

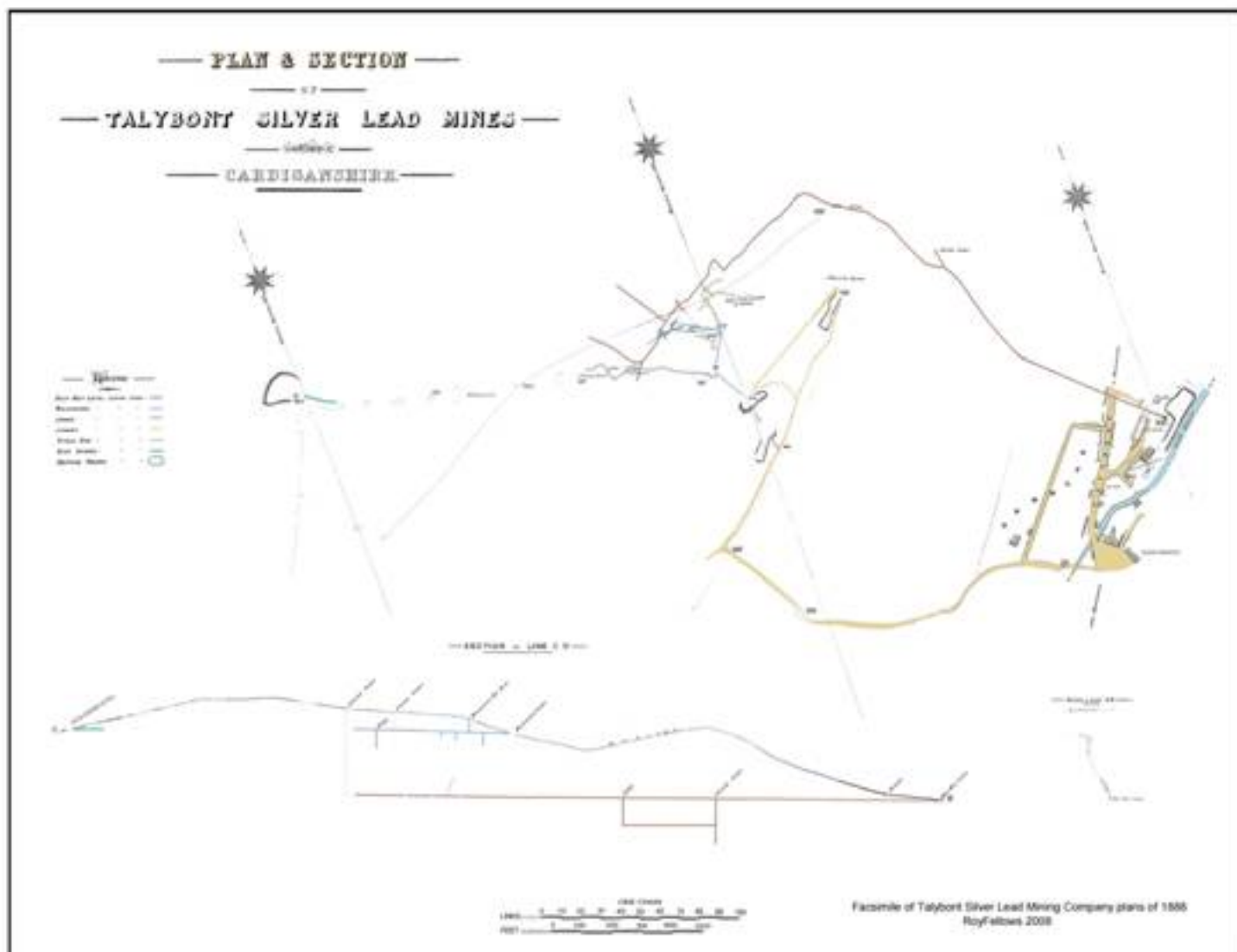
## Talybont Deep Adit. A photographic Tour

In May 2004, some friends from WMS and I commenced a dig in the bottom of the air shaft on the Altycrib Hill. Our objective was to reach the Talybont Deep Adit driven from the Wern in 1839 to cut the mineral lodes crossing the hill.

