

## My first shot

In December 1964, five days after receiving my final BSc results, BHP sent me to northeast Tasmania to lead a seismic refraction crew. Our objective was to delineate palaeochannels containing cassiterite (tin). I was given a brand new seismic recording unit (still in the box and never tested) and a crew who had never even heard of seismic refraction before the project. I had at least done a university practical class using a seismic refraction unit.

I showed the crew how to lay out the cable and how to attach the geophones. I then told them to auger a 3 metre hole for the shot charge. Next, I taped three sticks of gelignite together, primed the gelignite with a detonator and, after lowering the primed gelignite down the shot hole, we filled in the shot hole to tamp the anticipated explosion. Finally, I connected the shot wire to the recording

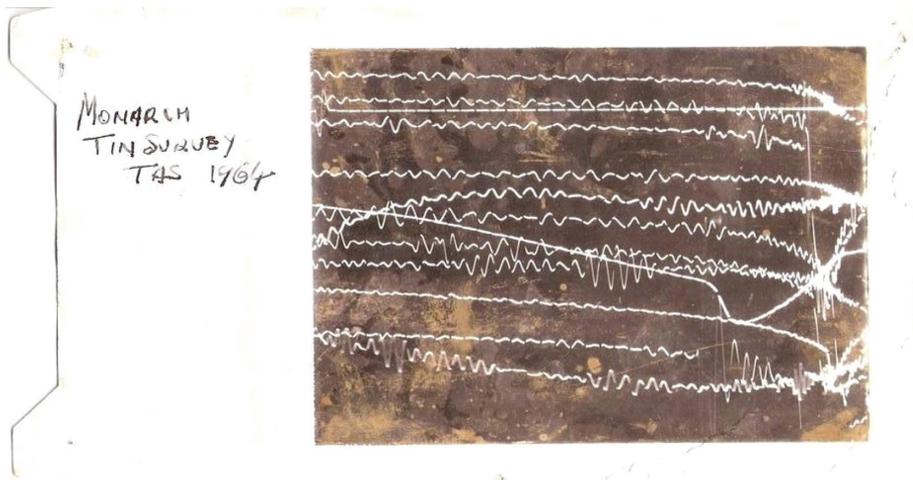
unit and pressed the shot button. Nothing happened. Figure 1 shows what was recorded. The recording medium was a type of Polaroid film. The bigger oscillations are probably due to raindrops (it rained for most of the survey).

To check why the shot did not go off we dug up the primed gelignite and tested the detonator by firing it with a car battery. After a lot of experimentation we figured out that the firing unit of our seismic recorder was only capable of making detonators go off if the shot cable was relatively short (about 25 metres). Normally this would have been manageable but there was a gain problem with the recording unit so we had to use much larger charges than normal to be able to record signals at our farthest offsets. What should have taken about 6 sticks of gelignite required about 30 sticks of gelignite. I was not really

aware of this and thought the situation normal.

The blasts were very spectacular as we were working in a peat bog. The resultant craters were about 4 metres deep and 6 metres across. Huge lumps of peat would fly up in the air and provide a lot of excitement for the shot firer who had to be close to the shot because of the problems with the firing unit. Because of the tremendous consumption of gelignite I spent a lot of time driving to Launceston and filling the company Landrover with fresh supplies.

Just as we finished our first line a fat man arrived from head office in Melbourne and cancelled the project for reasons not connected with the seismic survey. Forty years later, an exploration company contacted me to see if I still had a copy of my interpretation report. It seems that someone had ripped the page showing my interpretation from the copy lodged with the Tasmanian Mines Department.



**Fig. 1.** My first shot. The faint jagged line on the right of the image is where a mouse has started eating the record.

