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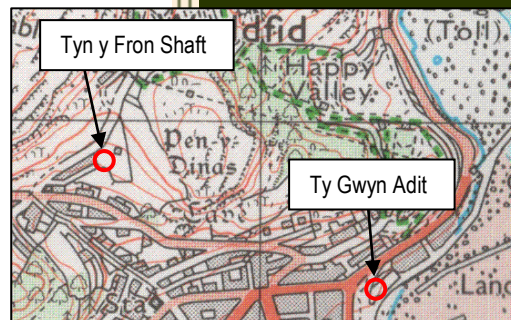
GOES 2022

The Great Orme Exploration Society

Ty Gwyn to Tyn y Fron

A Project to
Improve Access for Visitors and
Reconnect Adit with Shaft

Update 1



FORWARDS

Hello Readers,

I am pleased to introduce this document, which contains the written accounts of all the recent work undertaken to improve access within the Ty Gwyn mine and to re-establish a link through to the Tyn y Fron shaft. A special thank-you to Jason Potts for being the main motivator of the project and for his regular write-ups which have come together here, to provide a valuable record for future historians.

Regards

Dave Wrennall: GOES Chair + Journal Editor 2022

Front Cover:

TL: The Ty Gwyn adit (Dave Flowers) TR: Location of Tyn y Fron shaft and Ty Gwyn adit
BL: Gareth Davis at the Main Blockage BR: The Tyn y Fron shaft (Glyn Davies)
(Dave Wrennall)

Below:

Discovering the Ty Gwyn adit in 1986 and some of the successful team. (Photos Edric Roberts).



CONTENTS

2022

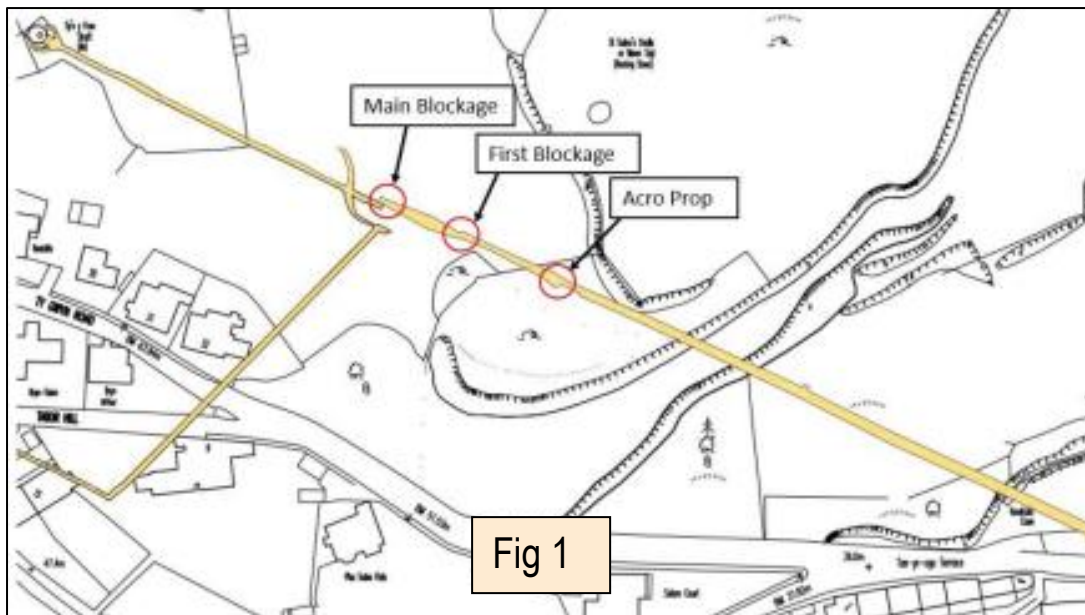
- p3 Project Outline: The problems to be considered and the solutions.
- p6 June Diaries: Plans and collecting equipment.
- p7 July Diaries: Trench digging, attacking the Hump, barrow constructed + more tools.
- p10 August Diaries: Smelly water, moving spoil again, filling alcove / finding artefacts.
- p14 September Diaries: Checking the Main Blockage, pack walls , voids and girders.
- p17 October Diaries: Hump goes, water drains away. Equipment to Acro Prop area.

