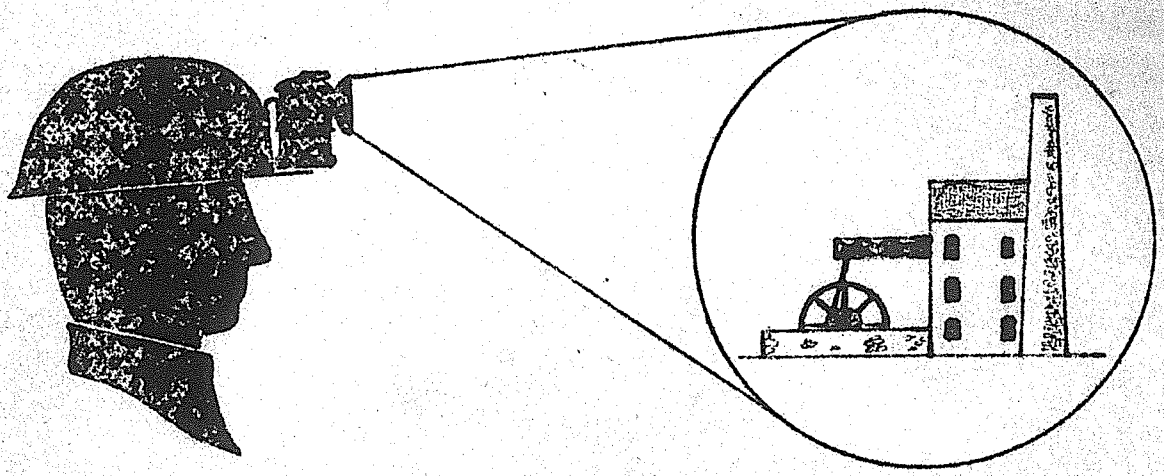
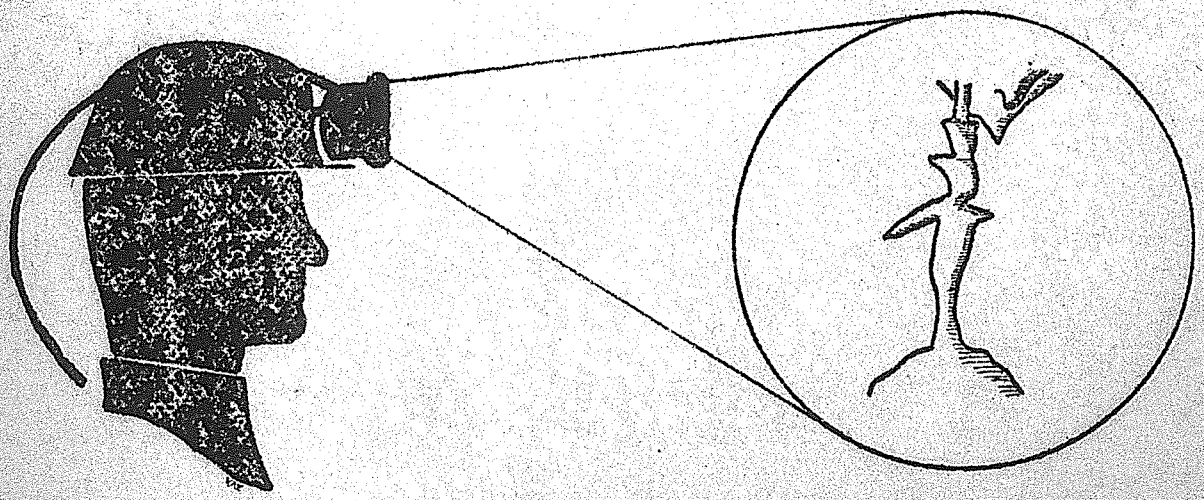
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Records



PLYMOUTH CAVING GROUP.



PLYMOUTH CAVING GROUP.

Newsletter & Journal. Number Twenty-six

July 1967.

Respect the Mines even if you don't respect the Caves.

There are some pretty suicidal organisations going 'cave hunting' in the South West at present - take the Outward Bound for a start; considering they organise the D.C.R.O. to a large extent it is a poor show when they send their novices off to Prid. with nothing more than a candle stuck up their ~~xxxx~~ jumpers. And let's not forget the Services, well who could forget a company of junior leaders aimlessly wandering around the labyrinth of Radford Cave in their woolly caps and waiting for their turn for the pocket torch to come? But they say this sort of training is necessary to pick out the most suitable 'officer material' with plenty of M.F. e.g. the initiative tests. The best one of these is where they give the junior a box containing two matches and tell him to get through the Kitley Cave:- the 'Officer Material' lights the box and, Lord Kitchener willing, gets through. The other light each match in turn and feels his way around the rest .... 35 years later ....

The 'lone wolves' can be left to fend for themselves on their assorted ladders; so far we've come across a twig ladder, a hose pipe ladder, and an electron ladder (made out of wire from an old bed).

Good Luck to them all - 'you cann't go far wrong in a Devon cave' - but what happenes when they turn on the mines as a substitute for caves. Answer: Trouble.

Mining is a seperate entity to caving and is not a substitute for caving as Steve (3 years to explore one mine) Johns of the D.S.S. seems to think. True, similar techniques and equipment are used for both and they are both underground activities but the likeness ends there. People, in organisations or not, treating mine exploration as an amusement are sooner or later going to run into trouble.

This is not a selfish attitude of we; the PCG. want to keep the mines to ourselves, for the PCG. does a lot to encourage people interested in Local History and other Caving Clubs who are both properly equipped andtreat them with respect.

The Editor.

Future Meets.

Sunday 9th of July 1967

Castle and Dinas Mine

Leader:
Terry Barbour (Ply. 61617)

Private transport, meet at the clubroom at ten.

