PLYMOUTH CAVING GROUP JOURNAL AND NEWSLETTER No 106 NOV 1989.

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Plymouth Caving Group can be found on Thursday Nights at the Breton Arms, Bretonside, Plymouth, in the Smoke Room. Please come along . New members Welcome.

E D I T O R I A L .

Well, here we are again, it's that time - a bit delayed yet again, but we got there in the end. This issue has a couple of bumper articles, and a few short ones. Hopefully in the next issue we will have the Report on Matienzo 1989 plus lots more. Since the last newsletter a lot has been happening in the caving world, new finds, of course the B.C.R.A. conference, The annual P.C.G. trip abroad, this year we went to Matienzo in Northern Spain- a small party stayed in Matienzo whilst some of us went across to the PICOS DE EUROPA to do some walking/scrambling we saw a few cave entrances did a bit of exploring but found that most of them either didn't go, or were full of Goatsh(similar to Cowsh, but smellier) we spotted an impressive resurgence in the Cares Gorge but didn't investigate due to time and distance problems. Besides, the food was wonderful scenery tremendous and weather superb(most of the time) Full report in the next newsletter. Articles are always welcome, we seem to have the same people writing articles so some fresh talent is required. Bye for now, next issue out before X'mas.

Graham Hart.

ADDITIONS TO THE LIBRARY.

High 59 - October 87.
High 64 - March 88.
Irish Speleology 4-1 1987 Poll na Gleim', Glen Curran e.t.c.
Nature Conservancy Council - Bats Underground- A Conservation Code.
Shepton Mallett C.C. Journal Series 8 no 4 (1988) Thistle Cave ,China.
no 5. Vercors, Thailand.
Trevithick Society - Newsletter 46,54.
62 (Aug'88) S.Australia Copper.
63 (Nov '88) Princess of Wales Mine (Kit Hill).
64 (Feb '89)
" " Journal 1988- Wheal Langford, S.Australia Copper, Ding Dong Mining Syndicate, Tindene Mine.
Spéléo Sportive No 3- La Pierre Saint-Martin.
" " No 4- Alpes de Haute-Savoie.
Wessex C.C. Vol 20 No 219 Dec'1988. Vercors, Thrupe Lane, Norway, Weils Disease.
No 220 . Eastwater, Drunkard's Hole, Co. Waterford.
W.S.G. Newsletter 56. - Ogof Fynnon Ddu 1½ extensions, Italy.
M.C.G. Newsletter 1987 - 194 Ur Flood, 195, 196 (St Girons Area, France, 197 (Winford mine,GESM) 1988-198, (Vercors,Mallorca), 199, 200 (Sarawak, Pyrenees) 201,(Thailand), 202, 203 (Bone Hole, Battery Swallett,e.t.c., Spain, France.

A Library list will be included in the Next newsletter, containing all the books, Maps, Guides and Surveys plus additions to the Library since this Journal.

NEWS

D.C.R.O. TRAINING AND ASSESSMENT WEEKEND 17th - 19th November 1989.

There will be another training and assessment weekend at the Pengelly Cave Studies Centre, Russets Lane, Buckfastleigh, starting at 7.30 p.m. Friday 17th November and finishing at 4.00 p.m. 19th November 1989. The cost is £18.00 per head (with 50% discount for DCRO members) which includes hire of lights, helmets, equipment, residential fees and admín--istration.

Booking forms and Further information can be obtained by sending a SAE to :
DCRO Training and Assessment, C/O 3 Valletort Rd, Stoke, Plymouth PL1 5PH.

DATES FOR YOUR DIARY

27th January 1990 D.C.U.C. A.G.M. at the Pengelly Cave Studies Centre.
2,3,4, March 1990 - Training and Assessment Weekend.
21st April 1990 - DCRO AGM at the Pengelly Cave Studies Centre.
Lectures at the UBSS Speleo rooms, 2nd Floor, Students Union, Queen's Road, Bristol, between 8pm and 9.30 p.m. on Wednesdays.

6th December : Caving in Australasia - Dick Willis.
14th Feb 1990 : The Black Holes of Mexico - Mark Lumley.
9th May 1990 : Recent research into Calamine Mining and Some by-ways in Cave Archaeology in Western Mendip - Chris Richards.

There is also a lecture being given by Gerry Wooldridge on caving in South America/Asia on the 28th February 1990 in the Chemistry Lecture theatre, University of Bristol, Woodlands Rd. Admission is £3 on the door or £2.50 in advance, tickets from Mountain Trading Co. 5 Welsh Beck, Bristol BS1 4SP.

IMPORTANT NOTICE TO CAVE LEADER CERTIFICATE HOLDERS.

Holders of the the above certificates should note that current certificates are only valid for three years then they lapse. All is not lost however, you do not have to go through the assessment rigmarole again because they can be renewed by the submission of a satisfactory log book.

News of Caves in the South West.

Hoe Sea Cave: It has recently been discovered that the raised beach within the cave is considerably older than the surrounding raised beaches.

Bakers Pit : Cavers are requested not to frequent the lower stream series in the winter months so as not to disturb the Bats hibernating there. A sign is being placed inside the cave to this effect.

Wookey Hole : This show cave has recently changed hands, it is now owned by the management. Madame Tussauds have apparently decided that it was not compatible with their other businesses.

Pridhamsleigh : Reports have been received of the removal of mud from the staircase and the cellars, the painting of red arrows e.t.c. in the cave.

Bickington Pot : A report has been received that this cave is now open, but only via the main entrance pitch, the owner is using the quarry as a sawmill. The only trip so far into the cave has led to suspicions about air quality, carbon monoxide or dioxide may be present.

Other News.

Some of the old school of cavers will be sorry to hear of the passing away of Mrs. Phyllis Dors, for those who do not know , she was the mother of Roger Dors the landlord of the Hunters (Priddy).

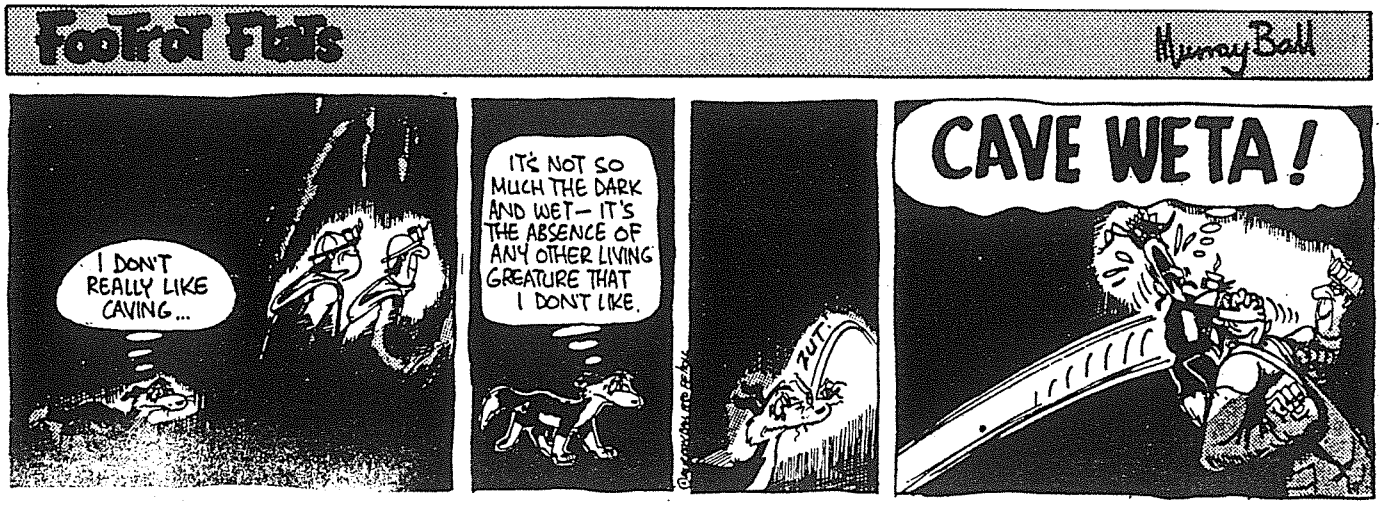
E Q U I P M E N T F A I L U R E R E P O R T .

A report has been sent to the NCA committee concerning a caver getting stuck at a change over point when using a PETZL CROLL Ascender.

Apparently the 9mm rope that was being used had slipped round the side of the cam and jammed. It took some time for the unfortunate to extract himself from this awkward predicament.

It is understood that modifications are being made to the Croll to stop this happening, but the recommendation is at the moment to use 11mm rope to be sure this cannot happen.

DOES ANYBODY UNDERSTAND THE LAST CAPTION TO THE CARTOON BELOW,AND WHO IS THE CAVER.
(ANSWERS ON A POSTCARD.)



ECHO MINE

The open day on Kit Hill on Sunday June 5th 88 had given Ali a few contacts, one of whom had talked of the levels on the North side of the hill. It was not until Sept 10th that we were able to go and have a look. We arrived at about 5.30 with perhaps an hour of daylight left. We parked at the bottom of the rough track and started to scan the scene. A valley of sorts was visible with the rough hillocky appearance of mine waste. It was well overgrown! There were brambles,bracken and gorse to negotiate. Eventually we found an open level. Unfortunately it was very wet , and meant dropping down into a 6' deep cutting.

We continued to explore. Ali found another open and accessible which we explored by fingertips to a blockage at about 30 feet.

The area I searched was devoid of mines(but not undergrowth). Back at the car we agreed that wet suits were needed so returned to Plymouth. Much later (Nov 10th) we returned, a crisp clear evening to put on damp wetsuits which I had foolishly washed. We took a scrap length of ladder down to aid our access.

