

QUARRY DRILLING – A HISTORY

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Today I'm going to share with you a few memories and tales of my time in the quarrying business, drilling in New Zealand in the early days, my involvement, modern-day gear, and the sale of TopRock to RedBull Powder Company (Redbull).

Rock trimming for blast holes has always been done. In the early days it was done with primitive gear – jackhammers, air leads, wagon drills – the last of which I know to be used was 20 years ago by Bob Ray at the now Perry Quarries at Ngaruawahia.

With the wagon drills, the air supply often came from a large compressor in the quarry workshop and was piped up to the face. The wagon drill had wheels. In came the air tracks, which again solely relied on compressed air, hence the large compressor. The compressor was normally towed along behind the drill and unhooked at the shot and drove off and drilled the shot. It was still connected by the three inch bull hose. My involvement in drilling started in November 1979 – nearly 30 years ago – for Keith Niederer, the owner of Niederer Machinery, who built quarry plant for the New Zealand and Pacific Islands. Niederer Drilling was run by Jim Burgess. I worked for Jim for 10 years. I first started on Air-track for four years. We had a 6 or 700 CFM compressor chained to the back of the truck, we towed a single axle tipping trailer behind it with a drill on, and then we towed our runabout behind that. Dragging them round some scary narrow metal roads. I mainly worked in the Waikato, the King Country, and the Coromandel. To compare the old wagon drill to the modern-day hydraulic tamrocks, the productivity rate would be about 15:1 – so it is a lot faster than it used to be.

In 1984 the first hydraulic Gardner Denver drill came into the country. It was brought in by W Stevenson & Sons. The same year Niederer bought one and I was lucky enough to get that and work that for Niederer for another six years.

In 1989 the sharemarket crashed and Niederer companies went into receivership. I started on my own as TopRock Drilling in June 1999 with a Gardner Denver 3500 BV. The drill was actually a trade-in of Stevensons – it had done about 5,000 hours. The second rig, again a Gardner Denver, arrived in 1994. The third rig, another Gardner Denver, in 1995. And the fourth rig, another Gardner Denver, arrived in 1997. I had a hiccup in my life in 1998 and had to buy half the drilling company back (I won't go into that, because most of you know about those sorts of things – or maybe we should go into that, but we won't here).

Once I got going again, I decided to invest more money and upgrading the drills to meet the client's needs - larger holes, bigger air, faster drilling, a cab for the operator - which meant that he was out of the dust and away from the weather, meeting the Health & Safety requirements.

I purchased the fifth rig, a Tamrock 900 Pantera, in 1999, the sixth rig, a Tamrock Pantera 1100, in 2002, the seventh rig, a Pantera 1100, in 2003, and the eighth rig, a Tamrock Pantera 1100, in 2006. We also had four transporters shift our drill rigs around the country. We covered the area from Auckland to Coromandel, to Gisborne, across the middle of the Waikato, King Country, and often going further afield. I've met a lot of neat people and been to a lot of different places and done a lot of interesting jobs, and employed some great people. And I'd like to take this opportunity to publicly thank them for the effort they've put in. Also, thank you to the people who used TopRock and helped me get established. I've a lot of great friendships with these people.

In the early days while on air-tracks, Bruce Leach asked me to clear the tops of holes as the ground was broken. I'd measure the hole, plug it with paper, place a rock on the top, and cover it will drill cuttings. I did this, and I thought if it was fair enough for him to ask me to do it, I should do it everywhere. It could become my trademark. I often ask my boys to check the holes. I'm sure they still check them, but I don't know whether they cover them the same.

Jim Vellenoweth, from McDonald's Lime, played a big part in me getting started on my own. When Niederer Drilling went into receivership, Jim said "we don't want to buy a drill, but we don't want to

lose you, and if you buy a rig, we'll give you our work". It was the opportunity I was looking for and I jumped at it. Jim told the finance company that he would guarantee the work in their quarry for as long as they had the first loan – which was four years. For my part, I had to keep the work ethic up and keep the drill rate relative to the going rate. McDonald's Lime Quarry at Oparure was possibly some of the best drilling in the King Country. I did camp in the quarry at Oparure, and I did live out of an escort van.

I became great mates with the quarry manager, Chris Pilmer. I thoroughly enjoyed the Waikato, the King Country, the West Coast, the Kawhia Harbour, Taharoa, and down to Awakino for Chris Brown, the Waitomo District Council (which is now Infomax). It was a great 28 years of drilling. The jobs and the quarries took me all over the country. Some of the best jobs were the one-offs.

