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CONTENTS

PAGE 2...Filling the Gaps - Summertime in Ding Dong

8....West Cumbria Mines Research Group and the Gutterby Mine Project

11...Odds and Ends

12...Christmas Competition (with prize)

12..Journals

13..Winter Puzzlers (with prize)

13.. More Odds and Ends

15...N.A.M.H.O. Code of Conduct for Mineral Collectors in Mines

16..News

18..Calvin's Column

20..CAT AID

21...Mega Mine Man

22...Meets Review



Cover photograph:- Dennis Webb ascending the Derby Rise from the 67yd Level in Ding Dong, Lindal Moor Mines. Original slide by Alen McFadzean. Black and white conversion by Bert Wheeler. Photocopy enlargement by Barbara at the Barrow College of Further Education. Cheers Barbara. 2

SUMMERTIME IN DING DONG

by McF

So you sit down in this green grassy field and talk over a few ideas, discuss the importance of hedge boundaries and mineral owners, resolve again to plug the iron pipe that gushes water from the reservoir in Snipe Gill, and now and again share a few happy memories that have somehow managed to remain happy despite the tragic event that has, in a sort of roundabout way, compelled.... you to visit this peaceful place. The mud in the gateway is hard, rutted, and as red as the hæmatite that lies beneath it, baked by the August sun and stained with cold iron. A solitary spoil heap dominates the empty field. Shallow depressions, barely discernible in the glare of the afternoon, indicate the positions of shafts whose names are confined to mildewed surveys and whose histories have all but evaporated. Over in the corner, beneath a shady tree, is the Ding Dong, a dark shaft descending vertically beneath the broken ground and clipped hay fields of Lindal Moor. B45 Pit the old company called it. The B stood for Buccleuch. You reflect that someone once told you Ding Dong was the miners' name, that it has its origins in Cornwall and was brought to Furness by tin miners seeking employment.

And it was in August, six months after the tragic death of Mark Wickenden, that we decided to implement some sort of programme to explore and document areas of the mine that were virtually untouched. Ding Dong was Mark's project. And so far as the Ding Dong itself was concerned, the project was complete. The shaft had been opened, the workings explored, photographed, and thoroughly surveyed. But there were vast areas of workings beyond the boundaries of B45 Pit, to which it was thought, back in 1983, there must be a connection. Mark alluded to such a connection in The Mine Explorer Volume I.

"....This would be a fascinating system if we could find the link as the Millom and Askam (Hæmatite Company) workings (worked from Derby Nos. 1,2 and 3 Pits) were colossal....."

"....We are not sure yet if the mines are connected but we have come very close. During the dry summer of 1983, we found the 67yd Level, almost dry and intact throughout its length. The level is in fact just over 200ft vertically from the surface. This level was followed for just under 500ft at which point it had sumped to the roof due to the inclination of the passage. However, in one of the side passages we discovered a 25ft rise in a small chamber above the passage (the rise is marked on the survey as Derby Rise).... On looking at the original survey copy later, we found the rise to be just 10ft away from the Derby workings....Unfortunately the 67yd Level is now once again flooded, allowing us only to speculate, that is until the next heat wave......"

The 67yd Level was the main haulage road of the Buccleuch mines, linking nearly all the workings north of the B30 Pit in Henning Valley, from whence it was driven. Localized collapses have ensured that the Ding Dong sections of the tunnel flood to the roof, the water level dropping during periods of dry weather only. During the drought of 1984 Mark, along with Martin Prior, ascended the Derby Rise and discovered a series of workings more extensive and complex than he had dared imagine. Not only had he won into the Derby workings of the Millom and Askam Hæmatite Company, he had passed clean through them and on into the massive chambers of B47 and B43 Pits on the Lindal Moor Main Vein. Later in the summer he returned for another exploratory trip with Martin Maher, Chris Jones and myself, and pushed the system a little further. That was the last time Mark Wickenden set foot in the incredible series of iron ore workings he had striven so hard to discover.

And then came August and September 1986, bringing to the fields of Furness a diluted Indian summer to ripen blackberries in the broken ground



WEBB IN THE 67yd LEVEL

and draw mushrooms from the red soil. The water dropped on the 67yd Level and suddenly, for the first time in two years, the Derby Rise became accessible. Anticipating this situation, Lindsay Harrison and Bert Wheeler had unearthed a series of mine plans relating to the Buccleuch workings, though had enjoyed no success at all in tracking down plans of the Derby workings. The background information for our project was, therefore, incomplete; worse than that, it had an infuriating blank patch right in the middle, for the Derby workings disect the Buccleuch royalty, thrusting in like a great wedge.

The mineral rights of Lindal Moor were owned, predominantly, by the Duke of Buccleuch and worked by Harrison, Ainslie and Company, with the exception of several small tracts belonging to the Earl of Derby. The Derby tract in which we were interested was last worked by the Millom and Askam Hæmatite Company about the time of the Great War. The Derby surveys existed, that we knew. Detailed plans and cross-sections had been drawn up for a legal battle between the two companies at the turn of the century when Harrison, Ainslie and Company accused the Millom and Askam Hæmatiite Company of trespassing into their royalty and mining their ore. The trespass was proved and Harrison, Ainslie and Company were compensated for the loss of revenue incurred. Obviously, if this project of ours, this legacy, was to progress we needed copies of the Derby surveys in order to have an idea of what lay down there. We could, in time, produce our own, given favourable conditions. Though this would not tell us where the legendary 'Trespass Corner' was located, neither would it lead us into the elusive areas of new ground that lay beyond the 1984 discoveries.

On the evening of the 5th of August, Bert Wheeler, Dennis Webb and myself waded along the 67yd Level to the Derby Rise. The water was deeper than it had been in '84, exceeding 5ft in places, and poor Dennis was obliged to swim nearly the entire 350ft from the bottom of Marton Chamber in Ding Dong to the foot of the rise. The Derby workings are incredibly complex and route finding in what amounts to a three-dimensional maze is no easy task. We had hoped to win into some new ground during the course of the evening though I was having a devil of a job re-familiarizing myself with the known stuff. Eventually we won through to the foot of the B47 shaft, situated at the edge of a huge chamber on the Lindal Moor Main Vein, though not by the route Mark had taken me two years earlier.

B47 Pit was sunk through 150ft of limestone to intersect the Main Vein on its eastern boundary. When this portion of the vein had been worked out (and it is 40ft <u>wide</u> in the viscinity of the shaft) B47 Pit became redundant and was utilized as a tip for spoil lifted from neighbouring mines. In later years it was tipped in by the farmer who filled it right to the collar with agricultural waste. Luckily for us, one of his loads, a trailer-full of old



TUNNEL OFF THE MAIN CHAMBER DRIVEN THROUGH SOLID HEMATITE

tyres, jammed in a constriction sixty feet from the bottom, effectively confining further tipping to the upper section of the shaft. The main chamber, then, is not as the miners left it. There is a huge cone of spoil, scattered with tyres and cow skulls, rising to within twenty feet of the foot of B47. You can look up the shaft and just make out the blockage of bulging rubber high in the dripping shadows.

The floor of the main chamber is composed of backfilled spoil and huge limestone slabs which have dropped from the roof. Everything is coated in a sticky red silt - residues deposited by the floodwaters of winter. It was rather disconcerting to note that the footprints of our 1984 visit to this now silent and waterless chamber had been almost washed away, leaving only the slightest traces on high banks where the mud was firmer.

