

# CAT

**The Newsletter of the Cumbria Amenity Trust  
Mining History Society**

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The incline at Wythburn Mine, Thirlmere before it was damaged by storm Desmond in December 2015. Photo by Elly Whiteford, Environment Agency.

# Cumbria Amenity Trust Mining History Society

## Newsletter No 122, February 2016

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### **Editors rant**

Not really a rant – more of a request. Material for the newsletter arrives from time to time from contributors and other sources, increasing in frequency up to and after my deadline, which is usually the middle of the month preceding publication. I edit it on arrival and then file it to await preparation of the newsletter. When the time comes it usually takes about two weeks, doing something most days, to edit and organise, followed by a more intense week to print, collate, staple, pack and post. I make a determined effort to get it out on time at the beginning of February, May, August and November. It is quite a lot of work, but interesting and sometimes technically challenging and I am retired, no longer physically very active, and I enjoy it. I am flattered that some people go to a lot of trouble to provide articles, and grateful for their effort, but here is the first request. Please get it to me as early as possible before the deadline, because I have to do the page numbering before I can start printing. If something comes in late it upsets the page numbering for the whole newsletter and causes me grief.

My second request is for more contributors. Our newsletter is unique in that it contains much more than just current news. It is also a vehicle for publishing short articles on researches, history, information, related interests and activities. We have considered calling it a Journal, but decided not to. Peoples activities and researches are of interest. The newsletter comes out regularly and I guarantee to do my best to get every issue out on time. It has a potentially wide audience and is circulated to all CATMHS members, the National Association of Mining History Organisations, Cumbria Local History Federation, the Lake District National Park Archaeologists, the six main Cumbria Libraries and the CATMHS website which is searchable, so it will be in the public domain for all to see for ever(?). Anything relevant to mining history would be welcome.

My third request is for more people to consider receiving the newsletter by email. Postage costs as much as production, but it would also save me time. I think that there will always be a need for a printed version, I would just like to print fewer copies. I don't want you to feel you have to print your own unless you want to use more expensive paper for better quality. I take care to get suitable paper and print, and am happy to continue to provide hard copy to those who want it. However, viewing it on a screen does allow better quality photos, plans etc, and provides the ability to zoom in on detail. The PDF's are searchable, it is easy to print off sections if required, and no storage space is needed. Think about it.

Ian Matheson

### **New members:**

We would like to welcome the following new members:

Stuart Porter & Andrew Higg. Stuart is an HGV truck mechanic, loves the outdoors and is interested in all aspects of mining.

Bob Mayow

### **Meets**

Due to back problems and a possible operation early next year, Roger Ramsden will be unable to lead his Augill meet in March. Accordingly, the meet is postponed until he recovers (good wishes Roger) and a suitable date can be found.

## **AGM & Dinner**

The AGM and dinner was held on 12<sup>th</sup> December at Rydal Hall, a week after the disastrous floods in Cumbria. Members coming from the north had to come via the M6 and Kendal as the road over Dunmail Raise had been washed away. To make matters worse it snowed on the day and John Brown and Co, travelling from Darlington were turned back at Stainmore because of the closure of the snow gates at Bowes not long before reaching them. The snow was about 4" deep at the point where they had to turn around.

The AGM was conducted satisfactorily, and the Chairman's Report report is printed below. The standing committee was re-elected, with the welcome addition of Mark Hatton, who has a cottage in Ambleside and seems to spend nearly all of his spare time searching for, exploring and photographing mines in the Lake District. Check out his Facebook page.

32 people attended the dinner, which is about a third of our membership, a good turnout considering the widespread geographical distribution of our members. It would be nice to have even more; Rydal Hall is a delightful venue and is especially appropriate for our Dinner as it was the seat of the Le Fleming Family, who have the mineral rights of the Coniston mines. It is warm and comfortable, the food is excellent and the staff welcoming, and it is very good value for money. If you stay the night there are no concerns about driving home afterwards and there is a nice breakfast to look forward to. Why not make a weekend of it and stay on Friday night as well. Make a note in your diary for next year. Second weekend in December.

After the dinner Chris Cowdery gave an overview of the very impressive new CATMHS website and Ian Matheson showed Peter Flemings 21<sup>st</sup> Anniversary slide show

On the Sunday there was a visit to Penny Rigg Horse Level at Tilberthwaite to view the recently completed dig. See the report in the Meets section of this newsletter.

## **CATMHS Chairmans Report 2015**

This year's Chairman's report starts with the sad news that two long standing members of the society have passed away, Clive Barrow and Pete Blezard, who for many years have contributed so much to the society, for which it will always be grateful.

As Mike Mitchell wrote in his obituary for the newsletter, Clive was a 'member at the formation of COMRU (Cumbria Ore Mines Rescue Unit), a quiet shy gentle giant of a man with a good sense of humour, always there in the background and one hundred percent reliable. I never enquired into his private life and accepted him for whom he was, a good friend and colleague "The quiet man".'

It was a fitting testament to how much people thought of Pete Blezard in the number that came to his funeral. Without Pete's expertise the underground digs at Greenside Mine, Kernel Level, Hudgillburn Mine, Tilberthwaite Mine etc. would have never happened, which appear not to have been repeated anywhere else in the country. At Hudgillburn Mine, the dig has allowed the Moldywarps caving research group to discover the largest underground maze cavern in the country, which is now of national importance.

On a personal level it was a great privilege to be asked to be one of the bearers and to speak at Pete's funeral. I owe him a great deal of gratitude, for on the day we broke through on the Lucy level after five years of hard graft, Pete said that, given your Mum's family connection with the mine over many years including as she had worked in the mine office, you are going to be the first to walk through from the entrance to Smiths shaft since it closed. When looking thorough photographs taken of the digs involving Pete, it makes you realise how much people thought of him, especially the digging team who have now been together for 23 years, which created the great friendship which exists.

We must also not forget Peter Fleming and John Helme who are still sorely missed. It wasn't until Peter had passed away that you realise how much he did for the society, much of it behind the scenes, and this is still being felt now and what John did especially for the Newlands Furnace Trust, which is being included in the 150-year celebration of the Cumberland and Westmorland Antiquarian and Archaeological Society in 2016.

Again can I sincerely thank the committee and members of the Society for their help and support during the year, without which it could not function. The various committee members will present their reports, but I would like to make the following comments.

The Heritage Lottery Grant application for over £400,000 in conjunction with the LDNPA, Ruskin Museum and landowners, to carry out conservation work to Coniston Copper Mines and the Penny Rigg Mill at Tilberthwaite has been granted subject to finalisation with one of the land owners, with work due to start in early 2016. This is a real feather in the cap for the Society and its members who should be rightly proud of it and will hopefully attract new people to the Society. The bid for World Heritage Status will potentially involve this project when UNESCO visit the Lake District, which the society will be asked to be involved in.

After seven long years the final break through on the Horse Crag level at Tilberthwaite Mine has been made and is a testament to all the people who have been involved in the dig from the start. However, a special mention should be given to Colin Woollard and John Brown for their efforts over the years, which has been quite magnificent, even though on a couple of occasions I had to think about enrolling them on an anger management course- I will let them explain that.

Once again a huge thank you should go to Ian Matheson and the contributors for continuing to produce a good quality newsletter which is the backbone of the Society, and Peter Claughton from NAMHO commented at the last Mines Forum is one of, if not the best in the country.

The finances continue to be healthy and the membership seems to be steady. Attendance on meets is still variable and initiatives such as bringing a guest are being tried to raise numbers and hopefully attract new members.

Mike Mitchell and Mark Simpson have continued developing their 3D surveying techniques producing some remarkable results. In fact as good as the professionals.

Dialogue continues with the various agencies through the Mines Forum, which is unique in this country and hopefully this could lead to a number of new projects, although nothing on the scale of Tilberthwaite.

It is perhaps worth reminding ourselves that the Society is a registered charity and as such cannot just be for the benefit of its members, but has to have charitable purposes for the public benefit. The society has always complied with this which is now being enhanced by:

- The invitation to members to bring a guest on official meets which includes the provision of helmets/lamps.
- The re-organisation of the archive and digitising it so that not only members, but the public can have access to it.
- This year around 20 walks and talks to other organisations have been done and several have already been arranged for 2016.
- Supporting the HLF grant application.
- The Mines Forum.
- The installation and changing over of the environmental monitoring equipment in Deep Level, Coniston Copper Mines for the Environment Agency, who could never have done this.

The Society should once again thank John Hodgson and Eleanor Kingston from the LDNPA for all the help and support they have given.

Warren Allison, Chairman  
5<sup>th</sup> December 2015

### **CATMHS website**

The new CATMHS website is finally live!

It retains the existing information from the old site, the on-line shop and on-line methods of paying CAT for subs. The biggest new feature is that we have uploaded many hundreds of mine plans, all old newsletters, some newspaper scans and various miscellaneous items. They are all tagged, and are searchable! Simply place your search term in the 'Search this website ...' box at the top right of the web page, and see what you can find. Plans and relevant newsletter articles will present themselves to you.

The meets list now contains location maps of meeting points, and we will in due course have 3D material from Mark Simpson and Mike Mitchell. All newsletters older than three years are downloadable for free. Some items (newer newsletters, some plans and other documents) are only freely available to members, who can log in when prompted with the following credentials:

There is also a members area to request and discuss meets you would like to see, and to volunteer to lead them! As time goes by, more material will be added, to make our archive truly accessible to all. The site is still new, so you may discover teething problems. If you do, please let the webmaster know!

Chris Cowdery.