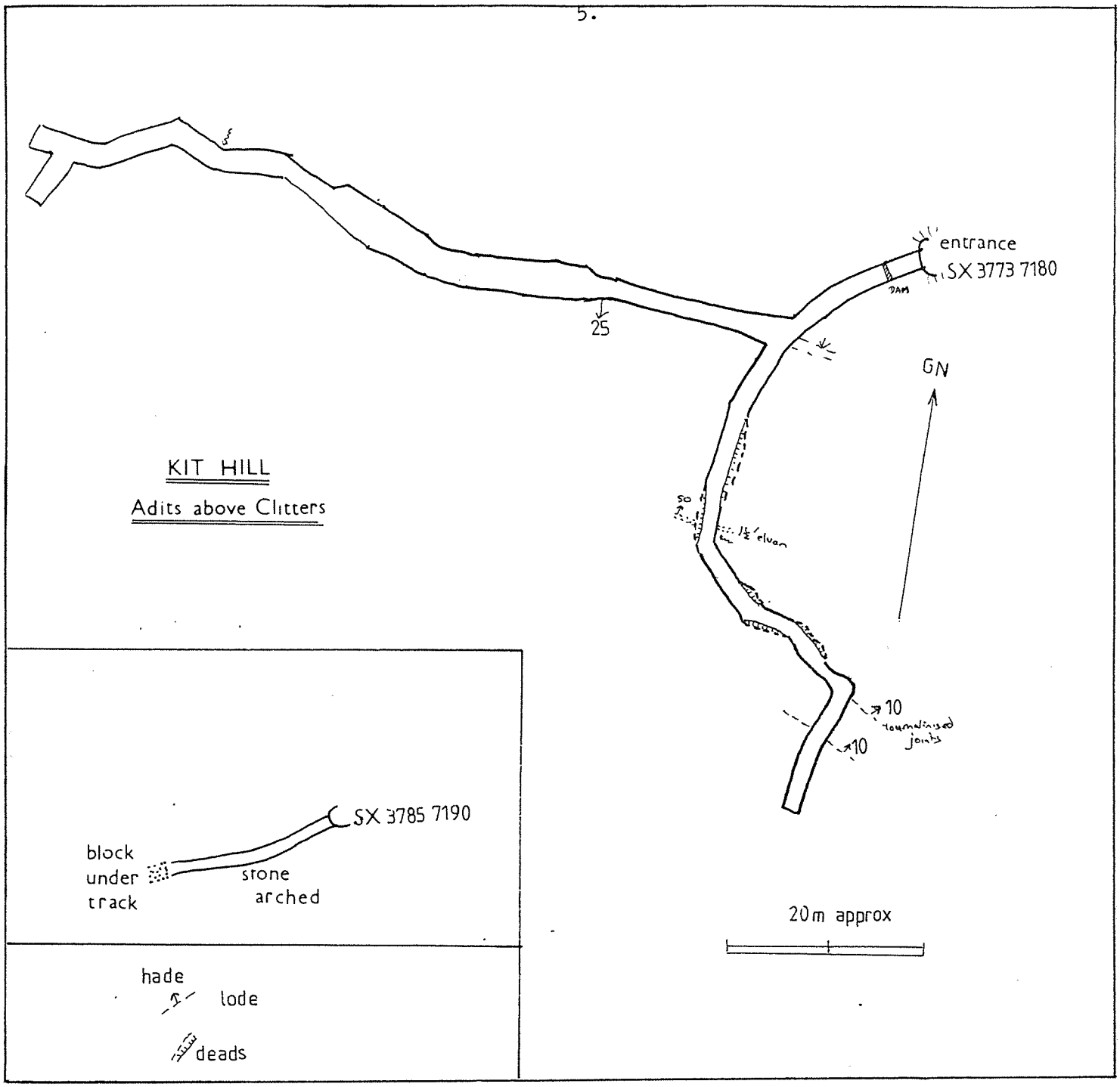
This we tied to a Sapling and gingerly dropped into the black ooze- it must have been a whole inch deep ! The portal was at a lower level than it first appeared and the water inside the entrance was full thigh deep! Then a stone retaining wall and a cast iron pipe. Clearly this was a water supply sometime in the past. A wriggle over the wall and it was now a cold numbing chest deep, the water was remarkably clear. We waded to a fork. To the left we explored and within 150' came to a dead end a little way beyond the point where the water stopped. The level was cut in Granite and was unusual in zig-zagging, not following an obvious vein.

Back at the fork it was wider for a short distance.Again it became shallower and then dry except for a small stream. What was remarkable was its echo. A hum resonated and reverberated for perhaps a quarter of a minute. The level ran for perhaps 250'. There was a short passage leading off at the end. Water trickled from a fissure in the roof. There was no stoping, and an obvious blockage to other parts. It was hard to determine what the miners had been looking for.*

We waded our way out and went back to the car. As it was still early we had a wander over to Railway mine so that Ali could complete some surveying. After an hour of this we went back to Plymouth- another mine explored!

Bob Cawthorne.

* The age of the adit is not known,except that it was driven before the 1880's.


entrance
SX 3773 7180
DAM
25
GN
KIT HILL
Adits above Clitters
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1½' elvan
10
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SX 3785 7190
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under
track
stone
arched
20m approx
hade
lode
deads

THE VERCORS, 1988.

Another year, another foreign trip, this time a return visit to the Vercors district of the south of France and, need I say it, the weather was once again brilliant apart from some thunderstorms.

Our arrival at the Vercors was the same as the last time, via the impressive Gorges de la Bourne. We pitched our tents in the Pont Noire campsite on the outskirts of Villard-de-Lans, at the top of the gorge. Sunset turned the surrounding limestone mountains yellow, orange, pink, red and then purple. It was great. We were back.

Alasdair had already done some work researching the caves we were to visit and he did his job well, making sure there was something for everyone. With all the hard thinking done I was able to set up my deck chair daily and sit back peacefully reading my Tom Sharpe novels.

29th August.

On the way up the gorge the previous day we had already had a look at the Grotte de la Goule Blanche, a resurgence at the base of 300m cliffs of Cretaceous limestone on the western limb of the much faulted Corrençon syncline. The cave was perfectly dry today but was to became a raging torrent later in the week. Today, in fact, we were on our way to Grotte de Bournillon at the base of a huge cirque, some 400m high, of the same name. For this trip the party split into two groups. Alasdair Neill, Jerry Drake, Andy Bennett, Kevin Manktelow, Bob Jones and Mike Heard made up a group that were going to do a round trip, up the main passage via the Village Negre and back by the Galerie Penelon. The rest of us, Trish and Hugh Browning, Lynne Beattie and myself, were just going to see how far we could get. The entrance, tucked away in a corner of the cirque, is hardly visable from a distance but it cannot fail to impress you when you reach it because, although dwarfed by the size of the cirque the entrance is enormous, some 80m high. Normally a river flows out of this entrance which in times of flood can be as much as 80 m^3 per second. Today it was dry and hot as we entered the cave for our respective trips. This was merely to get us used to the enormous size of the caves here with formations to match. Both groups emerged from their respective exits at the same time and we met up with the final member of the group, Elaine Mercer, who had been for a walk.

That night we had the first of our thunderstorms and it poured with rain. The majority of us were dry in our tents, but Lynne soon discovered she had pitched hers in the French equivalent of a wadi. In the morning she abandoned her dripping, soggy home and moved into a spare tent belonging to Mike. I think he became one of the few landlords to actually lose something in the exchange! It drizzled into the morning so we drove back down the gorge to Pont-en-Royans and on the way back looked at the resurgences of Grotte de Goule Noire and Goule Blanche which were now spilling vaste volumes of water into the swollen River Bourne.

30th August.

Today we became tourists for a short time and visited the show cave at Choranche. This is another mighty cirque, opposite Bournillon. A new entrance has been tunnelled since our last visit, into the west side of the entrance chamber. With thousands of metre long straws silhoeted in the waters of the entrance lake and cleverly illuminated it makes a magnificent sight. This part of the cave is magnificently decorated and no number of visits can fail to impress as you stroll along the banks of the underground river. On this occasion a new section had been opened up for tourists and we climbed a flight of stairs to enter the enormous Salle de la Cathedral which was slowly lit up during a ten minute Son et Lumiere display, which gradually revealed the imensity of the chamber , its formations, the underground river, and finally another lake. This is a show cave which it is well worth travelling many miles to see.

While the others became cavers again and went for a trip in the nearby Grotte de Gournier, I bottled out at the sight of the lake in the entrance chamber and spent the rest of the day sitting in the sunshine of Cirque Choranche with a book in one hand and various drinks in the other. I have a high preservation instinct!

Jerry, Hugh, Trish, Ali, Andy, Kevin, Mike, Lynne and Bob explored the fossil passage and some went up the streamway.

I wasn't going to get away with it, though. Eventually they were going to get me into the Gournier.

31st August.

Today we drove through Chapelle-en-Vercors and on south. The cave we were heading for was Glacière de Carri, above a col of the same name. It turned out to be cold, deep and uninviting, but they went anway! Jerry, Alasdair, Andy, Hugh and Bob rigged the cave to

-111m, Jerry missing the way on part way up the last pitch. Lack of time ment that they left it rigged, planning to return and bottom it later.

The rest of us, more sensibly, drove over to a nearby showcave pothole called Grotte de la Draye Blanche which turned out to be the highest showcave in France at 1070m. It is well decorated with a particularly superb drip stalagmite coloured grey by manganese.

That evening Ali, Andy and Jerry walked from La Moliere to the entrance of the Berger, then via Sornin to Engins. On the way down they found a small shaft in the undergrowth, which they named GCA 1, (Gouffre Col d'Ali, Alasdair spending several hours throwing up in the snow there some years ago).

That night was another wet one, but at least it was the end of the rain for this trip and by now we had rediscovered the Café de la Resistance and found that it had a new landlord, called Rene. This discovery led to great hilarity and from now on the Cafe de la Resistance was to become our evening base.

1st September.