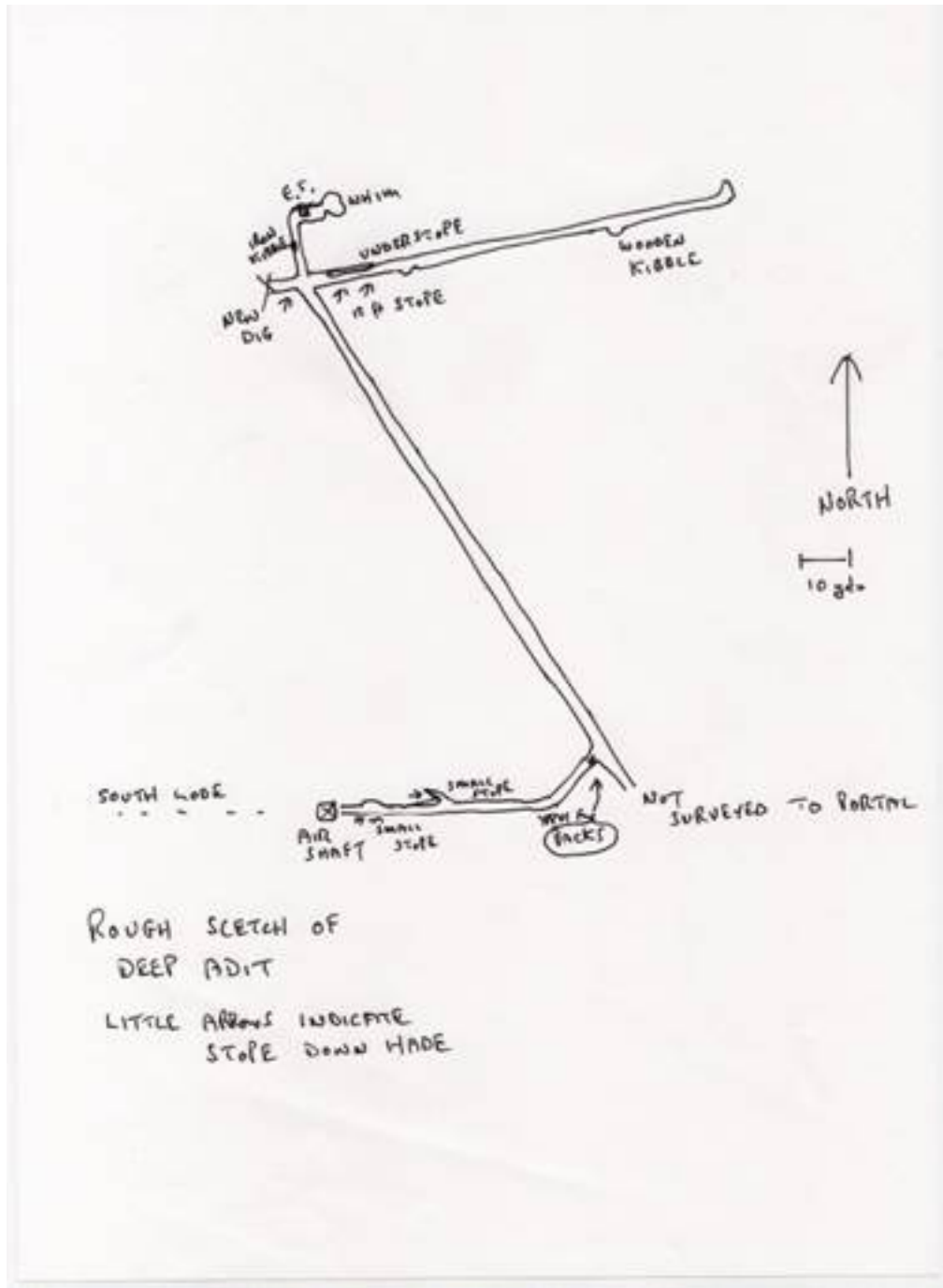
The shaft had become blocked by a fall of material, and our technique was to sink down at the back of the shaft putting timber in as we went. The project was to last for just over 12 months, the breakthrough being in July 2005.

