

Cwmorthin Slate Quarry

Technical Exploration Guide

Important Notes

This guide is intended to provide useful information for experienced cavers or mine explorers wishing to make use of the in-situ technical infrastructure to explore Cwmorthin Slate Quarry. It is not intended as a guide to exploring the mine as a whole, or as a guide to mine exploration or caving.

By entering Cwmorthin Slate Quarry you must accept the inherent risks of injury or death associated with the underground exploration of potentially hazardous abandoned mine workings, and the use of any in-situ rigging is entirely at your own risk. The landowners, lessees or installers cannot be held liable for the failure or misuse of any underground PPE infrastructure.

Proper and correct equipment is essential, as is full training in its use before committing to the underground environment. If in doubt, always seek advice from a competent source.

Background

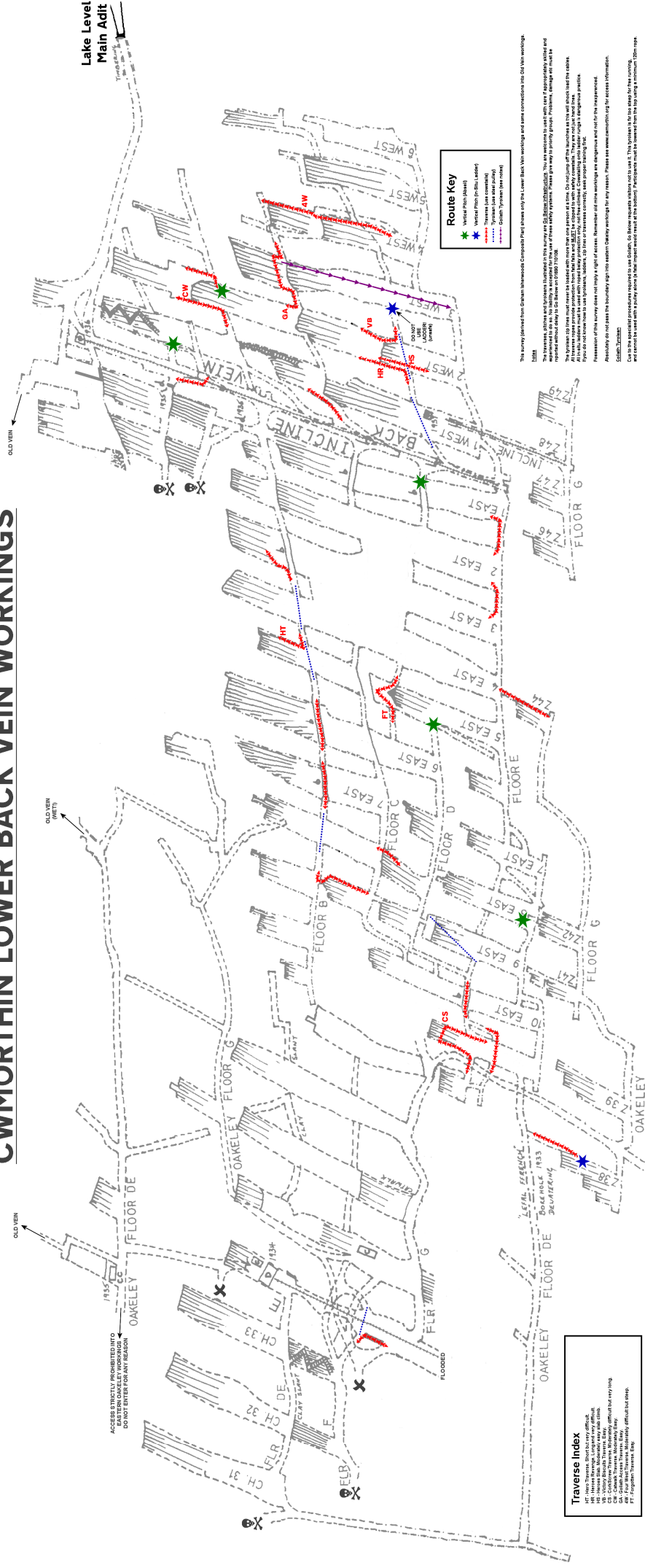
Cwmorthin Slate Quarry is a large and spectacular disused slate mine of Victorian age that provides potentially years of exciting exploration opportunity at all levels from simple walk-around trips to complex and committing SRT routes.