The next day was a rest day and we all went down into Grenoble. On the way we visited another show cave, the Cuves de Sassenage, which is the resurgence for the Gouffre Berger. This turned out to be a caver's show cave and we spent an interesting half hour going round in circles, following small passages containing much shoring in places! On the way back from Grenoble we took the mountain road up through the forest and dropped Andy and Alasdair to do their own exploration on the Sornin plateau. They found some more shafts in dense undergrowth and will probably never find them again.

2nd September.

Everyone took the Telepherique up from le Balcon de Villard and walked up to Grande Soeur Agathe (2194m), (les Deaux Soeurs). Reching the top of this is like reaching the edge of the World, it being on the eastern edge of the Vercors which is a huge drop into the Isere valley. This is an area of deep caves. The whole area is riddled; we found numerous snow plugged shafts, 30m or more deep. Many are marked by poles to stop skiiers falling down them in winter. We also saw a group of French cavers, camped and working in the Clot d'aspres. The whole area is classic karst, but unfortunately is ravaged by ski development, large areas of lapiaz being blasted away, tracks bulldozed, and ski lifts all over the place. We went in search of Glaciere de la Marmotte Lesbienne (C85-12), just for its name, a cave explored to 118m in 1987 by Groupe Speleo Montagne.

Ali and Andy afterwards returned to GCA 1. A 3m climb down led to a further awkward drop and no way on. Further into the woods they found GCA 2, a 10m shaft to a snow plug. GCA 3 is a 10m shaft with a way on through a hole in ice and boulders. We decided to return with more rope and a bolting kit.

3rd September.

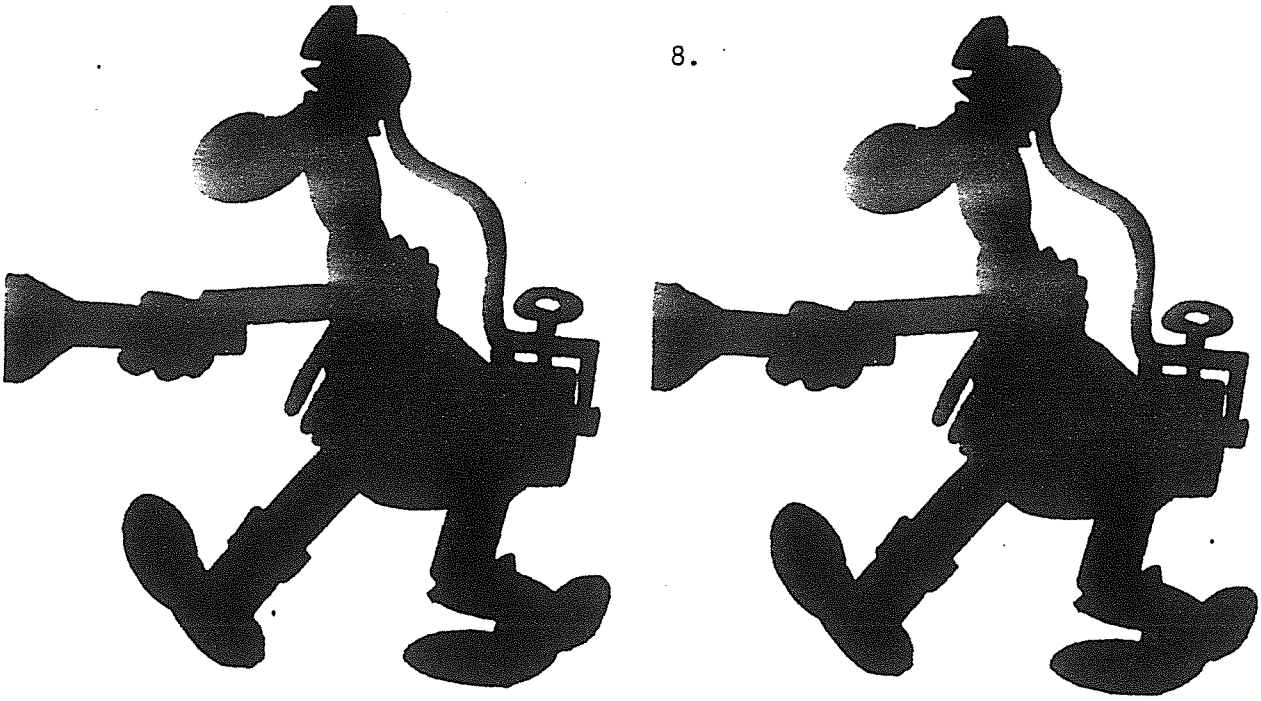
Water conditions the next day, after more rain, ment that Alasdair advised us to go up rather than down in our search for caves, and he took us to Grotte Favot which he assured us was at the base of a cliff. However he failed to point out that the base of this particular cliff was at the top of another one! Eventually we got there and stood in this large opening from which a tunnel led steeply into the hillside. This was a resurgence abandoned now in favour of Goule Noire way below beside the River Bourne. It turned out to be quite a good trip with a shaft at the end which I cautiously avoided. Bob and Hugh partly descended this shaft, but gave up due to the horrendous bolts.

4th September.

We drove over to Chamonix for a bit of touristing, then through the Mont Blanc tunnel (11.6 km long) into Italy, and then went west over the mountains back into France. We found some trial adits by the road near Cormet de Roseland.

5th September.

The next day dawned as bright as the others and we headed for the Chapelle-en-Vercors district. On the way we stopped off at the Centre National de Speleologie, which

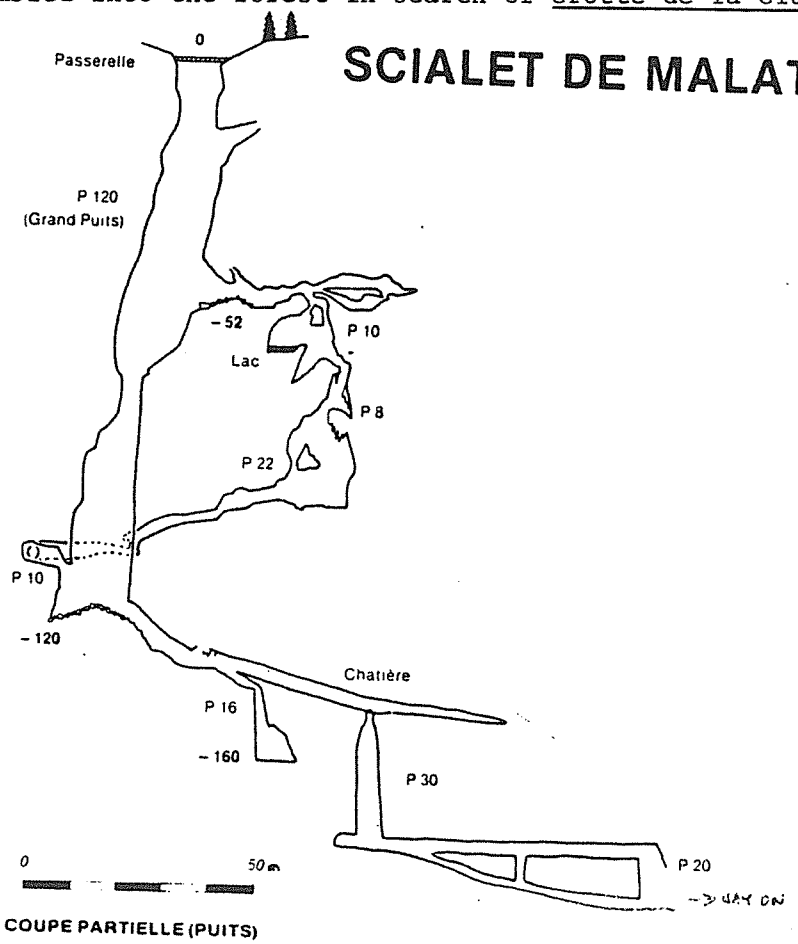


had funny little men walking around the outside of the building carrying torches. We then went to the Maison de la Speleologie, which is evidently an educational centre like the Pengelly so we didn't stay.

We then returned to Glacière de Carri, which Ali, Jerry and Andy derigged as they had decided there were better things to do rather than bottom it. Hugh and Trish exploed their own cave, Scialet de Col de Carri, a shaft below Glaciere de Carri. We all then visited the TSA factory near Pont-en-Royans, a huge plastic box with a caving shop.

6th September.

From this moment on things started to get big. Alasdair took us to this enormous pothole in the middle of a wood. Scialet de Malaterre turned out to be well named and a tourist site in that a metal bridge had been constructed across its mouth. We all wandered across gawping into the abyss and frightened away some French cavers who turned up. Leaving the experts to rig the 120m entrance pitch from a shaky French bridge the rest of us ambled into the forest in search of Grotte de la Glaciere which, as its



COUPE PARTIELLE (PUITS)

name suggests is an ice cave. At least it was more accessable than on our last visit, but we found the entrance chamber choked with ice and no obvious way on. This cave's claim to fame is that it was used by the resistance as a meat store. The whole of the Vercors abounds with the heroic deeds of the resistance. That afternoon we drove over to La Moliere car park on the Sornin Plateau. Our intention was to find the entrance to the Gouffre Berger which we did. On the way back we stumbled across the Scialet de la Fromagère. After a pot of tea at our favourite cafe it was time to drive back to the Malaterre to pick up the rest of the group. Alasdair, Andy, Hugh and Jerry had descended to the bottom of the main shaft, and down the next pitch (30m). After the entrance the cave becomes tight and shitty so they didn't do all of it.

7th September.

Andy, Jerry and Ali returned to GCA 2 and 3, being supported on surface by Hugh, Trish and Elaine. In 3 bolting enabled the ice and boulders to be passed, to a third pitch and a choke at -34m. Alasdair found another cave, GCA 4, nearby, again to a snow choke. A considerable area was then looked at with no further success, the whole area being lapiaz covered with thick forestry and vegetation. Returning to the Moliere, one of those incredible evenings for which it is renown, the Alps in the sun over mist-filled valleys.