Weekend of the 21st July

Mendip Trip

Leader:
Dave Hobson

The final arrangements will be discussed in the clubroom on the thursday of the week before.

Saturday 5th of July

St Agnes

Leader:
Keith Loze (Ply. 37039)

Sunday 20th. August

The Tolgus Adit

Captain:
Hugh Browning

Saturday 2nd. September

Leader:
Les Rainsford

8.30 Exeter bus, No. 129, leaving from Breton Side.

Please note that these arrangements are provisional and you should contact the leader or see the notice board in the Clubroom if you intend to come.

Odds and ...

By way of an apology.

The editor apologises for the fact that he did not edit the Minutes of the A.G.M. of 1966 which was given to him the Assistant secretary for that year. In particular the Treasurer's report - although accurately reported, has given some people the impression that R. Cawthorne is a bankcrupt illiterate who embezzled the club funds - apparently this is not so.

The Film.

The initial test films shot at Kithill have proved to be very sucessful. However we are without a 8mm. projector which makes life rather difficult. We would be grateful for the loan of a projector for a thursday evening as this will enable a lot more people to see the film.

Congratulations.

The club sends its congratulations to Rod Bray and Valerie Yates on their forthcoming marriage. The wedding is on the 4th of August.

Errata.

i) The address of the Hon. Meet Secretary as given in the last newsletter is incorrect; it is in fact:

86 Shirburn Road,
Eggbuckland,
Plymouth.

ii) Newsletter 25, page 5: 'the lesser known publicatio on the Caves of Plymouth....' should read 'the publication on the lesser known Caves of Plymouth....'

Reservation.

This space reserved for important engagement announcement.

PennRecca Tunnels.

You are reminded that the Penn Recca Tunnels near Buckfastliegh are out of bounds to all cavers. This reminder follows an incident when some club members used ignorance as an excuse to visit the mine.

The B.S.A. Conference.

Advance warning of the British Speleological Association Conference to be held at the University of Birmingham Students Union building on the 8th. to the 10 th. of September, 1967.

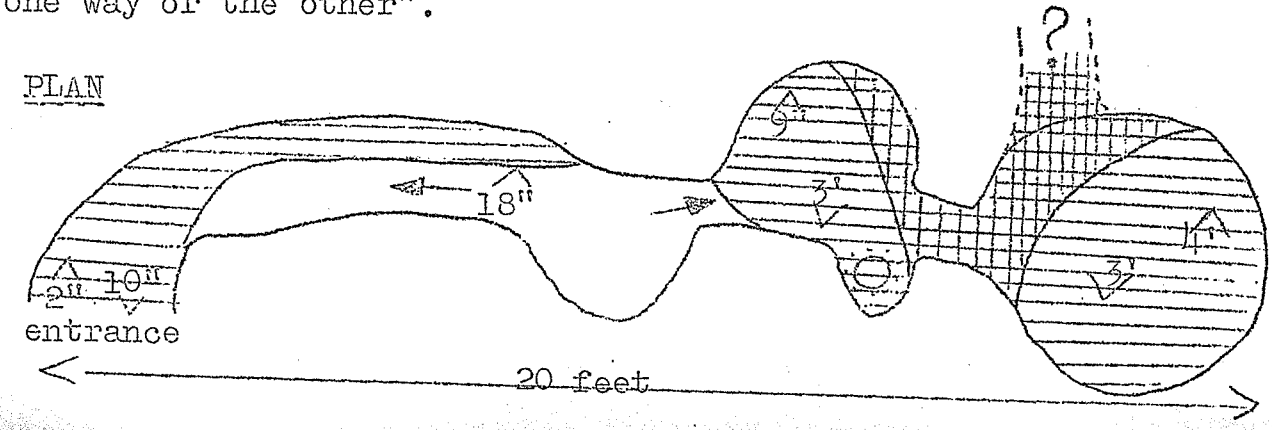
Devon Cave News.

Shirford Quarry - Plymstock

Les Rainsford and Bob Cawthorne are busy digging in a cave they have found in the quarry. The cave, which is of phreatic formation, although only 30 feet long has 'outstanding possibilities' even though it is on the end of the Mid-Devonian crop of Limestone.

Pridhamsliegh Cavern - A Sumpassage

Reports Steve (Hemispherical) Poole: "... the entrance is through a duck, 15" long behind which the passage rises out of the water and continues for ten feet, the roof and walls are coated with mud formations and several tiny white helictites. At the end it drops into a tiny flooded chamber; a ducking is imminent here. In one corner Hugh Browning dived a short sump into a further tiny chamber, hemispherical above water, 4 feet in diameter with another flooded hole in the floor which was not tried as we believed it headed back into chamber 1. We now believe it goes elsewhere and are keeping the location a secret until we have proved it one way or the other".



The Mineralisation of Cornwall.

By David Hobson

Unlike the Devonian limestones, very little has been written about the geology of Cornwall. The two exceptions to this rule would appear to be R.M.Barton's "Introduction to the Geology of Cornwall" and H.G.Dines' "Metalliferous Mining Region of South West England", although this is as much an economic as a geological survey. The lack of study of the metamorphic and igneous rocks of Cornwall becomes more obvious when we observe that even now the origin of mineral veins is not completely understood. Dines' theory considers that one point within the molten core of a hot granite mass to be the source of "emanations" which rise, and also extend laterally, solidifying as the temperature and pressure decrease. This fairly simple, geometrical approach was developed by Dines, since 1934, when the fact that a "lower temperature" mineral had a greater lateral extent than the higher temperature one below, was first noted. The difficulties of the theory increase with the complexity of the strata, however, and in the folded, fractured killas of Cornwall, application of the theory simplifies matters to a frightening extent.

