

A dramatic black and white photograph showing the silhouettes of two hikers inside a dark cave. They are positioned on either side of a large, irregular opening in the rock wall. Bright light streams through the opening, illuminating the rocky interior of the cave and creating a strong contrast with the dark foreground. The hiker on the right is standing on a ledge, while the one on the left is slightly lower. The overall mood is one of adventure and exploration.

*"This trip is dangerous. In fact, it's the most dangerous thing I've ever done."*

-Chris Cowdery

# CROESOR RHOSYDD

**The Through Trip – By Miles Moulding 2/7/2006**

**Cover Photo:** Vanoord and John rest during the long climb up the enormous exit chamber in Rhosydd

### **Very Important Note**

The purpose of this document is to record the successful completion of the Croesor-Rhosydd through trip made on 2/7/2006. With the constant state of decay in our disused mines, we never know when or what we will lose forever, and in time this trip will no longer be possible. When such happens, as has happened so often in the past - documents, photographs and reports will be all we have left to appreciate them.

This document is not in any way intended to encourage other parties to attempt the trip. Entering any disused mine should only ever be attempted by suitably experienced and equipped persons working as a competent team.

The Croesor-Rhosydd through trip is particularly dangerous and requires specialist equipment and the skill to use it correctly. A mistake or poor judgement in such an environment could easily cost you your life. Please don't enter any mine unless suitably experienced, equipped and in the company of other competent individuals.

### **Photos in this Trip Report**

I didn't take all that many pictures on this trip. The photos in this document comprise of my own from the day, Vanoord's from the day, my own from previous trips to both mines and also a few from Mwynwr – a fellow mine explorer who's taken some excellent shots from within Rhosydd.



## Introduction

Croesor and Rhosydd are two very large slate mines (well, “underground quarries” as they would prefer to be called) located deep within the dome-shaped mountain of Moelwyn Mawr, North Wales. They are not the only two slate mines under that hill, and despite their close proximity to Blaenau Ffestiniog, they were not actually considered Ffestiniog mines because (after 1864) their produce was not transported to sea on the Ffestiniog Railway. Instead, they had their own tramway by name of Parc & Croesor which saved much money in carriage fees.

Whilst both mines are extensive, Rhosydd is the larger of the two with no less than 170 chambers arranged over 14 floors. It is considered to be one of the biggest slate mines in the industry outside of the Ffestiniog group.

The mines share a common boundary and in the later stages of their development, the underground workings slowly approached each other at their extremes. Both mines accused each other of cutting chambers beyond the boundary – effectively trespassing and stealing slate belonging to the other mine.

To settle the matter by aiding more accurate surveying, it was agreed to drive a short tunnel to connect the two. After it’s completion, it was discovered both mines had trespassed into the others land.

After the issue was settled, they decided to keep the tunnel between the mines open. It would aid ventilation at the far end of both mines, and also act as a good emergency exit should either mine suffer an accident.

After a while, the manager of Rhosydd had a small wall built, as workers from both mines who wanted to leave early were escaping unnoticed through the other mine. The wall would still allow ventilation and could be quickly brought down if the need arose.

Both quarries ceased slate production in the 1930’s, after around 100 years of effort. Between them they employed around 500 men at their peak, producing in excess of 11,000 tons of finished slates annually. After the 1930’s Rhosydd lay abandoned, whilst Croesor saw some of it’s workings in reuse as an explosives store up until the late 1970’s.

Croesor has only one adit which was always the sole means of entering or exiting the mine, with the exception of two airshafts (one being 320 feet high) and the connection with Rhosydd at the far end.

Rhosydd had several adits but today only the ½ mile long no.9 adit remains open. At the top of the quarry is a large Twll (open pit) and several of the underground chambers come up and break out into the side of this. It is possible to enter or exit Rhosydd via these chambers though the scramble is very steep.

Both mines have seen serious collapses in their time. In 1900 a large section of Rhosydd caved in burying rockmen and creating a massive crater on the surface. Rhosydd has suffered another large collapse in the late 1990’s which has destroyed, amongst other things, the main underground incline. The whole mine is largely shattered and not in particularly good condition.

Croesor’s Chamber 1 East was quite possibly the biggest underground chamber in the slate industry. It was actually several colossal chambers foolishly worked away into one breathtaking void – so big in fact the roof simply couldn’t support itself any longer and it collapsed with a mighty roar. The top third of the chamber remains in tact, though in a dubious condition with a roof not to linger under.

The rest of Croesor’s workings are in generally much better condition, with only smaller localised collapses.

Both mines are also deeply flooded. More than a third of Rhosydd is below the water level, and more than half of Croesor has been lost in the same way. Croesor now drains out of it’s only adit, and Rhosydd out of the no.9. It is therefore not possible to explore beneath these horizons in either mine.