Disappointed that nothing had been achieved on the 5th of August, Bert and I returned on the 16th with Chris D. Jones and Chris Moore. Our spirits were high as we made our way down through the Ding Dong workings; we had rope, ladders, and enough food and drink to last us a good ten hours. Imagine our utter bewilderment when we arrived at the foot of the Marton Chamber to find the 67yd Level flooded to the roof. The water had risen by 18" in the space of a few days. True, there had been some rain though the weather had not been particularly wet. This development forced us to regard the 67yd Level in a different light. It dawned on us that we were dealing with a series of tunnels more akin to an active cave system than an abandoned mine, and that once up the Derby Rise at the further end of the 67yd Level there was a very real danger of becoming trapped should the weather take a nasty turn. We resolved to obtain a detailed weather forecast before embarking on any future trips, not wishing to spend a winter in the Derby workings despite their attractions.

On the 14th of September Jones, Phil Merrin and myself descended to the 67yd Level and found the water low enough to allow us a safe passage to the Derby Rise. We spent a total of seven hours underground, during which we sketched a rough survey of the Derby, B47 and B43 workings, measured and sketched, in detail, a wooden ore wagon Mark Wickenden had discovered in 1984, and, to my great satisfaction, won into some new ground. This new ground wasn't much to get excited about, just a few fathoms of chamber deep down in the Derby royalty, but the potential looked good for we could see, below a pool of crystal clear water, a main haulage road cutting right across the chamber, one branch running due east and towards Carrkettle Pit, the other due west in the direction of the Main Vein. If the weather remained dry and the water dropped by another foot then there would be sufficient air space to cruise along the level and, with a bit of luck, win into something worth writing an article about. Now, more than ever, we needed a copy of those elusive trespass plans to ascertain just exactly where we were, and to where this haulage road led.

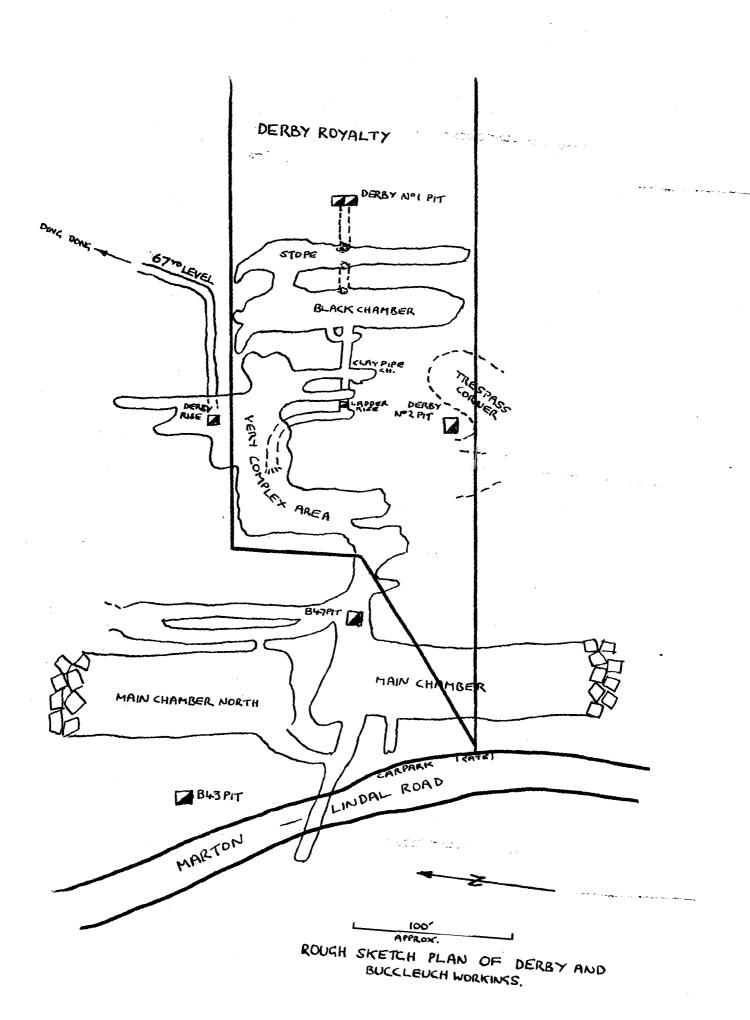


PART OF THE MAIN CHAMBER (NORTH)

Certainly it would have been driven from one of the three Derby Pits, though we had no idea as to which one it would be. We didn't even have the faintest inkling of the position of our new discovery in relation to the surface. So complex are the Derby workings, so irregular and deceptive, that one's sense of direction is reduced to bewilderment within minutes of scaling the Derby Rise.

Taking advantage of the late summer Bert Wheeler, Dennis Webb, and myself returned to the new discovery on the 20th of September. The water in the 67yd Level had fallen by a further two inches, as had the water in the Derby haulage road. It was now possible to look a short distance along the eastern branch of this tantalizing level, though there was only one inch of air space between water and roof. A brave man would have lain on his back and floated steadily along with his nose scraping the rock. We, however, resolved to leave it for the future and spent the day photographing the workings instead. We climbed out to surface at 6:30 in the evening after spending another seven hours underground. We'd had a good day, after a fashion, though our enthusiasm was beginning to wear a bit thin. The more time we spent in these workings, it seemed, the more we exhausted our chances of finding a route into the expansive area of unexplored ground which lies between Marton and Lindal. It would not have been true to say we were losing interest, on the contrary these iron mines had us intrigued, though the physical effort of crawling and climbing through the maze of galleries, the chilling effect of being immersed in chest-deep water for minutes on end, were damaging moral. We needed a breakthrough to end the summer, a spectacular discovery to raise spirits and give us something to look forward to revisiting in 1987. The potential was there. In the very field in which Ding Dong was situated there were the three Derby Pits. We had been in a portion of their workings but as for the engine shafts themselves we had seen not a trace.

On the evening of the 4th of October Bert Wheeler and myself embarked on what was to be the last trip of the year along the 67yd Level and up the Derby Rise. The water in the 67yd Level had notbudged an inch since the previous trip so we didn't hold out much hope of getting into our Derby haulage road down in what has become known as Clay Pipe Chamber (in celebration of a nest of pipes - both clay and bramble - discovered on the 14th of September). As a matter of course we visited the spot just to make sure and to our utter astonishment observed that the water had dropped by a good 18". Notions of the Derby haulage road and the 67yd Level being one and the same, or linked somewhere, or sharing the same horizon, were immediately shattered. Indeed, the whole concept of there being a common water table in these mines was hastily ditched. I had harboured doubts ever since noticing that the silt deposits on



the walls of the main chamber were a good deal higher than those in the bottom of Ding Dong. This latest discovery confirmed that we were dealing with a system of mines in which were situated a number of independent water levels, all draining at different rates and flooding to different heights during periods of wet weather.

We dropped down into the eatern branch and made our way slowly along the new level, water lapping around our chests. To our dismay the roof began to get lower till, at a point about thirty feet from entry, there was an air space of six inches, room enough to progress with your right ear scraping the roof and your left eye tightly closed and under the water. Situations like this are not too pleasant. I was considering giving up and turning back when suddenly I emerged in a deep pool in the bottom of a huge, black chamber. I was surrounded by great black blocks of limestone which had fallen from the roof high above my head. The whole place was black - walls, timber, arched roof - black with the silt of the winter floods. I recall uttering "Christ Almighty" over and over again. Bert emerged from the level, and there we stood, water rippling about our chests, gazing along the length of this massive excavation and summoning the courage to clamber up among the blocks and commence our exploration.