PROJECT OUTLINE

By Jason Potts

Stage-1.

The ultimate goal of this new project is to clear the Ty-Gwyn adit so that it will be possible to walk underground from the pier entrance to the Tyn y Fron shaft. This is currently being prevented by two major blockages. See Fig 1. The 'First' blockage is passable via a small crawl passage, through which, access to the 'Main' blockage is achieved. The 'Main' blockage despite several attempts in the past by the GOES to break through, is still impassable.



Prior to starting work on the 'First' or 'Main' blockages, there are other locations along the adit that require work first. Four locations have been identified and this work I've termed 'Stage-1' of the project and is detailed below.

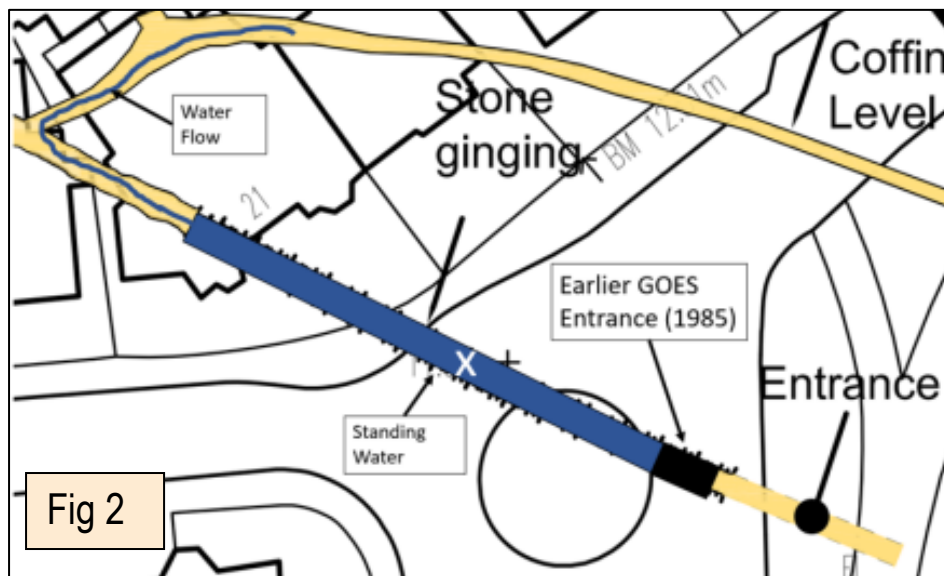
STAGE-1

Location 1 – The Original GOES Entrance

Water is raining through the ginging just after the original GOES entrance 77 feet along the adit. See Fig 2. There is also a strong smell of sewage and a large amount of standing water in this area. The water level has risen such that it is now flowing around into the Coffin Level. It appears that the floor height of the adit is raised in the location of the original GOES entrance and is holding back this water. The water is believed to be coming from a broken / leaking

waste water pipe which crosses over the top of the adit illustrated as a 'X' in Fig 2. Adrian Hughes is contacting Welsh Water to inform them of this problem.