Miraculously, despite the numerous collapses and rock falls in both mines, it is still just about possible to enter one mine, go right to the other end, pass through into the other mine and exit. It is also thankful that when the connection was driven, it was at a point above the present natural water level and not below it. It clears the extremely deep water by a mere 20 feet.

The journey is appropriately known as the Croesor-Rhosydd Through Trip, and remains one of the classic adventures for the mine-explorer. It is a committing and testing day out, despite the entry/exit points not being even a mile apart on the surface. Underground it certainly feels a lot further and it takes many hours to complete the trip. Falls continue in both mines, and it’s only a matter of time before this fantastic undertaking is lost forever.

# Our Trip

It had been a good week. I had started it with an abseil of Cabin shaft and a fun day of exploring some of Minera's lead workings. On the Thursday I'd spent the evening in Rhiwfachno and Friday in Pandora.

Then, Corin (a competent caving and climbing friend) emailed to ask if I fancied having a look at the Croesor-Rhosydd through trip on the Sunday with him and his friend John.

Croesor to Rhosydd. Now that was a trip that hadn't crossed my mind for a couple of years, and if you'd have asked me then if I'd ever do it, I'd simply have laughed it off as totally out my league. It was reading about that very trip which got me into mine-exploring in the first place and so it always had a special place in my heart. I'd been doing a lot of technical trips recently - maybe it wasn't so out of reach anymore?

I decided Sunday would make a good reccie. We'd arrive at the mine in good time and well kitted, ready to carefully take our time and just go one step at a time. No doubt at some point (I gambled it being Abseil no.2) we'd encounter an obstacle that was simply beyond us and we'd head back. I packed sufficient gear to see me through the entire trip, but I wasn't hoping or expecting to make it all the way. I saw the day really as just a look-about, a closer inspection so that one day I'd be able to come back better prepared. I asked my friend Vanoord along too, as he'd always had a long-standing interest in the trip.

We met at the Cwmorthin car park at 10am and Vanoord was predictably behind schedule. It was a gloriously hot day and I suspected the laborious climb over to Croesor with all our kit was going to be an endurance. Indeed it was, by the time we reached Rhosydd we were all dripping with sweat and I was ready to curl up and go to sleep. The sun continued beating down as we continued over the hill. Before too long, we were presented with the view of Croesor's main mills area,



which is where the adit is located. A couple of minutes later we were kitting up at the portal.

The other three looked like proper cavers but I'd planned to do it wearing shorts, t-shirt and hiking boots. The icy wind that howled out of the tunnel made me shiver, and I regretted not bringing even a coat. As another issue, I'd forgotten my battery-bag that usually sits on my waist. So, I had to keep my battery in my backpack, which meant I couldn't ever be separated from it.

Croesor's adit portal was once much larger but the main doorway had long since been bolted up, and walled over. Next to it was a barred-up window, out of which several of the bars had been kicked. It was through here we squeezed and said goodbye to daylight for about six hours.



We proceeded along the adit, through an old steel gate. The level

continued on to finally reach the main wagon marshalling area. From here a number of exits led off. To the left a major tunnel headed off into the meat of the mine through the mighty Chamber 1 East, long since collapsed. Hence, that route ended abruptly in a wall of rubble.



To the right was a nice brick-built office or compressor room, and straight on led to the inclines. An incline down led straight into deep water, but originally this would have provided access to C floor about 160 vertical feet below us. An opening on the right led to Chamber 1 West, which was of course also flooded right up to the level of the floor we were on. The chamber was enormous and the black water was perfectly still, concealing its secrets deep below the surface. Looking up, the degraded remains of a bridge could be seen hanging in space. But our business was not with this chamber, we had to go up.



The very old incline up from this area had been worked away at its bottom to install the massive winding machinery used to work the downward incline. This in turn had been partially worked away to install the more modern explosives handling gear, long since removed. It was necessary therefore to climb over all this in order to gain the old incline, which involved a fairly exposed traverse, called "Holland's Leap". It earned this title when a chap called Eric Holland (Author of "The Coniston Coppermines") misjudged it and fell a considerable distance into the old winch wreckage below. He wasn't seriously hurt.



With the incline gained, we proceeded up, following a large ceramic flue pipe on our left. Before long, we reached B-Up floor, where passages led off the incline to the left and right. To the left led into the collapsed Chamber 1 East again, so as before nothing more than a wall of rubble. To the right it immediately

opened into Chamber 1 West, now high above the water. We continued on up.

We passed a section of the incline which has obviously suffered a reasonable fall in the past, as large chunks of former roof had to be climbed over. Shortly after this, we reached the top of the incline on level C-Up.

The top of the incline met the bottom of the No.3 Airshaft, which stretched up 320 feet to the surface. Only a faint blue glow reached us down that deep, though the actual shaft itself was sealed off by a heavy grille. It is interesting to note that the safety manager when sealing off the mine decided to put the grille at the bottom of the shaft rather than at the top. The top is completely open as an 8 foot square hole on the mountainside. I suppose anybody who jumped down the shaft would then not be able to get into the mine where they might hurt themselves.