The chamber was 30ft wide, 140ft long and perhaps 15ft high, raising to 40ft at its northern end. We spotted a crosscut heading east, twenty feet up a sticky red wall. After a tricky climb we were heading in the direction of Carrkettle Pit, so we thought, but after a few short paces we were in for another surprise - a second chamber running parallel to the first, but bigger! This chamber took the form of a stope, or ginnel as the Furness miners would have called it, perhaps 30ft wide at its northern end, tapering down to 10ft at its southern. It appeared to be of a similar length to the black chamber but was much higher, 60 or 70ft in places and rising beyond the limits of our lamps down at the southern end. It was a stope of Conistonian proportions, boulders and timbers cluttering its floor, smooth crimson walls ascending to the dark roof high above us. Certainly it is the grandest stope I have ever seen in a Furness iron ore mine.

We returned to Clay Pipe Chamber and proceeded to follow the western branch of the haulage road, sure in our minds that any further discoveries would be an anti-climax. Soon we found ourselves at the foot of a rise. Wooden ladders were still in situ, pinned to the walls with nog bars. We had no rope and the ladders were rotten - and besides we were both shivering uncontrollably with the cold so we pushed on to where the level terminated in a collapse.

We reached the surface at 10:30pm. It was raining hard, the first rain - or so it seemed - for weeks. The summer's exploration had drawn to a close, ending on a triumphant note. Moral received a further boost when several days later Eric Holland discovered copies of the Derby surveys tucked away amongst his piles of mine plans. The two chambers - the black chamber and the stope were depicted in every detail, disected by our haulage road, the Derby 81yd Level. And what's more, surprise surprise, unbeknown to us the level continued east as a crosscut in solid limestone to a station in the Rawlinson Shaft, alternatively Derby No.1 Pit, the main engine shaft of the royalty. The crosscut must have been burried under the rubble in the floor of the stope. The shaft was a mere thirty feet from where we had stood.

Next summer, weather permitting, the work will continue. Armed with our plans we are now reasonably sure of winning into the workings of Derby No.2 Pit and the fabled Trespass Corner. Enthusiasm is at its highest and we have no shortage of volunteers willing to brave the chilling waters of the 67yd Level. It is sad, though, to reflect that the man responsible for digging open the Ding Dong and initiating this exciting project is no longer with us. Mark Wickenden was a dear friend and companion. His irrepressible energy and zeal inspired us all. It is an honour to attempt to take over where he left off, to pick up the pieces, to try and fill the gaps. Mark left us an intriguing legacy and a host of happy memories. It is up to us to ensure the legacy matures. The memories will take care of themselves. They will live for ever. The C.A.T. has long had an association with the hæmatite mines of Furness and north Lancashire. It could be argued that along with our project in the Coniston Copper Mines, the iron ore workings of Furness have proved to be one of our richest and most rewarding avenues of exploration and research. By comparison the hæmatite mines of west Cumbria, and particularly those abandoned workings in the Egremont area, have received scant attention despite being geologically and technically similar. It was with interest, therefore, that we learnt of a new group, initiated to document these workings, who were engaged in reopening and exploring the mines around Egremont. The group's secretary, Dave Banks, has kindly forwarded the following article. It makes refreshing and interesting reading.

WEST CUMBRIA MINES RESEARCH GROUP AND THE GUTTERBY MINE PROJECT

by Dave Banks

W.C.M.R.G. has been in being for about two years now, based in the West Cumberland iron ore district. Our main line of interest is in the Cleator Moor and Egremont area with the fell mines of Ennerdale, Wasdale and Eskdale. Until this year our ventures underground have been confined to the levels in Ennerdale and Eskdale but mainly in Knockmurton Mine.

It was on a trip to the Carlisle Records Office researching Knockmurton that we came across plans for an inclined drift mine on Bigrigg Moor. From the geological survey map of the area we knew roughly where it was, but until now, had not located the entrance. These plans, one of which was an abandonment plan, showed, to scale, where the entrance was.

After a couple of false starts we found the farmer who owned the field, a Mr J. Irving of Moor Row, and much to our surprise he agreed to us digging a big hole in his field to find the level. He even offered us a JCB that his mate stored at his farm!

We did, however, know another friendly farmer who came complete with excavator for only f6 per hour, and we started excavations in early October. We marked out the area required anticipating the underlying limestone to be 3-6 feet down. No such luck. The western edge of our hole coincidentally was exactly in line with the step in the 1st limestone and went down nearly vertical, likewise the southern edge had a lower step which dropped down to the north. The digging continued down to about twenty feet in depth, when, after four hours digging, the excavator uncovered a crack 3-4 inches wide in the south-west corner. On inspection we discovered it was emitting a nice cool draught. We had found it!

The following day we resumed digging down but a large boulder caused trouble. The back-acter of the excavator was at full stretch and couldn't shift it. Henny had to back off and dig himself in deeper to reach below the boulder which turned out to be 5ft long by 4ft x 3ft. Having removed this obstacle a large hole was left, which, on inspection, continued under the rock shelf on the other side of the hole.

Our luck had held, our entrance was no more than two feet down the incline from the infill material deposited in 1890.

This drift mine was cut to follow the deposit at the base of the 1st limestone which had been mined in the mid 1800s by a number of shallow shaft mines, the earlier ones being ladderways with engines and headgear in by the mid 1850s. Thw incline drops at about 1 in 5 for about a hundred yards and heads almost due west. It runs through the ore deposit which was here a large 'flat' type deposit, the huge worked out chamber of which stretches out north and south of the incline for several hundred yards.

These older mines were in a series of different royalties mining the same deposit in the 1st and later the 2nd limestone, the drift having been driven to enable easier removal of ore from the pillars left by earlier working. In fact the only intact pillars in the mine are those that surround the old shafts, all others having been replaced by stone built pillars of deads.

The main incline descends to a depth of 96 feet and then turns back on itself at what appears to be a fault. It then descends another 18 feet to 114 feet. The incline is mostly 4 - 5 feet high but the roof is stepped in

places giving a welcome relief from crouching. There are few intact levels, most having been worked out with the walls being replaced by deads in some places, and the area between them a mass of fallen ground and occasional stonebuilt pillars.

One level on the main incline seems to have been cut along the north south fault directly across the east - west line of the incline. This fault is about 6 feet wile and large blocks are hanging or have already fallen across the incline but behind these falls the level looks promising.

The bottom two levels have been explored several hundred yards northwards to the end of the workings but the roof in a number of places is very alarming. At the northern end of the bottom level the area is stoped out and drops over a ledge onto piles of rock, through which can be seen a flooded level below the ledge. The workings continue sloping down to the west but are now flooded.

The bottom levels to the south are now being explored and a number of interesting aspects have been found. One, a rise which seems to have been a a ladder shaft and is beside the pillar that contains the old Gutterby engine shaft in the Lindow royalty (the incline being in the Dalzell royalty).

About 75 yards south of the base of the main incline is a drop shaft approximately 8 feet square which is cut straight down from a level only 3 - 4 feet high. The water level in the bottom varies with the rainfall but is about 25 feet down, depth uncertain.

Beside this we found two damaged but otherwise uncorroded galvanised buckets and a complete clay pipe with 'T Reid & Co.' and 'Barrow' on each side of the stem. A number of broken clay pipes have been found, most of them made by 'Wm. Tennant' 'Newcastle' but one has 'W. White' on it which is a Glasgow pipe and another has 'Wilson & Son' 'Whitehaven', both stems only. Other finds include a variety of wedges, shot hole tools, clog irons, a duck lamp about six inches high, a George IV penny (minted 1826-30), bogey wheel parts, staples, broken jumpers, detonator and charge boxes, bean tins (purpose unknown), haulage cables, chains, hooks, a broken ladder (wooden sides and bolt-type rungs), and a variety of ore shovels.

The strangest find is a large iron ball with a ring cast into it. This ball is seven inches in diameter and very heavy, Ian Tyler will testify to this as he dragged it out of the mine on a sling! This ball is just like a convicts ball and chain, but is more likely to have been a counterweight of some kind.