I did a lot of unusual jobs, one of them being the Wheao Dam – a power-generating site in behind Murupara. It was early on, and I was on Air-track. I first went into Murupara or the Wheao Dam for Noel Atkins who was with the ICI at the time. Which is now Orica. It was the first time I had drilled pre-split holes. The whole powerhouse and turbines fitted down into the rock perimeter. It was pre-split and the outside boxing outside pre-split was the boxing for the concrete. I went back in there to drill out the tailrace, where the water went into the stream, and they lowered me into that by crane. The stairway was built up by the carpenters. At the top of the stairway the canal stopped there. If you look on the picture, you can see the timber where they are putting the boxing, and that was concreted and the pipes were fitted to it. If you look in the top left-hand side of the picture you can just see the top of the mast of the drill, and that's where the turbine sat down in the rock.

One job I did for John Sharpe at the Otaua Mine site for New Zealand Steel, the drill was hung off an overhead gantry and we sat up on top of the concrete pillars and drilled through the middle. John blasted the pillars. The plant in there was still running. The water pipes were round the pillars. He did a really good job, I felt. Blew the pillars enough to get a gas axe in to cut the rebar. He ruptured one water pipe on the job there. The compressor was still on the truck and that was outside and the bullhose went out through the window.

Early on I did a job with George Stankovich and his two sons, Andrew and George Junior, drilling some corners off some narrow roads in the Coromandel. I don't know whether a lot of you new old George, but he always wore a tin hat, and always had a roll-your-own smoke hanging out his mouth.

Over the years, I've done quite a few road jobs. Otorohanga District Council - did a few for them where roads had slipped out off a greasy back in papa country. We'd go there a drill the banks behind the road to shift the road back. I was standing above the slip out one day and the engineer came over. We started talking, and I said "Why don't we attack the problem at the problem?", and he said "What do you mean?". I said "Why don't we go down there and drill a key out in that greasy back, and there's plenty of flat limestone rock in this area, and stack the rock up, and that should hold the road up". He said "How the hell are you going to get down there?". I said "There's a bulldozer over there – it's got a winch on it. Push a track in, and winch me down". He said "You're bloody mad!". I said "Well, we'll give it a go", which we did. And it worked extremely well. The next winter I did five more road slips in that area.

One job I did for the Waitomo District Council was a high limestone bluff. A couple of contractors had priced it to put a road over the top and drill down into the rock, but the Council said "too expensive". Andrew Robertson, who was the quarry manager at that time, asked me to have a look. I stood on the road and said "it's pretty high, but I think we'd manage". So we got the drill, lifted the boom up as high as I could, turned the mast sideways on to it, climbed up the boom onto the mast, and sat up on the control panel. OSH wouldn't let me do it today – too high, no safety gear. It came out extremely well.

But with nowadays gear this sort of job would be a lot easier. One chap I did feel sorry for was the late Dave Hambleton. Dave was a partner in Valley Lime in Otorohanga – and old limestone quarry that he and the Davis family had reopened. I went in there and did the first job for Dave, and the rock was quite broken. I said to Dave "Better be careful, it's pretty broken, that rock". He said "Oh, it'll be alright Bernie". I turned around to see him loading the holes with aluminex, which was used prior to what we now use – ANFO, or ammonium nitrate. When he was ready to fire, he said "Can you

stand up on the hill and see if any rocks hit our new shed". He fired the shot, it took off, demolished the roof of the shed, the spouting was swinging in the breeze. By the time he got to where I was, I was in fits of laughter, I didn't have to say anything.

I've also done a few way off jobs. The most remote job would have to be the Bridge to Nowhere. The Bridge to Nowhere is between Wangamomona and the Wanganui River. The area was farmed until the depression when things got tough and the farmers walked off. While they were there they built the bridge. The last National government in power had decided to reopen the area for ballot farms. The last eight miles of road had to be reopened – there was little metal on it, and it was pushed in with a bulldozer. They needed a lot of metal. The cost of the metal for the cartage alone (and this was 20-odd years ago) was \$70/metre. The contractor found out about the conglomerate in the area, which they built the bridge out of. And the decision was made to go in there, drill blast, crush the rock with a portable. So I went in to buy a Stratford. Quite an unusual road. I had to get the transport and drills through a few tunnels. I had an old trailer which was sloped, and I had to walk the drill backwards down the trailer to get it to a couple of the tunnels. Once in there, the last eight miles was pushed in, mainly clay with a little bit of metal here and there, I ripped the drill off, onto the deposit, drilled the shot. We stayed in a caravan in the bush there, washed in the creek (that was bloody cold), and the old chap that was in there with me cooked us a feed on the fire and drank old pale gold sherry out of flagons. He had a generator. At night, when the generator ran out of petrol, the light would go out and he'd stumble off to his caravan.