### **CATMHS archive**

Some of the CATMHS archive has been transferred to the Armitt Museum in Ambleside, where it will be accessible to the general public whenever the Museum is open. Curator is Deborah Walsh. Museum is at Rydal Road, Ambleside LA22 9BL, 015394 31212. [www.armitt.com](http://www.armitt.com) IM.

### **Archive Update**

The draft agreement with the Armit Museum to hold some of our archive material has been signed. The majority of our book collection has been deposited and is now being catalogued. All CATMHS newsletters and selected newsletters of Cumbrian related societies are also deposited. All scanned mine plans are also deposited. Newsletter and mine plan images are on our website and the level of metadata to provide effective searches is now improving. Any suggestions please send me details. As time progresses we will add the Armit catalogue reference to website images to allow users to correlate collections quickly.

All archive material has been uplifted from the J Ruskin Museum in Coniston and is currently being scanned, sorted and a permanent home found for prime documents.

A selection of surplus books, physical and geological maps are now offered to members.

Colin Woollard

### **Sale of surplus archive material**

Following a detailed appraisal of the archive and its role in the Society's operation it has been decided to focus directly on Cumbria and re-locate the physical material to the Armit Museum and Library in Ambleside. This move will greatly improve the accessibility of the material.

This means that we have some 138 titles which are surplus to our needs and which we intend to sell, raising money to fund other activities. In addition to these books are a number of maps which we also intend to offer for sale. A full list of publications and maps will appear on the website since these will be offered to members first. If you are without web access then contact the Treasurer (details on the rear cover) for the information.

The intention is only to price items in which interest is expressed; pricing will aim to charge 2/3rds of the lowest available market offering plus P & P.

Sale of publications will be handled by the Treasurer with operations commencing on 12<sup>th</sup> February 2016.

### **Social Media.**

CATMHS as a body has been slow to adopt Social Media. We have considered it but haven't embraced it. I include myself in this. However, I am increasingly becoming aware of the value of Facebook, at least, as a vehicle for communicating with like-minded people sharing experiences and photos and spreading information. The following perhaps illustrates this.

From Mark Hatton:

Has anyone here explored the Coniston United Mines (near Skelwith Fold) that consist of at least 3 levels and a shaft along Pullbeck (the beck that runs from Black Crag near The Drunken Duck to Pullwood Bay on Windermere) ? I have spent the last couple of days ratching around these workings and there are some really interesting and beautiful parts to them. And the more I look the more evidence of further workings and infrastructure I find. But I can find very little information about the mines which appear to be almost totally forgotten despite the fact that they are in a very heavily visited part of the Lakes near



Ambleside. John Adams' book Mines of the Lake District has been the only source of info so far. Really good book that - does anyone know the author?

A Flickr album with some of my pictures of the Coniston United Mines taken yesterday and today is here:

<https://www.flickr.com/photos/52711825@N05/albums/72157662770934916>

And has anyone been inside The Seathwaite Tarn mines ? There are 3 levels up there, reputed to be 750 yards of tunnelling in total. But 2 of the entrances appear totally run in to me and the third is very tight and wet. A Flickr album of my walk up there today is here.

<https://www.flickr.com/photos/52711825@N05/albums/72157662282029320>

Ian Matheson, email

Peter Fleming led a CAT meet there years ago, but I didn't attend. There should be a meet report somewhere.

John Adams was a member for a few years then disappeared

Warren Allison, email

Not much appears to be known about both mines.

Ian Tyler and myself dug out the top of the three levels at Seathwaite Mine many years ago, which was a round a 400 yard drive to a forehead with wooden rails still in-situ on the floor and was wet. On opening up the level there was smell of rotten eggs (Hydrogen Sulphide) so we left it for week before going into the level, so be careful if you go in. The other two levels were closed.

I knew John Adams, but not sure where he is at now.

Alen McFadzean, Facebook

(Alen McFadzean is a former CAT explorer, committee member and newsletter editor, who now lives in Spain. He said *'We moved to Spain in July and have just bought a house within sight of a fluorite mine (literally within sight). When I get organised I'm going to start writing Spanish mining stuff for my website. Anything that might interest CAT please help yourself or put a link in.'*)

THIS post has been written in response to Mark Hatton's post on Seathwaite Copper Mine. Funny how your memory can play tricks. Ian Tyler, Anne Danson and myself dug open the middle level at Seathwaite Copper Mine on May 30, 1988, but we couldn't lower the water level sufficiently to get in. I thought we'd explored the level right to the end when I commented on Mark's post, but it transpires I was getting confused with a dig at the lower level of Logan Beck Mine, further down the Duddon Valley, which took place a couple of months later and involved Warren Allison as well as Ian and myself. That was a hard dig – and the water was extremely cold and deep.

However, back to Seathwaite and some excerpts from my diary:

“This level, unlike the two other levels at Seathwaite, had never been explored. Ian had dug here before though with no luck, despite locating the level roof in solid rock. The trouble is, there is a pile of gigantic boulders heaped up in front of the level. The level is flooded to the



roof, so in order to drain the water, a trench had to be dug through the boulders to the beck. “Ian told us that he had heard this level had been used to store mustard gas after the First World War. This improved spirits no end, especially since we had noticed a putrid smell issuing from the level as we worked. By 4pm we had succeeded in dropping the water about a foot – but it was still too deep to allow access and it was obvious we were not going to succeed, so we decided to call it a day and return in a few weeks (we never did). Despite the water being crystal clear, there was still a gaseous smell issuing from the level – also flakes of what looked like tissue paper with a yellow, fibrous substance attached to it, washing away in the current.”

You can make what you like about the mustard gas theory. Personally, I think it's a load of tripe. I can find only one picture of the dig and it shows me standing in the trench and my four-year-old son, Fergus, on top of the hole. He's 31 now and won't remember me



carrying him all the way back down to Seathwaite – as well as lugging my tools and caving gear.

### **Cumberland & Westmorland Antiquarian & Archaeological Society (CWAAS)**

This year sees the 150<sup>th</sup> anniversary of the formation of CWAAS and a number of events have been planned including displaying banners at various locations which depict its long and industrious history. In a small way the societies work at Silver Gill Mine, the discovery of evidence of the oldest wooden waggon in Europe and the wooden hand shovel carbon dated to A.D. 1020-1200, making the mine the oldest proven mining site in Cumbria and is now of national importance is included in one of the banners. CWAAS is currently digitising its entire collection of transactions which will be made available to the public and there are quite a number of papers related to mining and quarrying in them.

Warren Allison

### **Early Railways Conference**

The Sixth International Early Railways Conference will be held at Newcastle upon Tyne on 16-19 June 2016. Details can be found on the website [www.earlyrailways.org.uk](http://www.earlyrailways.org.uk), together with a booking form and a facility for making payment by e-mail.

### **Conference celebrating the Tinworking Landscape of Dartmoor in its European Context - Prehistory to 20th Century** Tavistock, Devon UK, 6-11 May 2016

The first international conference exploring the tinworking landscape of Dartmoor in a European context, is to be held in Tavistock from 6-11 May 2016. It marks 25 years of the Dartmoor Tinworking Research Group, and 10 years of the UNESCO World Heritage designation of the Cornwall & West Devon Mining Landscape. Twelve lectures (including speakers from Czech Republic, France, Germany and Iberia, as well as Britain), four evening events and three full days of field trips, will make this a truly memorable and important occasion for anyone interested in Dartmoor's history and archaeology. Delegates will receive a Conference Booklet and a special medallion crafted in tin.

All bookings must be received by 30 April 2016. The full Conference Programme and details about booking are now available on the DTRG website: [www.dtrg.org.uk](http://www.dtrg.org.uk)

### **Storm damage to the Wythburn Mine, Thirlmere**

When Storm Desmond raced across the Atlantic towards the British Isles, one of the 'severe weather events' associated with it deposited thousands of tonnes of water on the western side of Helvellyn. Sheets of water from this and future storms poured down the side of the mountain removing everything in the path. The result was that part of the A591 on the north side of Dunmail Raise became washed away and the Thirlmere-side road also became seriously damaged by rock and trees washed down from the hillside above.

Shortly after the event, Dr Simon Ferley, a geotechnical engineer representing Cumbria County Council, gave details of the future risks involved in overcoming the problem. One of the issues he was concerned about was the stability of 'a disused lead mine' high above Thirlmere.

He was clearly referring to the Wythburn Mine, an old mining site which contains a number of important old industrial relics; the principle one being the remains of a long counterbalanced incline which formerly brought ore down from the higher workings to the old mill at the bottom of the site. As this incline is quite unique, and was listed as such in CATMHS's list of mining sites worthy of preservation, it was decided that we should try to gain access to the mine ourselves, if necessary by devious means, to check it out.

A possible trip was arranged for the second week of January. I mentioned the plans to Liz Withey of the Environment Agency who responded very quickly afterwards that she and two colleagues would like to join us on the trip. This seemed an excellent idea because, amongst other things, the trip could become 'official' and we should have no problem with access.

The journey from Coniston to Thirlmere normally takes about 35 minutes on a wet Tuesday in January. However on January 12<sup>th</sup> this year it took over two hours and was nearly 60 miles long! By the time I arrived at the gatehouse and barrier that had been temporarily built across the A591 near Thirlspot it seemed as if half the morning had gone. Eventually the assembled party was escorted by United Utilities personal along the damaged road and told to park our vehicles on the site of the straining-well on the shore of the reservoir.