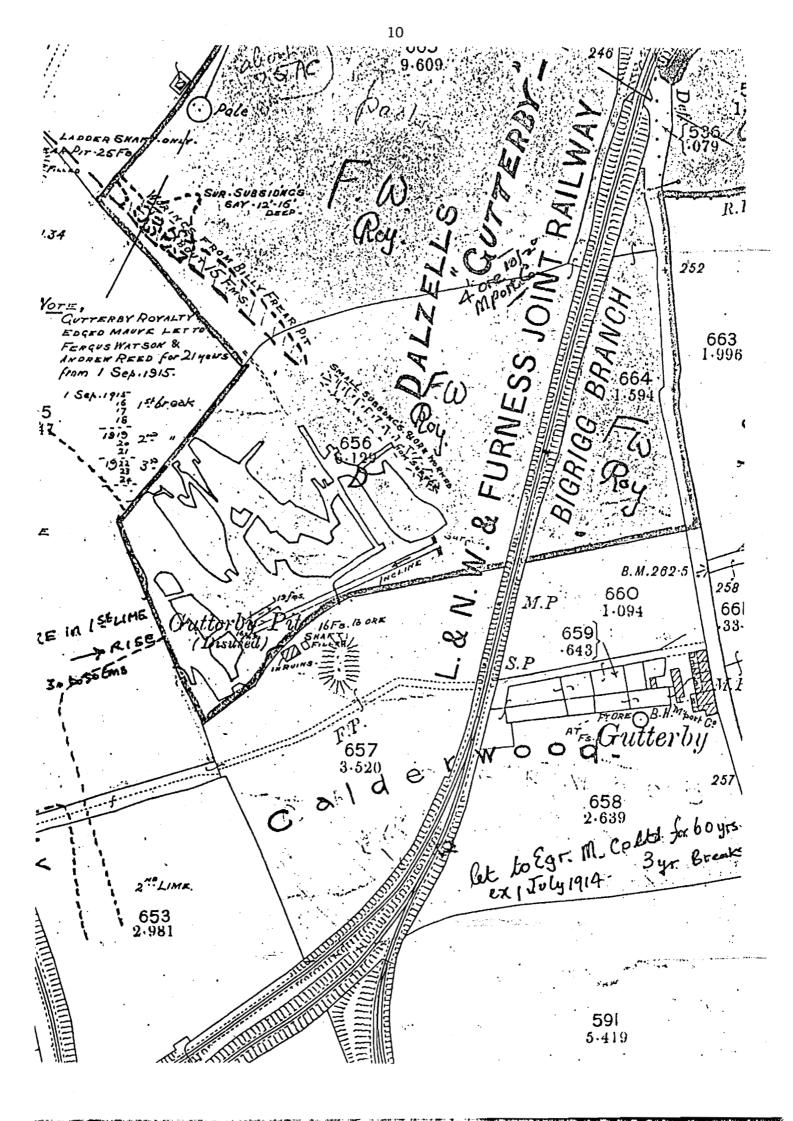
Finally, a few facts and figures. The incline is known as Gutterby No.3 and descends at an incline of 17° on the foot of the 1st limestone for 104 yards west and then down to the 2nd limestone on another incline running 20 yards east. The workings on the main incline appear to be the oldest and are completely worked out. We have no mine plans, as yet, of these workings, but we have plans of the workings of those in the 2nd limestone which were mined in the 1880s. These lower workings are accessable but only with difficulty due to water within a foot of the roof of the level at the foot of the second incline.

The earliest recorded operations in this area were by the Lindow family in 1834 in their own royalty and reached by a ladder shaft, presumably Gutterby No.1. In 1855 they were operating in the Dalzell royalty from an engine shaft but it is uncertain if this is the No.2 shaft or the No.1 opened out. These workings were in the 1st limestone and had broken into earlier workings of the Barker Pit which is filled but can be reached on the top level north of the incline, and probably date from the mid 1840s.

To wind up this epistle, most of the exploration work is done by four of our members but we are happy to have interested visitors join us. C.A.T. members Ian Tyler and Dave Blundell have already done so on seperate occasions and also Albyn Austin, who is a C.A.T. member and a member of our group, with Andy Stables, Martin Bently et al. So any others please contact myself, Dave Banks, Honorary Secretary, W.C.M.R.G., 31 The Crescent, Thornhill, Egremont, Cumbria, or Tom Coulthard on Beckermet 217 (chief mole).

Ed. Many thanks to Dave Banks, also Albyn Austin who has endeavoured to involve G.A.T. members in the Gutterby No.3 project.

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Sygun Copper Mine.

This Welsh copper mine has been open as a show mine since the early summer and this includes a 40 minute underground trip taking in some spectacular stals' and workings. Apparently the site has employed 15 people. When is there going to be a good show mine in the Lake District, I would have thought the tourist potential would have been endless.

Trouble at t'mill?

There is a report in the latest Friends of Killhope newsletter of recent serious damage in that old battlefield, Smallcleugh Mine. Hopefully, the recent activities of Cumbria County Council in working at the site coupled the their future aspirations will in some measure go towards ensuring a rosier future for the mine.

Killhope News.

Despite the really awful weather the investment at Killhope continues apace. They report 21,000 visitors this summer, an increase of 6,000 over last year. A great deal of work has been accomplished and the area is still developing. I won't try and describe all the work that is taking place but you should all go and have a look for yourself and at the same time you will be supporting a superb project.

Longholehead Whimsey.

Recently a C.A.T. team set out on a very windy day to tackle the Whimsey Shaft high on the road between Nenthead and Garrigill. On arriving at the shaft the belay was quickly rigged using the concrete sleepers which now cover the shaft top. They are not the best belay but the shaft is in the middle of a desolate moor and nothing else was available. Alastair was first down fitted out with the field telephone system, a veteran of many such descents on Alston Moor. The shaft itself has a depth potential of a little over 400 feet and could prove the connection between the Garrigill workings and the slightly lower far reaches of Capleclough mine. The first part of the shaft, some 80 ft., is a magnificent stone lined affair disappearing into the bedrock. Alastair was able to get off a little over 200 ft. down in an intermediate level. He was then joined by Phil Merrin and finally by Martin Maher. Martin elected to go first down the next section and joined on another length of rope to make the attempt. He set off down, passing the knot but was driven back by a large expanse of water with no way off it showing. So he had to reluctantly retire back up that long climb. The other two followed him out and the shaft top was again made safe. The surface team was Mike Mitchell, Ann Danson and Chris Jones. A day of mixed emotions, at least the shaft had been bottomed and it's secret unlocked. This was a project which had long excited Mark Wickenden and we were all sorry he wasn't there.

C.A.T. Christmas Competition.

Well here it is, just the thing to puzzle over while recovering from the aftereffects of over-indulgence in the Chrissy Turkey. Just answer these simple questions and then shuffle the initial letters of the answers to form the name of a wellknown (?) Mining Site. Put your answer in a letter along with a 50p coin and send the answers to either CDJ or McF. by the 31st January 1987. The winning entry will then be drawn at the Irish Slide Show at the February Monthly Meeting. The grand prize is a good condition copy of Sir Kingsley Dunham's "GEOLOGY OF THE NORTH PENNINE OREFIELD, VOL I" This book, long out of print is the mining bible of the area from Hadrian's wall to Brough and was donated by Don Borthwick. The profits, by the way, will go into C.A.T. funds.

The only clue is that this mine has been mentioned in a previous C.A.T. publication.

QUESTIONS.

1. A name used by Derbyshire miners to describe the hard basaltic rock which abounds in their area and often thwarted their efforts.

