

**Subject:**Re: Trip Report: Whee Land 12/16/17

**Date:**Tue, 19 Dec 2017 19:28:38 +0000

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A few notes for future work, if anyone is interested in pushing this:

### **Characteristics of travel:**

The passage to get to the dome turns into a crawl, as described in the report. This closes down to a belly crawl or army crawl in spots. It slopes up towards the dome at an angle which varies between 10 to 30 degrees, and feels like it continues for about 100 feet in this manner. There are occasional ledges in the floor which stick up, although they are all somewhat rounded.

The result is that this is a fairly trivial crawl with no packs, but is actually somewhat of a frustration with heavy packs in tow. By my finely calibrated biological clock, it took us roughly 30-45 minutes to get through the crawling sections going up into the dome, and roughly 5-10 minutes to get through the crawling sections going back down out of the dome. Our tempo was slowed by the floor ledges in the steep section.

I found the passage to be generally dry, with clay floors (and the aforementioned low rounded ledges). I belayed Eric from the standing/stooping canyon which enters the dome 20 feet up. This belay spot was very slightly moist, and not dripping. The dome seemed moister, but only dripping a tiny bit. Nick Socky mentioned that Butler had seemed unusually dry on his trip the day before.

For travel, I wore my coveralls folded down with my upper body exposed, wearing just a t-shirt and elbow pads. For belay, I put on a light jacket and sat on a darren drum. I felt a little warmer than preferred for the entire trip. I tend to run a little warm. We also observed that the passage leading to the dome was noticeably warm. At no point did I get wet.

### **Considerations for a Butberry connection project :**

If we wish to push the Barberry-Butler connection, this may require a number of trips with air tracing and hard-rock/flowstone excavation while on-rope. In that scenario, it may make sense to excavate sections of the approach crawl for convenience. The anchors were removed, but the bolts were not hammered into the wall. This is to enable further work in this dome.

By watching dust particles, I estimated that airflow in the passage where I was belaying was about 0.5-3 inches per second out of the dome. Passage dimensions were roughly 3x5 feet, so the dome was probably evacuating 0.6-4 cu.ft./sec on this day through that passage. This was a mild air day. I forget if the SOFA entrance was sucking or blowing.

Dome dimensions were approximately 20-30 feet wide, roughly circular, and 40-60 feet high. Given the ranges for airflow and dome dimensions, it would only take 1-25 hours to evacuate the dome of air. Also, Eric reported airflow was present up in the dome. Therefore, it really seems very likely that this dome connects to significant void space, either Barberry, or equally exciting, large undiscovered passage.

It may make sense to conduct an anemometer air-tracing experiment between Butler and Barberry. It may also make sense to visit the proximal passage in Barberry to investigate it for air/leads.

As amateurish speculation, the likely air connection between Butler and Barberry is probably through paleo passage. This is a guess based on the the flowstone, the height of the passage, and the fact that the dome was moist but not running, and the approach seemed long-dead, and maybe phreatic (I didn't look too closely). I think there's a good chance that a lot of the speculated air connection is paleo passage constricted by flowstone.

Aaron