The mine site was inspected closely. Fortunately Warren and Elly Whiteford (EA) were familiar with the mine and were able to comment on the destruction caused by the storm. It appears that there is significant damage to the structure of the counterbalanced incline. There



*Bottom of incline in 1987. Photo Warren Allison*

was also some concern at the potential for material from the mine tips and also tailings from the mill contaminating ground lower down the hillside. Several sets of photographs were taken and it is hoped that a meeting can be arranged at the EA's offices in Penrith to review these with photographs taken before the storm struck. It is likely that this will take place before the end of January.



*Figure 1 Bottom of incline, Jan 2016. Photo Warren Allison.*

This visit was an excellent joint project by the Environment Agency and CATMHS. It is clear that, in the future, similar ones may be necessary. CAT has essential in-depth knowledge of the old mining sites and the EA is the body that will need to take action if any similar events occur in the future.

A D Cameron



### **Storm Damage, Keswick Railway.**

Storms over the weekend of the 5th and 6th of December 2015 wreaked havoc in several parts of Cumbria. Floods and landslides blocked roads, damaged bridges, knocked out power supplies and forced people out of homes and business premises. On the road network, the worst casualty was the A591 through the heart of the Lake District. Landslides blocked the road and several parts were washed out or under-mined. The road is expected to be closed for some months. Some communities were hit for the second or third time in only a few years. Farmers across Cumbria lost many animals – a few were lucky and came ashore many miles from home.

The route of the Keswick to Penrith Railway took a battering too.

On the section between Keswick and Threlkeld, which is maintained as a foot and cycle path by the Lake District National Park Authority (LDNPA) and Sustrans, the swollen river swept away caravans, brought down trees, heavily eroded banks and cliffs and damaged some bridges.

Bridge No. 66 (Low Pearson, grid ref NY 294 247) had two spans with arched girders supporting a lighter deck. That bridge has been completely destroyed.



A section of track bed was completely overwhelmed by the river which changed course dramatically while in flood. CKP Railways plc is providing advice and guidance on ways to restore the path quickly which are sympathetic to the longer term re-instatement of the Railway. *Photo Cedric Martindale*



Bridge No. 71, one of the iconic bow girder bridges, near Brundholme Woods (grid ref. NY 299 247) was swept off its abutments and now sits on a new bank of debris, almost parallel to the river bank. CKP Railways plc has suggested to the relevant authorities how this bridge could be recovered.

*Photo Terry Abraham.*

Bridge No. 73 (Rawsome, grid ref. NY 304 246) suffered some damage to the stonework of the western abutment and is currently closed pending repairs.

The LDNPA wants to re-open the foot and cycle path as soon as possible

Although this damage is severe, it is recoverable. It is all concentrated in one relatively short section of the 18 mile (30 km) route. Overall the railway route between Keswick and Penrith

remains mostly intact (except of course for track) and is a much simpler re-construction prospect than the Borders Railway was.

From the North Lakes Railways Action Group .

### **SHOCK CLOSURE OF £2.4M CUMBRIAN MINING MUSEUM**

**Whitehaven's £2.4 million coalmining museum at Haig Pit has closed because of financial difficulties.**

From the News & Star, 7th January 2016

In a shock announcement, the Board of Trustees said they hoped it would only be temporary. Key funders Heritage Lottery said: "This is very sad news and our thoughts go out to everyone who has been affected."

The museum opened its doors to the public last February, expecting to attract 15,000 visitors in its first year. And while it has exceeded its projected footfall, it appears to have hit several problems, some financial.



A Heritage Lottery Fund spokesman said: "While the organisation has received the majority of the HLF grant, one payment was withheld awaiting financial and other information. But we are aware that the organisation face wider financial challenges beyond this. "Our staff have worked closely with Haig over many years and we will continue to offer our support during these challenging times."

The HLF is to meet with Copeland mayor Mike Starkie and the other main funder, Copeland Community Fund, shortly "to explore options for the best way forward." There are hopes the closure will only be temporary, as pleas for support and further financial aid are being made. In the meantime, while a solution is sought, bookings for events are to be cancelled and regular users of the venue informed. A museum statement said: "We regret to inform that the museum, visitor attraction, cafe and events venue is currently closed."

Haig Pit Mining Museum is run by a board of volunteer trustees but ran into difficulties last January; its chairman, Bob Metcalfe retired (through ill health), the project manager resigned and its Manchester-based architects ceased trading. "There were concerns over the continued delivery of the capital project and our main funder, the Heritage Lottery Fund, suspended funding last April, without giving a full explanation," said the board.

Since opening the new-build Visitor Centre in October 2014 and the new-look museum in February 2015, Haig says it has successfully worked to its business plan. "The hard work and commitment of the employees and volunteers at this important site has seen the restoration of a Scheduled Ancient Monument and development of a derelict site into an accessible attraction and an accredited museum." The revamped museum created five part-time jobs,

giving the museum a total of eight staff who have lost their jobs. It also has around 28 active volunteers.

At an opening ceremony in February 2015, the Heritage Lottery Fund's Humphrey Welfare said the fund had given it strong backing over the years because Haig was about two key things, heritage and people.

He said Haig was "a very special place. It has survived. It played its part in the industrial revolution and coal was so fundamental to the establishment of Whitehaven and West Cumbria, an area known for the strength of its community."

Haig was bought from the National Coal Board in 1993 for a nominal 1p and has since become a registered charity, accredited museum, a company limited by guarantee and an Arts Award centre.

Spanning two floors the new museum experience reflects local stories, landscape, traditions and tragedies of the West Cumberland coalfields. The adjacent Powerhouse is used for various local events. West Cumbria Mining Company, which wants to re-open the coalfield to mine coking coal and has plans to do so by 2019, has used the museum venue for exhibitions and community consultation. Its chief executive Mark Kirkbride said: "This comes as a complete shock and is very sad news indeed. "The museum was a vital way of commemorating the extensive coal mining history of west Cumbria, whilst aiming to be a key contributor locally in terms of facilities and community involvement. "I am currently trying to gain a better understanding of the current position."

### **West Cumbria Mining Company update**

We have now successfully completed our phase 2 exploration work, recovering extensive coal samples from the area offshore from St Bees Head. The large volume of coal sample mass extracted from all our targeted coal seams is now undergoing laboratory testing and assessment, including replicating coke oven tests to assess the performance of the coal once delivered to the steel mills. This has also allowed us to identify a series of key structural features, and compare this to the reprocessed geophysics we have completed across the offshore licence areas, which provides us with a much clearer picture of the coal seams and faulting in the area.

Our Scoping Study has been successfully completed. A scoping study is a major stage in the project development, and is a comprehensive review of all aspects of the project, presenting options and setting out key parameters for the project moving forwards, including a detailed assessment of costs and the market for coking coal.

Our pre-feasibility study is now underway and this will define our initial mine design, mine method, preferred location and access, process plant requirements, logistics and all of the associated elements required to construct a new mine. This process is progressing well, with completion anticipated to be around the end February 2016.

The environmental and planning processes are also well underway and a Statement of Community Involvement is being concluded for review and comment in the New Year.

A consultation day was held at Haig Pit Mining Museum. The event included a range of educational information boards which can be viewed on the website at [westcumbriamining.com](http://westcumbriamining.com)

The next public community update event will be held at Haig Pit on 19th March 2016 (?)

### **Impact on St Bees valley**

At this stage feedback on our two proposed options indicates that the preference is for all of the mine facilities and processing plant to be located on the former Marchon chemical works site, away from the St Bees valley. This would mean that there would be no new mine or large structures in the valley at all. There is a need to transport the coal from the Marchon site to the railway, and this would be using a buried conveyor, which would be underground and not visible. The only visible aspect in the valley would be the coal train and the train loading equipment. We will be producing images and plans in the near future to show what this would look like, and are also looking at other options to avoid this being in the valley.

### **Mine waste**

We are currently reviewing a series of options for waste disposal. The waste will be a combination of rock from the initial mine construction and process plant, plus fine ash material produced during the washing and processing of the coal. In total this will be less than 15% of the mine output per year. The current options include re-use of rock material for other projects (including brown field remediation), remediation of old abandoned quarries in the local area and disposal underground into old mine workings.

### **Washing the coal and dispose of the waste**

The washing process would be a fully enclosed, state of the art process plant, which in essence crushes the coal and then washes it to separate the coal from the non-coal material. Water is used in the process, with an integrated water treatment circuit and filtration plant which recycles the water so that very little additional water is needed once the plant process is started. There would be no dirty water discharged at all; any water would be treated to meet all modern discharge requirements.

### **Transport of coal from the mine**

WCM has been clear that one of the golden rules for the mine would be that no coal would be moved by road. We are determined to adhere to this promise. The railway offers the best option to move coal quickly and efficiently. We are working closely with other projects, Network Rail and the councils to ensure the railway is upgraded and suitable for the transportation of freight; our plans include investment into the rail infrastructure. The coal would be transported from the mine site by conveyor and loaded into coal wagons on the railway, for onwards distribution. This would include direct rail delivery to Scunthorpe and to Workington Port (for smaller vessels to Port Talbot and parts of Europe) and to Hunterston or Blyth (for larger vessels to Europe).

### **Plans to improve road access**

No matter where the mine and other operations are located, WCM would implement upgrades to the roads to ensure no additional impacts in terms of traffic burden, especially at peak times. The mine will employ around 500 people, working on a shift basis. As part of our work we are commencing traffic studies and these will be made available in the coming months as part of our ongoing open engagement programme.



### A Further Note following on from the Few Further Notes on Thrang Crag Quarry



When commenting on the photo of the Thrang Crag Quarry work force published in NL 121, the use by a number of the “rivers” of the traditional riving hammer was noted. An example of the hammer head is shown in the adjacent photo; this was found in the lowest level of Caudale Quarry in 2013. As far as is known this tool was only used in the NW of England; all splitting of slates in Wales being carried out using a wide bladed cold chisel and club hammer. Certainly by the 1950’s these latter tools had replaced the riving hammer in Lakeland quarries; the tool being described as obsolete.