It is enjoyed by a large contingent of recreational explorers but also sees use as a training and assessment venue for aspiring instructors, a practice venue for rescue teams and even as a recording location for television and film companies.

It is also used for advanced underground exploration trips by local adventure company Go Below who lease the mine for the purpose. As part of this role, the mine has been very well equipped with abseils, traverses, zip lines, ladders, tyroleans and so forth to provide access to otherwise hard (or impossible) to reach areas. This infrastructure is freely available for others to use to explore and enjoy the mine, provided that it is done safely, competently and in accordance with the guidelines presented in this document.

Virtually all technical infrastructure within the mine is located in the Lower Back Vein workings, a survey for which is presented overleaf. For clarity, other veins and areas are omitted.

CWMORTHIN LOWER BACK VEIN WORKINGS



Guide to Back Vein Traverses and Pitches

All of the roped traverses provide a means of progressing along high exposed chamber walls and must always be used with a set of cowstails through their entire length. Never be tempted to cross a traverse by holding the rope in the hand only - even the seemingly simple ones. It is easy to slip off or the step or foot-hold could break away. The fall will be fatal.

Hero Traverse

This short but very difficult traverse connects the working platform of B5E to the hanging level in the western wall where the two tyrolean zip lines meet. The traverse was bolted as a means of gaining initial access to the hanging level to install the tyrolean zip lines, but it has been left in place as a means of providing daring explorers a means of gaining the B5E platform from the tyroleans (so in reverse to the direction of installation).

The traverse rope picks a route through the wreckage of an interesting cantilevered bridge, seemingly a replica of the type used commonly in Croesor Slate Quarry. There are very few foot holds and much arm strength is needed. The crossing can be made vastly easier with the assistance of a separate foot-loop, though some might consider that cheating.

There isn't a huge amount to see on the B5E platform but there is an in-situ line down to C5E (abseil not shown on map). If you descend this then take great care in C5E as the western wall is in a very bad state, keep well away. There are some fine 1930's signatures near the level at the bottom written on a slab on the floor. Take care not to step on them.

Heroes Revenge Traverse

This traverse was originally bolted to gain access to the short hanging level on D floor between chambers 1 and 2 west. It runs horizontally across the featureless eastern wall of D2W, about 18 meters above the base of the chamber on E floor below. It remains rigged simply as a sporting challenge for passing explorers.

Starting from the footwall and tip in D2W, the rope runs along the vertical wall and initially offers some minimal foot placements. Shortly a small ledge is gained that provides a welcome rest before the main section leads out over the sobering drop below. This main section is almost completely devoid of anything to get a foot on, and is punishing on the arms and very slow going. It is a committing and brutal traverse, but can be made much easier with the help of a foot-loop set to the correct length. Purists should test their metal without it - but ideally have one to hand in case exhaustion sets in.

Heroes Slab Traverse

This traverse provides an alternate means of climbing between D and E floor in 2 West. It is easy except for some awkward steps at the bottom. The height of the climb is 18m.

Victory Biscuits Traverse

This traverse runs on the opposite chamber wall to Heroes Revenge but is a far less stressful affair, due principally to the presence of an ample rock-shelf left behind by the quarrymen to aid the crossing. There is only one slightly awkward step where there is a short gap in the ledge.

Corkscrew Traverse

Provides a means of ascending from E floor to D floor via a lengthy and sporting traverse using all four walls of chamber E11E. The route up starts on the rising foot-wall to the right hand (western) side, climbing as a series of rock steps to near the top, before turning 90 degrees to cross the face to the east wall. Here it turns 90 degrees again onto the east wall, progressing through several awkward steps to finally reach the hanging level that leads to the small and isolated chamber of D12E.

The continuation leads back into 11E and over a precipitous Bôn crossing to a level cut into the western wall, leading to the airy bridge crossing of D10E and beyond.

Catwalk Traverse

This two-part traverse leads around chamber 2W at the B floor horizon. Starting from B1W the route follows a fantastic original quarryman catwalk to the working floor of B2W. The timber and some of the pegging has been renewed, but the original hand-chain remains. On the isolated B2W floor can be seen remains of tallow candles and some hand tools.