On the right was yet another opening into 1 West, now at the top of the chamber 160 feet above the deep black water, itself about 160 feet deep in that particular chamber.

To our left led into the mighty Chamber 1 East, but this time above the collapse. We peered into the blackness from our little window, and the first thing to strike me was the stupendous size. I'd seen it twice before yet it still amazed me. Of all

the countless chambers I've seen in slate mines over the years, this one just beat them all with its sheer enormity.

We were an easy 80 foot above the rubble strewn floor, the massive vertical chamber wall plunging straight down to meet it. Above us was about 20 feet more before the roof, making a chamber around 100 feet in height but much bigger in the other two dimensions. It truly was staggering; in fact it was one of the most staggering sights I've ever seen. A layer of cloud floated high up. I remember thinking to myself, "Heck, this chamber is so big it's got its own weather system"!

I'd seen photos of the power station turbine chamber at Llanberis, which is claimed to be the largest underground chamber in Europe. I didn't think the people who claimed that had ever seen this one.

I apologise at this point for not taking a photo of it. It would have taken a lot of organisation, and at that moment we were all nervously peering over the sobering vertical drop that was before us rather than thinking about ambitious photography.

John offered to go first. A fixed rope was anchored next to us and dropped straight down into the blackness, to which he connected his belay plate. A few sharp breaths and he stepped out over the edge, and began moving down the rope towards the floor 80 feet below.

Unnervingly, the sound of cracking and falling slate came echoing up as he descended, the wall not being solid but loose and flaky. We held our breath and flashed our powerful lights around on the chamber roof, which did not repay the closer inspection.

Here in this very chamber not so long ago, there was a rescue callout when a team crossing it simply made too much noise. 100 foot above them, a fine sample of Welsh slate about the size of a transit van detached itself from the roof. It silently made its journey to the

chamber floor (itself consisting solely of other fallen boulders), thankfully not landing on anybody but the shockwave was still sufficient to disable the party.

The tinkling of dislodged slate stopped and a rasp came up to signify that John was on the chamber floor. The next stage was to lower down our single paddle, brought along for the water crossings that lay ahead. We had 50 metres of cord, similar in thickness to shoelace, and it was this we tied it to. Corin lowered it down, but about halfway the cord went slack – it had somehow gotten stuck. He tried pulling, still stuck. We deciphered from John's upcoming hisses that the paddle had jammed in a fracture on the wall part way down, and it would need to be freed by the next person to do the abseil. Which was Vanoord.

He rigged up his shiny new Stop, and stood on the edge, weighing up the situation. He gingerly tipped himself over the brink, and clung to the rope. I witnessed a look of genuine terror on his face, which is a rare sight. He didn't look at all happy, and he said as much.

I told him that with 80 foot of nothing under him, he very well ought to be scared, especially on a rope which could be really old and in who-knows-what condition. He replied with something unspeakably rude, and began the descent, again dislodging chunks of the wall as he went. He successfully freed the paddle on his way.

Corin went next, leaving me on my own at the top. While he made his abseil, I watched the tiny lights of John and Vanoord moving slowing across the chamber floor. Their being there gave a clear sense of scale of the whole affair. I stood and gazed for a while whilst I waited.

Corin signalled that he was down, and I hooked myself up. Stepping over the edge myself, I realised I'd just passed the furthest point I'd ever been in Croesor, and began slowly sliding down the rope.

The wall was an impressive sight during the abseil, and stretched out in all directions. I looked up at the hole I'd just been standing in, and down at the floor, still 40 feet below. The wall was slightly overhanging, and after about halfway I wasn't much in contact with it.

Once I reached the chamber floor I unhooked and set off after the now distant lights of the others. I carefully scrambled over the boulders, some small and some gigantic, trying to make as little noise as I possibly could. I eventually caught up, just as we neared the opposite wall of the mighty chamber (which we couldn't see from where we abseiled in – even our powerful torches just wouldn't cut the distance).



Here was another opening, leading into the next chamber along. The floor of the next chamber was another big abseil away – around 70 feet this time. We performed the descent in turn as before, with myself last. This abseil had an added complication of an awkward take off that caused us much grief, in fact my bare knees were bleeding and peppered with slate fragments before I managed to get myself hanging in free space – industrial knee pads would have been worthwhile kit that day.

70 feet later and I was in contact with horizontal ground again. A realisation stuck me at that point that having abseiled now a total of 150 vertical feet, getting out again the way we'd come would have been a very sweaty retreat. Climbing up ropes is tiring work, there was certainly an incentive for pushing through the whole trip now. Our progress so far was good and I was starting to come around to the idea

that we might very well actually make it. But it was too early to judge, for somewhere in the darkness ahead of us were the fabled “Bridge of Death” and “Chamber of Horrors”.