A description of operations at Caudale in 1933, written by W Shaw in the “Quarry Manager’s Journal” for September that year suggests that there may have been good reason for its use:

*“There are two kinds of splitters on the district, one using a mallet and chisel similar to the Welsh quarrymen, and the other the old fashioned hammer. The latter tool needs a good deal more skill in use, but it is noted that hammer splitters are capable of making a better class article in poorer material. Unfortunately, very few apprentices are taught to use the hammer, and there is a shortage of this type of workman.”*

Apart from the “NIH” rationale (Not Invented Here), the riving hammer had one very real advantage over the bolster and hammer; the ability of the river to stand up to work with attendant lessening of potential back problems. On the other hand in good slate metal the production rate with bolster and hammer must have been significantly greater and given that pay was always based on output, the pressure to adopt this combination must have been overwhelming. Since the river was paired up with the rock men in a contract, then in poorer slate the latter would have to produce more clog and accepted a higher wastage rate to achieve a reasonable pay.

John R Aird

NL 72 August 2003 Page17 quotes “W F Shaw”, but it must be “W T Shaw”.

## Meets

### Augill Lead Mine, 20<sup>th</sup> March 2016

Due to back problems and a possible operation early next year, Roger Ramsden will be unable to lead his Augill meet in March. Accordingly, the meet is postponed until he recovers (good wishes Roger) and a suitable date can be found.

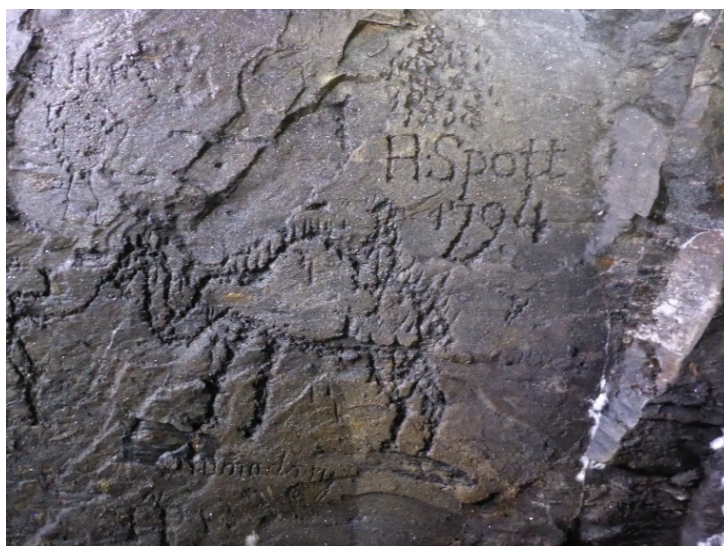
### Middlecleugh Upper Level 18<sup>th</sup> October



*I tried to get them to smile, but you know how it is! Photo J. Brown*

This scheduled Meet was met with the predictable cold damp breezy weather. Pictured outside the entrance re-opened by CATMHS in early 2007 is David Taylor (mining helmet worn in jaunty manner), Mole and Steve Holding (Shropshire Caving and Mining Club). Mole and Steve spend some time up in Nenthead each year digging and exploring this mine, they had agreed to lead this meet for us and show what they had been getting up to. Our first port of call was along the left hand branch of the North Vein and past the Camel Sump (photo inserted just in case you had forgotten what it looks like). Photographing this was made easier this time with the scaffolding platform left in place from the NAMHO Conference earlier in the year. We moved on from here having the option to either take the right hand branch and look at some more sumps visited on a previous trip or go straight on for the chest deep ochreous water. The latter had not been checked for

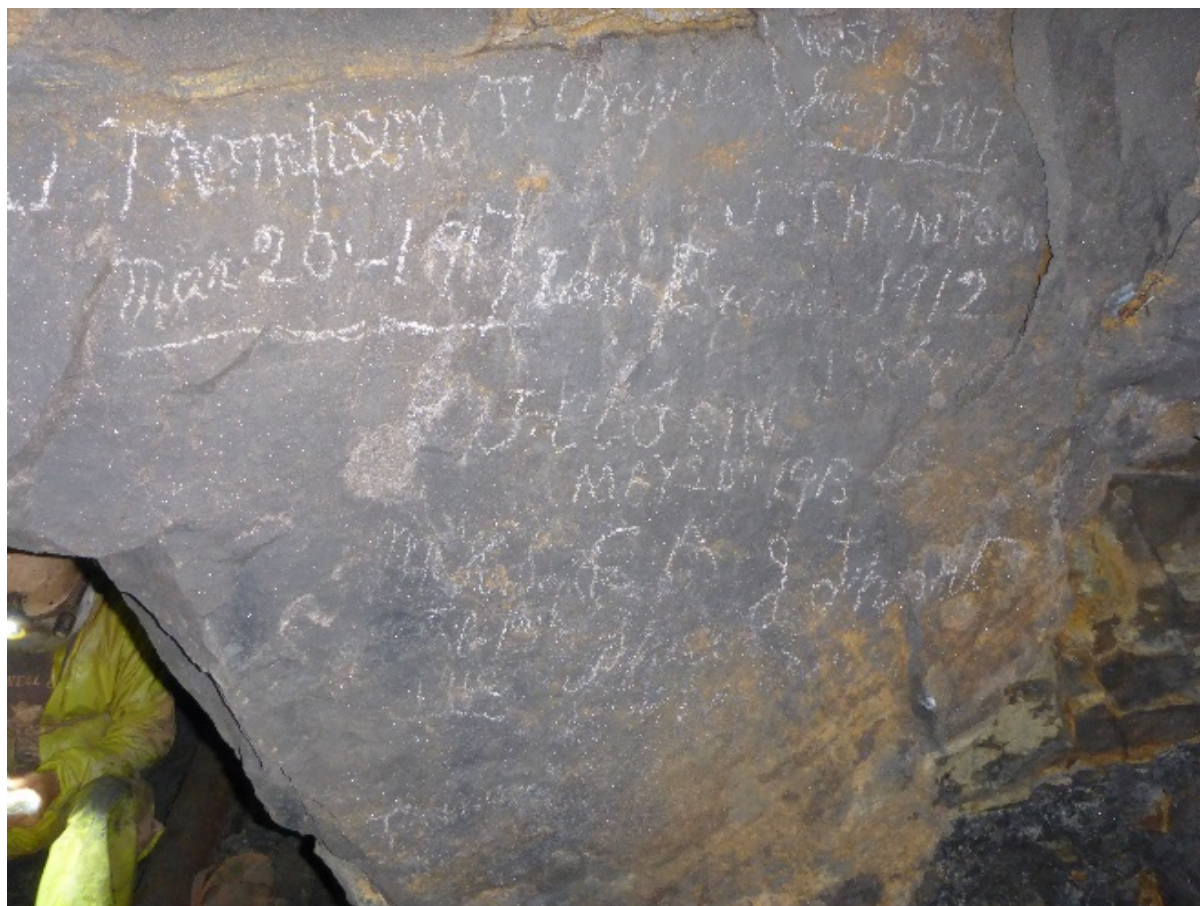
about 3 years and may have closed back up. It does eventually arrive at a sump leading down to Smallcleugh near to the Ballroom Flats. Which do you think we took? So, we looked at the other sumps and photographed more graffiti before returning to the main level. Back in the main Level, the right hand part of the North Vein has clearly been walled up. Just a little further in and on the right of the Main Level, Mole, Steve and others in their group had dug down the side of the arching and broken into it to find quite a large arched tunnel. I understand work



*1900's chalk Graffiti (better enlarged if digital version)*



continues here. Returning to the Main Level we continued following the compressor pipe, which was useful to walk on, keeping the water at just thigh depth which was better than the other option! We then took another right turn into the Middlecleugh Second Sun Vein, another dig which the group undertook giving access to the Mitchell's Flat in Smallcleugh. This was quite an awkward and tight crawl through a letter box and down a steep slope through to their dig. Warning had been given to watch out for the sump leading to the Flats below at the bottom of this slope. There was a good example of some 1900's graffiti and also interesting to see



*1900's chalk graffiti (better enlarged if digital version)*

some coal in the roof at the end of their dig! Time was running out so we returned to the Main Level and back out to day. We were walking back down to the store when there was a slight diversion as Steve found a camera. It was clear COMRU were training in Smallcleugh, so he went in to try and find the owner whilst we continued back to change in the comfort of the Nenthead Mines store. Our thanks go to Steve and Mole for acting as our guide.

John Brow

### **Hugillburn mine, 24<sup>th</sup> October**

The report on this meet will appear in the next Newsletter

## CONISTON THROUGH TRIP 14<sup>th</sup> November 2015

John Aird (ML) Pete Brookdale Chris Cowdery Mark Hatton Alex Ritchie\* Chris Sharman\* Harvey Sunderland (\*visitors)

The weekend's Meets had been thoroughly disrupted well beforehand, Hartsop Hall Mine being displaced by Coniston as result of popular demand. As the date approached, the weather forecasters opted for a more and more apocalyptic vision of the weekend's rainfall prospects; so much so that the ML received several anxious enquires as to whether the Meet would go ahead. In fact the morning was fine and dry and the party assembled at the Coppermines YHA, apart from Mr Brookdale who ignored the ten figure Grid Reference and the words "Coppermines YHA" that he had been given, and went elsewhere. Luckily Alex had noticed and went and got him back. ("I've been shouted at before for parking in front of the YHA")

Once changed and the gear loaded, we drove up to Hospital Level. Once it became clear that the ML was not driving further, displeasure and derision were the order of the day. Chris Cowdery saved the situation by not merely loading all the gear into the Range Rover but six of the party as well and driving up to Leverswater in fine style. The fact that Mark Hatton got to the dam on foot before the bags were unloaded reflects both his fitness and the speed that vehicles achieve enroute.

