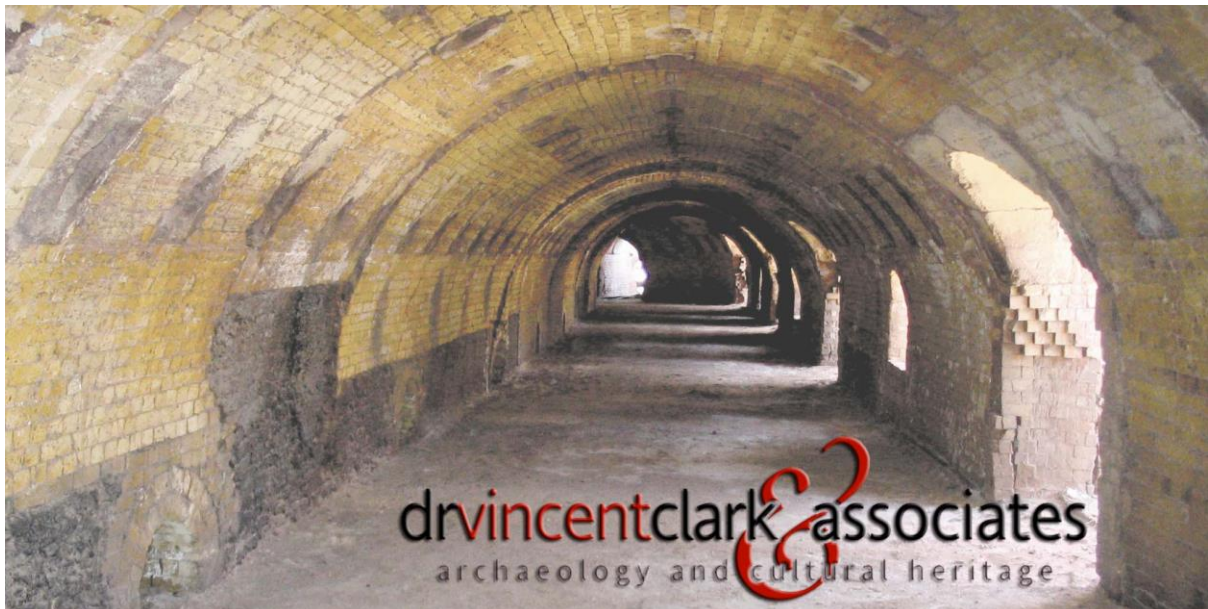


Five radiocarbon dates from Bulla

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This public access version has been edited to omit details on the location of Aboriginal cultural heritage



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1. Introduction

This report presents the results of radiocarbon dating of five charcoal samples collected during test excavations at Bulla as part of CHMP 11935, conducted by Dr Vincent Clark & Associates and sponsored by VicRoads. The CHMP is still in progress, and this report is an update on the radiocarbon dating results only; these will be presented and interpreted as part of a full report at a later stage.

The five dated samples come from three locations: two are from TP03, Lochton 7 and one is from TP14, Lochton 9, [REDACTED] The two other samples are from a mechanically excavated pit (MEP) at Bulla 1, [REDACTED] (Figure 1).