Meanwhile Mike and Kevin entered the bottom entrance (E1) of Trou de l'Aygue, which they described as rather tight.

8th September.

In true PCG tradition they were going to ensure that I visited the Gournier and this time I couldn't wriggle out of it. For the last time we drove back down the Gorges de la Bourne and eventually I found myself standing by the entrance lake. Hugh and Bob assuring me that there would be no problem while the others inflated the dinghy and while I was hoping the thing would burst! The moment came and I was about to step into this precariously floating object when I was presented by Bob and Kevin with my own personal life saving device in the form of 'mon petit pony', a child's rubber ring. Photographs taken I stepped (if that is the right word) in and set off across the lake and up the ladder on the other side with suprising ease, thanks to the others. Once there it was tremendous, magnificent gour pools the size of swimming pools, fantastic formations, and gigantic hotel sized blocks to walk around. We just strolled on and on from one sight to the next, and some went down into the streamway below again and took photos. This was an excellent climax to the whole holiday and I wouldn't have missed it for the world.

Our last night in the Vercors was a thursday and we all celebrated an excellent holiday with a dinner and plenty of drink in true caving club tradition, with M. et Mdm. Rene at the Cafe de la Resistance. It was a memorable holiday, and one thing is certain, that one day we will return.

9th September.

On the way back we visited Grotte de la Balme, a show cave in the massif of L'Ile-de-Cremieu, near Lyon. A very large entrance passage containing a chapel leads to a complex of passages and chambers, some quite 'sporting' for a show cave. The river is reached, beyond which sumps have been explored for about 1km. There are some good gours and formations with much algal growth, bats, and a large painting of King Francois I who visited the cave in 1516.

David Jean.

The following articles comprise descriptions of most of the Vercors caves we visited. Grid references are given.

GROTTE DE LA GOULE BLANCHE.

x=850.42, y=312.32, z=832.
This cave is the resurgence for a large area around Corrençon-en-Vercors, including the mountains of La Grande Moucherolle and the Deux Soeurs, and the deep caves in those mountains, up to 1300m higher. The discharge in normal conditions is entirely used for hydro-electric and domestic water supply to Villard de Lans, the entrance being dry, but in flood the cave is a raging torrent. A bridge leads to the cave from the road in the Gorges de la Bourne, leading into the entrance chamber which contains valve houses and steel catwalks. A number of gated side passages lead off. Qhe main passage leads, partly above the stream, for about 380m to a syphon. An aven (Reseau des Choux Fleurs) was climbed in 1987 by the SGCAF to a stal choke at +131m.

A. Neill.

GROTTE DE BOURNILLON.

x=843.79, y=310.61, z=418.
Another resurgence cave in the Gorges de la Bourne, this is a flood overflow to the Sources d'Arbois (x=844.90, y=312.55, z=400). These take the third largest karst discharge in France, draining an area extending 20km to the south, and east to the mountains including le Grande Veymont (2341m), containing caves with a depth potential of 1400m. or more. In dry weather the cave is dry, but it floods remarkably quickly and then carries a huge river, so it is very dangerous in unsettled weather and during the spring thaws.

The entrance is at the base of a huge cliff at the back of the Cirque de Bournillon and is not obvious from a distance in spite of being 80m high. The huge entrance passage gradually decreases in size and can be followed in during dry weather. 1km in a complex area is reached, from which the way on was found in 1985, leading after 600m to two sumps. 500m from the entrance a slot on the right leads to a route through well decorated muddy crawls, which eventually enlarge and reach a huge chamber overlooking the entrance.

A. Neill.

GROTTE DE COUFIN.

x=841.01, y=312.76, z=590.

GROTTE DE CHEVALINE.

x=840.78, y=313.04, z=610.

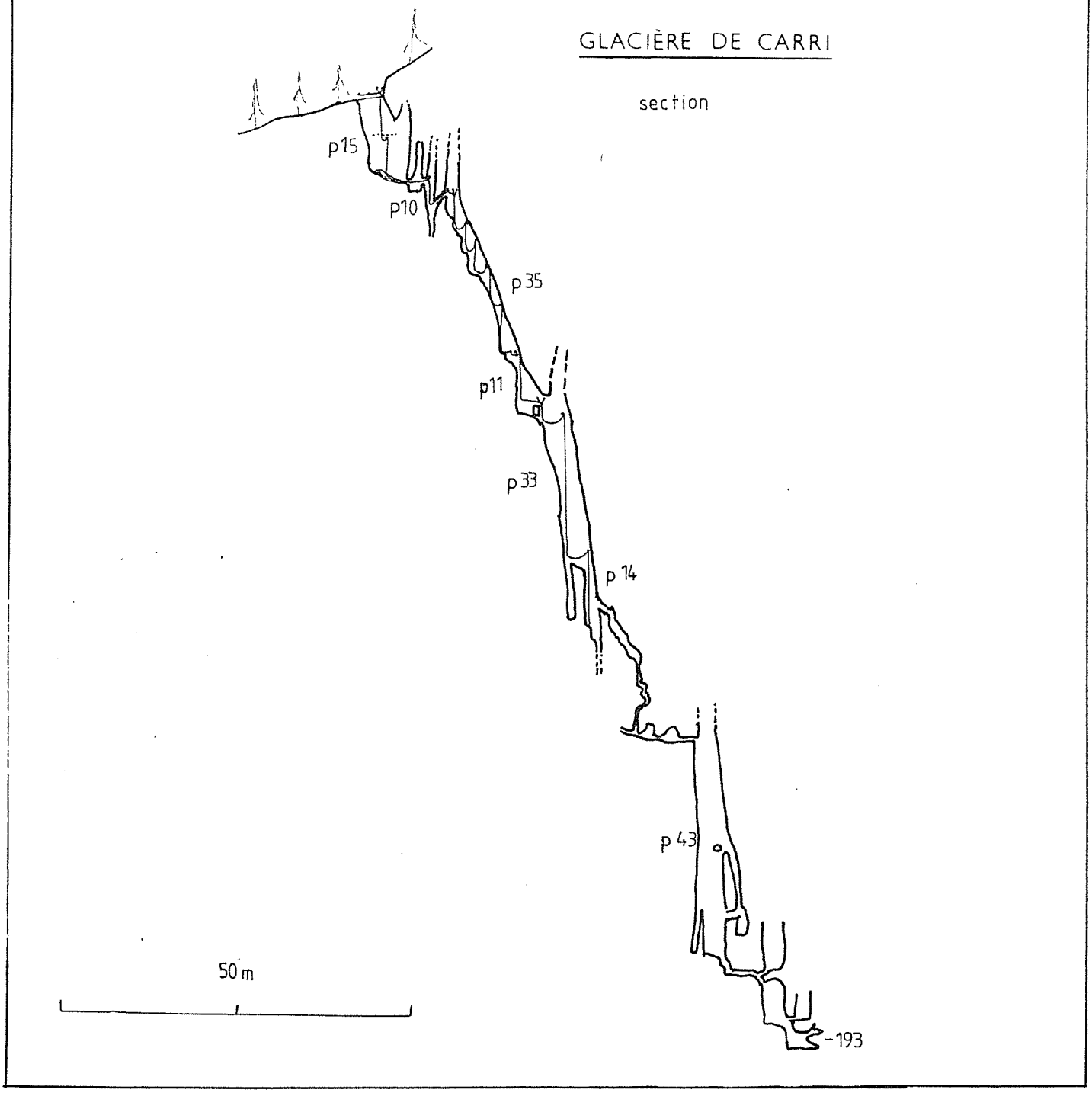
The Coufin show cave entance (Choranche), opened in 1897, leads into a large lake chamber, exceptionally well decorated. It is particularly noted for its straws, up to 3m long. From here to streamways are followed by the showcave. That to the right leads via a new artificial tunnel into the Salle de la Cathedrale and the Grotte de Chevaline. The two streamways are linked 800m to the north east, forming a fine round trip.The cave has been explored to a height of 411m and a length of 16.2 km.

A. Neill.

GROTTE DE GOURNIER.

x=840.78, y=313.04, z=580.
This is one of the best known caves in France to the English caver. The entrance chamber contains a deep lake, passable by boat or by reaching a traverse line high above on the left hand wall- the latter is, however, very time consuming. At the end a 4m bolt climb leads to the Galerie Fossile, very well decorated with notable large gours. This passage extends for about 1km, with average size of about 20m by 20m. A number of routes lead down to the river passage below. This fine passage, dangerous in high water, passes many deep pools and climbs which are bypassed by traverse lines. These are in places in a very dodgy state- great care is needed. Beyond, sumps have been passed and exploration continued a long way upstream, reaching a height (1982) of 680m and a length of 15km.