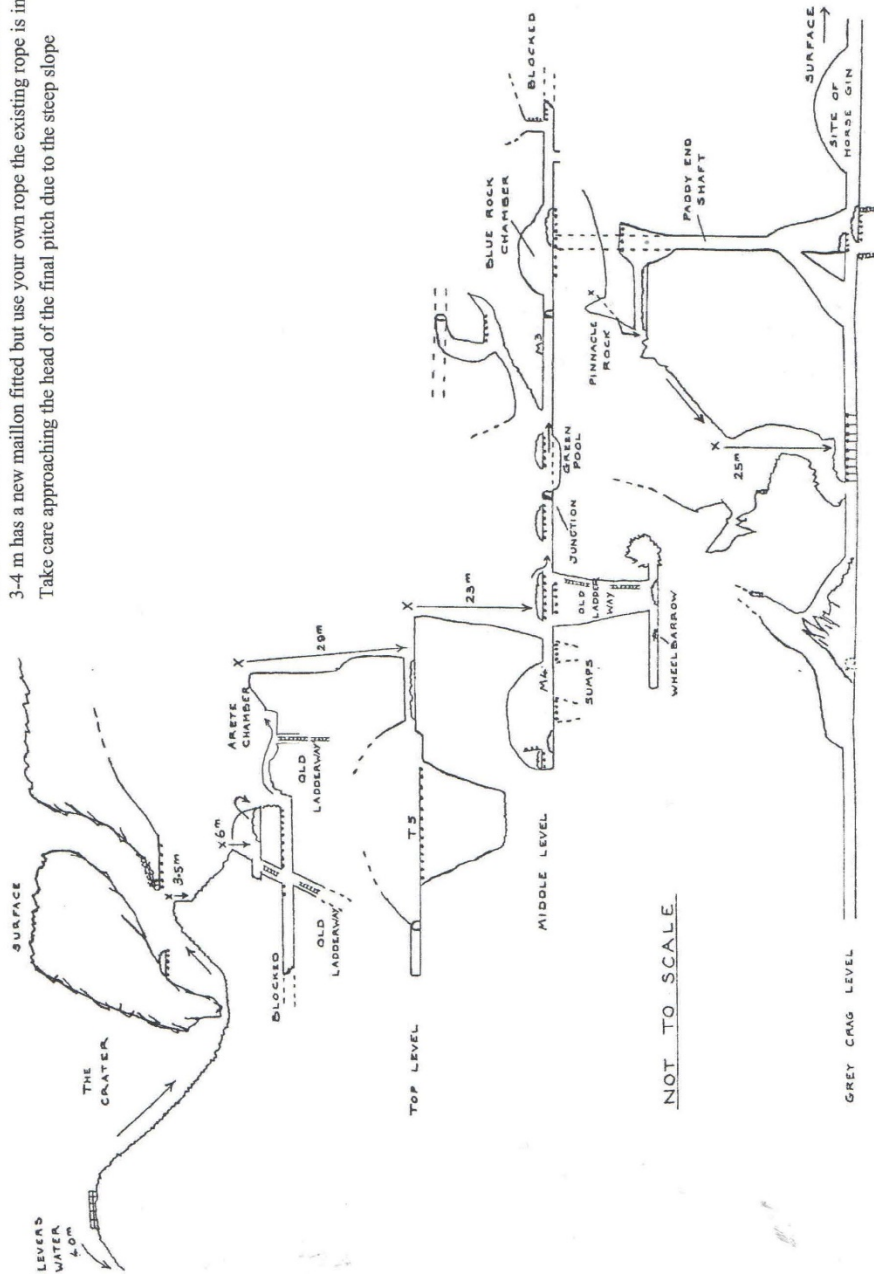


The ML had declined the option of merely taking a single 60m rope and pulling through on each pitch, since this arrangement had not been entirely satisfactory previously. This meant that there were three ropes to be carried, along with an extra rope and tools for running repairs to the existing rigging. There was no more than 50mm of water flowing over the dam spillway, making the crossing easy, and rapid progress was made to the rock nose above Arête Chamber, where the traverse line was replaced, including the maillons.

While the pitch down from Arête Chamber was rigged the company went off to view Mag's Catwalk. This pitch always looks forbidding from the top; a combination of the hangers being in the far hanging wall and the footwall appearing to be undercut leading to the belief that, having set off, there is no way back. In fact the footwall slopes the right way and has a very convenient ledge that makes everything easy; best to have the rope in a bag below you, because if dropped it can go the wrong side of the stemple lower down. Once down the ML replaced the traverse lines out to the head of the next pitch as the rest followed at a leisurely pace. Having finished, the pitch was rigged; the ML in a slightly anxious state. A 23m pitch and a 23m rope! The rope had been measured the previous day, but you never know. Just a metre to spare!

The landing puts us on the false floor immediately behind Chris Sharman in the photo above; we are in Middle Level looking outbye. The hole in the floor with the plank across is an old ladderway which goes down to the wheelbarrow. The party headed out along the level to explore and take photos.

# Leverswater to Grey Crag Level Through Trip 14/11/2015



The top two pitches 3.5m & 6m have steel ladders fitted. The three main pitches all have double grouted anchors suitable for pull-throughs, however the roof all the way down from Blue Rock Chamber is in poor condition so a pull through should not be undertaken without knowing the condition of the lowest section. Immediately before the Blue Rock Chamber is a three way junction take the centre passage to follow the hand lines down to Pinnacle Rock. The short abseil of 3-4 m has a new mailion fitted but use your own rope the existing rope is in very bad condition. Take care approaching the head of the final pitch due to the steep slope





The success of their efforts can be observed on the left; of course none of this colour would have been seen by the original miners not only because they only had candles for light, but mainly because the rock and ore colours would have ranged through black and grey to brown. The brilliant colours shown are caused by secondary mineralisation when the primary mineral ores are altered by oxidation and hydration in the open mine passages.

Naturally the way outbye is blocked, so all returned, passing the Green Pool en-route to Blue Rock Chamber. The cross cut to South Vein was examined and the draught commented on. Alex attempted the climb out up the rise at the far end of the Chamber but went for discretion rather than valour, and the party opted for lunch just short of the actual chamber on the basis that the floor was in a pretty ropey condition.

Lunch over, descent below Blue Rock Chamber to the Pinnacle led via hand lines to the short 4-5m abseil. At the prompting of the visitors the maillon

at the top was replaced. When the descent was made it became clear that the rope itself was in a very poor condition; anyone undertaking this trip should definitely use their own rope for this section.

The final 25 metre pitch has to be approached with caution, since a steep slope persists right up to the anchors, but the actual descent is very pleasant, landing on the roof of the section of Grey Crag level re-opened by CATMHS. At this point Mark Hatton received promotion in the field to Meet Leader, charged with showing the party round Grey Crag and Hospital Level and getting them out to the surface, while the actual ML and Chris Cowdery dropped the bottom pitch rope down to Mark and headed back up to Leverswater, derigging as they went.

The success of the operation may be judged by the fact that Chris and the ML got down to Hospital Level about ten minutes after the rest of the party emerged. Chris left immediately for an important engagement in Manchester and the remainder of the party enjoyed refreshment in the Black Bull, in Coniston.

A good day out (it was raining on the way down!) Many thanks to Chris Cowdery for the transport and derigging and Mark Hatton for taking charge at Grey Crag level, bringing the rope out and supervising the exit of the party, and providing the photographs.

## **GREENSIDE THROUGH TRIP 15<sup>th</sup> November 2015**

John Aird, ML, Ian Hebson.

This trip had been organised at the specific request of a member (one who is not very good with Grid References), who then announced on the Saturday afternoon he would not be attending. This left the ML and Ian Hebson, who had said he might attend but if the weather was good would be up on the fells. By this time the weather forecasters had lashed themselves into a frenzy, issuing doom laden prophecies at every turn, and it was only the elevated situation of the Brotherswater Inn that allowed the ML to sleep at all, although he was acutely aware that a beck actually flowed below the centre of the building.

Sunday dawned wet, very wet and the ML drove up to Greenside resolved to wait until the stroke of 10.00 intending to depart immediately if no one was there. At 10.00 no one was there and, in a foolish concession to decency, the ML remained until 10.05, when an approximation to a drowned rat appeared and proved to be Mr Hebson. He proudly announced that he had already been up to Red Tarn! Taking a deep breath the ML apologised and explained that he did not propose to climb up to the Glencoyndale Adit (even if he could find it) under the prevailing conditions. In no way put out Ian said that was alright, he thought he'd go up Helvellyn!

The ML felt honour bound to return the gear to Mandals in Coniston, since the day had ended before it had started, but this proved somewhat problematic. Ambleside was reached without difficulty, but at two points on the way from the Brathay Bridge to Skelwith the Landrover's wading ability was used to the absolute limit and Skelwith Bridge was impassable. A diversion via Elterwater and Colwith was successful and the absence of traffic meant the ropes could be washed in the surface water on Oxenfell.

This. I thought, "is an unacceptable affair", when not even the ML goes on the meet, but on the way home I recalled a previous event at Caudale Quarry, 18<sup>th</sup> May 2003, when no less than P Fleming, I Matheson and M Simpson decided not even to leave the vehicles due to the rain, wind and low cloud. If they can do it so can I!

