday mg.

333.

levels into the Staple at the middle Pit. The low Set Clack of the old Engine went off this afternoon, but fortunately it was readily gotten out together with the Bucket heap & [leather] which had been dropped upon it.

– Saturday 23^d. Dec. 1815 –

Occupied all this week in the middle Pit, in deepening the cross level from the 1st. E. Stap: to the main level, with a view to get all the N. Feeders to the Engine; but they do not seem to come so freely as could be wished. I am apprehensive that they escape the levels & drift, by some cracks & openings in the thill.

As the water may very soon

– Friday 15th. Dec. 1815 –
From the unsettled state of the weather little could be done in the

[Bud-44-2]

which occasioned a considerable stop of the Engine, and in consequence the water had risen 2 Inches this mg. Got a part of the water from the

be expected to be below the roof at the old Pit, the men which have been employed at the levels

334.

in the middle Pit, must be Set to rid out about the Shaft and Furnace, with a view to the opening out of an Air course, by the Stone way jenkins to the old Pit.

All matters going on very well in the Far Pit.

– Tuesday 26th. Dec. 1815 –

A considerable increase of water was observed to have taken place at the middle Pit this mornng. and as a great deal of rain has fallen together with the thaw, there is little doubt of it's being day water

– Sunday 31st. Dec. 1815 –

The increased Feeders still continue at the middle Pit, and the Engine has never had the water down since last monday; it has remained nearly stationary, altho' the Engine has gone

[Bud-44-2]

335.

very indifferent being much out of repair. The water was so low in the old Pit this mornng.as to allow a sight of the tops of the Full Corves Standing on the rollies near the Shaft A good Current of Air was passing away to the westward.

336.

– January 1st. 1816 –

Monday

The water had lowered 2 feet in the old Pit this mornng. which left only about a foot upon the roly way Jo^s. Smith & Jabe – Enginewrights went up the W. mothergate to the entrance into the Stables, and found a good Air going. Saw the 2 horse in the rollies at the Shaft Siding – they are entirely reduced to Skeletons without any offensive Smell, except when the Sleek near them is disturbed

The day water feeders still continue at the middle Pit – the water rose 5 feet last 24 hours.

– Tuesday 2^d Jany. 1816 –

The water rose 3 feet in the middle Pit this mornng. but the En. is not going well from the bad

337.

repair the Air pump flaps, both top and bottom.

The old Pit Engine having drawn water down to the level of the roly way this mornng. I went down to examine the state of the Pit, accompanied by Jo^s. Smith Th. Smith H. Corby, Geo Robson, Roger and

338.

the 2^d. S^o. Board, where the horses used to come from the Stables to water, and with some difficulty got up to the S^o. Stable board.

The Stalls in this board, with the exception of the 1st. are all up standing and perfect, but as there is about 2 feet of water standing

339.

them is [xxxxxxed] disturbed

No effort can be made to gain access to the workings, 'till all is cleared out about the Shaft; but in the first place, the water must be drawn close down, and the Sump cleared

The 5 Clacks and the dropped

Jo^s. Bolam.

We got about 90 yards up the W. mg^t. where a large fall to the West of the trouble stopped our progress. We then entered the N. Jenkin where the two Widdringtons were working but could only get 30 yd^s. in, with great difficulty and danger, owing to the fallen and shattered state of the place

We then returned to the 1st. S^o.W. holing from the Shaft and went thro' the old Stables, into

[Bud-44-2]

the horses could not be seen. The timber in this Stable does not appear to be injured

No heaving of the thill seems to have taken place, and the roly way as far as can be judged is lying undisturbed; but covered 12 In. deep in Sleek.

Two roly horses are lying in the Shaft Siding, completely reduced to Skelatons, and scarcely emit any smell, except when the slick about

Buckets must also be gotten out of the low Set, which must be put into complete repair

In the mean time the Spare Deputies must be employed in riding the Stone way Jenkin from the middle, towards the old Pit with a view to improve the Air way, as much as possible.