A. Neill.

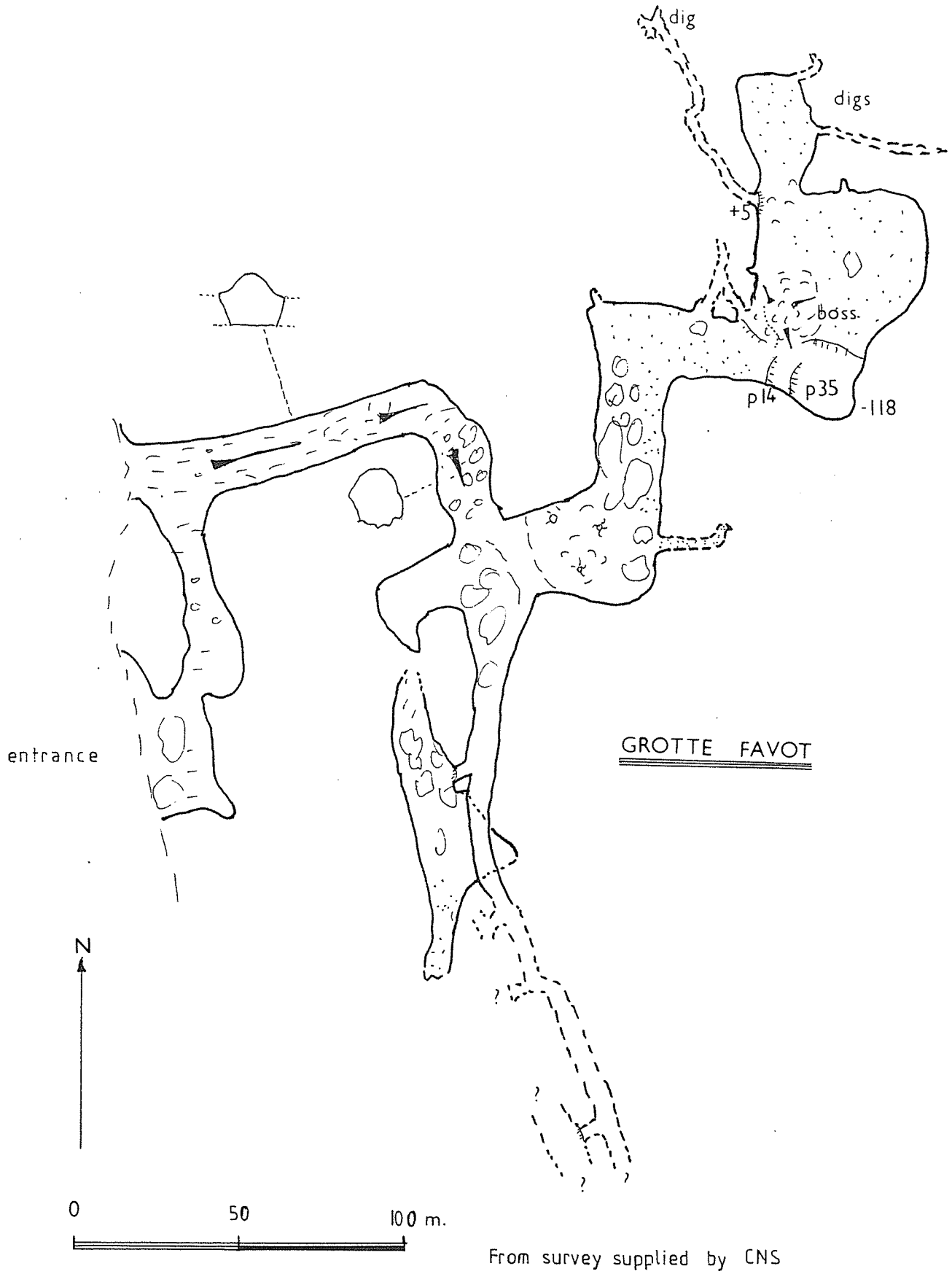


GLACIÈRE DE CARRI.

x=838.8, y=297.84, z=1290.

A vertical cave reached by walking south up the hillside from Col de Carri. A strong cold draught indicates considerable further potential. A sizable 15m entrance shaft leads to a snow bank. A small hole in the wall leads to a chamber, a further small hole 1m up leads interestingly on to the second pitch. This is small, and at 5m a body-sized upward tube is gained and thrutched up to enter a parrallel inclined shaft. Rigging is interesting due to badly positioned bolts. A series of rebelays lead down to -65m where a ledge is swung onto, leading into a large 45m shaft. At -33m a swing into a side shaft leads to -111m, the bottom untill 1974. A slightly draughting fissure carries on in the floor. The cave was extended in 1974 by banging a hole 7m down the last pitch, reached by an awkward pendulum. This leads to a tight vertical section (rope useful), leading to a 43m pitch. In 1979 a further tight extension was made, reaching a depth of -193m.

A. Neill.



GROTTE FAVOT

From survey supplied by CNS
Additions by PCG 1988.

Grade 1, PCG

SCIALET DE CARRI.

x=838.78, y=298.00, z=1230.
A shaft of about 10m leads to a number of muddy side passages. Not fully explored.

A. Neill.

CUVES DE SASSENAGE.

x=860.33, y=328.43, z=298.
A resugence cave, the entrance section is a show cave. This section consists of a maze of fossil and minor stream passages above the main streamway. Access beyond the show cave is strictly controlled. The main sources of the water are from the Plateau de Sornin (including the Gouffre Berger water), and from the Plateau de St-Nizier. 9km of passage has been explored, to a height above the entrance of 440m.

GROTTE FAVOT.

x=848.51, y=313.41, z=900.
A steep climb up scree from the roadside in the Gorges de la Bourne leads to a large entrance at the foot of the cliffs. A low passage leads into an amazing tunnel leading up to surface and down the steep dip, about 15m square. At the bottom a junction is met. To the left, past some large formations, leads to a bouldery passage, ending at pitches of 14m and 35m. On the left a 10m climb on chipped holds runs up the side of an immense boss. A chamber on the other side overlooks the pitch, and contains a number of digs, one with an interesting monorail.

Right at the junction a series of passages, containing much graffiti, can be followed; these extend much further than is marked on the survey and we did not fully explore them.

This cave is of interest as it probably forms a fossil resurgence to a system now drained by the Goule Noir, about 220m below. The latter is a major resurgence, draining an area up to 1000m higher extending to the Glaciere d'Autrans, 16km to the north. It emits up to 20m³ per second in flood. There is thus great potential in Favot.

A. Neill.

SCIALET DE MALATERRE.

x=848.62, y=309.56, z=1418.
This cave is memorable for it's entrance, a 120m shaft. A steel bridge crosses the entrance. Removing a section in the floor enables a free hang down the middle to be rigged, landing on a ledge at -65m. A rebelay allows a descent to the bottom. A rebelay 15m from the bottom is not really necessary, the bolt is easily missed. The landing is on a huge pile of boulders and tree trunks, in which a German armoured car is said to be buried! A climb down leads to a low passage from which a very tight traverse leads to a 30m pitch. Muddy traverses and another 20m pitch leads to a series of chambers, reaching a depth of 230m and length of 1.6km.

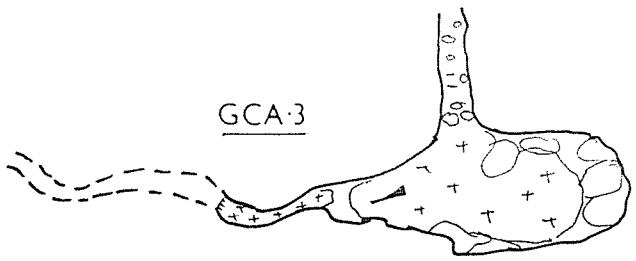
A. Neill.

GCA 1, Engins. x=857.92, y=328.46, z=1520.
GCA 2. x=857.88, y=328.47, z=1525.
GCA 3. x=857.87, y=328.49, z=1525.
GCA 4. x=857.83, y=328.45, z=1525.

These caves were explored by the PCG in 1988, no record of previou work has been found. They lie over the Galerie des Fistuleuses (-430m) in the Scialet de la Fromagere. GCA1 is a freeclimable shaft to a choke with a lower chamber to one side. GCA 2 and GCA 4 are shafts to snow plugs. GCA 3 is a shaft to a cone of snow; a route to one side drops through ice and boulders to a further pitch. The bottom was not fully checked due to something dead!

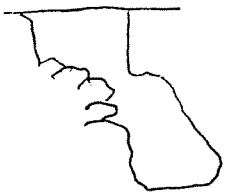
A. Neill.