- 2. A kind of metal bucket used to lift ore from mines and often argued over. 10,11
- 3. A long drainage level in the N. Pennines, masterminded by John Smeaton.
- 4. A deathly man-shaped level.
- 5. Naturally occurring aggregate from which a metal can be extracted.
- 6. 32 yards of ground measured on the vein.
- 7. A famous North Pennine waterwheel with fatal but future connections.
- 8. Above Cambrian in the old order of things.
- 9. Nantlle, Gorseddau, Ffestiniog and Furness are all examples.
- 10. The main river that flows through C.A.T.'s North Pennine base.
- 11. Where was Orpheus to be found?

Journal No 2.

You should have got your hands on a copy by now, I hope you are all pleased with the result. Sorry to all those people who have sent in artcles (2) and have not had them printed. Better luck next time... Journal_No. 3

I know its a bit premature but you should now be thinking of committing your memoirs to paper, all contributions will be welcomed even if if its only half a page. Projected publication date-Late 1988. More Winter puzzlers.

The second in our series of Super Soaraway competitions is a straight quiz. The rules are exactly the same as the last one, it costing a measly 50p to enter. Answers again to McF. or CDJ and again they will be drawn (if more than one have the correct answer) at the Irish Slide Show in February. Closing date is 31.1.87. The prize is a book and a bottle of wine.

1. What is "Hydraulic" mining? 2. In which Welsh mine is an underground water-wheel to be found? 3. In which mine is "The Green Ginnel"? 4. What is the 'duty'of steam engines 5. Who last worked the Nenthead Mines on a large scale? 6. What is the name of the most famous 'flat' in Smallcleugh? 7. What is a "jumper"? 8. We all know of Sir Francis Mine but what was his surname? 9. What is a hush? 10. Which river does Magpie Sough drain into? 11. Who was the Fleming of Coniston's Fleming's Level? 12. What is a 'Capuchin'? 13. What mineral besides coal was mined in Whitehaven up to 1976? 14. What does C.O.M.R.U. stand for and who leads it? 15. Who wrote "The Lead Miners of the Northern Pennines"? 16. Into which river does the Nentforce Level empty into? 17. To the nearest mile, how long is the Milwr Deep Level? 18. What are the ancient copper mines on the island of Anglesey? 19. What is a "Fahrkunst"?

20. In which Cumbrian mine is Smith Shaft?

Cornish Oddities.

We all know of Phil Merrin's strange habits but all Cornish men seem to be similarly affected. In 1792, the inventor Murdoch lit up his workshops in Redruth with coal gas, being the first man to utilise this fuel. Prior to this he had been in the habit of carrying a pigs bladder full under his arm, which supplied a lighted jet for him to see in his nocturnal ramblings across the moors of Cornwall. This caused great alarm to the locals who thought him bewitched.

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High Crossgates.

I recently came across a sale catalogue for this and other mines on the Duke of Buccleugh's royalty in Lindal and Martin, Furness. This presumably dates from

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المراجعة ال محمد المراجعة the sale of the property by Messr's. Harrison, Ainslie and Company in the early years of this century. This mine is of particular interest as it was recently entered for the first time in many years by a team of enthusiastic (they must have been to want to go into a Furness haematite mine) C.A.T. members. The main shaft there was called High Crossgates Shaft and according to the Catalogue it had a pithead with 3 sheaves and a winding engine with horizontal direct-acting cylinders of 12 ins. with a 2 ft. stroke. The winding drum had a radius of 6 ft., 4 ft. wide. The whole was made by Cook of Wigan. There was also a second steam engine for pumping. This was a single cylinder horizontal engine 18 in. by 24 in. ströke. It was sold complete with the pumping crank, connecting rod and bell crank. To run these two engines there were two Cornish boilers, 12 ft. by 8 ft. The catalogue also mentions several other old mines around the area and gives fairly explicit instructions as to their engine pumping and winding arrangements.

More Coniston Capers.

As most of you will be aware there was a public inquiry at Cohiston Institute on the 18th and 19th November. The inquiry, chaired by F.E. Palmer heard that the Planning Board were asking for a restoration of the old powder magazine and a removal of the landowner, Mr. Johnson's structure. They were also fighting a change of use for this structure on the grounds that it should not be there in the first place. Mr Johnson was appealing against these decisions. The Planning Board's case was put by their solicitor, Mr J. Chapman and the Chief Planning Officer Mr. R. Baynes. He was supported by many other bodies such as the Parish Council, Friends of the Lake District, 5 Mining Societies including ourselves and N.M.R.S. and numerous other clubs such as the Barrow Mountaineering and Ski Club who own the house near the site. Mr. Johnson was supported by S. Hughes, a 'mining expert', M/s A. Mackintosh, a student at Lancaster University and Dr. Hammersley from Edinburgh Univversity. C.A.T. members were present on both days but were not invited to speak.

<u>N.P.H.T.</u>

Perhaps they've heard our call. There is a inaugural meeting of the North Pennine Heritage Trust at Sam'l Kings School, Alston on the 6th December. These is a gathering of interested bodies concerned with I.A. in the upper Nent valley. There is a lowkey Cumbria County Council involvement in this and they will be sponsoring some schemes to provide employment, etc. The long term aim of the Council is to create something like a Cumbrian Killhope and I have even heard it bandied about that Smallcleugh could become a show mine! The short-term aim is a Heritage Trail around the Nenthead area.

N.A.M.H.O. Code of Conduct for Mineral Collectors in Mines.

As many C.A.T. members are interested in the collection and display of mineral samples these are the guidelines drawn up between N.A.M.H.O. and various minerolo-gical societies regarding this:-

SURFACE.

1. Never visit a site without the land/mine owners permission. If refused, withdraw politely so that future access negotiations are not prejudiced.

2. Follow the rules of the Countryside Code at all times.

3. Do not interfere with or endanger buildings, machinery or artifacts on sites. These are of interest to archaeologists.

4. Ensure dump materials are not scattered on adjacent land.

5. Do not hammer outcrops.

6. Watch out for unprotected shafts and open stopes. Do not allow children and dogs to wander around unsupervised. UNDERGROUND.

Learn and obey the rules of safe suvival underground. If in doubt join a society.
Never break into a mine. Always securely replace gates or capping.

3. Three is the minimum safe number for an underground party, two of whom should be experienced and the third sufficiently responsible to be left with a casualty. All must be properly equipped with helmets, spare lamps, warm clothing and sound footwear. Leave word of your plans for the day with a responsible person then adhere to these plans.

4. Use hand tools only and in particular never use explosives.

5. Do not interfere with stacked rock (whether in the roof or the walls), roof supports, pillars and other feature in a mine, for safety reasons and because much of this is of interest to archaeologists.

6. Collect enough specimens for your need only. Never collect for commercial gain.

7. Do not destroy mine 'scenery' by hammering at materials which will be irreperably damaged in so doing. Such mineralisation should be left in situ for future generations to enjoy.

8. Never collect at Sites of Special Scientific or Archaeological interest.

9. Make every attempt not to disturb flora and fauna and have especial regard for bat hibernacula during the October to April close season.

10. Many mine are becoming unpleasant to visit owing to the accumulation of rubbish andgraffiti. Take your litter home with you and do not mark walls.

Those of us who have been regular visitors to such mines as Smallcleugh and Hilton over the years will have noticed the effects of no.s 5 and 10 and I fear even Hospital level at Coniston is beginning to show the effects of a great many visitors.



THE CARN BREA MINING SOCIETY are to host the 1987 N.A.M.H.O. conference. The conference is to be held from Friday the 3rd of July to Monday the 6th of July and based at the Camborne School of Mines, Pool, near Redruth, Cornwall. Field trips are planned for Friday and Monday with a social evening on Saturday besides the usual lectures and talks. Full details will be circulated to N.A.M.H.O. groups early in the new year.