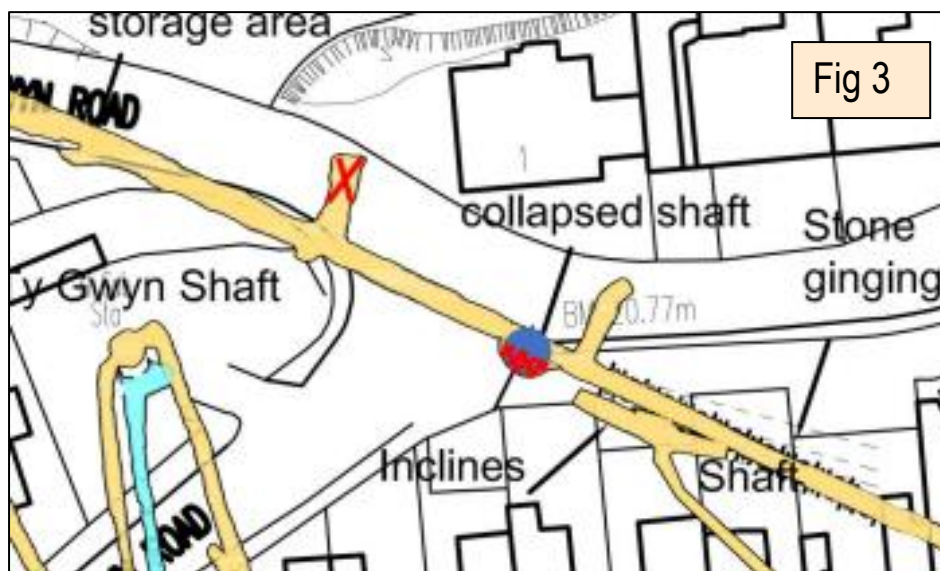
Work to be carried out: - To dig a trench through the original GOES entrance area, lay a pipe in this trench and then back fill leaving an even walking surface. This pipe will allow the water to drain down past the current entrance and into the 'welly wash' area where I believe, it will find its way out.



Location 2 - The Hump

As we move along the adit we reach a large heap of spoil left over from a collapsed shaft. See Fig 3. This is also holding back water. The main bulk of this water is coming through the ceiling of the stone-built storage area further along the adit.

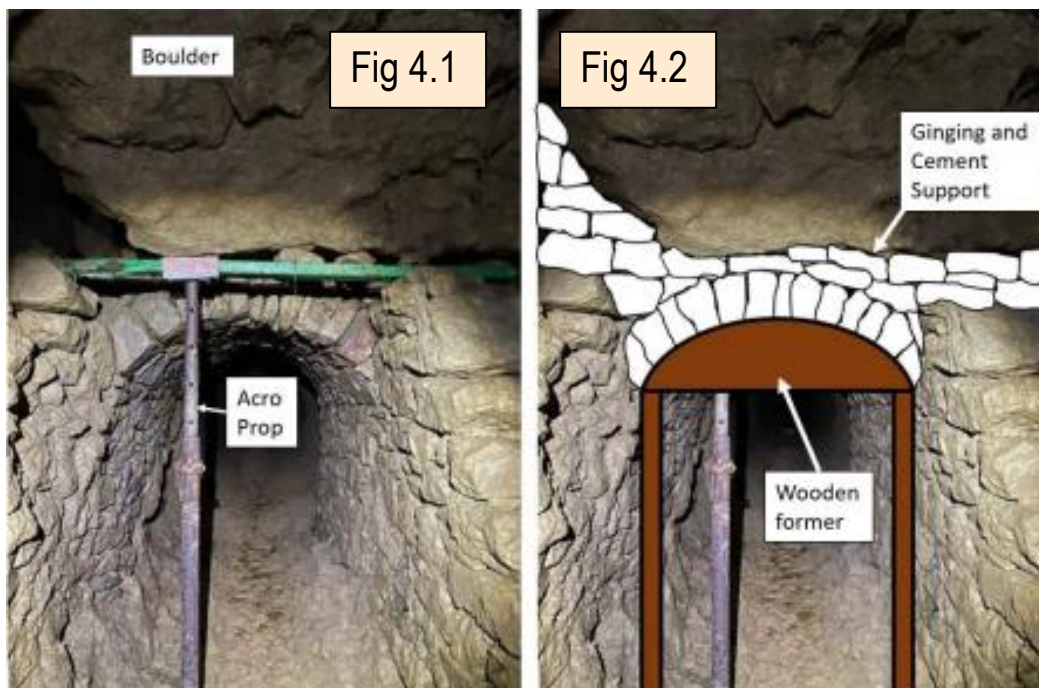
Work to be carried out: - Reduce the height of this hump down to adit level. The spoil will be stored in sandbags at the locations marked by red crosses on the diagram illustrated in Fig 3.