John R Aird.

A subsequent communication from Ian Hebson indicated that if possible he got even wetter, and on the top it was difficult to stand up!



### **Tilberthwaite Mine meet 13<sup>th</sup> December 2015**

Warren Allison (meet leader), Chris Cowdery, Joanne Cowdery, Mark Waite, Anne Danson, D Merrin, Maureen Fleming, Keith Sykes Mark Hatton, Roger Ramsden, B Ramsden, John Aird, Leslie Aird, Alastair Cameron.

John Brown who had been listed as the meet leader was unable to make the AGM and the meet due to having been turned back on Stainmore on Saturday afternoon due to snow. After having breakfast at Rydall Hall, we drove to Tilberthwaite and with people arriving at different times due to the road conditions, we changed at the car park below Penny Rigg Quarry and set off for the Horse Crag level at around 10.30am.

People had entered the mine at different times and first viewed the slate closehead which had been worked in the 1930's by John Willie Shaw and then in the 1990's by George Tarr. Members and guests were suitably impressed by the 10-foot-high wall made of slate which the society had built to hold the hundreds of tons of debris from the first fall and George Tarr had previously commented was as good as the old men would have done. It was pointed out that the floods of 2009 which had wrecked the work on the first fall had happened on the weekend of that AGM and it was with some trepidation that the same may have happened to the work on the second and third falls the weekend before in this year's flooding of Cumbria.

Once the gate at the first fall was opened we walked up the cross cut which for much of it still has the original rails in place, to where it turned right on to a vein at which point the pack



wall containing the debris from the second and third digs has been stacked starts (now some 130 yards long and in places 20 feet high). It was explained how we managed to fill the one ton dumpy bags which are up to five high near the end of the pack wall with another three feet of debris on top. The pack wall was built like a series of steps,

John would stand on the tub and throw the small trugs holding around 15 kilos to Colin who was on the next level, who in turn would throw them to me on the upper level. We had installed two wire zip lines which had ropes slug off to each corner of the bag to hold it in place. This method of using small trugs worked well as one person could pass it to the next lifting it around 6 to 7 feet high.

I had some misgivings as we walked on as there had obviously been a great deal of water through the mine due to the floor of the level having been cleaned of any debris and it was a welcoming sight to reach the end of the pack wall to see that nothing had moved. We

continued up through the two digs to the fourth fall and all our work was still standing, this was a testament to Pete Blezard who had taught us to do the job properly. Pete's tub which we used, without which we would have not managed to complete the project, still stands on the original rail and will do for ever as we cannot bring it back out due to the gap between the pack wall and side of the level being too narrow, even if we broke the tub down into its individual components. We intend to put a plaque on the tub in memory of Pete.

Due to the recent rainfall, the water behind the fourth fall was over waist deep, however four intrepid members braved the icy water and went to the forehead where the ladderway and ore chute come down from the upper workings. As some people at the fourth fall were getting cold they walked back to the cars and after a little while Mark Waite came excitedly back over the fourth fall asking for a piece of wire to recover a clay pipe he had found in a shot hole near the forehead. Shortly he came back with the clay pipe in his hand and took it out for other members to have a look at before asking for to be returned to the mine.



The next three falls will be cleared to allow the water to flow on the floor so that only wellingtons will be required to get to the far reaches of the level.

Having locked the gate, the last few members walked back to the cars stopping to discuss various matters with Mark Hatton who had parked just beyond the car park.

On a personal level, this meet finished what had been a superb weekend starting with the AGM at Rydall Hall which is as good a place as you can get in the Lake District at a very reasonable price and they always make the Society welcome. The facilities are good, food is excellent and the company is exceptional.

Warren Allison, photos Mark Hatton.



### Haweswater Copper mine

On the North Bank of the Haweswater Reservoir, near the hamlet of Burnbanks, is the site of a sizeable copper mine. Three levels were driven in to the flank of Great Birkhouse Hill. The date of these workings is unclear as very little historical information appears to be available. But the workings clearly date back to the 19th Century and various maps from the middle of that century show workings here.



Visiting the workings today is quite rewarding as the middle and upper levels remain open for their full length and are both in quite a reasonable condition. Both carry knee deep water for part of their length so wet wellies are inevitable if you wish to explore these levels. The main access problem is that the whole area around the levels is heavily covered in gorse, bramble and hawthorn and these are more effective than barbed wire at repelling curious visitors. But careful navigation around the thickest sections of vegetation and the judicious use of secateurs can allow access without sacrificing too much skin and blood.

The middle level is the easiest to find as a large spoil heap pokes out of the gorse jungle. This level runs for some 180 yards (with several short cross cuts) and ends at a beautiful blue water flooded sump (depth unknown but clearly many yards). The remains of a Jack

Roll windlass is still in situ above the sump. Quite where this sump goes is not entirely clear.

If it does connect to the lowest level, would the water not drain away? The middle level shows very little stoping and any veins appear stringy and sparse. Some small patches of malachite and azurite staining is apparent but the overwhelming feeling is that this level was a big disappointment to the miners (and investors) involved.

The upper level is some 150 feet higher up the gill. Finding it is not easy as there is no visible spoil heap, although there is lots of spoil like material spread liberally across the fellside hereabouts. There is a stone structure (a loading platform or foundations for some other structure perhaps?) visible on the way up to the top level, and you need to fight your way beyond that and over the gill to find the entrance. This top level is shorter (totalling about 100 yards) and reaches a T junction after only 15 yards. The left hand branch follows a stringy vein for 20 yards which clearly wasn't worth pursuing further. The right





vein for 20 yards which clearly wasn't worth pursuing further. The right hand branch is initially dug double width (not clear why) then turns 90 degrees into the hillside and runs for some 65 yards through some very red coloured rock to a vigorous small waterfall entering the level.

The bottom level appears to be some 350 yards further east and is completely run in. The size of the spoil heap (most of which is over the wall towards the reservoir) suggests to me that the lower

level would not have been anywhere near long enough to reach the sump at the end of the middle level. Immediately above the bottom level there are several surface trenches and disturbed areas of ground, but no entrances could be found.

To visit these workings park at Burnbanks Village and walk for about 1 km due west along the bridleway that follows the north shore of Haweswater Reservoir. A suit of armour would be useful in fending off the gorse!

If anyone has any further information about these workings or anything else in this area, I would be very interested to learn more.

Mark Hatton

### **The 'Belching' Mine**

Some time ago, probably in the late '80's, several of us started to become aware of a strange phenomenon taking place in Coppermines Valley, Coniston. On a few occasions it seemed as if, overnight, the boulders in Red Dell Beck turned white in a spectacular way. The whiteness stayed for about a week and then slowly faded.

This was particularly noticeable to fellow members of the Barrow Mountaineering Club who spent quite a bit of time in the Valley, staying at their cottage at the mine. None of us could think of a sensible reason for the white boulders; we even accused local artists of being responsible. However one thing was clear, the material that caused the whiteness was coming out of the mine in the outflow from Deep Level Adit. Beck boulders above that point showed no sign of any white colour. Members of the mountaineering club referred to it as 'belching', quite an appropriate term, as it later turned out.

At one point samples of the material were scraped off the boulders and sent to local laboratories for analysis. This proved inconclusive, with much of the material removed consisting of iron and copper salts which, bearing in mind the quantity of chalcopyrite and also magnetite in the mine, was not a surprise. We were all aware of the enormous void that existed beneath Red Dell. These were the Bonsor Stopes, in parts over 100 meters long, up to 8 meters wide with the lowest part of the stope well below sea level. This open void is flooded to a depth of nearly 400 meters and in the past we had listened in awe to the tales of the cave-divers who had descended for short depths into the grimy murk.

Eventually we lost interest in the phenomenon, assuming it was just ‘one of those things’ which couldn’t be explained.

In 2014 the Environment Agency started work on their ‘Minewater Project’ in Coppermines Beck. The project was intended to identify the source of the heavy-metal contamination present in Coniston lake and recommend the best way of eliminating the problem. It didn’t take long for Liz Withey, one of the EA’s Environment Officers who was working on the project, to start questioning the occasional occurrence of belching. What were the materials that were being ‘spewed out’ and what caused it to happen? Those of us she asked, who knew the mine well, had to admit that we had no idea.

The ‘eureka moment’ occurred in early 2015. One evening, during a Coniston Parish Council meeting, I reported on the progress of the Minewater Project and commented that a new incident of belching had just occurred a few weeks earlier. My report was followed by a young WPC’s who ran through the criminal and nuisance incidents in the parish over the previous few weeks. She reported that there had been a few burglaries and drink driving issues. And then she mentioned the large number of phone calls the police had received about a recent earth tremor. Suddenly I realised that she may have given us the answer! The cause of the belching was staring us in the face. It was very likely that it was earth tremors.

Almost immediately work started to link up the two phenomena by using archive records. Fortunately we had good records of some of the incidents of belching written up in past Barrow Mountaineering Club newsletters. It was then just a case for Liz to check the BGS’s Earthquake Records for the Cumbria and the Irish Sea areas to see if there was a correlation. And there was, in most cases, a close match between the two.

Cumbria receives a high level of tremors; five have occurred since September 20<sup>th</sup> 2015. Many go un-noticed by the population – the one recorded a few weeks ago on 1<sup>st</sup> December beneath Ambleside never even made the local press. However that of 12<sup>th</sup> September beneath Kents Bank was felt by a few people in Coniston and gave an extremely significant ‘blip’ on the EA’s water analysis equipment in the Coppermines Valley.