It is profitable to go back to the basis of the theory of emanative centres, and to work forward in order to discover the necessary approximations. During the 1920's it was discovered that if Cassiterite (SnO_2) was rich withinthe granite, then in general there would be no biotite, much white mica (sericite and muscovite) and varying quantities of tourmaline in the granite adjacent to the vein. If the cassisterite was poor within the granite; then white mica was notable by its absence, there was only a little tourmaline, but much biotite. (Ph.D. thesis, unpublished).

Since:

White mica = $\left[\begin{matrix} Si_3Al\ O_{10} \\ (OH)_2 \end{matrix} \middle| Al_2 \right] K$

Biotite = $\left[\begin{matrix} Si_3\ Al\ O_{10} \\ (OH)_2 \end{matrix} \middle| \quad (Mg.Fe)_3 \right] K \quad \pm$ Lithium

Tourmaline = $(Na.Ca)_5(Al.Fe.Mn.Mg.Ti)_{27}(Si.B)_{27}O_{86}(OH)_4$

..... then rich tin lodes occur with rocks of a high aluminium content, and poor lodes where the mafic minerals (Mg,Fe) are present. Since tourmaline is often absent in poorer lodes, then the boron content was missing. (The formula of Tourmalin is only approximately true, and were any other mineral e.g. Calcium

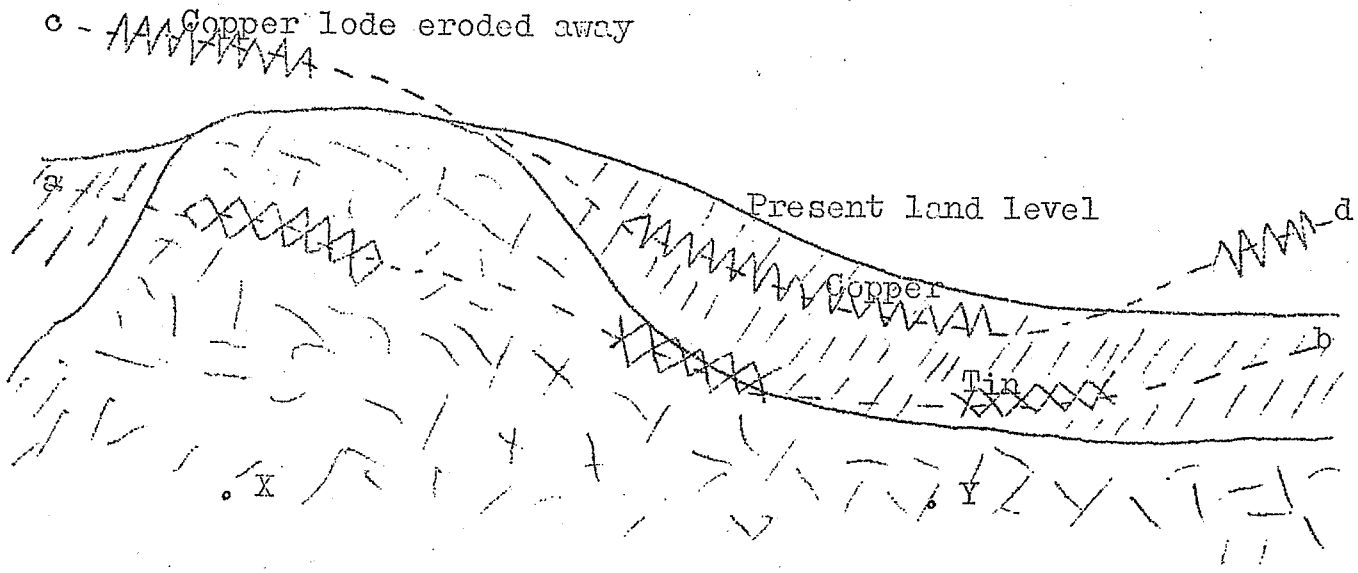
missing, a tourmaline mineral would still be formed. Without the boron, however, the remaining elements would form other silicates.)

Now the addition of boron to a rock to form tourmaline does not happen all at once. It is a metasomatic process; i.e. the boron is in a liquid, an intergranular liquid, which flows along crystal boundaries and cleavages within the rock, reacting with the rock. In this way, over many millions of years, a solution of between two and three parts per million parts of B_2O_3 will form tourmaline. Herein lies the essence of Dines' theory, for his "emanations" are this intergranular fluid, which as well as carrying boron, also carries Sn ions in suspension, to be deposited under certain conditions - when the temperature and pressure was low enough to allow them to come out of solution.

The restrictions on the theory of emanative centres comes with the restriction of this fluid to one central point - the core of the granite. Dines goes on to explain how, on rising, the fluid tends to extend laterally, and the minerals only come out of solution along isothermal planes - planes of equal temperature within the rock. This explains quite neatly the changes in lateral extent, and shows why tin is not always found below copper. But we have now to define the 'core' of the granite mass.

Dines states that the "relationship of mineral deposits to granite masses ... is not so close as supposed ..." and instances several cases (e.g. Poldice) where tin has been found away from a granite boss. However it is now, fairly safely assumed that all of Cornwall, and most of Devon, is underlain by a large mass of granite material which outcrops only where erosion has removed the overlying strata. For instance, the covering to Dartmoor was finally eroded away during Lower Cretaceous times, laying the granite itself open to erosion; and proof of this is obtained from grains of Dartmoor granite found in post Lower Cretaceous sedimentaries in Dorset and parts of Devon. Dines makes the assumption that the intergranular fluid could migrate from one and only one position, and this is surely where approximation creeps in.

Suppose (a,b) to be an isothermal for the solidification of cassiterite. Then any point below (a,b) has a temperature which is less than the temperature of (a,b).