Location 3 – The Acro Prop

As we get closer to the 'First' blockage we pass an acro prop. See Fig 4.1. Some years earlier this prop was installed to offer support to a large boulder that's broken away from the adit ceiling. The boulder appears to be wedged and minus any further cracking, seems locked in position.

Work to be carried out: - Remove the acro prop and fully support the boulder with cement and stone. Using a wooden former, deads will be cemented into an archway matching the existing ginging. Once dried, the former can be removed and more stone will be cemented around the boulder. See Fig 4.2.



Location 4 – Clearing up to The First Blockage

Before we can tackle 'Stage 2' (Clearing The 'First' Blockage), there is a large amount of clay, mud and stone that must be moved out of the way first. See Fig 5. The adit is wide leading up to the First Blockage and the stone can be piled along the left-hand side of the adit there. If we extend the newly created ginging described above at Location 3, the clay can be bagged and stacked above this ginging as the adit ceiling here is high.

Work to be carried out: - Remove the stone and clay up to the First Blockage providing a clear working face for Stage 2 of this project.



UPDATE 1

DIG DIARY 2022

JUNE

Thursday 23rd June

Today I collected a set of shiny new keys from Steve Lea for the Ty-Gwyn mine entrance along with 200 sandbags.

Friday 24th June

First work event. I arranged to meet Rich Timms from UCET at the mine entrance. Rich is going to coordinate the UCET volunteers so it's important that we are both on the same page regards our dig plan. Once in the mine we talked over how we are going to approach each of the dig sites, what tools will be required at each location and where we are going to stash the spoil. We spent roughly an hour at each location digging and working out 'best practice' approach. I also took a large piece of cardboard in to make a template for the ginging formers.

Saturday 25th June

Today I went to Snowdon Timber and raided their 'reclaimed wood bin'. I took a lot of 4x2 and 4 lengths of 4x4 timber for the ginging formers and props. I gave a £10 donation to their charity for the wood. Then went to the St David's Hospice shop at the Mochdre refuse centre and bought 3 used pick heads. One looked particularly useful, as on one end it has a hammer head. I'll get new shafts for these at a later date.

Sunday 26th June

Today work started on the ginging former frames. Taking measurements from the cardboard template they are 46" wide and have an arch depth of 12". I have made them 14" long so ensuring they fit through the entrance manhole. Two have been made to sit back-to-back and enough wood is left to make a third should it be required.



Monday 27th June

I finished the formers using a couple of donated pallets. The pallet slats were ripped down to correct width / length and then nailed onto the outside circumference of the arch former.

**Thursday 30th June**

The 4x4 props have now been cut to length and trial fitted to the formers. I have cut the props oversize so that they can be adjusted to exact height on location. These are now ready to be taking into the mine.

JULY**Saturday 2nd July**

Second work event. This was called at short notice, so I ended up working alone. I did 2.5 hours digging the trench for the drainpipe at dig Location 1. Had to keep the entrance lid partially open as the smell was quite powerful.

Sunday 10th July

Third work event. Myself, Adrian Hughes and Dani Potts attended for a duration of approx. 2 hours. I continued to dig the trench at Location 1, while Adrian and Dani made some hefty progress at Location 2 (the Hump).



Wednesday 13th July

Fourth work event. Myself, Adrian Hughes and Dani Potts started at 6.00pm and worked until 8.00pm. All three of us concentrated our efforts on clearing the Hump. Adrian preferred digging while Dani carried the spoil along the adit and dumped it in the alcove. I concentrated on moving the collapse spoil and sandbags further back from the top of the ginging. Problems encountered; the pick that Adrian was using broke on the first strike and Dani's back started hurting after about an hour of carrying the buckets. The pick had been in the mine for a long time and the handle was pretty rotten, so a new one must be sourced for next time. Also, some kind of barrow or truck is required for moving the buckets.