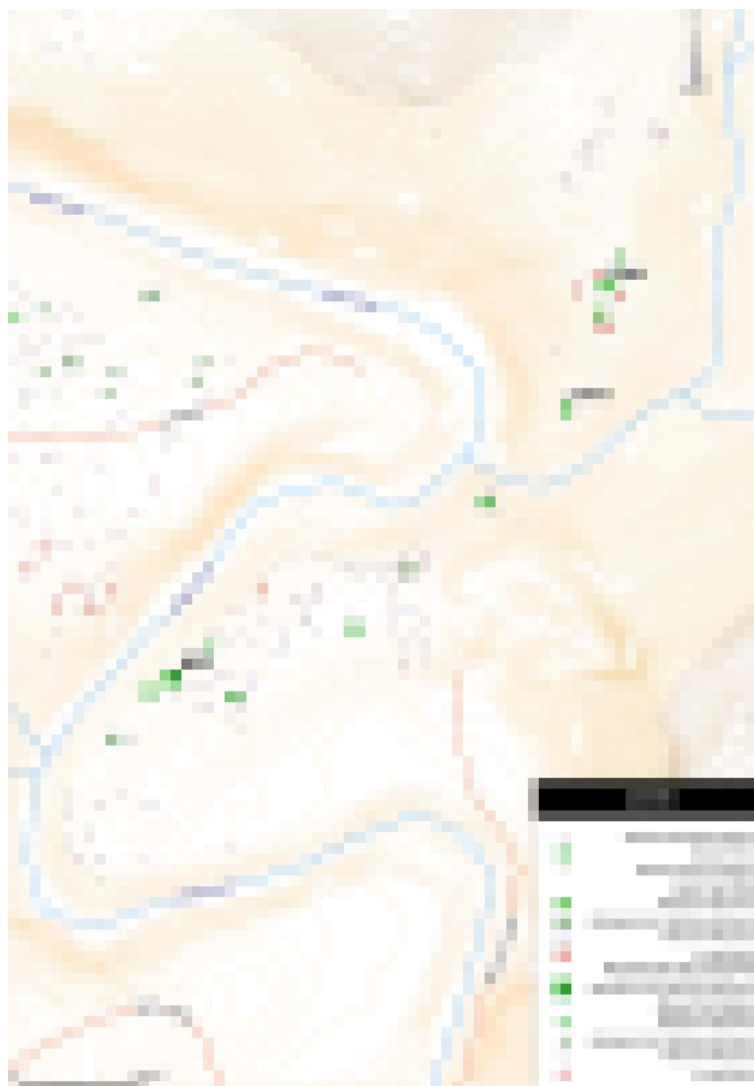


Figure 1: Map of archaeological recording beside Deep Creek, showing locations of tested charcoal samples

2. Lochton 7 (VAHR 7822-3274)

Investigation [REDACTED] east of Deep Creek (Lochton 7, VAHR 7822-3274) included excavating a 1m x 1m pit (TP03). The soil conditions in this pit consist of granitic sand mixed with silt which sits on top of coarse granite. Lithic artefacts (n=39) were found in the upper 300mm of this pit. Charcoal samples were collected from two points: 5g from 100mm depth and 5g from 200mm depth (Figure 2).

The two samples were submitted for radiocarbon (^{14}C) dating to The University of Waikato Radiocarbon Dating Laboratory, New Zealand. Reports on the testing are reproduced below, with details on the calibration curve used (OxCal v. 4.1.7) and the radiocarbon determination.