Key:

Copper lode

Tin lode

Granite

Killas

Isothermal

An emanation at X (the core of the boss) rises and migrates laterally. When this fluid reaches (a,b) certain parts, rich in SnO_2 ions, crystallise while the rest continues to (c,d) where the copper ions crystallise etc.

Now consider a point Y ($\neq$ X). The emanations which produce the tin are those responsible for the tourmaline. This same liquor is that which forms pegmatite veins, and is now believed to have been the residual liquor left after crystallisatic of the granite. Thus it is in no way restricted to the "core" of the boss, the X of our analogy. Therefore it is possible for a

point Y, somewhere beneath the country rock to have such a liquor surrounding it. This liquor would be forced to rise, and the Sn.. ions would crystallise along the (a,b)line. It would appear in this case, that "emanative centres" situated some distance from a granite outcrop, may not be formed by this outcrop, but possibly by the subcrop beneath it. Dines would appear to be wrong in his assumption that that the fluid came from a molten magma. The only restrictions on the fluid could come fromthe composition of the rock itself, which can explain the fact that the emmanations normally do form the "core" of the boss. Here the composition of the granite is nearer that of its parent magma, than of the country rock, whereas the fluid near the top of a subcrop is likely to be contaminated with the country rock, and not rich in the rare metalliferous minerals. Since the country rock is normally rich in SiO_2, Al_2O_3, this is taken into solution, but then recieved by feldspar crystals ($KAlSi_3O_8$, $Na\ AlSi_3O_8$, $CaAl_2Si_2O_8$) nucleating within the granite. Occasionally the fluid in the subcrop becomes rich in metalliferous ions, and then migrates upwards, forming a new emanative centre, at some distance from the granite outcrop.

Moreover the time of mineralisation is important. If a complete set of ores (tin, lead, copper, zinc, iron) came up together in solution, we would expect them to be spread out vertically, ihdicative of the temperature gradient. But if the fluid, containing one ore arose later than the others, the isothermal lines would be lower (since the granite is cooling) and it is possible to telescope two or more minerals. An extension of this arguement will allow copper to form below tin in the rock, a feature rarely observed, although it has occured in the St. Day mining district.

Thus the theory of emanative centres, although an improvement on older theories, can only itself be seen as an approximation. It will probably never be possible to predict the nature of metalliferous ores from their surroundings. As time goes on, more sophisticated methods of reproducing magmas emerge, buteven so, we only attempt to explain what has already been discovered, not what lies hidden in the depths.

D.H.

Featuring in the next newsletter: A day in the life of a South Crofty miner, by D.M.H.

Gaping Ghyll.

By Hugh Browning

Whit weekend was too good a thing to waste even though most of our active members were busy with exams and the like. Les Rainsford and myself were free although Les still had to work on the Saturday. Since every Whitsuntide the Bradford Pothole Club put up their winch on G.G. this was the obvious choice - after all one can go to Cornwall any weekend.

We left Plymouth on Les' Gold Flash combination at about 6.20 p.m. and arrived at the metropolis of Chagford an hour later, where we spent another one and a half hours for food and to sort out my kit together with a big pile of spanners and tyre levers.

All went well until we reached Birmingham, where we collected a puncture in the sidecar tyre, at 3 o' clock in the morning, and in pouring rain (of course!) This took us an hour to put right by which time we had also tied the mudguard back on with string and cursed the windows back in the sidecar after my rucksack pushed them out. We finally reached the M.U.S.S. hut in Clapham around 8.30 a.m. (still in pouring rain!)

Bob Cawthorne made us gallons of coffee, which was very good of him since he had cycled from Manchester in the middle of the night and was almost as shattered as we were. We staggered to bed at ten in the morning for three hours sleep followed by a huge brew up. Then the MUSS decided to have a hammer throwing contest so we all trooped out to a nearby field to make fools of ourselves. During our sports meeting Bob and I decided to go up to G.G. for a straight forward trip up and down the shaft if nothing else. Les was suffering from flu but never the less decided to come up and watch the fun. We got changed and forced ourselves up the three mile climb to the cave, in the oppresive heat of a thunder storm that did'nt materialize.

The winch proved to be a magnificent machine solidly bolted to the rock and driven by a large petrol engine. On one side of the pitch there was a platform built of scaffolding from which hung the chair - a little different from sitting in a couple of slings! They strap you in, pullaway the plank from underneath you and lower you slowly for the first few feet. When you are clear of the wall they drop you like a stone until you are about fifty feet from the bottom. What a drop! Still, you land gently enough after which you can stagger off into the gloom of a huge cavern.

The stream had been diverted from the top of the pitch and reappeared about two thirds of the way down the shaft as

a massive water which fills the whole of the ~~st~~ chamber with mist and spray. After such a magnificent descent one expects to walk down a huge streamway but unfortuneately this does not happen; instead there is a boulder slope at each end of the chamber, and the way on is through quite small holes. Bob and I did not have the energy to do any proper caving so we just looked at one or two small holes and then telephoned for the chair.

The ascent took place at a steady 100 feet/minute giving plenty of time to look around, and get wet! On surfacing we were most surprised to find that we had been underground for a couple of hours - it had only seemed like half an hour.

After coveting the winch we made our way back to the where we got changed before going to the pub which just happened to be next door, followed by fish and chips in Settle; one of the M.U.S.S. members was kind enough to drive us there.