The second and slightly more difficult part of the traverse leads off on the opposite western wall to regain the hanging level of B3W and the western most extremity of B floor, however the only progression is to continue the traverse out to a pitch-head, providing a pull-through abseil (circa 11m) down to C floor below.

Goliath Access Traverse

This line runs from the short level between chambers C2W and C3W, over a small wall and onto the huge 120 foot high slab face of C3W. Using rock-steps for footing, the route is easy and gains the small remaining part of working floor C3W. It is here that the top of the lengthy Goliath tyrolean drops down to E floor (please don't attempt to use it!).

A short continuation traverse goes up the face from here to gain the roofing shaft right at the top of C3W, although it is blind and does not hole through into chamber B3W above.

Another easy route leads off into the level to C4W which is the obvious continuation.

Four-West Traverse

This line provides a means of climbing down from C floor to E floor in four west using only cowstails. It is long and steep, and quite awkward in places but gravity does most of the work on the descent.

Half way down it meets the D floor horizon and the traverse can be disconnected from here to look at the D4W working floor, of which there is little left to see. However, there is

a level leading into the foot-wall here cut in the 1930's by the Oakeley men (The chamber itself being of 1890's vintage) presumably to ascertain the thickness and quality of the vein at this point. Some artefacts can be seen in this level, such as det boxes.

Continue down the slab to reach E floor, which can be explored easily now on the western side of the incline without getting wet feet. The only dry exit from this area is the via-feratta ladder leading up the wall of E3W, back to D floor.

Forgotten Traverse

This interesting and out-of-the-way traverse is accessed by finding a hidden and partially-blocked level leading out of chamber D6E close to the tall dry-stone pack wall. It gains the very unusual remains of chamber D5E, once a normal working chamber, but back-filled from C5E above, then ultimately walled off at the top where once existed a bridge. It must have looked very different in here in the mid 1890's.

The traverse crosses the scree-slope to regain the short remaining section of D floor that opens into the void of 4 West. It is possible to do a pull-through abseil here (circa 8m) into 4 west, to then scramble back down to E floor below.

D10E Bridge Traverse

This bridge connects chamber E11E (that the Corkscrew Traverse climbs), with the rest of the upper back vein workings. The bridge is missing its deck, but the two main baulks of north American pitch pine remain in-situ and solid - despite their age and spending the first 30 years of the 20th century submerged under deep water.

There is a traverse rope crossing the bridge to enable it to be crossed safely. This traverse rope is suspended from a steel cable due to the roof being unreachable for intermediate anchors. When crossing (on either baulk) it is better to clip into the rope rather than the cable.

C9E - B9E Climbing Traverse

This route provides a means of getting between C and B floor in the eastern workings (the only other way being a treacherous scramble in C6E). The traverse is a little awkward and slippery, and loose rock presents a problem. It requires greater care and attention than it's appearance might suggest.

E3W Pillarmans Ladder (Via Feratta)

This ladder, about 18m in height, provides a practical means of getting down to E floor for an explore without having to wade through the water at the base of the incline. Or descend the B4W traverse and come up the ladder for a round trip.

The ladder consists of a series of meaty 1" re-bar steps driven into the slate wall. Due to the variable quality of the rock, the steps placements are somewhat erratic. There is a cows-tail line that must be clipped to - never be tempted to climb or descend it unprotected.

The steps run next to an original wire-rope ladder belonging to the Oakeley men. Clearly one of their team was tasked with thinning this chamber wall, his ramshackle cabin can be seen at the top along with a novel. The original ladder is still satisfyingly solid, but is best left unmolested.

2016 update: Due to recent deterioration in the rock wall, this ladder is now deemed unsafe until remedial work can be carried out.

Z38 Ladder

This pitch is a vertical electron ladder (about 8m) up to a small platform made from old railway sleepers. From here follows a loose and exposed scramble up into the roofing shaft, then up on to DE floor French Level. The cowstail lines must be clipped to and the ladder ascent/descent must be belayed.

There is now a flop-jack installed at the top of this pitch that collects dripping water into a water drum. When this drum is full it automatically topples over, flushing the water down the roofing shaft before self-resetting. It usually flushes about twice a day, the purpose being to gradually wash away all the loose grit on the climb.

