## **WELLINGTON - OCTOBER 2015**

## BY IAN COOPER

**PARTICIPANTS:** Tabitha Blair, Dean Coleman, Ian Cooper, Brian Hedden, Deborah Johnston, Rowena Larkins, Phil Maynard

October long weekend and summer arrives with a thud. SUSS was off to the Wellington Caves Resort where it was 30°C to 35°C each day. Friday saw Phil, Rowena, Brian, and Tabitha appear at Ian's place in Orange for the night. We moved on to Wellington on Saturday morning with Deb and Dean arriving from Maitland early afternoon.

Saturday was mostly spent in Mitchell Cave where Tabitha was put through the hoops practising rigging. After discussions with Armstrong Osborne Ian located the side passage to Mitchell that connects to WE7, (Cactus Cave). Rowena had a thermometer handy that showed 31°C at the entrance, 18°C at the first rebelay, and 12°C at the bottom of the cave. The water level at the bottom of the cave was about 1m higher than "usual". We had a quick look at the north trending dig which was dry and showed that the roof was starting to rise again with a slight gap between the soil and the roof.

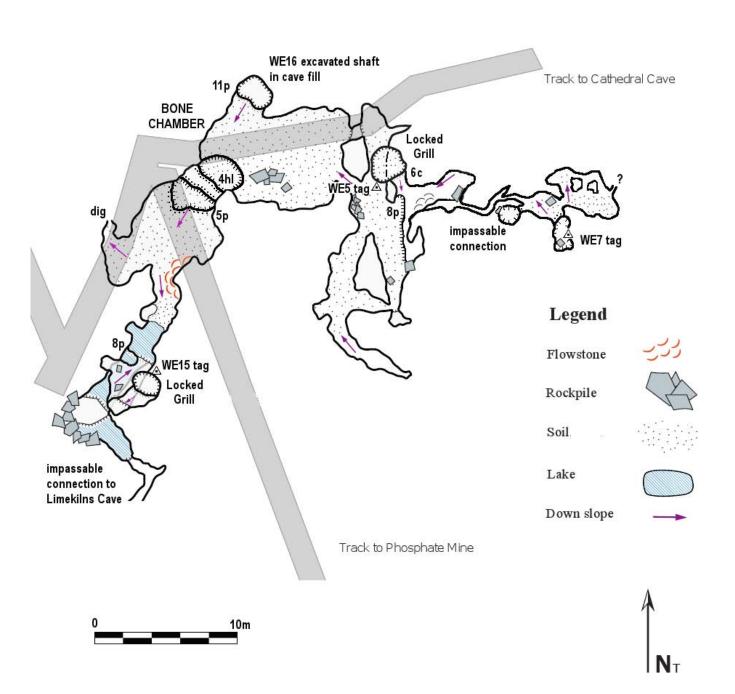
On Sunday morning all went into Limekilns Cave. Tabitha was tasked to practise ladder rigging whilst the divers got organised. Ian, Dean, Tabitha, and Rowena went to Bondi Beach but no further since the rock pile was sumped. Tabitha and Rowena went for a swim about the lake at Bondi Beach. Phil, Deb, and Brian went for morning and afternoon dives in McCavity with some video. The water level was about a quarter of the way up Birth Canal.

lan, Rowena and Dean went into Gaspipe Cave armed with a CO2 monitor on loan from the guides. We wandered about the main parts of the cave without pushing the tight leads. In the main chamber the temperature was 17°C and the CO2 content 0.13%. In the lowest part of the cave the CO2 content was 0.2%. Even at these low levels the fall in CO2 was noticeable as one exited the cave. Rowena found a climb up into a decorated room and aven which is not on the current map and must have been missed when the cave was surveyed.

On Sunday evening all went for a tourist through the Phosphate Mine which is in the process of having LED lights installed. Deb undertook a quick dive in the lake at Cathedral Cave to check reports of an air bell by Rod O'Brien. No air pockets or passages upwards were observed.

On Monday Ian and Rowena tentatively surveyed Cactus Cave (WE7). The guides reported a pair of brown snakes seen nesting in a nearby doline so a careful approach was required! A clear light and voice connection was made to Mitchell Cave. The actual connection is very tight and only negotiable by the smallest microbod. A map of the surveyed area is included. There is a potential lead to the east from WE7, but it is thought unlikely that it will connect to Cathedral Cave. The rest of the group went into Mitchell and continued to push the dig. All headed off home mid - afternoon after traditional burgers and milkshakes in the kiosk.

Attached is a plan showing the main prospective areas at Wellington Caves. The best lead is the high CO2 passage at the base of Gaden Cave. It is postulated that the CO2 is being produced by the formation of calcite rafts on a yet to be seen lake. In 2014 a seismic refraction survey located a yet to be entered void up to 10m across to the west of Cathedral Cave. A ground water monitoring bore has intersected a yet to be entered cave along strike to the south of Anticline Cave. Moderately prospective digs are present in Mitchell's Cave, Cathedral Cave, and Bottlo Cave.



## WE5/7/15/16 MITCHELL'S CAVE Wellington Caves, NSW



Surveyed by SUSS to ASF grade 55.

I. Cooper draft October 2015

ASF map 2WE5.SUS2