In bed by ten and up at eight o' clock on Monday, then after a fair sized breakfast Les and I set off for home. Come the end of the M6 near Birmingham (again) the rear chain parted. This held us up for several hours and Les ended up joining the A.A. who got us back on the road again. We did'nt reach Taunton until twenty past eight in the evening, when we suddenly realised that we had'nt seen food for twelve hours so we stopped for food - fish and chips, I think. After having a drink in Cullompton (nothing like a change for Whitsun) we finally reached Chagford before Midnight, where we sorted out our kit and soaked ourselves in coffee before Les set off for Plymouth. I guided him through the back lanes to the moors and left him on the main road in the early hours of the morning.

Guess who did'nt turn up for work on Tuesday morning?

H.J.B.

DANGER!

1. Wheal Betsy Adit

Would - be explorers of this drainage adit which was reported in the last newsletter are warned against the high concentrations of Carbon Dioxide that has accumulated. The CO_2 was found to extinguish, immeadiately, a candle although the Acetylene lamp which lit it was still burning.

2. 'Big Crumbly' Shaft - Kithill.

See N.L. 24. The steep slope just before the long paddle which which was supported on boards has fallen through, leaving a big hole where one would least expect it.

The Nomenclature of Mining.

By Rodney Bray

Despite the many and varied criticisms that have been levelled at various members of the PCG. from time to time, they do not suffer from the disease that other clubs are sometimes addicted to, viz. mis-use of mining terms. It makes me shudder every time I read 'level' when 'cross-cut is meant; or 'shaft' when they mean 'winze'. Taken by-and-large, this appalling lack of preciseness, is inversely proportional to the interest taken in mining, i.e. the greater the interest, the less the inaccuracies Those cavers who treat mines solely as a second substitute for potholes, with no interest in mines for their own sakes, whether it be exploring or studying, are the main offenders. Very often one badly informed individual will use a term before the fabled novice and before we know what has happened half the club is guilty of repeating the inaccuracy. On the other hand the interested caver will take particular pride in applying the right name to the correct situation. This seems to have happened in the PCG. although, perhaps, some individuals do tend to carry it too far and use obscure words where there is a simpler, and easily understood synonym.

This question is not merely one of being awkward for the sake of it, but of being accurate for the sake of records and reports. To the uninterested explorer, it matters little whether a particular passage is a level or a cross-cut, but to others it provides information of direction, likelihood of workings, flooded winzes, etc.

One of the most usual errors, is to use 'level' to describe any length of passage below ground. By definition, a level must run along the length of a lode and was driven to exploit that lode. Very often one reads of 'a level which cut across the lode' but with a little care such errors could have been avoided. The term was used todescribe what was probably a cross-cut - a passage driven at right-angles to the lode.

Yet annother commonly come across, is to talk of adits at the bottom of shafts where the tunnel in question nowhere rises to the surface, nor ever has done. An adit was driven to drain a mine and thus at one time it had to come out on a hillside somewher even if it is blocked now.

And why not use some of the old terms that were in use? Some of the traditional names are far more colourful and accurate than the substitutes used today and it would be a pity if their use died out altogether. For example, coming to grass sounds much better than just surfacing.

Glossary of terms frequently used in mining.

Adit Level. A horizontal excavation, through which the water drawn thereto by the engine, and that which falls from above passes off to the surface; this level is usually commenced from the bottom of the deepest neighbouring vale, and extended through a great part of the mine; the top adit is the first adit driven; the deep adit, the lowest level driven. An adit is the adit driven purposely for the ventilation, watering or draining the mine.

Arch. A piece of ground left unworked.

Attle. Rubbish, deads, refuse, or stoney matter.

Bal. The miner's term for a mine.

Bob. The beam engine.

Back. The back of a lode is the part of it nearest the surface; the back of a level is that part of the lode extending above it to within a short distance of the level above.

Bed. A seam, or horizontal vein of ore.

Burrow. A heap of deads, attle, rubbish, & c.

Beat away. To excavate, usually applied to hard ground.

Bend. Indurated clay, a name given by miners to any indurated argillaceous substance.

Contry. The strata through which the lodes pass.

Cross cut. A level driven at right angles with the direction of the lode.

Cross course. A lode or vein, which intersects or crosses a lode at various angles, and generally throws the lode out of its proper course.

Collar of a shaft. The timber by which the upper are prevented from falling.

Coffin. Workings open, like an intrenchment, having no shaft.

Drift. An excavation made for a road underground.

Deads. Attle or rubbish.

Engine shaft. The pit or shaft, by which the water is drawn by the the engine from the lower parts of the mine to the adit or surface.

Flat rods. For communicating motion horizontally from the engine to other shafts at some distance.

Footway Is a wall under the lode; also the ladders by which the workman ascend and descend.

Fang. A niche cut in the side of the adit, or shaft to serve as an air course; sometimes a main of wooden pipes is denominated a fanging.

Huel. The ancient name for "mine", corrupted into "wheal".

Heave The horizontal dislocation when one lode is intersecte by another having a different direction.

Hade. The underlay or inclination of the lode.

Hanging wall. The wall or side over the lode.

Killas. A clay slate, occuring in different parts of the mine.

Levels. These are driven on the lode, usually 10, 20, 30, 40, &c fathoms below the adit.

Lost levels. Levels which are not driven horizontally.

Launders. Tubes or gutters for the conveyance of water, their form being that of a long box, wanting the upper side of both ends.

Mad-water. Water drawn from the pump, and which returns from whence it was drawn, through bad management.

Old man. Places worked centuries ago.

Point of a horse. The spot where the vein is divided into one or more branches.

Para. A gang or party of men.

Rising. Digging upwards.

Stem. A day's work.

Shaft. A sinking or pit, either on the lode or through the country.

Stamps. Machinery for crushing ores.

Stopping. Cutting down mineral ground with a pick.

Stull. Timber placed in the backs of levels, and covered with boards or small piles to support rubbish.

Sump. A pit sunk in the engine shaft below the lowest workings.