We have assumed that the tremors cause some of the sediment deep down within the Bonsor stope to become churned up and, within a few hours, rise to the surface of the water in the stope. The sediment will then be carried away by the water flow, into Deep Level Adit and out into Red Dell Beck.

The significance of belching to the overall level of contamination in the lake is probably very low. At the time of writing the Minewater project is still running. The level of heavy metals is being monitored at various stations between the mine and the lake. When all this data has been collected and analysed a course of action will be proposed.

However the effect of earth tremors on both sediment and the structure of old deep mines is of significant interest. Dr Peter Cloughton, Hon. University Fellow, University of Exeter attends the Mine Forum Meetings where this phenomena has been discussed and feels that our findings are very significant. He believes that it would be worth discussing the Bonsor stope observations with environmental specialists in West Cornwall where significant deep under-sea mining of tin formerly took place. This is planned for 2016.

Alastair Cameron.

### **Robert Kendal and the A1 pit**

A week after his arrival in the district Edward Wadham recorded a significant meeting in his diary: **7 February 1851.** *After breakfast walked up to Lindal Moor to meet Mr Roper, weather so thick that I lost my way, never having known it, found him waiting for me but not yet sufficiently recovered to walk round the works, so sent Mr William Ainslie and Robert Kendal with me. Very much amused with the latter who is a fair specimen of a Lancashire man, much surprised at the broken state of the ground, produced by the underground workings, no means having been taken to keep up the surface, must have had an awful lot of stuff out of it.*

One man was a future flatmate and brother in law, the other would become a friend and colleague over many years. The Lancashire man had inherited from his father a love of beer and the position of Harrison Ainslie's mine manager. The first information Wadham required was the number of men employed in the mines, then 64, a figure that would increase tenfold in the next 30 years.

Next came an inspection of the mines: **3 April** ..... *Proceeded to Whitriggs and Lindal Moor & made an appointment with Robert (which I hope he will remember) to go down the pits with him to-morrow, the said Robert very drunk, apparently having been in that happy state all week. **4 April.** Went up to Lindal Moor & through the "workings" with Robert Kendall, should think that if the other companies are paying their way, Harrison Ainslie & Co should be coining money. Inspected said Robert's stock of horses, of which he seems not a little proud .....*

The A1 pit was first mentioned on 17th July when Wadham reports that Robert was getting on with it, then Wadham was brought in as Harrison Ainslie's civil engineer. He set out the foundations for the engine house on 8th August, showed Mr Clayton around the site on 23rd September and set out the engine bed on 29th October. Wadham and Kendal were both involved in bringing the boiler from Ulverston on 27th November, and a week later Wadham gave Kendal the plans for the headframe. The following week he went to Preston to give Mr Clayton the final specifications for the engine and gearing. On his return he ordered the mountings for the boiler to be taken down and rebuilt. Mr Clayton delivered the engine on 12th February 1852 and on the 20th he reports that Clayton's man was getting on well with the engine, but nothing happening on the headframe because Matt Lewis was "on the spree".

On 3rd March Wadham was so dissatisfied with the cages that he took the job out of the blacksmith's hands and had them made in Ramsden's workshops. Two days later he had to change the specifications: **5 March 1852.** *To Lindal Moor. Found it necessary to reduce the width of the cages from 3ft to 2ft 8in on account of that d'd fellow Clayton's "Clack-boxes" being such a size. Inspected A1 and found Robert rather ropery. Ainslie there, had some pistol practice at the Fowls, which being unsuccessful got out the gun and Ainslie shot the Father of the family, alias the old Cock, I murdered two pigeons, afterwards to Barrow and ordered the necessary alterations in the cages and got a lift home in Ramsden's trap.*

The engine was christened "Edward and William" on 20th March with much drinking and a bottle of grog broken on the flywheel, but there were more breakdowns and it was a month later before Wadham could say that the engine was going "first rate". On 28th April the leading drift had crossed the main vein and reached the rock on the Eastern side. Wadham ordered a rise to be put up.



On 16th June he arrived as a body was brought out of the Old Engine pit where John Thorpe had been overcome by bad air. He was recently married.

**MARRIAGES.**  
At our parish church, on the 2nd inst., by the  
Rev. N. B. Milnes, curate, Mr. John Thorpe,  
miner, to Miss Hannah Boulton, both of Ulverston.  
*Soulbys London Advertiser, 3 June 1852*

**INQUEST.**—An inquest was held at Lindale on Friday last, on the body of John Thorpe, miner whose death we recorded last week, from suffocation by foul air in a pit at Lindal Moor ore pits. No blame was attached to any one. A verdict was returned of accidental death.  
*The Lancaster Gazette, Saturday June 26 1852*

Wadham was unable to survey the A1 pit on the 7th of July because of bad air, and when he did get in on the 12th he was driven back by it. He was still unwell the next day. In September the A1 workings had reached the Muncaster royalty and arrangements had to be made to weigh the ore separately. There was, briefly, an A1 tender but in February 1853 Wadham noted that it had closed for good after only 6 months.

Edward Wadham was present at the county court on 25 November 1853 when Matthew Boulton and others sued Robert Kendal for unpaid wages. The court heard that the pit had opened in March 1852 and the getting of ore was let in April. There were to be two sets of 17 men and boys underground and plus two topmen and a picker. They were to raise 32 tons per day, on the basis that each full wagon carted to Lindal siding contained 1 long ton of ore. In October Kendal began to doubt that the carts were properly filled and ordered them to be



weighed, it was found that 1197 tons had been raised instead of 1474. The shortfall of 277 tons was calculated as 5 ½ days production and docked from the men's pay. The papers were marked "Settled on the same principle as before, verdict for the defendant in each case"

The Lindal Moor tramway No1 was first mentioned on 2nd April 1853 when Wadham went over the proposed line with Kendal. On 9th January 1854 he drew up the estimate in the presence of Richard Roper and Robert Kendal and the next day gave the contract to Mr Bolton (his spelling, probably Boulton, the contractor for the Furness Railway) for £22,000, to be completed by May 12th. The line included an incline and a wooden viaduct over Lindal Tarn. The first pile of the viaduct was driven on 19th January. On 6th March he plotted the section of the

tramway bridge at 30 chains 30 links (*Present day photo P Sandbach*) and arranged with Mr



Waring to start work on it at once. Again on 15th March he drew up the plans for the masonry supporting the winding gear on the incline and gave Waring the job the same day.

The line was opened on Wednesday 7th June, the same day as the Furness Railway line to Ulverston. The event was celebrated at the Furness Abbey Hotel but the diaries record a second dinner there on 4th October to celebrate the opening of tramways. Presumably this was the completion of the Lindal Moor No2 tramway which he had also been working on. This line was converted to a locomotive line in 1857 but there is no mention of steam power on the No1 line. The diaries record that on 4th April 1859 Edward Wadham and William Ainslie worked the locomotive on yet another occasion when the men were on a spree.

**ON SALE OR HIRE.**

The fine powerful, young, well-bred.  
**SCOTCH STALLION,**

**"SIR COLIN,"**

**I**S now ON SALE, and may be seen at the Stables, Lindal Moor Mines.

"Sir Colin" is a fine dark-brown, 4 year's old; stands nearly 17 hands high, is free from all natural blemishes, and is of excellent temper and constitution. He is half-brother to that well-known horse "Young Scotchman," and was bred on the same farm by his present owners.

**If not Sold, will be Let for the Season.**  
Mr. ROBERT KENDALL, or ROBERT KELLETT, Whinfield, Pennington, will receive applications. 418 3

*Soulbys Ulverston Advertiser, 12 April 1858*

The Furness Railway and the tramway system meant there would be much less work for horses and there were horse sales at Newland and at Whinfield.

With the completion of the No2 tramway Wadham took on fewer civil engineering jobs for Harrison Ainslie. He was now steward of the manor, manager of Longlands mine and agent for Lord Lonsdale. The diaries give more details of days on the grouse moors and less of his inspections of the mines. The last mention of the A1 pit was in October 1856 but he maintained his friendship with Richard Kendal. They met on mining business at Lindal Moor and at

**Important Sale of Horses, &c., at  
Lindal Moor.**

**RICHARD CREWDSON**

Has received positive instructions from  
Messrs. Harrison, Ainslie, and Co., to

**SELL BY AUCTION.**

Upon the Premises at Great Whinfield, near  
**Lindal Moor**, on **WEDNESDAY, February**  
**29th, 1860**, at One p.m. punctually, the  
following list of first-class

**DRAUGHT HORSES, &c.,**

**I**NCLUDING "Boxer," bright bay, rising  
5 years, by "Scotsman," 16 hands;  
"Britain," brown horse, rising 7 years old,  
16 hands high; "Dusty," 6 years old, 16  
hands high; "Lofty," brown mare, rising  
5 years, 16 hands.

The above four are all of the pure Gallo-  
way breed,—are strong, active, and perfectly  
docile.

Also, the Entire Galloway-bred Horse  
"Sir Colin," 17 hands high, rising 6 years  
old, and has proved himself perfectly useful;  
"Orpheus," half-bred Mare, by "Bird-  
catcher," stinted to "Event," rising 7 years  
old, steady in Saddle or Harness; "Boxer  
2nd," 9 years old; Bay Mare, aged; Bay  
Mare, 3 years old, by "Scotsman;" "Punch,"  
aged, 15 hands; One Foal, sire "Event," dam  
"Orpheus;" Chesnut Mare, 9 years, by  
"Hetmon Pla'off," dam "Electric," by  
"Langar."