GCA·3

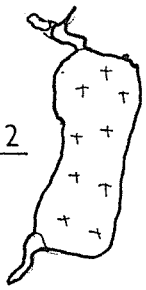


plan

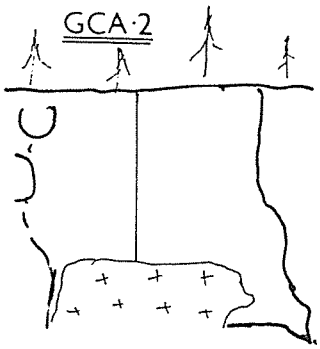
GCA·1



GCA·2



GCA·2



section

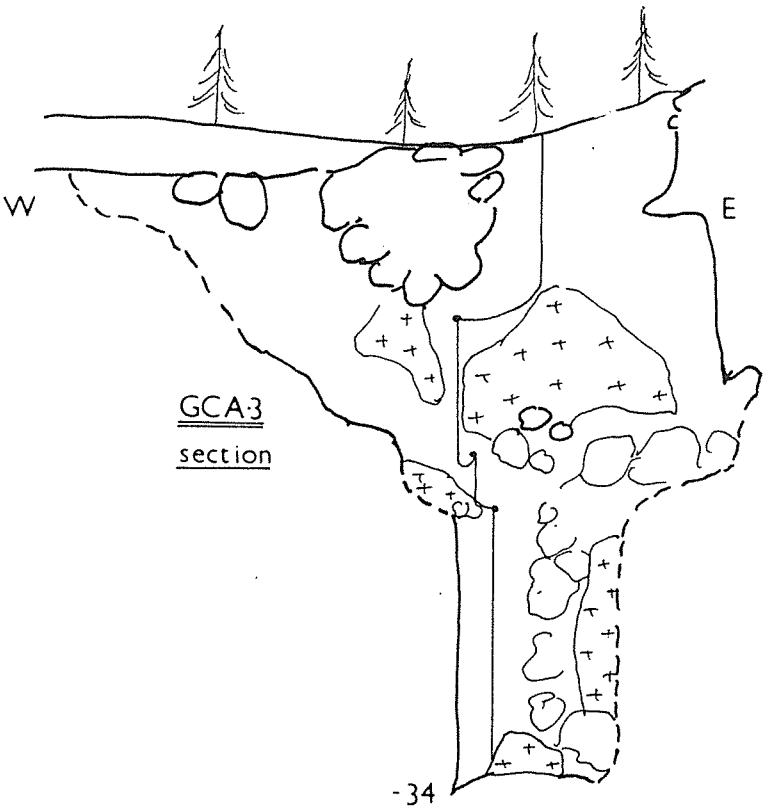
GCA·1-4, ENGINS, ISERE

ice & snow

10 m

W

E

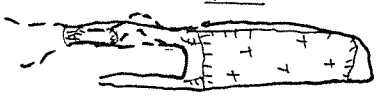


GCA·3

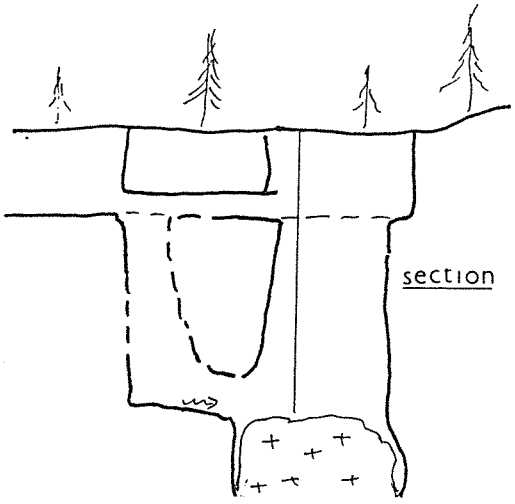
section

N

plan



GCA4



section

REDMOOR MINE - NORTH ENGINE SHAFT.

North Engine Shaft (grid ref. SX 35/5 7150) lies behind some houses at Kelly Bray. It lay on Duchy of Cornwall property, the north or Duchy portion of Redmoor being worked from about 1854 as Kelly Bray Mine. It has also been known to cavers as Duchy Shaft.

The shaft seems to have been started about 1835 by the Redmoor Consolidated Mining Company. This company had an extensive lease, and reopened old shallow workings, sinking this and Johnson's Shaft to work the important north - south Lead Lode and also a number of east - west tin and copper lodes. This company was followed about 1843 by the Callington Mines Company who were more successful, sinking North Engine Shaft to its final depth of 125 fathoms below adit by 1850. They worked the Lead Lode throughout the length of their setts. About 1850 they found good copper ore at Kelly Bray on the east extension of lodes opened up in North Engine Shaft, and eventually confined all their operations to Kelly Bray Mine. There is no record of operations from North Engine Shaft after about 1854, although work has continued intermittently at Redmoor Mine to the south untill recently.

North Engine Shaft has been descended a number of times by PCG members, but some levels could only be followed a short distance before sumping off. The recent dry spell therefore was a good opportunity for a descent, and it was possible to make considerable further progress. A number of digs and "manky" sections were also passed this year, and a survey made.

The shaft is vertical, about 14' by 8', and is about 153' (47m) to water level. There are levels off at 55' (17m) and 141' (43m). The latter is the Redmoor Deep Adit, while the former is a "coffin" level, possibly 18th century or earlier in date. It is probably the best example in the area. The pick marks indicate it was also driven in from the south, probably being the "shallow adit" mentioned in some Redmoor reports.

Crosscuts at both levels connect the shaft to Rowe's Lode (named after a captain there in the 1840s), a north dipping copper lode which seems to have been of no great importance. There are only a couple of small stopes on it in the accessable workings.

At deep adit the level west leads to a stope, which can be climbed up, and through dodgy timbering to a blockage which issues water. This is probably close to the main deep adit, which ran for over half a mile south through Redmoor to it's portal. A continuation, the Hurl-down adit, was driven north in 1840-1841 by the Redmoor Company to prove the extension of the then rich Holmbush lodes.

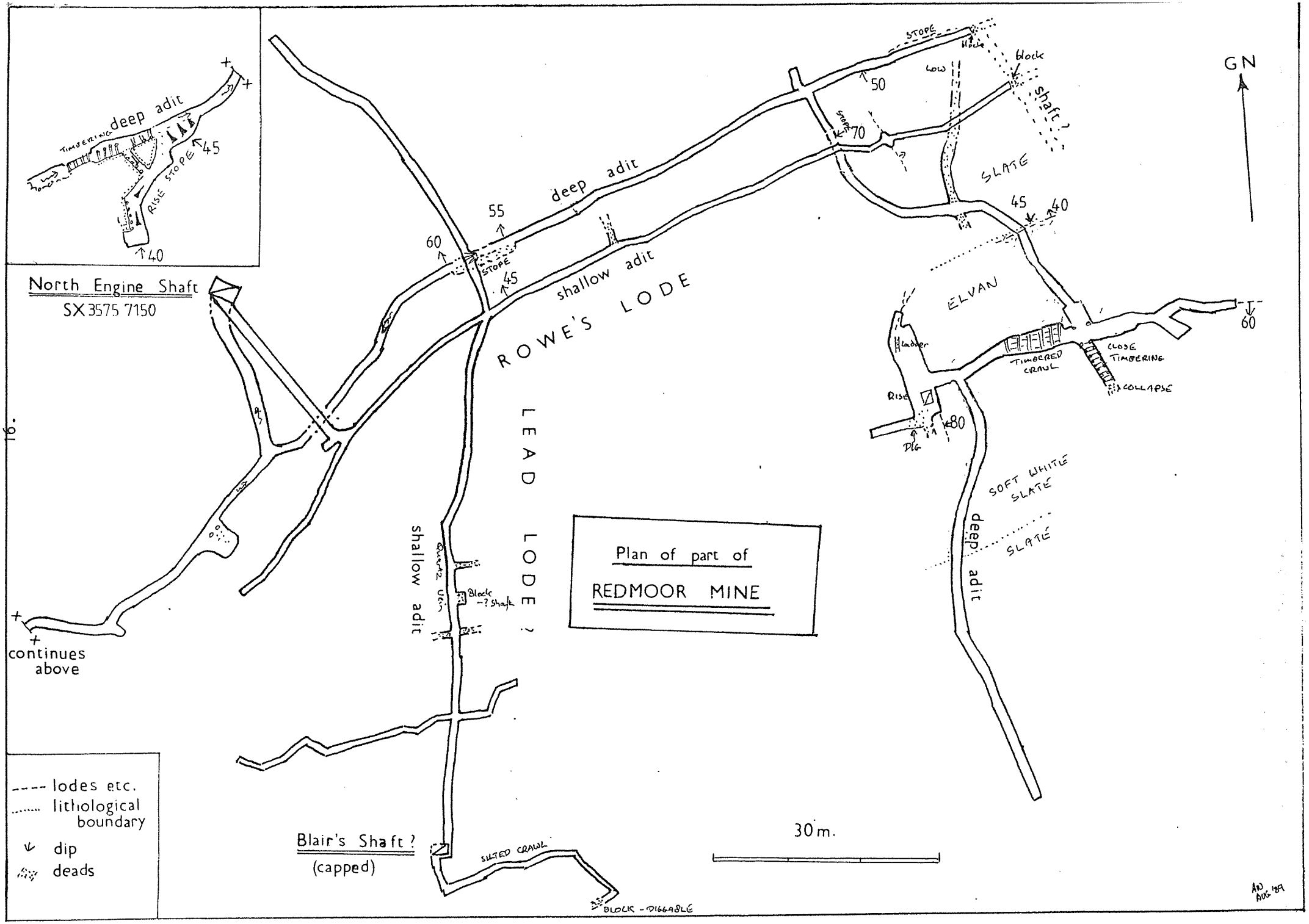
Going east a stope is reached, containing excelant ochre formations up to 10' long. Lead Lode must cross Rowe's Lode about here, but does not seem to have been worked. Passing a junction, a stope can be climbed to a blockage. This is probably at a shaft- an old tip is marked here on the OS map (SX 3583 7148), and the Shallow Adit is blocked at the same position.

From the junction a level south passes a crossroard. We dug into the level north, which is a flat out crawl over backfill; it becomestoo low and ochrey close to the above mentioned blockage. Beyond this the main level enters an elvan dyke, and then cuts a lode, probably Great South Lode. The level south is heavily timbered and soon reaches a collapse. To the west a crawl under timbering reaches a chamber. We dug into a short level west from here. There is a rise about 20' high in the roof. A level south, very loose, begins in a zone of soft white slate on the hangingwall of the lode, eventually running into 'normal' slate and then ending. A similar zone of altered slate was found on the footwall of the elvan and lode worked in the Counthouse Shaft section of Redmoor Mine; this was mined in 1944 - 1945, the slate being used in the construction of advanced airstrips.

The Shallow Adit was only driven a short distance west of the shaft crosscut on Rowe's Lode. It can be followed east to a collapse at the above mentioned shaft. Levels run north and south, probably on Lead Lode. North Lode passes a squeeze (? a collapsed shaft) to an end, the last section being larger and possibly 19th century. Southwards, which is normally flooded to the roof, passes a number of branches (mostly backfilled) and under a capped shaft (probably Blair's Shaft) and is gradually silted up, becoming a 1' high crawl, untill a blockage (which could be dug) is reached.

Refs: WF Wilkinson, 1895. History of the Holmbush, Redmoor and Kelly Bray Mines Dines. Mining Journal.
JPR Polkinghorne, 1945. Slate Mining. Tr.Royal Geol. Soc. Cornwall 17.

Alasdair Neill.


deep adit
TIMBERING
RISE STOPE
45
40
North Engine Shaft
SX 3575 7150
60
55
deep adit
STOPE
45
shallow adit
ROWE'S LODE
LEAD LODE ?
STOPE
Block
50
LOW
Block
shaft ?
STOPE
70
SLATE
45
40
ELVAN
Ladder
TIMBERED CRAWL
CLOSE TIMBERING
COLLAPSE
60
RISE
DIG
80
SOFT WHITE SLATE
SLATE
deep adit
shallow adit
Quartz vein
Block
? Shaft
continues above
Plan of part of
REDMOOR MINE
GN
30 m.
Blair's Shaft ?
(capped)
SILTED CRAWL
BLOCK - PICKABLE
---- lodes etc.
..... lithological boundary
dip
deads
AJD AUG 1979

16.