FOLLOWING THE SUCCESS of Ian Matheson's slide show "Mountains and Mines" which raised over £50 in Coniston on the 13th of July, Ian gave his slides another airing on the 26th of October in the same venue, the Mechanics' Institute, and raised a further £70. The show, which took up a fair portion of the evening, traced the history and exploration of the Coniston Copper Mines as well as touching on other mining and slate quarrying sites in Lakeland. Ian was aided by John and Joan Helm, who were responsible for advertizing and poster distribution, and Wendy Battersby who provided refreshments for the July show. Wendy raised a further £50 for club funds, along with husband Ken, by organising a car-boot sale in the carpark of the Friars Arms Barrow.

EIRE EXPEDITION '86 - THE SLIDE SHOW, (you've read the report, now see the film) is scheduled to take place at 8:00pm on the 11th of February, upstairs in the ANGLERS ARMS at Haverthwaite near Backbarrow. Non members are welcome. Admission is fl and all proceeds are to be directed into an expedition fund to help finance the 1988 expedition to France. This slide show is not to be missed. It is worth seeing for the breathtaking scenery alone.

Because the 11th is the second Wednesday in the month, February's social evening at the Farmers Arms has been cancelled.

THE EATER MEET FOR 1987 will be centred in the Snowdonian mountains, North Wales. Trips into the numerous copper, lead, and slate mines, with perhaps an excursion to the lead mining areas of mid Wales, are on the cards. Camping details will be circulated nearer the date.

THE C.A.T. LOG BOOK is still not up to date for 1986. A black list of defaulting meet leaders who have not submitted reports to the meets secretary will appear in the spring Newsletter - purely for badness. Once again, it is important we keep records of the club's activities for future reference and research. Reports should be simple, clear, include details of the mining sites visited, whether or not artifacts were removed, an inventory of members and guests present, and details of photographs taken.

The policy for the removal and retention of artifacts discovered on C.A.T. meets was discussed at a committee meeting on the 21st of October. Dave Blundell pointed out that the subject had been adequately dealt with at a committee meeting in 1982 when it was decided that artifacts removed from

mines on official C.A.T. meets would become the property of the Trust and that details should be recorded in the meet leader's report. There is, of course, no legal obligation binding members to this policy and the committee recognises that any member is at will to retain artifacts which they discover and wish to add to their own collections, on the understanding that if the artifacts actually belong to anybody then it is the person who owns the land in which the mine is situated. However, it is desirable that details of artifacts are recorded, along with their whereabouts, so that they may be made available for inclusion in exhibitions, and for photographical and research purposes - with the 'owner's' permission.

KEN BATTERSBY is organizing a 'pub quiz' for the social evening on Wednesday the 11th of March. Members are advised to either brush up on their general knowledge and mining history or bribe the quizmaster with pints of Hartley's best. The winning team will be treated to a night out at the Mandalay Steak House, courtesy of Ken (actually that's an exaggeration, what he did say was: SOCIAL EVENINGS take place on the second Wednesday of every month, 8pm, at the Farmers Arms, Lowick. Slide shows and raffles are regular features. Please remember that February's social evening is the Eire Expedition '86 slide show at the Anglers Arms, Haverthwaite.

THE MEETS LIST for the first half of 1987 has been compiled and should reach members with this edition of the Newsletter. The list for the second half of the year, which is usually produced in May, will include visits to the Cross Fell area and the western Pennines, and, possibly, a visit to a mineral processing installation in Weardale. Members with ideas for meets they would like to see included, please send details to the meets secretary before May '87.

A REVISED SYSTEM for grading underground meets has been developed and details are included on the new meets list. Besides the standard E for easy, D for difficult, and S for severe, which are largely self-explanatory, we now have in addition EXP, ORD and WORK (exploration, ordinary, and work meets), categories to be applied exclusively to meets in the Coniston Copper Mines. Members participating in the EXP meets will be expected to be totally self reliant in Single Rope Techniques, possess their own gear, and be prepared to pull their weight as an integral part of a team venturing into new and often dangerous territory. It must be emphasized that implementation of this new scheme is not designed to encourage the development of cliques or an elite group within the Trust, it is solely to promote exploration on an organized basis. On several occasions during the last year, exploratory meets at Coniston have been abandoned short of their objectives because too much time has been allocated to instructing and aiding less-competent members on abseil pitches and rope traverses. The new EXP grading ensures that mine exploration, one of our constitutional aims, can progress within the society and not as the fringe activity it has tended to become in recent times.

The less-competent members, and those who are conversant with S.R.T. though prefer for safety's sake to have their pitches rigged for them, or those members who require instruction, advice, and the occasional helping hand, are amply catered for in the ORD grading. The ORD meets will encompass all the known routes and areas of the Copper Mines and will also be graded under the old system of E,D and S to give members some idea of what they are likely to encounter. They will differ from the EXP meets in that guidance will be on hand at all times - if required.

The WORK grading is self-explanatory. On work meets members are advised to turn up with tools for digging and mucking out. If the work meet is underground then it will also be graded E,D or S.

PETER FLEMING who along with Mike Mitchell is one of the old uns who can't be beaten in a difficult situation (his words - see page 24 of the new journal) has released details of what is to take place in the Boxing Day meet at Coniston.

Weather permitting, those who turn up will be split into two groups in order to undertake two surface digs, one at the entrance of Middle Level, the other in the floor of Simon's Nick, thought to be a false floor above the Belman Hole Vein workings. Members participating in the second dig are advised to bring an emergency parachute. If the weather is bad, underground digs will be arranged so bring along lights and equipment.

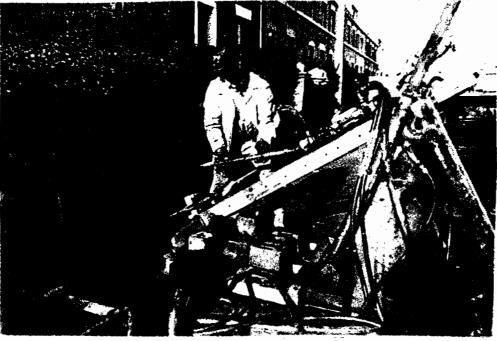
ANTON D. CHENYLLE-PROCTOR-THOMAS would like it to be known that line 30, page 4, of Newsletter No.14, should read...must limit the maximum potential peak impact force to <u>12000</u> Newtons (or 1200kg force approx)....The grossly overworked typist responsible for typing Anton's article "Belays and Belay Loadings" would like to apologize for the error. Anton would also like it to be known that his new address is 189 Greengate Street (handy for the Ram's Head), Barrow, and his phone number is Barrow 35951.



.....THE OLD COAL MINES THAT HAVE BEEN WORKED OUT AND SEALED OFF,

BUT WON'T STAY QUIET.....

The coal mines in the Whitehaven area came back to life again on Saturday the 18th of October 1986. A small gas explosion took place in the home of Mrs Robinson, 11 Meadow Road. This caused very little damage to the house. Then on Monday night, the 20th of October, ten families were evacuated from their homes in Meadow View, Low Road, when methane gas could be smelt in this area. Both the Gas Board and the Coal Board were called out and are taking samples to see whose gas it is. I went to the area on Tuesday the 22nd of October and watched the N.C.B. checking two of the vents for releasing gas from the old mine workings. These vents were put into the old mine workings in 1974 when methane gas was found to be leaking into some of the houses about three hundred yards away from this new leak. One of the vents is in the old Bearmouth Drift on Pottery Road. This drift used to go into Haig, Wellington and Willian pits, and in 1966 through to Lowca No.10 Pit. You could walk from Lowca Pit via William and Wellington pits and come out on the other side of Whitehaven. I have made this trip as a young collier when I was at William Pit in 1950.