Sett. A mine or a number of mines, taken upon leases.

Sinking. Digging downwards; in rising and sinking a shaft, one set of men sink from a certain level, while another set rise from a lower level to meet them.

Stemples. Wood placed to go up and down the mine instead of steps.

Tribute. A proportion of the ore which the workman has for his labour.

Tutwork. Where the labourer earns in proportion to his labour, being paid for drawing or sinking at a certain price per fathom.

Thurl. A long adit in a coal pit.

Underlay shaft. Shaft sunk on the course of a lode.

Vein. Any substance different from the rock. A rake vein is perpendicular or nearly so, a pipe vein, nearly horizontal.

Winch or winse. The wheel and axle frequently used to draw water in a bucket.

Whim. A machine used for raising ore and the like, worked by Horse, steam or water.

Wastes. Vacent spaces in which the rubbish is packed up for the better support of the roof.

Winze. A sinking in the lode communicating with one level, for proving the lode, or for ventilating the drivings.

Zygher. When a slow stream of water issues through a cranny, it is said to zygher, or sigger.

Taken from: A Compendium of British Mining (Watson 184z).

R.C.B.

Castle - an - Dinas Mine

St. Austell District.

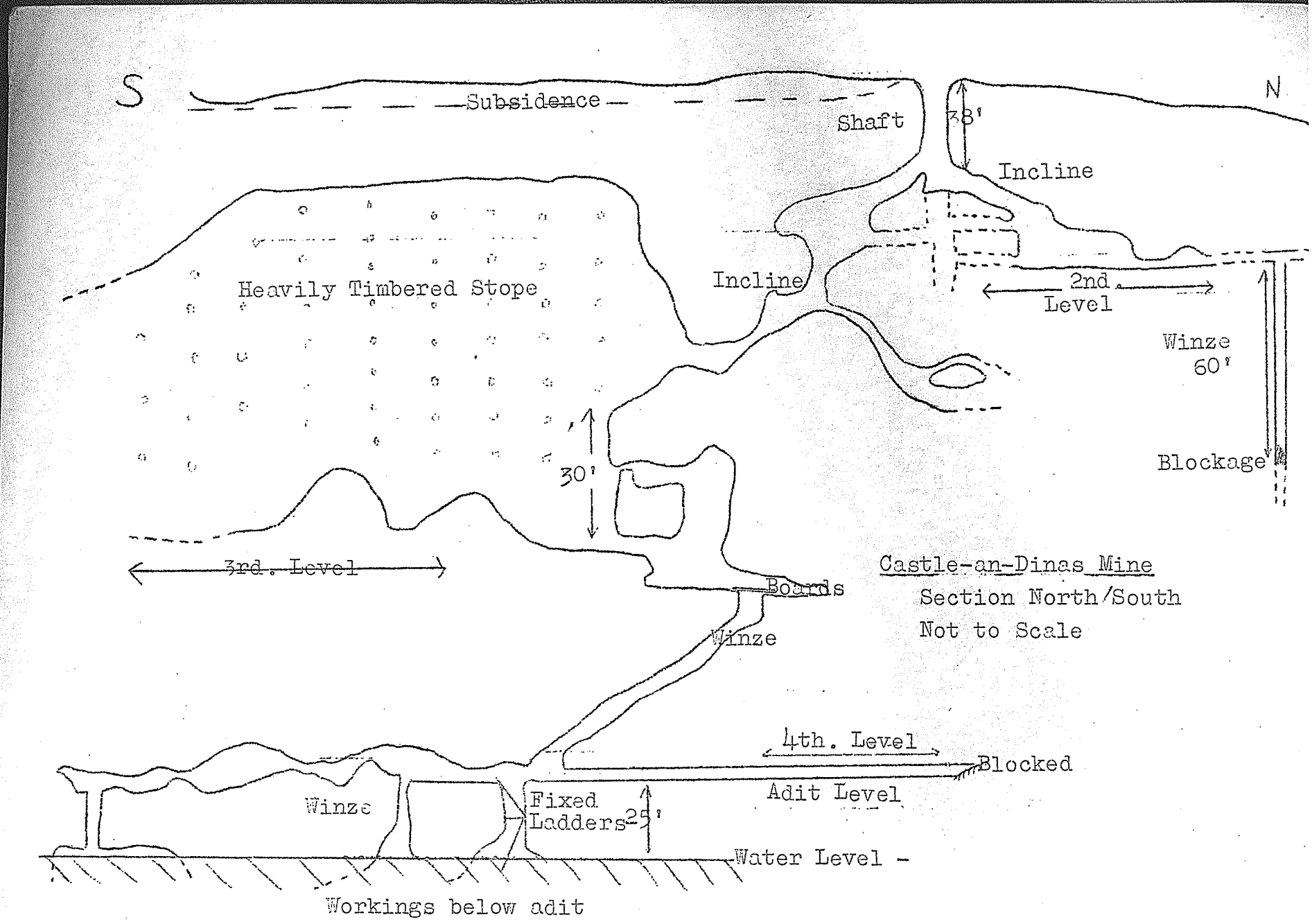
By Terry Barbour

Castle-an-Dinas mine was first worked during the first world war later to be taken over by South Crofty Ltd. who worked the mine for its wolfram until ten years ago. From the plan in Dines one could see that it was basically a system of six levels directly above each other, the fourth one being the adit level, and all trending north/south through a large hill. This hill is surrmounted by an ancient earthworks after which the mine takes its name.

Howard Morgan, Brian Roseman, Norman Gay and myself travelled down through Bodmin in Norman's landrover to the mine which is to the north-west of Bodmin. We chose a likely looking shaft, about 40 ft. deep, on the noth side of the hill and laddered it. Howard was soon on his way down it - it was then that the nature of the mine first became apparent as being very crumbly - for Howard started to dislodge large lumps of slatey rock.