WHEAL BENNY.

Further work has been done here since the article in PCG 103 was produced, and more details of it's history are included.

History.

Old men's workings of unknown age were opened up in the 1840s by a company in 256 shares. By January 1850 £3700 had been called up, in making trials for copper ore, tin being apparently ignored. Work had been carried out on two lodes, Ford lode and Benny lode. On Ford lode a shaft had been sunk near the river to 30 fathoms, with levels at 7 fms and the bottom. The lode was poor apart from a small shoot of copper ore in the 7 fm level west. The shaft was drained by a waterwheel, but lack of water to power this led to work being suspended; it was expected it would be drained by workings at Davey's shaft of Lamherooe Wheal Maria. The latter, on the Devon side of the Tamar, was sunk to work the extension of the Wheal Benny lodes and others.

On the Benny lode the deep adit had been driven to the crosscourse, and 10 fms beyond this on the heaved lode, where some copper ore was being stoped. A winze was sunk west of the crosscourse to 11½ fathoms, where it met the crosscourse. A crosscut was driven to cut the heaved part of the lode, and driven east on it.

In 1852, possibly after a suspension of activities for a while, a company in 1742 shares with £740 capital called up was carrying out operations, under the same management (Mr Adam Murray) as in 1850. A crosscut was being driven south from the deep adit level on Benny lode, following the crosscourse, in search of parrallel lodes. By then it had been driven 65 fathoms. Ford Shaft had been drained by the Lamherooe mine workings, and the pumps in it were removed. Work was also carried out on a south lode, said to be the Marquis lode of Bedford United Mines, in an adit and a shallow shaft. This could be the adit at SX 3958 7224.

In September 1852 it was said the Duchy of Cornwall were threatening to forfeit the sett, probably for non payment of rent or breach of covenants in the lease, but it was said the south crosscut was continued to a length of 100 fathoms. A number of lodes were cut, which it was later said were only followed a short distance as they contained tin and no copper, the company being only interested in the latter.

In 1853 to 1855 an adit crosscut was driven in a sett to the east by the Tamar Maria Copper Mining Company; the portal was probably to the east of the Ford lode workings. This was driven 100 fathoms, cutting a number of lodes, some of which were also tried in shallow pits and shafts. On one a shaft was sunk to 5 fms below adit. The sett was later included in Latchley Consols mine.

Sometime about 1873, Captain Edward James of Latchley and Mr. H. Reynolds of Calstock cleared the adit of Wheal Benny, but did nothing more although rich samples of tin were found.

The Wheal Benny Mining Co Ltd took the sett in the summer of 1883. A skiproad was put in engine shaft, then sunk on the lode to where it was heaved by the crosscourse. The shaft was to be continued in country rock continuing the underlie from surface. Dressing floors, 12 heads of stamps, etc. were erected, and a 36' x 3'6" waterwheel was started in November, working a hauling machine to draw the skiproad. By January 1884 the shaft had reached 2 fms below deep adit, where water forced sinking to be suspended untill pumps could be got to work. Good tin ground was being found and worked east from the top of the shaft, and stoping was started in the deep adit.

The first tin sales were made in April. A 32' x 3'6" waterwheel was erected, to work rods through the deep adit (which had to be enlarged) for pumping from the shaft, and also to work a 12" plunger to return water over the stamps. This work was completed in October, enabling shaft sinking to be resumed. Lack of water,which came from the stream in the valley running to the south, was always a problem. 8 heads of stamps could be worked by day if water was allowed to accumulate in a reservoir by night. A burning house, to calcine the tin concentrates to remove arsenic etc., was acquired at Deer Park (presumably on the old dressing floors of that mine), where chambers and a flue were built connecting to the stack to recover arsenic, and a buddle was put in to treat the concentrate following calcination. This was all working by the end of the year, when there was sufficient water to work all 12 heads of stamps.

The engine shaft reached the 10 fm level in March 1885. That level was commenced and sinking was resumed. In the summer the long crosscut south from the Benny lode, which had been filled with deads for the first 30 fathoms, was cleared out. Shortage of water to power the stamps wheel led to the erection of new stamps and floors powered by an engine.

Work seems to have ceased soon after. In spite of reported good values for tin, and rich arsenic ore in places, the recorded production of both was small. Some wolfram

was recovered from stopes above the shallow adit level.

During the 1901-1904 period small scale development was reported to give results sufficiently good for a small Cornish stamp battery to be erected, and trial crushings gave good results. A burning house was erected, but production was never reached.

During the 1920's work was transferred to the Ford Lode of the 1850's, as has been described by the son of the mine manager (imformation kindly supplied by Mr. Brian Nicholls of Ivybridge).

"In 1924-5 the upper wheel 38' dia. worked backshot and its tailrace then worked the lower 34' wheel overshot. Neither wheel was [then] used for winding or haulage; the upper wheel drove the 12 Cornish stamps and the buddles, and the lower wheel worked the mine pump- a Cornish pump in the shaft some 400 yards downstream of the wheel.

"A big gear wheel on the waterwheel shaft drove a smaller one carrying a crank pin, which worked a wire rope some 400 yards long passing over pulleys at intervals along the hillside to work a bellcrank which worked the pump. Sometimes the wire rope broke, so we had to search for the ends among the blackberry bushes and join them together.

"This was a new shaft being sunk, and after it got deeper we had to supplement the pump by a steam sinking pump, supplied from a boiler in a shed nearby; it also supplied a steam- driven winding engine."

A number of features have been noted since the original article was written. This account should be read in conjunction with the latter (PCG Journal 103).

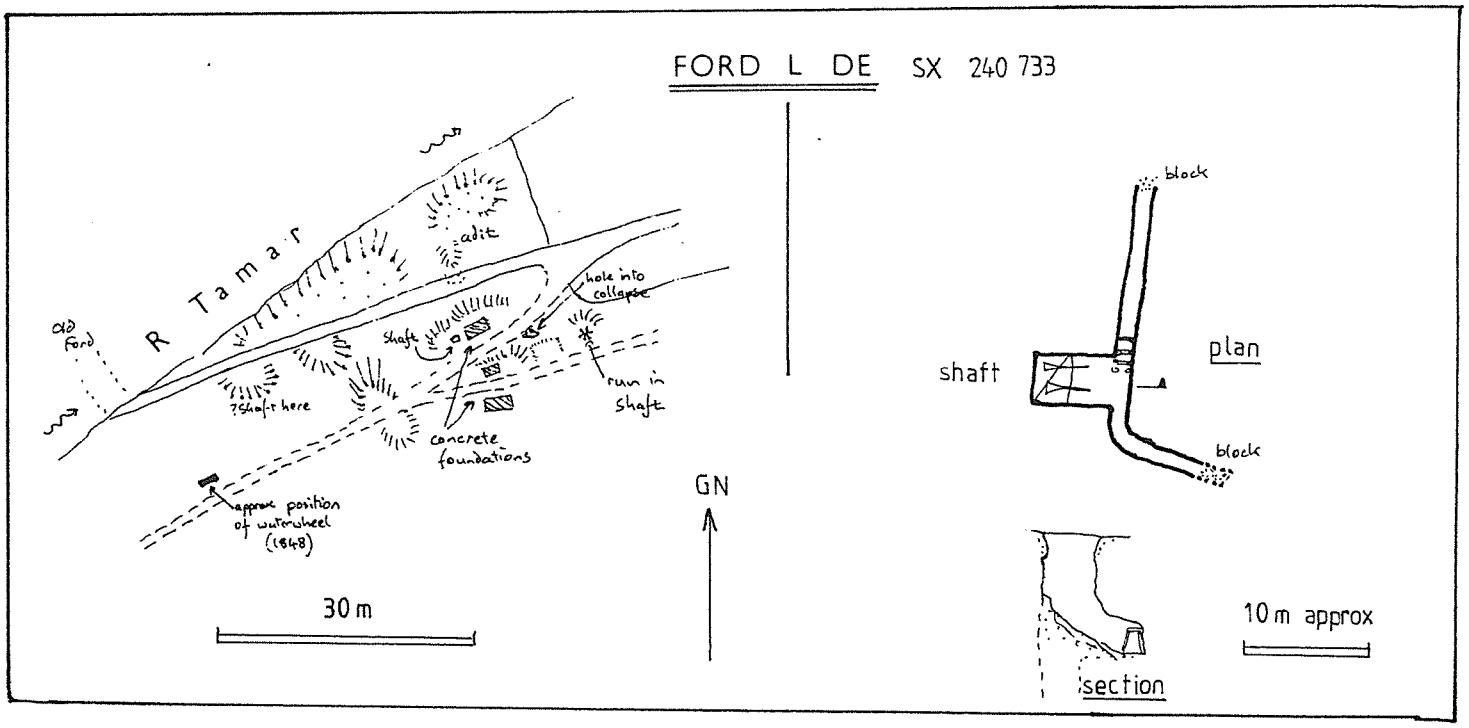
The engine shaft was descended in March 1989, giving access to stopes on either side; those on the west are largely choked with boulders. One level in the hanging wall side of the shaft near the top could not be entered.

In the deep adit the winze (1850) is not obvious, but launders remain which took the water here to prevent it sinking down the winze.

The portals of both adits are in a dangerous state.

The long south crosscut was explored to the end (see plan). It is wet and ochrey, and contains nothing of interest.

There is a trial adit, very short, by the river NE of the deep adit.