31 Herdwick Ewes, stinted to a Leicester  
Ram; 6 White-faced Ewes, stinted to a  
Leicester Ram.

**THE IMPLEMENTS**

Include 3-horse Thrashing Machine, with  
Winnowing Machine complete, by Low-  
thwaite, nearly new; Grain and Seed Drill,  
for horse-power, new; Turnip Drill and  
Roller. 6 Carts and Wheels, with Shelvings,

*Soulbys Ulverston Advertiser, 16<sup>th</sup> February 1860*

Longlands, visited the Red Tarn mines in Langdale in 1860 and visited Mr Fell's new locomotive at Whaley Bridge in 1864. On 9th April 1869 Wadham was at a meeting with William Ainslie, Thomas Roper and Richard Kendal and noted that his friend Kendal looked very ill; he died on 23rd May 1869.

John Dunstan began writing mine reports for Wadham & Co in 1881. He mentions that they were trying to get back into the old A1 pit ground from B21.

### **References**

Edward Wadham's diaries are available on cd from Cumbria Records Office, Barrow  
BDKF 224/32 case papers of John High and others v Robert Kendal, ironmaster

Peter Sandbach.

### **The accidental death of James Kendal**

The following is an account from the Westmorland Gazette, 14<sup>th</sup> March 1840, of the accidental death of Robert Kendal's father James. The references to the Wadhams father & son's love of beer and to men 'on the spree' in the article above, together with the ill health of Robert Kendal, the resignation of James Kendal due to ill health and the 'formerly respectable William Thompson', allude perhaps to the drinking habits of the time. IM

### **Dreadful Catastrophe**

We have this week to record one of the most painful and fatal occurrences which has taken place in the vicinity of Dalton since the commencement of our correspondence with the GAZETTE – a circumstance which has hurried two fellow-creatures prematurely to their narrow resting place – an accident so unusual, so unexpected. It appears that on Thursday, the 5<sup>th</sup> inst., Mr. James Kendal, of Standish Coat, who was a short time since foreman of the well-known iron mines at Lindale Moor, but who, in consequence of ill health, had resigned the situation to his son, was tempted by the beauty of the day to take a walk down to visit his old companions; as was natural to expect, they all flocked round him, and a form was placed on the sunny side of the hill for his use, but upon which many others were sitting besides himself, amongst them an old friend called William Thompson, formerly a respectable farmer at Ireleth, but who had latterly been somewhat reduced in circumstances. About twelve more individuals were on the spot, strong and thoughtless, and happy in their fatal security, in the midst of a conversation, we may conclude, most congenial to their minds – that of the operation of the works. This was but a short distance from the mouth of one of the pits then in working, when instantaneously the earth sank, or shuddered, as it is familiarly termed, from the spot where they were sitting, and Mr Kendal and Wm. Thompson were immediately precipitated into the abyss, and, in the most horrible sense of the word, buried alive. Another young man named Ryley was also sinking, but by the gigantic exertions of despair succeeded in clambering on to the solid ground.

The others likewise escaped. All the strength of the works was now summoned, and that strong body of men dug for upwards of two hours with an exertion and an eagerness which may be well imagined while a hope remained to save their fellow-men, at the end of which period the bodies were discovered, but perfectly lifeless, Mr Kendal with his head down, and

the other erect. The bodies were interred on Sunday last, at one time, in the churchyard at Dalton, and the concourse of mourners was greater than has for many years been remembered. So true it is that "in the midst of life we are in death" : two men were thus summoned to their great account. Let us hope that HE who is merciful may look mercifully on their misdeeds; let us hope that HE who chose this method of calling their existence back to himself, perhaps as a warning to others may listen to the redeeming voice of ONE who died to save.

"O slippery state of things! What sudden turns,  
What strange vicissitudes, in the first leaf  
Of man's sad history! Today most happy,  
And ere tomorrows sun has set ----  
To be a thing  
O'er which the raven flaps her 'funerul' wing"

They are left to their cold and silent repose, and we fervently hope that such another occurrence may not take place in this parish of Dalton

We believe there is not the slightest shadow of neglect attributed to the superintendents or workmen in the mines, and we are sure every care is taken and no expense spared to render them secure. The proprietors are Harrison Ainslie and Co. who have always been accounted liberal-spirited masters and have continually been most urgent that nothing should be left undone to prevent such a catastrophe.

Westmoreland Gazette – Saturday 14 March 1840.

### **The last days of Harrison Ainslie & Co.**

Newland Furnace Trust have been given some copy letter books written by the Backbarrow furnace manager and covering the period 1910 to 1917. They show that in some ways the method of working was the same as it had been when the furnace was owned by the Machells. They were working in campaigns whose length depended on the supply of charcoal; the charcoal was bought by the dozen sacks and carried in swills. Keeping track of the charcoal sacks and repairing them was the subject of many letters and the sale of eels made a contribution to profits. Local birch beesoms were used for sweeping up.

Local charcoal was still the preferred fuel but now it was called country charcoal to distinguish it from chemical charcoal, distilled in retorts. The chemical charcoal was dry and free from stones, soil, sand and brands but much more expensive, so was only used to extend the campaign.

The charcoal was riddled as previously but instead of the small coals and dust going to blacking mills, it now went to charcoal dealers. The best grade, described as "blown nutty" was used in the brass foundries at Vickers and Harland and Wolfe; the worst found horticultural uses at Holehird gardens and Ulverston golf club. Another purchaser was the Furness Chemical Company at Greenodd.

A dynamo had been installed but the manager had not yet learned how to charge batteries, a job that seemed to need constant attention until a rheostat was installed. Accumulators were charged for other businesses, including the Swan Hotel. Incandescent lamps were mentioned in December 1912 and 50 carbon filament bulbs ordered the following year but in 1925 the manager ordered 16 dozen metal filament bulbs (20 to 60 watts) as well as carbon filament bulbs of 32 and 50 candlepower.



*Some of the letter books*

Most of the letters were from the furnace manager, Yakob Tornblad to Mr C E Ray at the Lindal Moor offices, and Mr Ray might have been a difficult man to work for. The furnace used 1 ton of red ore to 2 tons of white ore, no

larger than 1 ½ inches square but without too much dust. The mines manager may have been sending what he could get as Lindal Moor mines were closing down about this time,

but it was rarely the right quality, quantity, size and proportion for the furnace manager.

They were not kind to the horse, either: *"We have no hay for our horse again. If you allow us we can get some hay from the co-op Society but perhaps you prefer us getting it from Lindal. At any rate we want some hay urgently."* *"We are without hay again and have nothing to give the horse but that old bad hay which we are using up for bedding. So please let us have some hay first thing. Also please let me have an order for 1 sack of bran."* When the furnace was blown out in April 1911 the horse was sent back to the mines. The furnace manager borrowed a horse from Croasdale and again had to beg for hay to feed it.

The furnace was fluxed with limestone, lithomarge and fluorspar. The fluorspar was another ingredient which gave problems as they had to pick out the galena from it.

After the campaign, which ended in February 1912, the furnace was re-lined. The order went to the Gillhead Coal, Firebrick and Ganister Co, Flimby for the following blocks, to be delivered in this order:

30 bottom blocks

A complete circle each of 5A, 6A, 7A, 8A, 9A, 10A.

3 complete tuyere sets, No 52

1 timp brick, No 53

A complete circle each of 11A, 12A, 13A, 14A, 15A, 16A, 17, 18, 19.  
1 Damstone, No 0  
1 Damstone No 00  
A complete circle each of Nos 20 - 31  
A complete circle of No 32A  
2 tons of fireclay.

He also placed orders for 2 new bronze tuyeres.

Mr Tornblad did not stay to see the relining finished. On 26 July 1912 he requested a day off to go to Manchester on private business and on August 19th he appointed a nightwatchman and left. His successor, T Helander ran the furnace for two brief campaigns. He was particularly concerned about the quality of the charcoal, arguing that it would be better to buy by volume, so that the charcoal burners would have no incentive to include sand, stones and dust. Riddling the charcoal employed two men full time and he was concerned about the cost of melting the stones. An analysis of a particularly good delivery of chemical charcoal was 7% small and nutty and 190 cubic feet to 1 ton but he doubts that it was worth 25/- a ton more than the 49/- a ton that he paid for the best country charcoal. That compares to 40/- a ton for the blown nutty and 20/- a ton for second quality waste.

Mr Helander left about September 1913 in a gap between letterbooks. Before leaving he arranged for the manager's house, Park House, to be decorated, with his successor choosing the wallpaper.

A J Cornfield discussed the possibility of a chemical charcoal works at Backbarrow and made an estimate for re-lining the furnace, but it was not blown in during his time. His letters are concerned with the sale of charcoal waste, sand, slag, scrap metal, eels (340lb) and even the laboratory balance. From May 15th 1915 the letters are addressed to the Pennington Mining Company. The last letter, 8 Jan 1917, asked, on behalf of Mr While, whether Casson and A J Cornfield are insured under the workmen's compensation act. Mr While was about to take over the furnace as the Charcoal Iron Co.

A final volume covers 1923 – 26, but is more of an order book. The first 3 orders are signed AJC. There is no evidence here that the furnace is in blast but Leven brand pig iron was being made in a cupula fired by coke. There are orders for pig iron, coke, fluorspar, pig bed sand and haematite. The Lancashire boiler and horizontal engine were in use at this time. Batteries were not mentioned in this book but the numerous lightbulbs ordered were specified as 240 volts and the dynamo as 8 KW 230 V. Hay was not mentioned but the horse got a loin sheet and belly band and shared the work with a 1924 Ford 1 ton petrol lorry. Most of the orders were for laboratory chemicals from the Lab supply Co in Ramsden Dock Road. This firm supplied chemicals to British Cellophane until it closed in 1994.

Peter Sandbach.

# CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

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