BORING GROUT HOLES

By Saturday the 25th of October the N.C.B. had plans to seal off the leaking gas, but some families feared their insurence could be affected and would not give an immediate go-ahead. On Tuesday the 28th, after a meeting on Monday of all the evacuated families, the go-ahead was given. The N.C.B. started to bring boring gear and grout pumps onto Low Road. When I visited the scene on Thursday the 30th, four holes had been bored under the houses and two of them had been filled with Poxament general purpose grout. Holes are being bored thirty feet deep, 65mm diameter at 27°. This work was carried on till Saturday the 9th of November 1986 when the N.C.B. had completed sealing off the gas leak. One house had five holes bored underneath it and one hole took $12\frac{1}{2}$ tons of Pozement to fill it. This could have been part of an old shaft.



N.C.B. AREA SHAFT TEAM BORING UNDER LOW ROAD TO PLUG GAS LEAK

On Monday the llth the shaft team were fitting values to the two gas vents so they can be turned off in case of fire. Some of the families moved back into their holmes on Saturday the 9th of October. Let's hope this is the last of the leaking gas.

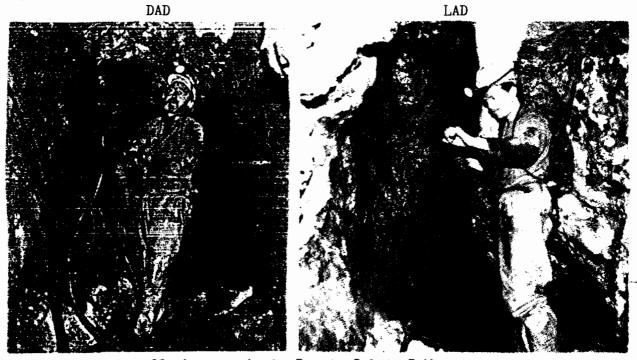


LADYSMITH PIT, WHITEHAVEN

After many years service the remarkable Monkwray Brake saw its last train shortly before midday on Friday the 31st of October. The steep Brake Railway dates back to the busy pre-war colliery days, its original function to move wagon loads of coal from the washery at Ladysmith Pit to the Corkickle sidings, then on to Queens Dock for shipment by sea or overland by rail. Marchon, the chemical firm, took this brake over in 1940 and have used it daily till it closed in October.

14 JOBS GO AT OLD SLATE MINE. From a report in the News and Star, October the 28th 1986, six underground workers have lost their jobs and a further eight temporarily laid off at the Honister slate quarries in Borrowdale.

NEW DRIFT MINE AT ALSTON. A new coal drift mine is planned at Blagill, Alston. It has been given planning approval by the County Council. A DYNAMIC DUO hard at work in the 1500 stope of Zero Level, Force Crag Mine. Ronald and Peter Calvin, the last father and son partnership in a local mineOctober 1986.



all photographs by Ronnie Calvin R.M.

CAT AID

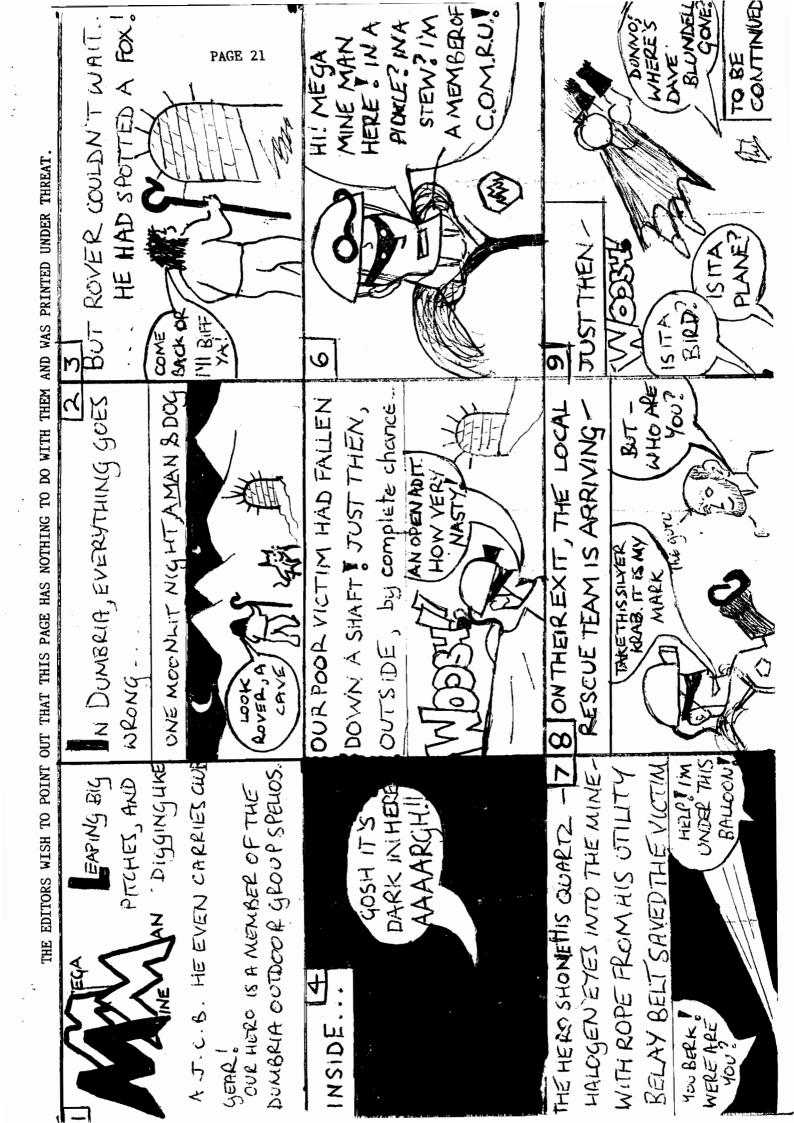
It is with utter delight and a rather naughty sense of glee that I announce the launching of CAT AID, another money-winning scheme to boost the club funds and extract a certain amount of enjoyment and satisfaction at the same time. The idea was sparked off by one of our new and enterprising members, Anton D Chernobyl-Proctor-Thomas, whose undisputed skill on stringed instruments is....well....undisputed. Anton, who hails from Lowestoft though now lives in Barrow, has a very unusuable hobby....he busks. Anton

has had the thumbs up from the police and come the warm weather he will be deftly strumming away and leaning on his lampost in all manner of locations up and down the lakes, raising money for the coffers. Will wife Sheela be dancing through the crowds in a colourful

gypsy costume with bells on her fingers and toes? Watch this space music lovers.



Ever intrigued by the eccentric and the Bohemian I have been delving into the private and amazingly musical lives of our members and come up with some startling (and disturbing) facts. Inspired by Anton's initiative, two of the folk-singing, ear-fingering fraternity, C.D. Jones and the young doctor Merrin, have talked of doing some busking of their own and even promised to entertain CAT members at the Christmas dinner. Chris and Phil were founders of a Manchester folk group called Causeway, and scored a recent success in Southern Ireland where they entertained CAT expedition members with their traditional songs, jigs, and reels. McF wishes all three buskers luck and if pushed will sing one of his Billy Bragg numbers.





22

by McF

Must be as brief as possible. Newsletter is running over budget and the committee is closing in. Shall try to hold them back with my trusty entrenching tool while Jones dazzles them with that rather splendid 'Order of the Grey Druids' ceremonial medalion he was seen wearing on the front page of the Westmorland Gazette.