I looked around the chamber in which I had landed. It wasn't enormous (by the last chamber's standards) and the floor was sloping tip. My eyes followed the tip down, and met with deep water about 10 feet below me. “Of course, we're back down to the water table now!” I remember thinking to myself. Indeed the chamber was flooded, deeply so at the far end.

Now it just so happened that a few years prior to our trip, the way on from here was to head straight across the chamber and climb into a normal level which then proceeded east through to the next chamber along. Unfortunately however it collapsed, and this would have spelt the end of the Croesor-Rhosydd through-trip had it not been for a very lucky twist of fate. This chamber actually had a secondary tunnel cut (a very old one!) set high into its roof which also went through the wall. Not only that, but the flooded water has risen up to a point just below this level, making it possible to boat across to. Had the water not been there, the tunnel in the roof would have been about 60 foot in the air on the steeply overhanging chamber roof, and therefore completely out of reach to all but the best of rock climbers. The through trip had survived.

We were expecting to have to boat across this water to reach the roof tunnel. It was with some surprise then we discovered that some kind thinking soul before us had decided to install a steel cable that stretched from the tip on which we stood, right across the water to where we needed to be. We wouldn't need to laboriously blow up the boat after all. All we had to do was attach ourselves to the steel cable (which had a slight down-gradient) and pull ourselves across to the other side.

John went first by attaching two slings to his harness and two crabs through each of these. These in turn



Vanoord crosses the water

Again, we were expecting to have to boat across another body of water but it was immediately apparent that we wouldn't have to. Here was not a steel zip line, but a full blown suspension bridge.

This came as more than a bit of a surprise, and we all agreed that we'd never seen anything like that in a mine before. It looked brand new, and a bag of 'bridge bits' lay nearby. Somebody had clearly gone to enormous trouble and expense to install it, perhaps as a bit of an exercise? It was, frankly, completely unnecessary – a steel zip line would have done just fine. Mind you, we weren't complaining, and were eager to give it a go.

were attached to the steel rope and he sat down so that it could take the weight. Despite the gradient he didn't freely move on it due to the rope not being smooth but rippled. By a process of placing his weight on one crab, moving the other and then shifting his weight, he managed to make slow progress off the tip and out over the water. Eventually he reached the other side, and unclipped himself.

I then watched Vanoord repeat the procedure, zip-zoping along the line which looked surprisingly tiring work. Perhaps the boat would have been easier after all?

Corin was using the wait as a good opportunity to sort some kit out in his bag, which he was still enthralled in as Vanoord touched down on the other side. I offered to go next, and then suddenly a little light bulb illuminated above my head. I rummaged around in my bag and pulled out – my Petzl Rescue Pulley!

I'd won it on eBay years ago but had never actually used it. Only by chance had I thrown it into my bag as I left home that morning, as a 'just in case' bit of kit.

I showed it to Corin and suggested he attach his 50m shoelace to it, so that he could pull it back after I reached the other side.

I hooked myself up and sat down in my harness. I immediately floated off down the line, gliding effortlessly across the water before coming to a gentle stop in the company of John and Vanoord, who again said something unspeakably rude to me. Despite this, I found the gentle glide across the chamber the most pleasurable experience of the trip.

Corin pulled the pulley back and repeated the traverse. With us all assembled across the water, we moved through the wall into the next chamber.

John crossed first. Not trusting it completely, he hooked in both cowstails as he moved along. Just as well really, the bridge wobbled and swayed alarmingly as he crossed it.

When it was my turn, I discovered that the deck twisted to one side threatening to tip me off into the drink. Not only that, but it sagged down as I walked along it. The deck got lower and lower as I moved, until it touched the water. I progressed a bit further and the deck continued to drop below the surface, but thankfully not so much that the water went over my hiking boots. All



Suspension Bridge!

across, we said goodbye to the wondrous suspension bridge and moved on along the obvious route through generally good workings to reach the 'first bridge'.



1<sup>st</sup> Bridge

This 150 year old piece of timber engineering had not stood the test of time particularly well, and was so rotten we could have pushed holes through it with our fingers. Most of the deck was missing, and those bits that were left offered no support at all.

We crossed it one at a time very slowly, by balancing on the two main timber baulks which spanned the gap. They swayed and creaked unnervingly as we went, with bits falling off into the dark bottomless water glistening evilly below. Falling in would have been very bad news, for all sides of the chamber were impossibly steep, vertical or overhanging – that's supposing we were even able to swim anywhere whilst wearing big boots and a heavy backpack.

All safely across, we were happy the first bridge had not defeated us but knew full well we were yet to face 'The Bridge of Death'.