Monday 18th July

I managed to get a small pick complete with handle from the St David's Hospice shop at the Mochdre refuse centre. This is becoming my favourite 'go-to' place for mine digging tools, bargain at just £3. I cut the shaft down as this was quite long and drove a wooden wedge in the end to tighten up the head on the shaft. I also grabbed a broken wheelbarrow that some builders had left out for the scrapman. The plastic barrow shell was broken but the chassis and wheel looked good.

Tuesday 19th July

I stripped the plastic shell off the broken barrow and took the chassis to the mine entrance to see if it would fit down the hole. I noted that the sides needed to be pulled in slightly and overall, could not measure more than 14" wide. Then, from the leftover 4x2 from the ginging former frames, I made a new base for the barrow that could carry two buckets. Total cost £0.00.



Wednesday 20th July

Fifth work event. Starting at 6.00pm, Dani, Adrian, myself lowered the new barrow through the hole and down into the mine.

We were then joined by new member Phil and all four concentrated our efforts on clearing the Hump. Adrian, now digging with the new pick made impressive progress. We are almost halfway through it now. Dani and Phil transported the spoil along the adit using the new barrow dumping it in the alcove. This has been a huge improvement as multiple buckets can now be moved with ease. I continued moving the collapse spoil and sandbags further back from the top of the ginging. We finished at 8.00.



Wednesday 27th July

Sixth work event. Starting at 6.00pm, Dani, Adrian and myself were joined by newish member Neil. More digging at the Hump. We really are making good progress with well over half of it now gone. Club Chairman Dave Wrennall sent me an email on 22nd with '*concerns as to there being a false floor*', under the Hump. It would appear that he was correct. During this session Adrian uncovered a section of the floor that appeared to be backfilled. Removing some large rocks out of the backfilled hole revealed cavities that Adrian could get his arm down and couldn't reach the bottom. We have ignored this discovery for the time being as we do not want to get side-tracked. We all worked on clearing the Hump until 8.00.

This week's problems: All but one of the bucket handles are now broken. We need a better tool for pushing the spoil to the back of the alcove. The current tool is a thin metal rod with a square plate welded on to the end. Firstly, it's too short and secondly, it's painful to use as there's no

handle on it. To be fair, we are using it to do a job it wasn't designed for.

Sunday 31st July

A trip to Stermat to purchase buckets and to get something we can adapt to push the spoil into the back of the alcove. I purchased 2 metal buckets £5.99 each, a metal post support £4.89 and an eight-foot length of 2x2" timber £7.19. Total cost £24.06.

I attached the post support to the end of the 2x2 to make an 8ft lance style ramrod. I then rounded the shaft so it is easier to grip on to. Sorry no pics of this completed. I'll take some of it in use at a later date.



AUGUST

Monday 1st August

10.00am. Adrian and myself met with a chap from Morrisons who are contracted by Welsh Water to investigate the sewage leak in the Ty-Gwyn adit. The chap wasn't allowed to go into the mine, so I went in to retrieve a sample of the water. There wasn't a lot seeping through the ginging at that time. I took water from the floor and some drips from the ginging. His basic on-site test for Ammonia proved negative. His data showed that the suspected pipe outside the Belmont is a 300mm OD pipe containing mixed rain and sewage. He mentioned that an 'out of hours' crew were going to arrive later to put some dye down the drain outside the Belmont.

Tuesday 2nd August

9.30am. Another quick visit into the mine to check for evidence of the dye. No dye could be seen but the water flow through the ceiling was significantly worse than Mondays visit. I took some video footage of this as in places it was a continuous stream. It must be noted that on Monday night we had a good downpour, so the additional flow could be attributed to that. I went along the adit to check on the Hump. Water was raining in there too. The water there is coming from the capping at the top of the shaft. I've taken pictures above ground, and it is peppered with storm drains and water access points. This will also be mentioned to Welsh Water.