I'd finished drilling one afternoon about 3pm, started to turn back the transporter (I had about a kilometre to go), and it started to rain. No, I'll rephrase that. The skies opened up and it pissed down! I hurried to get the drill loaded, but no way was that transporter getting out of the paddock. I went back to the caravan and the old chap said "oh, you may be here for a few days until it stops raining". I thought, no way. In the morning, I couldn't wake the old chap – too much sherry. I knew there was a young bloke coming back from Stratford in the ute. So I thought I'd get started and may meet him on the road. It had stopped raining, but was still a bit cloudy. I thought I'll pull that truck onto that road with the drill. So I unloaded the drill, took the front of the truck and slid a chain through the twitch pipe, chained it onto the front of the truck and onto the drill, put a wire stop between the truck and drill, tied the steering wheel up with a bit of rope, and the truck, and started to drag it. I pulled the truck out onto the road until on a flat piece and then took the drill off, round to the back, loaded it up, and drove the truck as far as I could – ending up sideways in the water table. Took the drill off, pulled the truck backwards til it was straight, round in front of the truck, hooked it up again, and off I went. I did this quite a few times – it was a windy piece of road. I can't remember how many times I had to do this, but it was quite a few. It took me five hours to get the 8 miles. Finally I got to the top of the hill. There was a group of people standing there, and they came over and said to me they'd tramped in from the Wanganui River – there are some huts in there, and they'd stayed in there. They said to me "Which way is it to Stratford?", and I said "Sure ain't the way I've come!". Then they said that their ride hadn't got to pick them up, and would I mind if I gave them a lift. I gave them a lift. I said "If you send me some photos, I'll take you". So we caught up with their mate on the road and a couple of them got out. Two of the ladies, who were in their 60s, asked me if I minded taking them to Stratford as they'd never been in a truck. I said "No sweat". They thoroughly enjoyed the ride, and especially the road tunnels.

Drilling hasn't changed much, but the rigs definitely have. All the modern computer technology alignment set up so the operator doesn't have to get out of an air-conditioned cab, makes the job more appealing. In April or May of 2007, RedBull wanted to buy TopRock and approached me. On June 1st, the deal was done. One of the conditions was that I stayed for a year. They must have liked me so much that they've asked me to stay on. Which I've accepted, but first I'm having six weeks holiday, and I'm off to America on Sunday.

So now, TopRock Drilling is a division of RedBull Powder. The best of its operation in the country! I've enjoyed the first year. There's nothing like the stress I previously had, but it's different. When you've had 18 years as owner and boss, and now you're an employee, it's certainly different – you're answerable. My competitor runs a very good operation and are very good to me, and I'm pleased they've retained my staff and continue to look after them. Invest in upgrading of gear and training of young guys.

I must enjoy the unusual jobs, as in August last year I went to Stockton Coalmine with RedBull to do a presplit job at Duncan's Sump. Duncan's Sump is a holding dam for the water treatment plant. RedBull did the job for Kaipara. It was a great success. The outside wall was presplit at 1.2m centres. When we got to the corners, which were right angles, I said to the engineer and the surveyor "What am I allowed to do in the corner?". They looked at me and said "Do whatever you bloody like, as long as it's smooth". I said "Fine". So I grabbed a can of paint, drew a curve, left the top at 1.2 centres, changed the bottom to 600-800 mm, marked it out on the ground, and away we went. It came out extremely well.

I'm still a Manager at TopRock, and also part of the management team. And I'm inclined to get a bit cheeky at the RedBull meetings, but I haven't upset anybody yet as they haven't sacked me. It's great that RedBull are continuing to invest in the quarry industry. The new Tamrock 1100 drill (it's actually a Sandvik 1100 drill) is a real beaut. It's not the little Air-track that we bought, because that's the latest one. They now own the largest fleet in the country, with 6 Gardner Denvers in service and 6 high production Tamrocks.

And as the saying goes, too much work and no play makes Jack a dull boy. Well, Jack isn't a dull boy. Jack has another passion. And my other passion is horses – or more particularly racing horses. So I thought I'd finish by sharing with you two big races I've got, when our horse Floyd Boy won the Group 3 Marton Merial Metric Mile and the Group 1 First Sovereign Trust Champions Mile.

Well, Floyd Boy is getting a bit like me – a bit long in the tooth. We'll start him again soon. Hopefully he'll go alright. Trouble is, it means that if he wins, I'll probably have to wear this suit again.

I definitely enjoy this job. And I've definitely enjoyed doing what I've done, and I think I've been extremely lucky. The reason I think I enjoy the job in the industry is because of the people.

So thank you all very much.