This document is basically a photographic tour of the mine, with particular emphasis on the rather complex geology.

We are fortunate in having copies of the plans of the mine, the most complete being the work of the Talybont Silver Lead Mining Company formed by Liverpool investors in 1888. Unfortunately, the plan does not show all of the workings, a common occurrence.



This is a rough sketch of the workings as explored from the access point, the air shaft on south lode. Note that the drive on south lode is not shown on the 1888 plan, a good common reference point is the horse whim engine chamber, shown on the above plan as “Engine Winze”.



In August 2005 we started a new project. This was a dig through the collapsed ground marked as “New Dig” on my sketch, being just to the west of the engine winze on the 1888 plan. This was done in the hope of reaching the workings to the west accessible by the deep adit. This project was to last 3 years and be unsuccessful, however what

was discovered was some very interesting geology, and a possible answer to why the deep adit, as shown on the 1888 plan, was driven in the way shown.

I shall now take the reader on a journey reflecting as accurately as possible by photographic record, a trip into the mine by way of the air shaft.

Abseiling down, daylight above.



The rope stretches up to its belay point on the tree.



Looking down, this is the direction the explorer must go



Getting off the rope, this is the top of the shaft we dug in 2004



Looking back up to where you came down



The way down. After a series of concrete steps the shaft becomes almost vertical. Here

one descends by a series of ladders.

Further down, bottom almost in view. The total descent is 150 feet, the shaft dug by WMS about 75 feet.



The drive on south lode has a bank of deads on the right.



Looking back and to the left, there is a small working.  
Proceeding onward, the drive on south lode reaches the main adit crosscut at the point shown on the bottom of my sketch.

At this point, right will take us towards the portal, left further into the mine.

Let's go right towards the portal!

A slight bend in the level necessitated an offset transfer bar for the power train that pumped the engine winze. All along the adit can be seen the bases for iron wheels that carried the iron pump rods, unfortunately all have been removed for scrap long ago.



Proceeding towards the buried portal, we pass a barren vein off to the left that has been explored for a short distance.





Eventually we reach the drystone arched section. Here there must have been some bad ground, or possibly old mans workings. In places along the adit a barren vein or fault can be seen, it's possible that this may have been worked near to the portal.



See how the arching has been built into the rock on the left



Above is looking towards the portal.

Next we re trace our steps back to where we came in on south lode. Proceeding inbye we come to a cross roads at North Lode.



Above is looking to the left, west, at the cross roads. The bank of deads is just part of the huge amount of material brought out by our digging operations.



Turning round and looking back the way we came in, stoping can be seen above.

So which way shall we go, with 4 ways to choose from?

We go right as we came in, which is east. Here there are more very minor workings on the north lode. And also, a very shallow understope, now flooded.





There are also some minor workings above shown below.



Further on there are some interesting artefacts, a wooden kibble and a barrel. How they got here I don't know. I wonder if the 19<sup>th</sup> century miners brought them in here out the way.

If so they could be relics of Bushells working.





Now its time to go back to the crossroads. Here we turn right, as if we had Continued straight on when we came in. A kibble lies to the left of the passage, likely the one used in the engine chamber.







Entering the engine chamber, on the left is a section of rising main.



Here are the remains of the pumping balance bob.



The passage on the left is the way we came in from the kibble, the rising main section is in the background as in the previous picture. Behind the camera is the horse whim chamber.

In this area, I shall try to keep the reader orientated to the direction of the camera. This is important so as to be able to appreciate the geology of the area. There is a minor fault behind the rising main section, however there is also a major

one to the right of the camera. This fades down towards the way in, which is south, and may well come into contact with north lode at depth. The engine winze is sunk on this fault.

The following pictures are all taken with the horse whim chamber behind the camera position.