Wednesday 3rd August

11.30pm Ty-Gwyn mine entrance. Adrian and myself met with a local councillor and two representatives from Welsh Water. Exact repeat of Monday, lots of talking, no one allowed to go down the mine etc. This time I went in to take more water samples plus a sample of the white fluffy mould that seems to be sprouting up along the adit. More talk of action and more dye is to be put down. Adrian has been brilliant in organising these meetings. After he contacted the councillor with talk of sewage leaking onto the beach, much action has occurred. He's been their main contact and they have said they'll inform him when they have administered the next batch of dye.

Wednesday 3rd August

Seventh work event. Starting at 6.00pm, Dani, Adrian, Neil and myself in attendance. Neil bought a couple of buckets with him too. Good to see we had not scared him off like we must have done with Phil. More work at the Hump. The alcove is filling up nicely now but pushing it to the back is hard work. The new ramrod is working well, and Neil mentioned bringing his rake next time as that might help too. All of the old sandbags have now been removed from the low wall and stacked further back. This will allow us to move the rest of the Hump without fear of this low wall collapsing on Ade as he digs.

Problems this week: Adrian has worn out his little army utility shovel that, so far, he's managed to shift several tonnes of spoil with. It's been a very useful tool, so I think we should get a couple more robust 'shorty' shovels for next time.

Friday 5th August

Another peek inside the tool bin of my favourite skip shop at Mochdre revealed a nice steel-handled shovel (white handled one below). Got to have that, as it was only £1. I cut 6" off the length, reprofiled the blade and give it a coat of black paint. The green one below was a spade that I'd broken some years ago. I reprofiled that blade and refitted the original shortened handle..... a pair of beauties for the total cost of.... £1.



Monday 8th August

Eighth work event. Starting at 6.00pm, Adrian, Neil and myself in attendance. Dani had a tummy bug so had the day off. More digging at the Hump. The little shovels worked very well in the hands of Adrian. Neil brought along his heavy-duty rake which has been quite effective. The work was split between stashing the spoil in the alcove and putting it into bags to pile on top of the wall. Piling these sandbags up will hold back and support the spoil that was already up there. This will reduce the need to move this spoil into the alcove saving us some time and energy.



Thursday 18th August

Nineth work event. Starting at 6.00pm, Dani, Adrian and myself in attendance. No Neil this week. I took up the job of pushing the spoil to the back of the alcove as Adrian dug and Dani barrowed the buckets back and forth. Neil's rake works very well as we no longer need the 8ft reach of the ramrod.

Problems this week: Adrian is uncovering more of the low stone wall; it appears that its leaning badly into the adit. It looks like it won't support the weight that we currently have on top of it. For safety reasons we will have to address this before we dig out anymore of the Hump. Next week we will remove the sandbags and all of the dirt the bags are holding back. One step forward and two steps back it seems.



Good news, we found some new artifacts. An ink well and a small stoneware bottle.

Wednesday 24th August

Tenth work event. Starting at 6.00pm, A team of five into Ty Gwyn this evening. GOES Chair Dave Wrennall and his daughter Elin joined myself, Dani and Adrian in moving the sandbags and spoil off the leaning stone wall. The old sandbags we uncovered have been repurposed, they are now shoring up the spoil in the alcove. See picture below.

**Wednesday 31st August**

Eleventh work event. Starting at 6.00pm and just the usual three amigos forming tonight's work party. Adrian, Dani and myself continuing to move the spoil and boulders off the leaning stone wall. The alcove is rapidly filling up now. A miner's drill was discovered in a drill hole in the alcove just as we were about to bury it forever. We've moved it into a new hole, and it fits like a glove. This worn-out old drill must have been used to make many of these holes.