The rest of us followed down the shaft and after rigging a double lifeline we descended down an incline on a handline, finnally dropping down the last few feet on a length of electron into what was probably the second level of the system. We headed northwards i.e . out of the hill until the level ran out. On returning we found a winze, fenced off by a lot of rotten timbering and hidden away on one side of the level. Since there were no good belay points near the winze we obtained a large solid timber from one of the stopes near the shaft. This was placed across the top of the vertical winze. It then took a good half hours work to clear the wooden framework away from the collar. Once this was safely removed I descended on electron into what we hoped would be the third level of the system. It was'nt to be for exactly 60 feet down, besides my ladder running out, I found the winze to be solidly blocked by all the rotten timbering we had thrown down when clearing its collar. On ascending, part of the wall decided to break off; firmly held on the lifeline, most of the rock bounced off my helmet and I escaped with a pair of cut hands.

The tackle was collected and we set off to try the incline leading off southwards from the shaft. We descended the incline using a seies of handlines and ladders until we came upon a massive stope. The stope was very long and high but was relatively narrow, and was heavily timbered with large stulls placed across its width. We had to belay a long way back to some railway lines before we could descend into the bottom of the stope - this was



Castle-an-Dinas Mine
Section North/South
Not to Scale

the third level; (thinks: one more level and we reach water).

In one corner of the stope Howard found annother winze, the entrance to which was covered by some boards. I was able to drop down it on a handline as the winze was not vertical. About half way down my accumulator ran out of charge so I turned it off to let it depolarise a bit while I waited for the arrival of Howard.

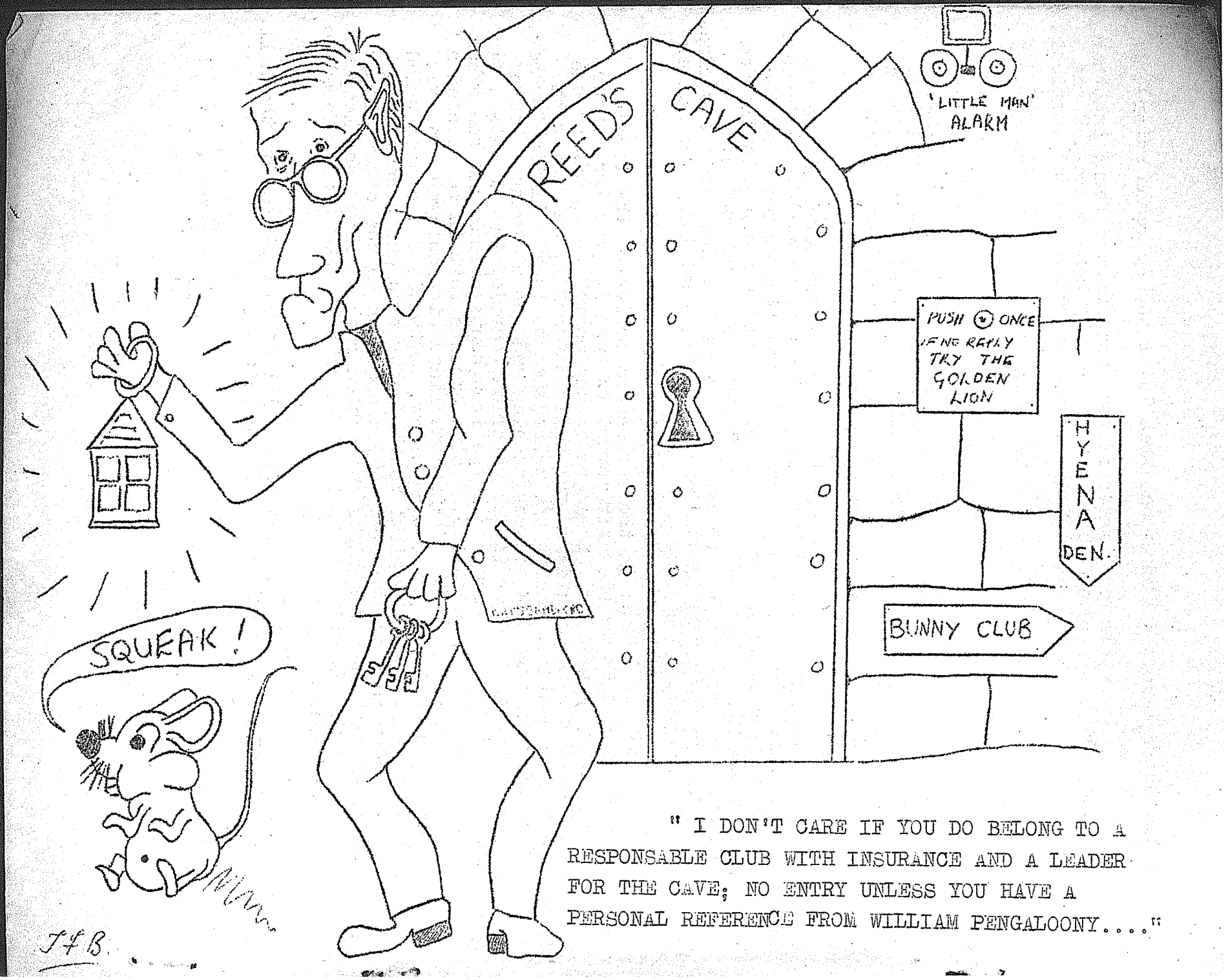
Howard arrived as only Howard can and together we dropped into the fourth level. This was adit level alright but the water was contained in wooden launders. The level was littered with a series of roof falls. Nevertheless we followed the launder, which ran beside an iron pipe until the blockages made it impossible to continue any further.