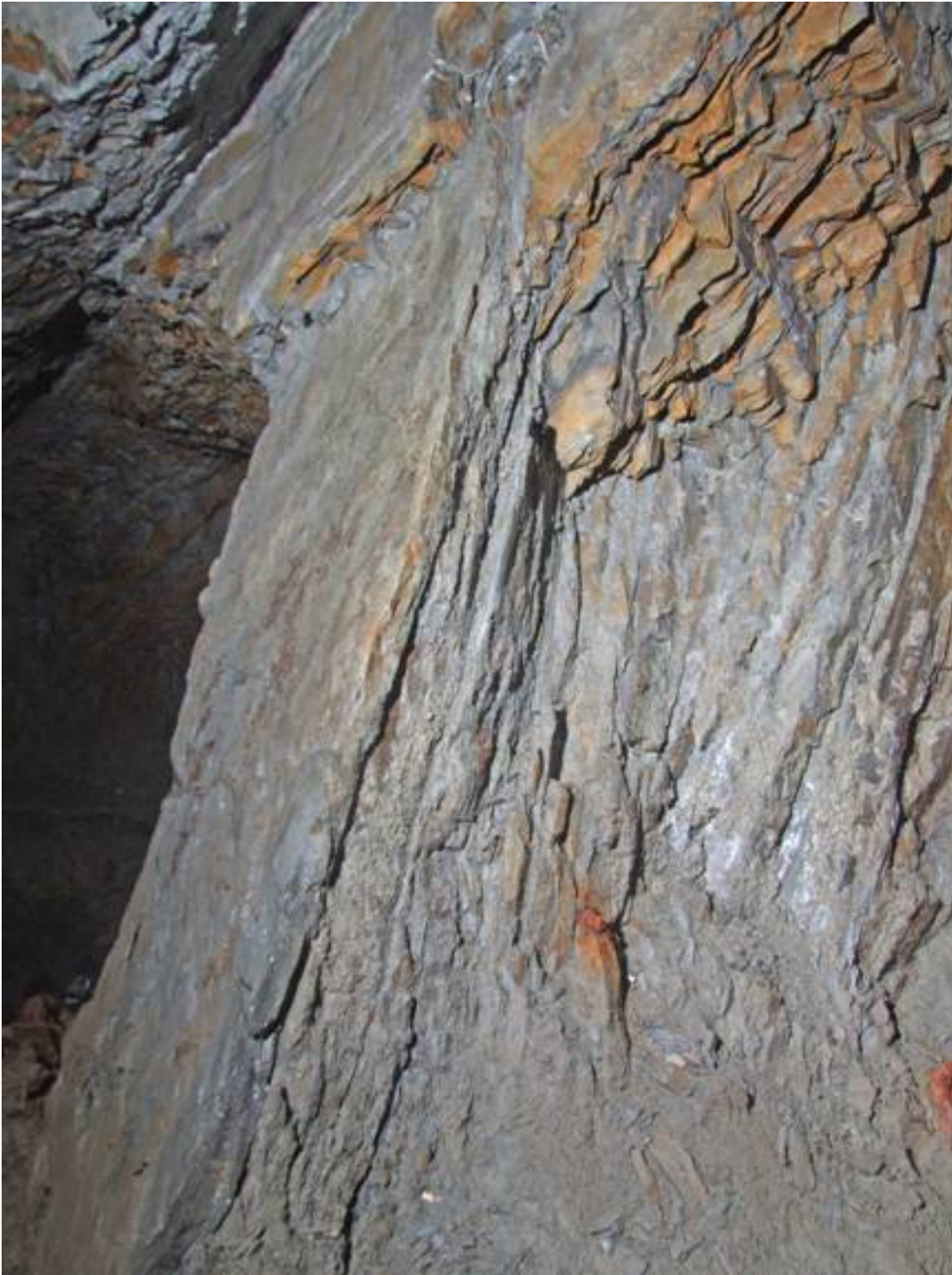
Here is the major fault in all its glory. At the bottom of the picture can be seen the water of the flooded winze.



Below is the engine winze itself, rising main coming out of the water.



We now move backwards into the chamber, below is the strata where the fault comes into the chamber.



If we now rotate the camera to the left, this is the inside of the chamber on that side.