Although we had previously noticed signs of workings in the area, we had totally missed the Ford lode workings untill finding the above details of their history. The metalled road ends at a former ford across the Tamar. Just before, some excavations on the left may indicate a shaft. Further back towards the track junction the blocked

adit mouth is just below the road, which appears to be subsiding into it.

From the junction, the track to the main workings passes some concrete foundations, tips, and a hole into a collapse. There is a run - in shaft above, and an open shaft below, probably that used in the 1920's. It is much collapsed; a slope of debris and rubbish at the bottom leads into the adit (10m depth). One way, past dangerous timbering, leads to a collapse- probably the portal. The other way also leads to a collapse, probably under a hole in the side of the road. This is on a joint, probably the 'lode'. There are signs evident that the level continued beyond.

Another adit, which we have not looked for, is marked on a plan of 1848. This is shown as a crosscut to a tin lode, at the top of the wood at about grid reference SX 3966 7296.

This map also marks a smithy (grid reference approx SX 3965 7307), and the waterwheel which worked the Ford Lode shaft.

In Sept 1989 Zygie Hayes, Charlie Bird and myself returned; Charlie made an awkward climb up the stope east of Engine Shaft to enter the level seen in the hanging wall of the shaft, which could not be reached otherwise. A rise leading into the level from the roof of the stope was gained by throwing a rope over a timber near the top. Zygie made an awkward climb up a stope in the middle level west of engine shaft. The top was not reached, but it must be getting close to surface. This stope is reached by an awkward climb up a wall of deads in the side of the level. The hanging wall here is very loose, and has collapsed in most of the stopes in this part of the mine.

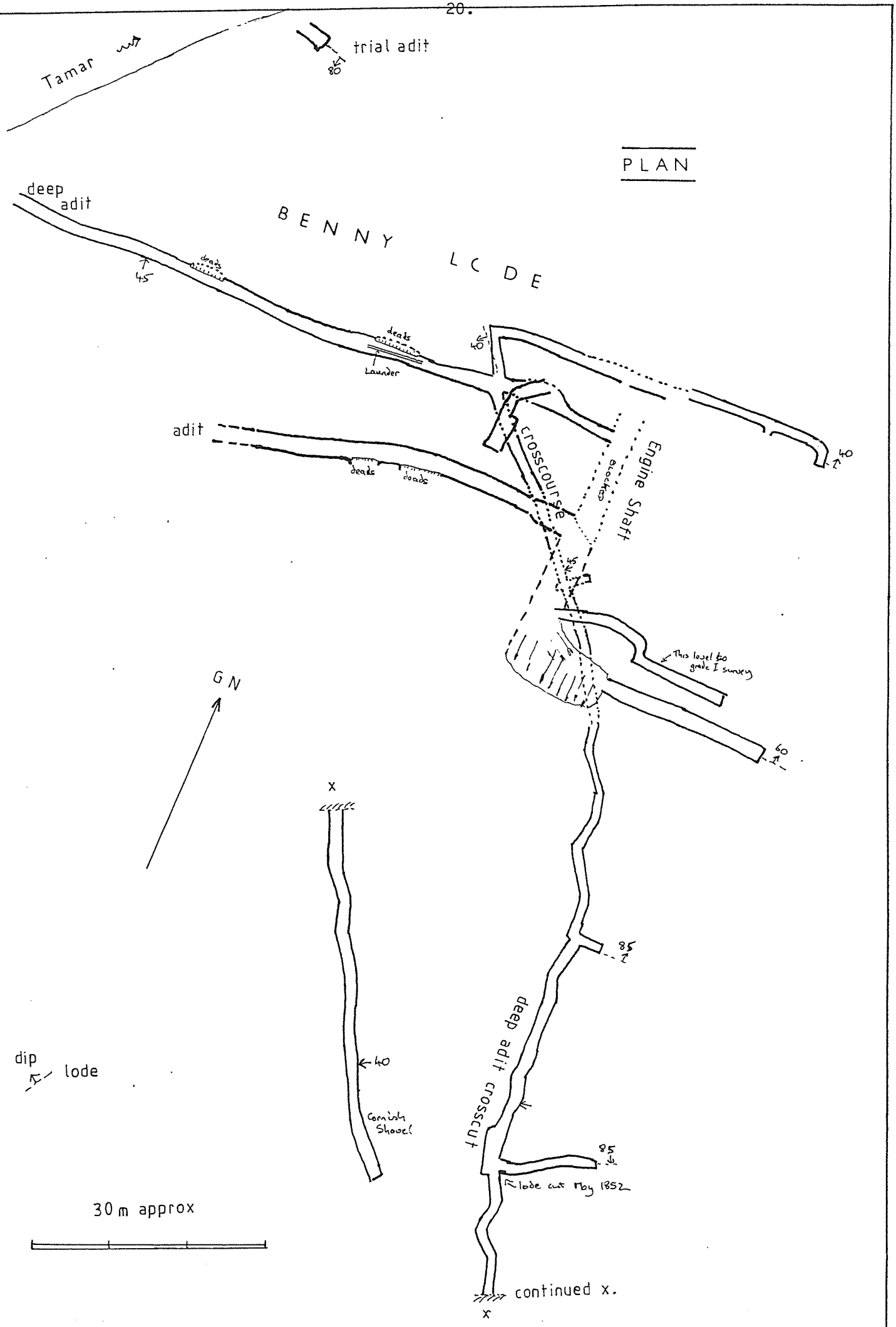
We also located and explored the adit level of Tamar Maria mine (also called West Wheal Williams), which will be described in the future. This is at grid ref. SX 4023 7334.

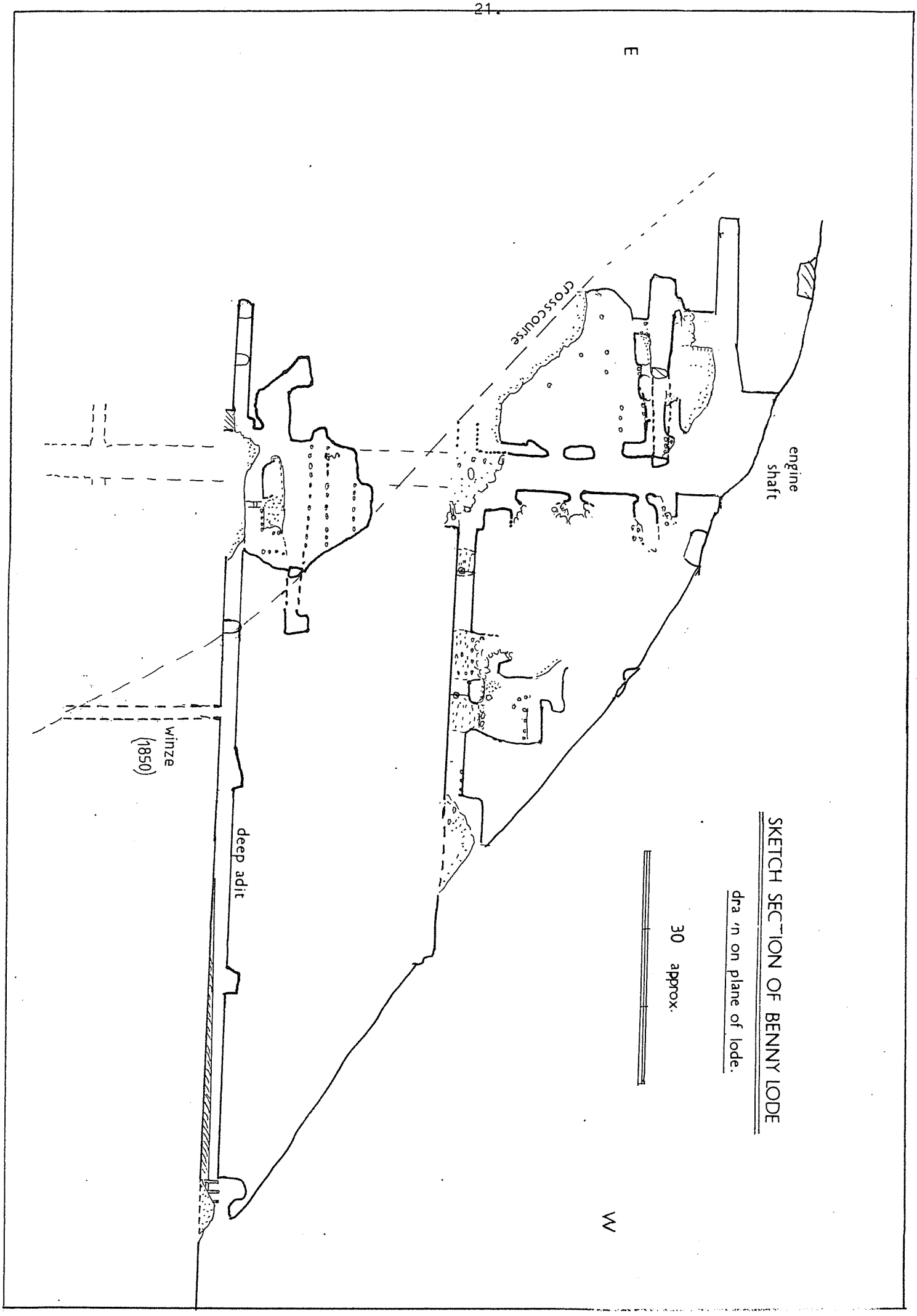
Alasdair Neill.

References:

Mining Journal.
Plan of the Tavistock Mining District, 1848, by R. Symons.

Thanks to Bryan Nicholls for imformation supplied.


Tamar
trial adit
85
PLAN
deep adit
BENNY LODE
45
deads
deads
launder
adit
deads
deads
crosscourse
Engine Shaft
blocks
45
60
60
This level to grade I sunken
GN
X
40
Cornish Shovel
85
deep adit crosscut
85
lode cut May 1852
continued x.
X
dip
lode
30 m approx



SKETCH SECTION OF BENNY LODE

dra n on plane of lode.