The next obstacle in our way was to



Me, hanging off a zip-line

cross another chamber just like the last one, only here the bridge had completely collapsed except for the central support still hanging from the roof. A steel zip line had been installed spanning the space where the bridge would once have been, and with the aid of my pulley we were able to pull ourselves across with relative ease. How the rigging in this chamber ever got installed in the first place I honestly don't know, putting it in must have been a daunting task.

We carried on through healthy workings in solid ground, which in retrospect I deeply regret not spending longer looking at. The style of the workings in mid-Croesor strongly resembled that of Maenofferen, and some of the

chambers were pretty sizable. The mood was one of tension however, and eagerness to press on.

Sure enough, before very long we reached the fabled "Bridge of Death". It wasn't much of a bridge, in that it was about as collapsed as a bridge possibly can be before it ceases to be a bridge. The central support was extant, and only one of the main timber baulks remained balanced across most of the chamber (it didn't quite reach our side). Between ourselves and the central support we two old tram rails, and it was these we were supposed to cross to reach the central support. Once there, we had a choice of either using the pulley to connect to a static rope and go through free space, or, move across to the timber baulk and



attempt to negotiate it to the far side. That option didn't appeal, not least because the baulk had big iron nails sticking out ready to snare the unwary.

All in all, the Bridge of Death looked pretty uninviting. We'd have given a lot at that moment for another one of those nice steel zip lines so we could just fly over it all, even at the expense of all the character building and adventure we were about to undergo.

John stepped onto the rails and they wobbled horribly. It was a slow process for him to get to the central support and anchor in to a chain that was dangling from the roof at that point.



The "Bridge of Death"

Using a very long sling (which took a long time to get just the right length), he carefully attached himself to the pulley on the top rope, and pulled himself across to solid ground. We all let out the breath we'd been holding for several minutes.

I didn't want to go last this time. I raised the issue with Corin and Vanoord but they wanted to go last even less. Corin made the next traverse, again very carefully and gently to avoid any of the few remaining bridge bits from falling into the murky depths below.

Vanoord didn't look happy with the forthcoming trauma but it was a long way back at this point, and if it wasn't for that I think I myself might have turned around and given up.

He stepped out onto the rails and made his way across. He had a lot of

gear on him and claims at one point on the crossing he had every bit of it in use. He made it to safety, and then it was my go. Oh joy.

I had the slight extra complication of needing to dismantle the pulley-return cable that John had rigged up so that we could all share the one pulley. I untied the knots, held the hand rope for dear life and stepped onto the rails. They bounced around violently so I went as slow as I could. I felt very exposed but was glad to reach the central support, but 150 year old timber and iron doesn't invoke the greatest of confidence.

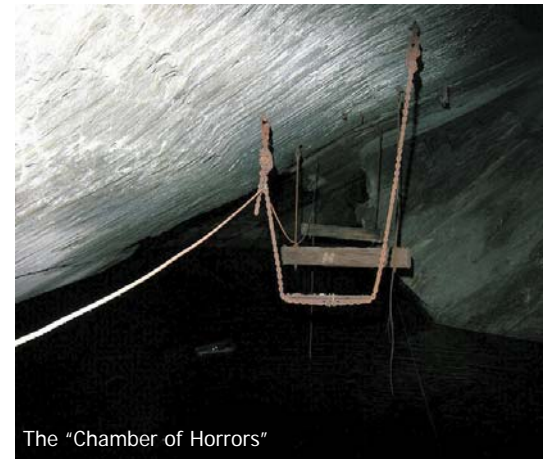
It held me well as it did the others, and I hooked up the waiting pulley to my harness. I stepped off the central support into free space and hung on the rope. I started pulling myself through the air, gradually getting nearer and nearer the landing platform.

Then – only about two feet away, I was stuck. I tried again to no avail. I wasn't able to move further along the rope, and I was trapped hanging in free space just short of where I needed to be. I looked behind me confused, and saw the problem. The 50m cord that had been used as the pulley return line was stuck. One end was tied to my harness and I was supposed to be dragging it back with me, but somehow it had gotten tangled up back at the start of the bridge.

"Just untie it and let it drop, it's only cord", I thought to myself. But no, I couldn't, we needed that cord for pulling the boat back in the next chamber. I wrestled with it all I could, and John gave it his best shot. Eventually it worked loose, and I was able to swing back over solid ground and detach myself. We'd now all crossed the Bridge of Death.

A mere 20 feet of solid floor was all we had separating the Bridge of Death and the Chamber of Horrors. We all stood together, staring into it with a general feeling of terror. It was a pleasure to finally see it, I found it hard to believe I was actually standing there. I didn't like the look of it one bit.

The Chamber of Horrors was actually two chambers separated by an extremely thick wall. This wall had been mostly quarried away, at least above the present water level, to form one big void. A bridge once spanned across the whole thing, but nothing was left of it except for a few supports still hanging from the enormous roof.