Now we rotate the camera through 180 degrees to see what was behind the camera position in the previous photographs.





It's the remains of the horse gin.

Looking over to the left and up, here is the fault 'playing' about with a quartz string.  
Top gin bearing in the roof.



Now its time to leave the chamber. In order to avoid the flooded winze, we have to squeeze past the angle bob on its inside between the wall and bob.

Let's take a final look at it from this angle. The chamber that we just left is now on the right behind the bob.



Now its time to take a look at the roadway we took 3 years working on almost every Sunday to drive. First, please consider the fault seen in the engine chamber and take a look at the 1888 plan.

Try to extrapolate where it will, and undoubtedly it will, cut the continuation of the adit to the west.

What my tunnelling has revealed is that the adit follows the north lode to the west for some distance until it is cut off by a fault. The original miners of 1839 stopped driving at that point.

However a later concern continued the adit driving towards the west, where it picks up and follows another fault. This point is a scene of geological chaos; you will need to follow the next series of pictures carefully

Our start point is back at what I call the “cross roads” where the deep adit meets north lode. Turning left here originally led to a blockage in collapsed stopes.

This is where my friends and I started driving a roadway back in August 2005.



All of the packwork shown on the left is material extracted from our digging operations. Eventually, we ran out of room to tip, and had to start dumping in the engine winze. The way on is seen middle right past the timber prop. Moving forward into the roadway we meet the timbering



The next picture is slightly further in.



Looking down to the right here is rather interesting.

Our roadway here is very gradually sinking down into the understopes below and had to be re-timbered after the recent earthquake



Just past this point there is a large crack in the hanging wall, the timber on the right is helping to support this, behind the timber the crack was urethane grouted.

A major cause of the problems here are large boulders that have fallen from the stopes above. The roadway passes below some of them; the iron rail was put as support



Slightly further is a point where we thought that we were breaking through, we were in fact correct but it was only about 10 feet of clear passage. Then another fall. This point had several faults coming together and the collapses here had formed a chamber. The big problem was relocating the adit, a matter of guesswork. We drove through the collapsed chamber timbering our way forward. This is what it looks like today.





Moving forward we come to another false breakthrough. It was a short length of passage to the original 1841 forhead, a false lead. Having lost the true continuation of the adit to the west, our roadway turns abruptly to the right here in an attempt to pick it up again.



At the very back just to the left of the rock is the backfilled forehead, our roadway turning right in an attempt to re locate the continuation of the adit west.

This was a funny area to work in. On the left I was cutting away rock on the footwall of an active fault, on the right was a mass of broken rock. I say active fault because my packwalls where continuously working loose, in the end I had to concrete the lot, both left and right. I call this the concrete crosscut, although not strictly a crosscut the name does have a certain ring to it.



See the red mortar on the left, on the right my concrete was made up out of attle hence its grey colour.

At the end a solid boulder, so again we turn, this time to the left, see below.



Concrete a plenty here, as it crossed yet another fault. Right and left is all concrete. At this point the roadway turns back to the right and picks up on the fault that the adit most certainly followed.

See below, this is a picture taken of the area that you see in front and to the left, all concreted up.



Turning right and following the fault I had to put a lot of timber in. Just in front the roadway inclines down. As we drove our roadway, we had been gradually climbing.





This is on the fault itself. Footwall on the left, hanging on the right. The cleavage and bedding plane are on the same plane here, on the left it about 60 degrees to that on the right.

The following pictures attempt to demonstrate this.









If we move forward, from now on its hands and knees, we get to a rather interesting area.

We are right on the fault, hence my roof timbers. The direction of the cleavage and bedding plane can be seen on the left. On the right a huge slab of slickenside rock has fallen from the hanging wall.



The pictures that follow are close ups of this.







Moving further in we come to a place where I had to hand chisel through solid rock in order to move forward. This took 2 consecutive working Sundays. On the picture below, note the hand chiselled edge immediately to the left of the ruler. Also note the shot hole on the left, driven from the other direction.