On the 19th of October Ian Tyler led a meet in the Caldbeck fells. The following account was extracted from the report he compiled for the Log Book....

By ten o'clock a total of fifteen members had arrived, and a further three arrived later. The meet leader clearly stated that the object of the meet was to explore Emmerson Vein/Brandy Gill/Dry Gill and not Carrock Mine. However some members felt that rather than getting wet they would explore Carrock as the mine was clearly abandoned and the main level unlocked.

The short climb up to the Emmerson Vein was made and a descent made down through the open stope to the level proper - a vertical shaft of 50ft was rigged for descent to the tramming level, for all except the meet leader who lent his Oldham lamp to an unlit member.

On gaining exit the party pushed on up to Brandy Gill Mine No.2 and No.3 Levels. These are connected by a 40ft internal shafft The Level was explored while the meet leader and Ian Matheson rigged the pitch to descend to No.2. Halfway down the shaft is a small boxhole where the stope from No.2 connects with the shaft from above, causing a kink - ensuring numerous acrobatics to gain exit. The level was explored by all and exit made out through the No.2 adit in which the water was standing at some 3ft.

By now the time was 3:30pm. In view of the fact that Drygill Mine was still half an hour's walk away, and the very cold conditions, it was decided to return down to Carrock Mine.....

Thank you Ian. Meanwhile, in Carrock, the irrepressible Calvin takes up the tale. And when you've read his offering you'll realise why I'll be rattling his ears with a hammer when I see him at the Christmes dinner. As instructed by my Editor Mr A McFadgean known locally as the 'Phantom Writer of Furness' - and he still uses his old quill pens and will sit for hours at work in his own little heading high up in the Slate Quarry thinking who's turn is it next?, and setting traps for the wild greater spotted Slate Shoveller Duck (Scientific Name - Anas Clypeata Cavandish), so he can replace his worn out writing quills, well its my turn. It seem the only time I get a good scoop for C.A.T. is when I am out in the snow and freezing rain, or up to my woodbines in water. Maybe some day he will have a real heart put in, instead of that lump of slate he has for a heart and then I will be able to get myself a story on a warm sunny day. Well enough of this Felicity on with the Meet Report:-

A arrived there early due to a good tail wind all the way from Whitehaven. As I sat in the car being buffeted by high winds and hailstones I knew the weatherman on the wireless was wrong. He had stated it would be sub zero conditions on the fell tops but from where I was above Carrock Mine watching everything around me becoming whiter, I knew he was wrong. I wanted to make a break for it before I got snowed in, but when you are on an assignment for McFadgean I knew better. There was a slight break in the hailstones so I got into my pack-a-mac ready for the rest of the members to arrive. When they arrived they did not bat an eye lid as they stripped off and struggled into their wet suits and their new bear suits even though the wind and hailstones was trying to blow them of their feet. I was toasting myself on the car heater and drinking Horlicks and taking my Philisan Pills. Some say they are good for us over-forty's. The meet leader took all our names and got us organised for Brandy Gill, but after pleading with him and stroking his knee caps, that's as far as I could reach, you need a step ladder to be able to stroke his head; I find it difficult to talk up to him, I always get a stiff neck.

He let four of us slip away into Carrock "it's nice when the leader looks after us older members". The rest went off with the leader. We were glad to get into Carrock Mine out of the biting cold wind. Dave Blundell took us round, he was a treasure of information about the Mine, he even took us to the underground reserve powder stone so we could have a dry place for lunch.

Anton and Family came upon us, Rebble their dog was just too late for a bit of bait. So we teamed up and had a second very good trip in the harding workings. Dave continued to give us an excellent tour, it was then I noticed Anton and his dog. Anton was picking all the litter other people had left. The more I thought about it the more strongly I started to feel. Why should they leave all their rubbish in these mines? They want to take all the minerals and gear out so why don't they take their rubbish with them? Well done Anton. I hope the message will get around "take your rubbish back out of the mines and keep them clear of trash". As I sat below the stopes going up to the harding vein the rest of the group were up above exploring. Lights appeared from outbye they were deserters from Tylers Group. Then two more came in a mass desertion I thought, murmers of water up to our waists but not up to our necks

today. It was starting to get crowded in there so we decided to make out. We were halfway out when we met the leaders coming in with two of his minders rattling chains and muttering "where are the deserters" we will put them in chains and force march them up to dry gill. This was a very good day out even though the weather was atrocious it was nice to meet up with friends on one of my rare trips underground.

My thanks to Ian Tyler for a well organised meet

On the 1st of November seven members waded up the Sir Francis Level in Gunnerside Gill, Swaledale, to visit the underground headgear and hydr ualic engines which were abandoned over a hundred years ago. Chris D. Jones' Log Book report provides the following details.....

Appalling weather meant a reluctant late start after fortifications of hot coffee from Ian Matheson's dormobile and hot coffee stand. Driving rain and high winds made the walk very unpleasant. Sun came out as soon as we reached the level. The level mouth has been cleared and it is no longer necessary to use the manhole some fifty yards up the level. It does however necessitate a pretty nasty squeeze just before the manhole. The water is much deeper than it used to be - neck deep for quite long sections and it is littered with hundreds of plastic gallon containers - obviously used as a raft by some entertaining party. If only they had taken their rubbish out with them. The long haul through the water was pretty tedious and full marks to Anton and Alastair who did it without wetsuits.

The headgear is in as good a condition as ever and has suffered no deterioration since our last visit, almost four years ago. We pushed on past the wheelpit along the main level but were eventually turned back by a large roof fall coupled with the difficulty in digging in very deep water but the dig is possible for the future.

Outwards the cold water and fatigue began to take effect. On exit everyone went home except C.D.J. and Ian Matheson who walked up the gill to see other workings. Met up later with the rest of the gang in Gunnerside yillage taking afternoon tea in the local Ye Olde Tea Shoppe.

23

Excellent days entertainment. Six members turned up.

Thank you Jonesy. Must have been hard work wearing those bloody antlers.

On the 23rd of November twelve members, led yours truly, descended the open stopes at Levers Water, Coniston Copper Mines, to continue exploration in the Paddy End Old Vein below the Middle Level extension. A brief note is required at this juncture to ensure against confusion clouding the brain :there are two Paddy End Old Veins marked on my survey, a Paddy End Vein and an Old Vein (So there's four to choose from for a start), though the one in question is the most southerly and is thought to be the vein on which Brow Stope was worked.

A previous visit to this vein had revealed a stope below a false floor. Water had been observed about forty feet down. When we arrived on the 23rd, after abbing down to Orange Box Corner via the Through Trip Stopes and the Top Level Crosscut, then descending again through the Windy Stope to the foot of the Funnel, along the South Vein (or is it New South Vein?) to the four-way junction on the Middle Level Crosscut, thought to be situated on the Paddy End Old Vein at the foot of Brow Stope (that was a mouthful - but worth every penny, Maureen), we discovered that the water had risen and was now a mere ten feet below the false floor. Martin Maher lowered himself into the water and swam to the extremities of the stope, passing under false floors all the way. On his return he remarked that the water was cold and certain parts of him were numb. No one volunteered to rub the certain parts despite there being a doctor in the party.

The remainder of the day was devoted to clearing the two remaining branches of the four-way junction, there being a very nasty roof-failure on the junction itself. The right hand branch will travel to the western end of the Paddy End Old Vein stopes while the tunnel running straight ahead, being the continuation of the Middle Level Crosscut, will, if the old surveys are accurate (and they are not noted for their reliability), lead into workings on Stephen's Vein Several tons of rubbish were removed and tidily walled up along the sides of the croweut. We didn't win through though good progress was made. Another day's for the us well on the way.