The water level was not at the level of the adit but some twenty odd feet beneath it. Thus we were able to descend still further. This time we were able to climb down one of the interconnecting winzes on two sets of fixed ladders into flooded workings below adit. After an enjoyable, if confined, swim we started to work our way up the several hundred feet to the surface On the way up we joined the others who had positioned themselves at various points to act as lifeliners.

Back on the surface we collected the tackle and took it down to the adit portal to wash it off. The farmer, whose land we were on, showed us to the portal which was at the bottom of the north side of the hill. Naturally, on seeing the portal we could'nt resist the temptation to look a little further. The adit was straight and unbranching and was carrying a lot of water although further in the water was carried in a launder. Two mining relics were found; a large iron hopper truck and the other was an old felt miner's cap. Twelve hundred feet in we reached a crosscut; westwards the cutting was lined with concrete and was probably used for a generating plant. Eastwards the crosscut led to a shaft. It was a typical South Crofty type shaft consisting of a ladder road on one side and a cage run on the other side, together with numerous pipes and cables running along the length of the shaft. We climbed the fixed ladders for 120 feet before the way was blocked.

With many shafts still to be explored on the hill this is definitely an area worth revisiting.

T.F.B.



" I DON'T CARE IF YOU DO BELONG TO A RESPONSABLE CLUB WITH INSURANCE AND A LEADER FOR THE CAVE; NO ENTRY UNLESS YOU HAVE A PERSONAL REFERENCE FROM WILLIAM PENGALOONY...."

Meet Report.

St. Agnes — 16th. April.

Leader. Hugh Browning.

Party.
Les Rainsford, Pat Evans, Norman Gay, Roy Atkinson, Phil Northfield and Bob Cawthorne.

We had intended to visit the Tolgus Adit under the guidance of Mr. Tom Jowden of Illogan. Unfortuneately my letter to him was delayed to such an extent that his reply did not reach Paignton until Saturday 15th. by which time I was well on my way with Patto Truro and Chacewater.

At Chacewater Pat and I made several interesting finds (?!), the Nangiles adit had been opened up by the British Non-Ferrous Mining Corporation, the drop in water level of2 feet at the portal of the County Adit (presumably as a result of work in Nangiles) and last but not least a shaft of about 200 ft. depth or more with a good ladder road.

The landrover met us at Chacewater just before ten, and after a chat with the village P.C. we setboff down the valley to Twelve Heads for a quick look down one of the County Adit air shafts. Here we met one of employees of the mining corporation who informed us that we were on his companies la nd. He was, however, kind enough to let us go down the air shaft - with a warning not to make a habit of it! We followed him down to Nangiles Mine and had a short but interesting chat with him from which we learnt that the Nangiles adit is taking about ⅔ of the County Adit water, thus explaining the drop in water level. We also asked of the chances of obtaining permission to enter the County Adit by means of the air shaft but he did not think the company would allow it, so we did not press the point.

We left Nangiles and drove up the hill to the shaft we had found which appears to be on the Gwennap United sett. I have since contacted Mr. Jowden who tells me that this is Poldory Engine shaft. We descended on the fixed ladders to a level at abou 50 fathoms. Below this the shaft is choked with rubble and old timbers. The passage is in fact a short cross-cut which joins a level running to the east and west. We followed the level to the east first, and after a couple of hundred feet or so dropped down a few feet through a small hole one side of which was deads held back by timbers. The level didnot go much further so we made our way back to the westerly continuation of the level and climbed up a rise on some rather shakey ladders. At about 40 feet up we met another level driven in a westerly direction and passing over a rise from the stope below and also connecting with a shaft from the surface. Although the shaft had a good ladder road as we went up the platforms had more and more rubble on them and it was

difficult not to knock some of it off onto the chap below. Les was in the lead and after a stone the size of a teacup bounced off my helmet Bob and I cowered in the corners seeking what shelter we could from the platform above until Les came down. He did not reach the top and could see no daylight so presumably the shaft has been capped.

We returned to the 50 fathom level and as the rest of the party started to return to the surface Bob, Les, and myself explored to the west. We found ourselves in the bottom of a stope and as the level did not go very far we decided to do a bit of climbing and stull hopping. As the stope was narrow and on an underlie of about 20 degrees we had little difficulty for most of the time. The stope did not go too far west so we followed a ledge to the east at a height of 30 feet, and after climbing over a rather shakey pile of deads we came to the bottom of the rise to the higher level we had been in earlier. A bit of chimneying and a lot of cursing got us into the level above from which we took the easy route back to the ladders.

We had thought about trying the ascent to the surface by electron ladder but the rest of the party refused to ladder it for us, which was just as well for we would probably have never made it.

After a bite to eat we all went running from shaft to shaft and dropping stones down them until we found one shaft in very good condition with a couple of railway sleepers across the top of it. It was on a 20 degree underlie and looked most promising. We looked at it, threw stones down it and thought about laddering it, but none of us felt fit enough to try. We even considered putting one person down on the end of a rope but this idea was squashed before it really got off the ground so we went in search of shallow shafts further down the hillside. All we found were crumbly death traps with collapsed collars.

Rather than waste the rest of the day looking down shafts and arguing about methods of descent we decided to go over to St. Agnes for a trip in the adit we have been calling Polberro and later Pell but which is actually Wheal Vottle or Trevaunce adit. Roy, Pat, Les and myself went underground for the second time and just did a quick tour of the main parts of the mine. When you are not wearing a wet suit and the rest of the party is, you soon find out who your friends are! The evil minded ones remove plank bridges from flooded shafts to make you swim for it, or else climb around the side with a good chance of falling in. It was good sport though and we all finished up in the sea anyway.

H.J.B.

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