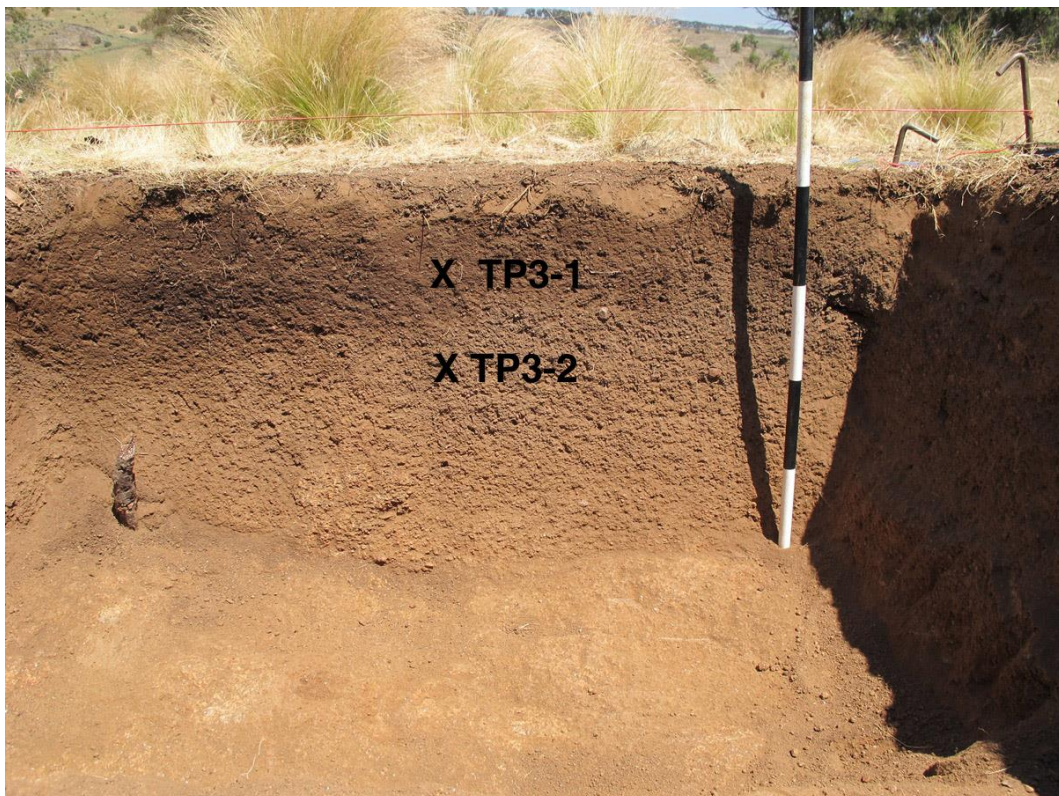


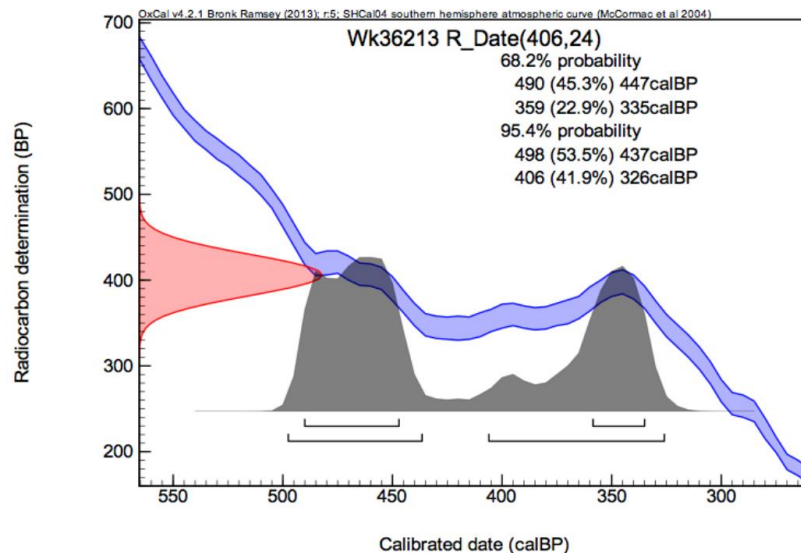
Figure 2: TP3 at Lochton 7, west wall, showing depth of two dated charcoal samples

WK36213**406 ± 24 BP**

Sample: TP3-1, collected on 23 November 2012, submitted on 29 January 2013 by W. Anderson, results received on 14 February 2013

Context: Granitic sand with silt, 100mm depth, TP03, Lochton 7 (VAHR 7822-3274)

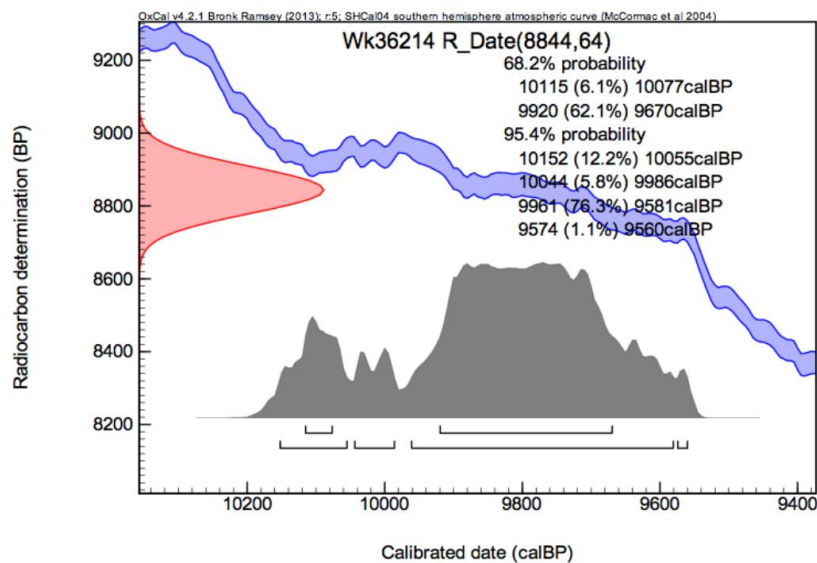
Material: Charcoal (5g)

**WK36214****8844 ± 64 BP**

Sample: TP3-2, collected 23 November 2012, submitted on 29 January 2013 by W. Anderson, results received on 14 February 2013

Context: Granitic sand with silt, 200mm depth, TP03, Lochton 7 (VAHR 7822-3274)

Material: Charcoal (5g)



3. Lochton 9

A 1m x 1m pit (TP14) was excavated east of Deep Creek (Figure 3).