SEPTEMBER**Wednesday 7th September**

Twelfth work event. 6.00pm start and a four man work party for this evening's antics. Dave Wrennall joined Adrian, Dani and myself in moving the sandbags and spoil off the leaning stone wall. As Adrian and Dani had not yet ventured over the First Blockage, I thought tonight, before getting started we'd go take a look. Once there I noticed that everything looked a lot drier than my previous visit with Rich Timms back in June. This must be down to the low rain fall we've had during the last few months. Squelching up to the Main Blockage we could still see the pegs sticking out of the wall, so it looks like no more clay has moved into the area. Whilst there, and because many buckets have been broken over the last few months, we thought it wise to gather a few that had been left by the GOES many years earlier. After bucket gathering, it was back to the spoil heap where Dave had shifted several dozen sandbags on his own. These sandbags were repurposed and used to support the spoil in the alcove. This last row of bags is almost flush with the adit now, leaving just enough room for a cladding of deads to hide them when we've finished. The spoil on top of the leaning stone wall has now been dramatically reduced. Dave has started to clad what's left with a wall of deads which will not only tidy up what we've done but will also support what spoil is left there.



Wednesday 14th September

Thirteenth work event. 6.00pm start with Dani, Adrian, Dave W, Drew and myself in attendance. Most of the spoil from 'the Hump' has now been removed and the alcove is completely filled. Dave started to teach me how to build a 'Pack Wall' as work on the wall covering the sandbags got underway. Dani barrowed while Adrian and Drew continued digging at the Hump.

**Wednesday 21st September**

Fourteenth work event. The usual 6.00pm start. Dani, Adrian, me, Dave W and Dave F were sharing the mine this evening with a visiting group of three led by Steve Lea. Tonight saw the completion of the 'Pack Wall' covering the alcove and the five man dig team continued digging the Hump spoil down to track level. Some interesting voids were opening up and hints of stonework going down to a lower level. As the alcove is now full, the decision was made to sandbag up the rest of the Hump spoil and build it into a wall on the right-hand side of the shaft opposite the leaning wall. Once this sandbag wall is complete, another pack wall will be stacked in front of the bags to hide them as we did in front of the alcove.





Wednesday 28th September

Fifteenth work event. 6.00pm start. Dani, Adrian and myself were joined by Rich and Rob from UCET. The dig team uncovered a large number of girders as well as more voids which we now suspect are the remnants of the incline shaft. The new sandbag wall has been completed and I started work on the pack wall to cover them.





OCTOBER

Monday 3rd October

Whilst perusing Facebook this morning I noticed a local scaffolding company (North Wales Scaffolding), were clearing out all of their old boards. As they are only round the corner from me, I paid them a visit. I grabbed as many boards as my car would hold and I asked about poles. They said I could take a pile of short ones that were heading for their skip. When I mentioned why I was taking the boards and poles, explaining about our society and our cause, Jon, the manager, became very interested in our venture. He very kindly donated ten 7-foot poles which will come in very handy for our next project where we will be tackling the 'Acro Prop' area and the First Blockage. Boards and poles now in Adrian's care and came to the grand total of £0.00.



Wednesday 5th October

Sixteenth work event. 6.00pm start. Dani, Adrian and myself were joined again by Rich and Rob from UCET. After 15 weeks of digging, the spoil heap is no more and we all had the pleasure of watching water, previously trapped in the adit, drain away down one of the voids. The pack wall covering the sandbags is still left to finish but all bar some tidying up work, we're almost ready to go full steam ahead on the next stage of the project.

Wednesday 19th October

Seventeenth work event. 6.00pm start and the usual, hard core 'Three Amigo's' in attendance. After having a week off, myself and Dani continued building the pack wall covering the sandbags, while Adrian moved steel work, buckets, tools and other equipment down the adit in readiness for the next stage of the project. Next week should see the pack wall finished and we'll be doing some tidying up along the adit prior to moving on to the next stage. We plan to collect all the artefacts that are scattered around the mine, clean them and create a display area on the leaning wall to the left of the shaft.





The Acro Prop area



Moving down the adit

Next update..... Displaying the artefacts, supporting the boulder at the Acro Prop area and starting on the First Blockage.