The "Chamber of Horrors"

From the tunnel in which we stood, there was a vertical drop of about 25 feet or so to the inky black water. Given that this chamber went down to D floor, it would have been about 150 to 180 feet deep. As with all the other chambers, all the sides of it were vertical, overhanging or impossibly steep, so falling into this underground lake would have been most unfortunate.

Our lights did not reach the far side of the chamber, but we knew there somewhere was the connection with Rhosydd, spelling the end of Croesor. But we had to get across this first.

We inflated the little dinghy that Corin had brought. It used to belong to his daughter but she'd outgrown it and been promised a bigger one. The first trick was lowering it down into the water, avoiding all the razor sharp fragments of slate jutting from the chamber wall. That task wasn't easy, but once it was happily floating in the water below us, Corin attached himself to the waiting rope and abseiled down towards it. Vanoord tugged the cord to keep the boat in position.

Corin landed safely in the little boat, and we all let out a sigh of relief. Armed with his single paddle, he rowed out into the chamber to reach another boat that was adrift – clearly abandoned by some previous party and no bigger than the one we'd brought with us.

He towed it back to the spot directly underneath us. The plan was (given that our boat was designed for a child) to keep weight down by lowering our backpacks separately, and putting them in the spare boat for the crossing.

This was all agreed to be a good idea, but I had a problem in so much as the battery for my headlamp was in my bag, and I had no other way of carrying it. My headlamp was attached to my helmet. I had to dismantle it all and pack it away, and instead I clad my head with my Petzl Myo3. The batteries were weak and the light very dim, plus my head felt vulnerable without a helmet. We'd decided to take two bags at a time to avoid overloading the dinghy, so two were duly lower down, helped into the boat by Corin.

A long length of garden twine was attached to the chamber wall just above the water, and it ran off into the darkness presumably towards where we needed to be on the other side. Corin hooked a carabineer around this and attached it to the handle on the boat, so that it could move freely along it. With the long cord still in our hands up top, he slowly pulled himself across the water into the distance. Eventually we couldn't see him anymore, but more and more cord was being withdrawn from the pile signifying that Corin was still moving. Soon enough it stopped, and we heard a little splashing in the distance followed by an echoed shout.

He was obviously across, so we started pulling the cord back in. Sure enough, before long the two boats came floating towards us out of the darkness. The bags and Corin were gone, hopefully safe on the other side rather than on the submerged chamber floor.

John (the only one of us with the sense to have brought any form of buoyancy aid) abseiled down next, being careful to not miss the boat that Vanoord was tugging to keep in position. He successfully landed, and we lowered the final two bags to him. As Corin had done, he gently pulled himself along the water using the garden twine until he was beyond our view.

The tunnel in which we stood was taking a cold draught of air and I started feeling chilly. This was my own fault really for just wearing a T-Shirt. Vanoord and I exchanged some general banter about all the other less stressful things we could be doing that day, and then the echo came back from the blackness. We pulled the cord back, and again, the two little toy boats dutifully emerged into the range of our lights. I'm sure their respective manufacturers/toy shops would be horrified to see the service they were presently being pressed into.

We got the boat into position, and Vanoord stepped up to the rope and rigged in his Stop. With myself being last, I had to dismantle the cord return system and there was some confusion over what was tied to what. This was soon sorted, and Vanoord lowered himself slowly down to the waiting boat. I watched him slowly move off across the water, and then he too was gone.

I stood around hugging my arms while I waited, reflecting on my position. Before my lay the Chamber of Horrors, just behind me in the blackness was the Bridge of Death. I couldn't go back if I wanted to - my pulley, slings, ascenders etc were all in my backpack somewhere across the water out of sight.

I looked up at the immense chamber roof. Somewhere up there through who knows how much solid rock was a baking hot July Sunday in Snowdonia. I remember thinking to myself about the little roads packed with cars trying to get from one attraction to another. The tourists on the Ffestiniog Railway. The bathers on the beach at Llandudno, with the sound of ice cream vans and Punch

& Judy. I thought about the endless line of weekend holiday makers walking up Snowdon, in nicely ironed shirts and carrying new OS maps neatly folded into smart map-cases. I thought about all the young lads stupidly jumping off the bridge in Betws-y-Coed, trying to impress the young girls that were doubtlessly also there, giggling and getting in the way of the coach-loads of pensioners on their way to Bodnant Gardens.

That was the familiar Snowdonia, and it felt a world away. Down here was a different Snowdonia, one that the tourists didn't see. This was Victorian Britain as the Victorians left it. This was the enormous industrial underground of Wales, gouged out of the mountains by men with candles and hobnail boots. This was their testament to their endeavour. Hundreds of men worked their whole lives to create this mine, which is just one mine of countless. Down here was, to me, perhaps one of the most spectacular and dramatic places in Snowdonia, yet so few people even knew of its existence. Fewer still would be lucky enough to ever see it.