Below is the end of the road. You will have to look carefully to make anything out. On the floor are pieces of rotten timber. On the right is a huge slab that has come crashing down. If you look very carefully you will see pieces of rotten timber trapped between the slab and the roof. Look high centre right.



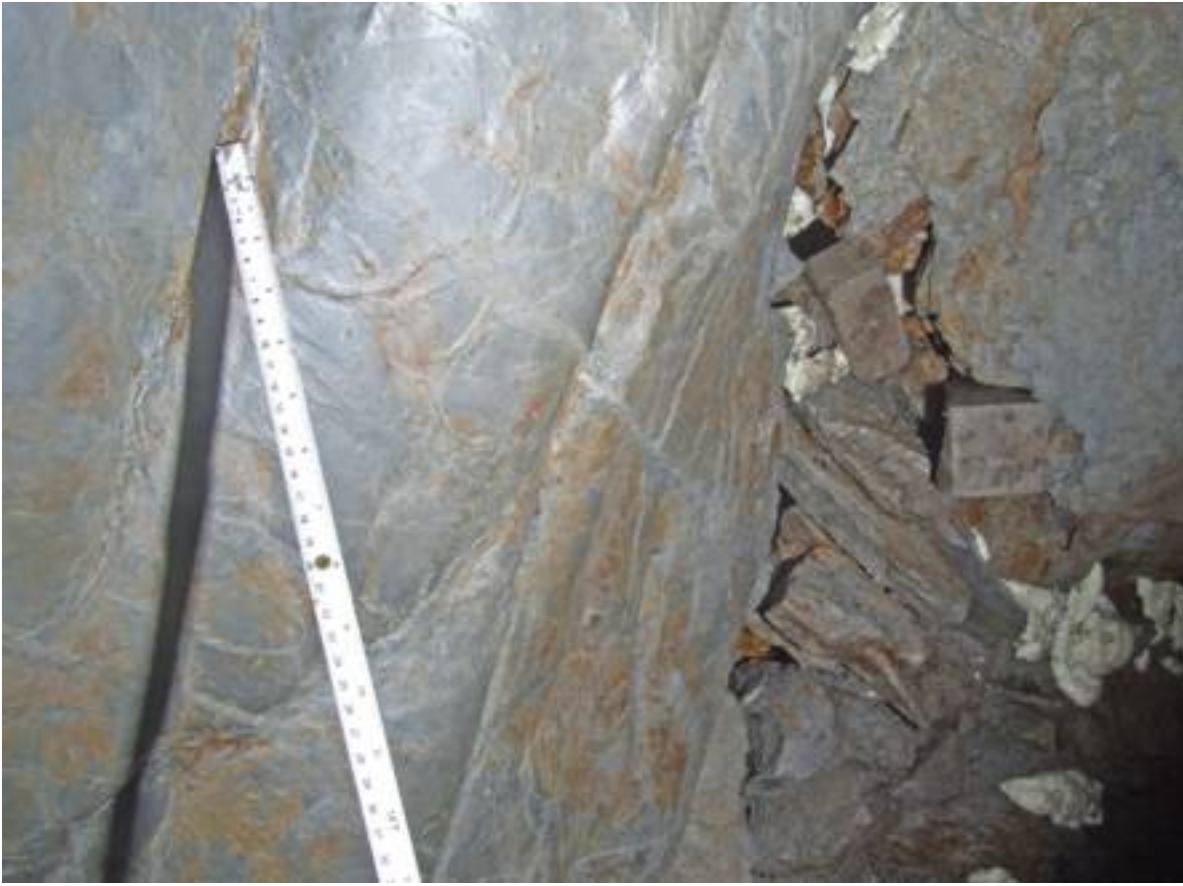




Basically, a good place to get killed, so lets turn round and get out of Dodge.

More Urethane grouting, this is immediately behind the slickenside coming out.









This is looking out from “The Chamber” in the major collapse area. In front is the 10 feet of open level we got into after the first ‘false breakthrough’



And below, 'the crack' with its urethane grouting. A good place to get out of.



Now time to leave the mine, back down the adit, up the ladder shaft, and up to daylight. So much work, so many false hopes. We move on