Soil conditions in TP14 are similar to those found at TP03, consisting of granitic sand which is loose in the top 50mm and more compacted below, becoming a friable granite rock from 200mm. Lithic artefacts (n=15) were found at depths of between 100-200mm. A small sample of charcoal (0.6g) was collected at a depth of nearly 200mm, slightly above the granite bedrock (Figure 4). Registration of the site (Lochton 9) with the VAHR is currently in progress.

The sample was submitted for radiocarbon (^{14}C) dating to The University of Waikato Radiocarbon Dating Laboratory, New Zealand. Reports on the AMS testing are reproduced below, with details on the calibration curve used (OxCal v. 4.1.7) and the radiocarbon determination.



Figure 3: Location of TP14 at Lochton 9, in the lower-right of the photograph



Figure 4: TP14, south wall, showing depth of dated charcoal sample

WK36214

Sample:

1690 ± 25 BP

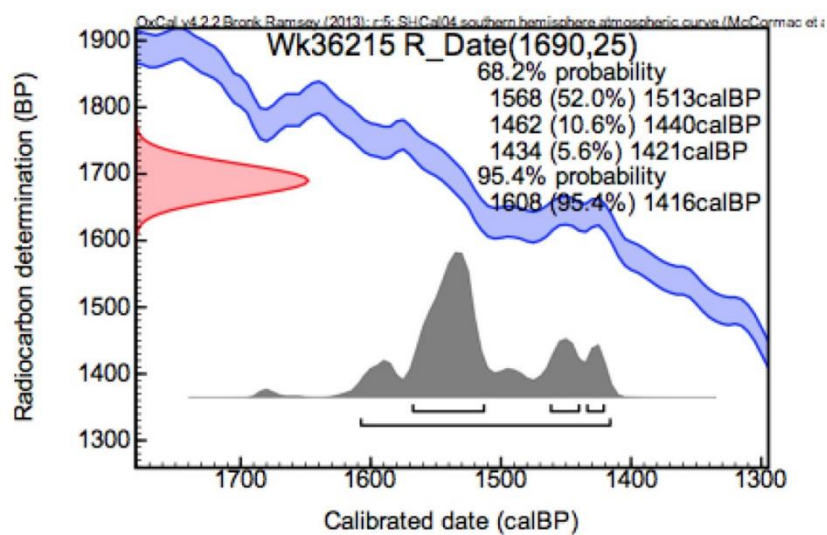
TP14-1, collected 18 January 2013, submitted on 29 January 2013 by W. Anderson, results received on 26 March 2013

Context:

Granitic sand with silt, 200mm depth, TP14, Lochton 9

Material:

Charcoal (0.6g)



4. Bulla 1 (VAHR 7822-3278)

A trench was mechanically excavated within the area of Bulla 1, VAHR 7822-3278, [REDACTED]. The excavation took place on 4 and 12 February 2013, and involved the use of a 5½ tonne excavator and a mechanical sieve (Figure 5). The trench was positioned close to the edge of the stream terrace, [REDACTED]. The trench measured a minimum of 3m length and 1m width. Soil was excavated and artefacts collected in regular slices of 20cm; at lower depths, only selected amounts of soil were sieved.

Sediment in the upper level consists of compacted dark brown clayey silt, containing plentiful lithic artefacts and some 19th-/20th-century material. At a depth of approximately 1m, there is a distinctive change in the soil, to reddish brown coloured silt which is fine and has no clay content (Figure 6). Aboriginal artefacts are present in this stratum, but are less frequent and consist of different materials and forms. Hand excavation was carried out, which sought to confirm the presence of artefacts within the red silt and to recover any dateable material. Both of these aims were accomplished: artefacts were located within the silt and two separate samples of charcoal were obtained, from 1.3m and 1.4m depth (Figure 7).

Below the reddish silt is lighter, yellow coloured silt. Artefacts are present between 1.5m and 2m depth, though this number dwindled below 2m. The lowest depth at which artefacts were recovered is 2.7m, where a quartzite implement was found; another two small flaked artefacts were found at between 2.7m and 3m. Excavation ceased at 3m.

The charcoal samples (MEP-1 and MEP-2) were submitted for radiocarbon (^{14}C) dating to The University of Waikato Radiocarbon Dating Laboratory, New Zealand. Reports on the testing are reproduced below, with details on the calibration curve used (OxCal v. 4.1.7) and the radiocarbon determination.



Figure 5: Mechanical excavator and sieve operating at Bulla 1