The echo came back to signify that Vanoord had left the boat and I started pulling it back. My light was pathetic and I could barely see down to the water. In the distance were flickers of illumination and shadows where the other three were gathered, though I could not see them.

The boats eventually loomed from the darkness and bobbed about on the surface of the water. The end of the abseil rope actually ended about a foot short of the water. I knew once I was on the abseil rope, I could only go down, my ascending kit was all in my bag across the water.

I threaded the rope through my Rack and stood on the edge of the drop, looking down at the little boat which was not directly under the rope as it should have been, but thankfully not out of reach. I knew whatever happened, I must not fail to land in the boat. If I miss it, I'll just drop off the rope and into the drink. The sides were sheer and there was

nowhere to swim to. There was nobody else up top to fly down the rope to try and grab me before I sank. Doubtlessly a scream and a big splash would have alerted the others on the other side of the chamber but by the time they'd have reached me it would've been far too late.

I steeped over the edge and slowly slid down the rope. The boat bobbed about, thankfully not drifting off out of reach. I was soon about two feet above the water, and reaching out I was able to grab the edge of the boat and pull it under me. I let go of the rope and I slid down the remaining distance, dropping into the boat with a plop.

100kg was obviously over the recommended carrying weight, and the boat sat low in the water. I was on my back and couldn't see where I was supposed to be going, so I tried to sit up. The uneven weight distribution of doing so caused an inrush of cold mine water so I lay back down quickly. I reached over to the guide wire, and was able to grab it, and pull myself along in the boat.

Looking straight up (I couldn't do anything else) was an unusual perspective, and I remember seeing the massive chamber wall moving slowly away as I went. I soon forgot about the horribly expansive depths below me and found that moving along the water on my back was actually quite a pleasant experience.



John waits for me

I remembered that the line crossed very close to the sheer rock wall that used to separate the two chambers. Sure enough, it loomed out of the blackness above me, and I hoped my tiny vessel didn't actually touch its razor sharp outcrops. I kept going, until I heard voices and saw lights.

"You're ere now", announced John, magically appearing into my view. I rolled my head to try and see where they were.

This side of the chamber wasn't so bad. The working face rose out of the water steeply but not so steep that you couldn't stand on it, whilst holding a rope for balance. Fortunately, one had been installed for the purpose and Vanoord and Corin were anchored to it further up.

John helped me disembark and we all arranged ourselves on the steep slate to survey the next step. The tunnel out of this chamber was like the one we'd come in on, about 25 feet up a vertical slate wall. A static line came down, and Vanoord was the first to get his jammers on the line and progress up to the waiting level.

Corin went next, but unfortunately had forgotten his cowstails so ascended up to a fixed anchor about 25 feet up, and got stuck, unable to swing into the level which was off to the left. Vanoord was able to hang out and fix up a cowstail to his harness, allowing him to complete the traverse. John followed, then finally I zipped up the line – we'd all survived the Chamber of Horrors.

We stopped for a rest and surveyed our situation. We were rapidly running out of Croesor and somewhere ahead was the crossing into Rhosydd.

I'd never been in Rhosydd before, and this was not the first way most Mine-Explorers enter it. Mind you, we weren't going to see a lot of it and wanted to head directly for the Twll and out. We didn't really know where we were going, and would have to follow our noses.

We reach Croesor's last few chambers, only small scratchings right at the Eastern extremity of the mine. A steep route led up the side of one of these chambers (it was tricky getting onto it) which we followed, and sure enough, we climbed over a little wall to enter Rhosydd Floor 6 (I think it was). Every mine has its own 'feel' and

despite the fact the slate was worked in Rhosydd in exactly the same way at the same time as Croesor, we could now tell we were in a different mine. We proceeded through some nice easy Rhosydd chambers and arrived at the bottom of a haulage incline going up.

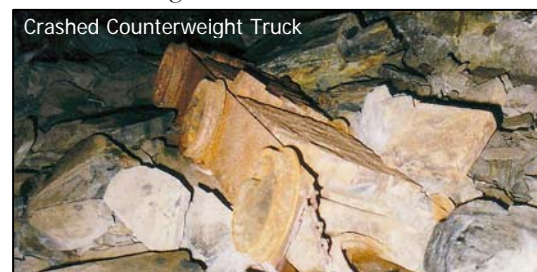
This wasn't Rhosydd's main incline (which had recently partially collapsed) but a smaller one called the 4-6. It was a counterbalanced Twunc type, the dual-wagon shuttle being here at the bottom.



Twunc

We asked ourselves how we might actually get out of this mine, and I pointed out that we were too deep in our present location. We had to gain a few levels in height before we might exit into the Twll, so it made sense to climb the incline.

Up we went to the top, a height gain of two levels. Half way up was the crashed counterweight truck, still loaded with huge iron bricks.