Z44 Waterfall Climb

This rising traverse provides an alternate (if rather wet) means of climbing between Cwmorthin E floor and Oakeley G floor. Steep and slippery but not difficult.

BVI D Floor Landing to E Floor

This pitch doesn't serve much purpose as it's easy to get around it by scrambling down the incline but it does make a pleasing, clean and fairly high pitch on which to enjoy an easy abseil. It is also a good SRT practice pitch. About 18m high.

BVI A Floor Landing to B Floor

A simple over-hanging pitch about 15m height, used for a free-fall by Go Below.

The Lost World - Cwm Back Vein Floor 1 to Oakeley Back Vein Floor 4

Near the end of Cwmorthin's Back Vein Lake Level, it is possible to abseil down through a window into a chamber that used to belong to Oakeley's Back Vein workings. It was holed through no doubt around 1900 as a result of the Oakeley takeover. The accessible workings reachable down the pitch amount only to a few levels and chambers before

massive falls block progress, however the area contains numerous delicate Victorian-era artefacts and hobnail boot prints. The greatest of care must be taken if visiting to preserve the fragile remains.

The pitch is about 10m, sloping at first then vertical. The anchors at the top are all very suspect and of unknown vintage, and explorers will need to rig off everything to ensure safety. Explorers will of course need to SRT back up the rope again, there is no other possible way out.

2016 Update: This pitch has been converted into a climbing traverse meaning that it can be done using cowstails rather than as an SRT pitch. It is, however, one of the more strenuous rising traverses in the mine and it can still be done as an SRT pitch if required.

C7E Abseil

Once east (in-by) of the Back Vein Incline, there is only one place left where it is possible to get from the upper "South of fault" back vein workings into the lower "North of fault workings" and that is via a roofing shaft driven right up from Chamber C7E to Lake Level. This is not shown on the map.

The pitch-head is found by regaining Lake Level over the large fall just beyond the incline head, and following it a short way until a small unassuming hole appears on the left hand side that must be crawled down initially, until it opens out more a little further along. The gradient gets steeper and steeper and care must be taken now as the unprotected gaping void of Chamber 7E is close at hand, as is certain death to those who get too close before attaching to a rope.

A set of three good expansion bolts are found on the way down the roofing shaft - these must form the main hang of the pitch. There is a single small anchor right where the chamber opens, this is simply a deviation only (run the abseil rope through a maillon) to keep the rope high.

The length of rope needed is about 50 meters, or 100 meters for a pull-through. There are some tricky steps on the way down the very steep face, but otherwise it is a pleasant and lengthy abseil. Look for the B floor bridge as a point of interest. The chamber itself is a model of good slate working - narrow cut, thick pillars, and impressively tall.

A Trespass Warning

Permission to explore Cwmorthin and the westernmost extremities of Oakeley extends only to the ridgeline of Allt Fawr, beyond which the land ownership and mineral-rights belong to Welsh Slate PLC. This company does not want explorers in Cwmorthin passing underground into their property, and as tempting as it might be to "pop in for a sneaky look", it is of the utmost importance that no such indulgence be taken. There are signs at the boundary, please don't cross.

It might seem harmless, but if you hurt yourself in there and require a rescue, or simply just get caught, you will open a huge can of worms that will jeopardise all access to Cwmorthin for

everybody, threatening jobs, damaging local land owner relationships and undoing years of hard won negotiations and trust.

There isn't much of interest beyond the boundary anyway other than some empty chambers, most of Oakeley on that side of the hill is either flooded, collapsed, un-topped or cut off from access by heavy fall. Maybe one day that small part of the workings will be open to explorers, but until then, please leave well alone.

A Final Note

Many miners and quarrymen tragically met a violent end within the three dimensional labyrinth of tunnels and chasms deep under the Allt Fawr. The majority of these were victims of gravity, either by falling to their death from a great height, or by the roof falling down onto them. Remember that you are no less delicate or breakable than they were, the vertical drops are no shorter, and the roof weighs no less. Treat the mine and her many dangers with caution and respect, and hopefully her fatal accident statistics won't get an extra entry with your name on it. Have fun, but be safe.