– Wed. 3^d Jany. 1816 –

The middle Pit Engine lowered the water 2½ feet this mg.

The low Set Clack of the old En.

340.

went of after spending many hours in attempting to draw the last Clacks could only succeed in getting the uppermost out, and were obliged to draw another in it's place.

– Thursday 4th. Jany. 1816 –

The old Pit engine struck the water down at 10 o' Clock this eveng.

– Saturday 5th. Jany. 1816 –

The body of ~~Jøhñ~~ William Stott was found this morning in the Jenkin between the Pits at about 200 yards from the middle Pit Shaft. It was gotten out in the Afternoon & an inquest held upon it.

The body was found under a Fall with nothing but the head out; the features were visible but the head had a chalky appearance and the body reduced to a

[Bud-44-2]

341.

mere Skeleton, the bones being held together by the Cloths.

Laid the ropes upon the old Pit machine this afternoon, in readiness to commence the repair of the Shaft on monday.

– Sunday 7th. Jany. 1816 –

Got all the dropped Clacks out of the old engine low Set, and the Set completely scared.

The engine has had the water twice down since thursday from which it appears that she has only about half going.

The middle Pit Engine has not had the water down yet, but she goes very indifferently.

The body of ~~Jøhñ~~ William Stott was buried at Walls end this

342.

afternoon.

– Monday 8th. Jany. 1816 –

Begun to repair the old Pit Shaft this morning.

Henry Corley and Roger and Joseph Bolam got thro' from the middle to the old Pit mothergate this morning; there are not many large falls beyond where they found the body of William Stott.

They found an horse in the Jenkin about 150 yards North from the old Pit West mothergate – his head lying towards the mothergate. This is rather extraordinary as no horses were employed in the Jenkin – he must therefore have been washed there by the water. They also saw two other horses in the mothergate

343.

a few yards W. of the jenkins – they are all in the same State – complete Skeletons. They found a very strong putrid smell as they approached the mothergate.

Tuesday 9th. Wed. 10th. Jan. 1816

Occupied these two days in repairing the old Pit brattice &c. also put a new top flap to the middle Pit pump

The old Engine draws the Feeders with great ease, at about half going; but the middle pit Engine has never had the water down since the Feeders increased on the 26th. Ultó.

The old Pit Shaft being repaired the Sump must be cleared, after which the cleaning &c. must be carried

[Bud-44-2]

344.

forward with all expedition
– Thursday 11th. Jany. 1816 –
Examined the workings of the Far Pit. the N. headway jenkins are now 29 winnings in from the Shaft barrier, and are going very favourably The two N. jenkins & two West d^o. are all the working places at present going – they employ as follows vix.

		xx.
N. Head. Jenk ^s .	– 16 men – rais	4 P. day
West – D ^o .	– <u>12</u> d ^o . – – –	<u>18</u>
	<u>18</u> men rais	<u>22</u> xx.

in 24 hours. 6 Single Trams or 12 in the 24 Hours put the work

<u>Overmen</u>	<u>Deputies</u>
Tim: Dodgson	W ^m . Joicy
Rich ^d . Gibson	W ^m . Carrick

If the Coals could be vended I think we could raise 18 to 20 xx. P. day more by jenkening some of the

345.

Walls to the East of the Rolly way 4 galloways put the work at present but as the Crane must be removed further in very soon, 2 more Gall^s. must be provided.

Are going forward with the cleaning out of the old Pit – the following men are employed there

Will. Gardiner	Will. Boggan
Will. Bainbridge	Geo. Robson
James Gordon	Edw ^d . Park
Rob ^t . Widdrington	Roger Bolam
Henry Corby	Ja ^s . Bolam

They are getting very well forw^d. with this business, and will require 4 horses in the Course of 2 or 3 days.

The middle Pit engine has not yet had the water down; but this is not to be wondered at, as from the bad state of the boilers she does

346.

not go more than 6 to 8 Strokes P. minute.

[Bud-44-2]