Crashed Counterweight Truck

It would have been left under tension near the top when the mine closed, and over time the steel rope had rusted and snapped. The counterweight would have tore down the incline until it derailed, coming to rest at its present location.



At the top of the incline was the return sheave. This was an impressive chunk of metalwork that performed the same function as a regular drum-house, only in a more space-efficient way.

We looked around at the top of this incline for anything that suggested a way out. I was confident that we were now high enough in the mine, but from what I remembered of the map (which I didn't have with me), we had to continue East for a number of chambers before we could expect to exit into the Twll.

We looked East and found no way out. We looked West, no luck either. In fact we spent a lot of time searching all the passageways, to no avail. So – back down the incline.

Back at the bottom again, we looked at the passage going East but it initially appeared to have collapsed. On closer inspection, there was a small gap right at the top and we crawled up through this to gain the bottom of a large chamber. We continued East along the bottom of several other big chambers before we detected a faint blue light ahead.

The next chamber was also very large, and continued up a fair way, but at the top was an enormous opening into which streamed the late afternoon sun. It felt blinding after six hours of 4 watt headlamps, and it lit up the whole chamber dramatically. It certainly was an enormous void, not as big as some of the others we'd seen today but being floodlit in this way really showed it off.

We started the long scramble up the chamber towards the opening at the top. This took a fair bit of time as it was a long way and the going steep.

I lagged behind so I could try and take some atmospheric photos with the light behind my companions, confident I was now on the home straight. The temperature got hotter and hotter as we climbed.

We finally all emerged into the Twll to the putrid smell of a rotting sheep that had obviously fallen over the sheer rock sides to its death. We took a quick team photo and turned our attention as to how we were going to get out of the Twll.

Corin suggested climbing back down into another chamber and making our way underground again to find the end of the no9 adit. From there it would be an easy 1km walk through running water to the exit.

I suggested climbing out the Twll, partly because I'd managed to keep my feet dry so far but would get them very wet in the no.9, but also because I had that feeling, like in the movies, that something bad always happens when somebody 'goes back'.

So we set about climbing out the Twll, by finding the easiest looking scramble and heading up. I found this scramble possibly the scariest part of the whole day, due to its height and exposed position. Being in the presence of three rock-climbers, I expect I was the only one who struggled with it, and during the ascent I thought to myself that maybe the no9 might have been preferable.

I reached the top and pulled myself over onto the grassy slopes of Moelwyn Mawr to join my companions. There was much nervous laughing and smiles all around. We'd done the Croesor-Rhosydd through trip, a trip not so long ago I said I've never be able to do.

We walked down to the cars in the beating sun, eagerly discussing our day out. I can't speak for the others, but I felt I'd built a lot of character over the previous 6 hours!

The End.



## Conclusion



The Croesor-Rhosydd trip is known for being one of the great classics and indeed I found it one of the most rewarding days underground I've ever had. Despite its fierce reputation I found the trip a lot easier than I was expecting to be. Well – I wasn't expecting to make it through when I squeezed through the bars at the start.

Any caver or explorer well versed in SRT and able to deal with deep water won't find anything in the trip overly difficult. There are plenty of mine and caving trips around which are far more technical and demanding than this one, but that said, this is still a trip to treat with respect. The environment is totally unforgiving of mistakes, nothing can afford to go wrong and if it does someone will be in serious danger of being killed. It is vitally important to travel quietly and swiftly through the big 1 East chamber especially, and to be gentle with the old bridges.

The fixed ropes / pulley zip lines though the mine seemed excellent, even overdone in some places. Safety lines are only of help if you know how to use them properly, and some of the rigging is a bit confusing in places. The suspension bridge is fun, and I take my hat off to whoever installed it. I still reckon it's a bit over the top, a normal zip line would have been fine saving all that time and money, but fair play all the same. My hat also goes off to all those others who've laboured in the past to get all the rigging in there. It just wouldn't be possible to complete the trip otherwise, so much rope would be needed it wouldn't have been possible to rig-as-you-go.

Despite the rigging, you still need a lot of kit. I needed masses of slings and crabs to get through, the usual full SRT outfit, and ideally, a decent pulley. The trip would have been much harder without one, and I'd recommend that everyone in the team has one as we spent a lot of time and effort rigging 'pulley-return' systems so we could share the one.

Don't use plastic-wheel pulleys, use big chunky metal ones as the cable is at least 16mm. My Petzl Rescue Pulley is a big one and has a large aluminium wheel, but even that took a real battering on the steel cables. Petzl do a special, twin-wheel pulley designed especially for steel rope, I recommend anyone doing the trip to buy one first. I also recommend a buoyancy aid each.

Don't underestimate the amount of clobber you need. I know of a rescue callout on this trip where two experienced cavers got themselves trapped because they didn't have enough gear to complete the final sections. When they tried to retreat, they did not have the stuff required to get back up the two big abseils, and so had to be rescued.

