

Monitoring and Excavation of Test Pits

1. In response to the need to redesign the foundations for the proposed development the SI works were extended to include excavation of several test pits in order to evaluate the sediments on site at greater depth. The location of these test pits was agreed with James Barr on behalf of Northern Marine Management with Rathmell Archaeology Ltd. The test pits were located on site by the engineer, Angus Souter. BACTEC bomb disposal were also present on site.
2. The Forth-Clyde Canal exists immediately to the south of the development area and is a scheduled monument protected under the Ancient Monuments and Archaeological Areas Act 1979. WoSAS identified the abandoned line of the canal as potentially of archaeological interest and requested an archaeological watching brief on all ground breaking work on site. The excavation of these test pits provides an additional opportunity to assess the archaeological potential of the development area and locate the remains of the abandoned line of the canal. The monitoring work was carried out on the 29th of November 2013 by Alan Matthews of Rathmell Archaeology Ltd.

Test Pit Locations

3. TP1 to TP4 were located according to the requirements of the SI works. TP5 and TP6 were located at the request of Rathmell Archaeology Ltd in order to provide more comprehensive coverage of the site. Locations were recorded with a handheld GPS showing an accuracy of 3m. Points were taken on opposing corners.

No.	Size (m)	Depth (m)	E1	N1	E2	N2
TP1	2.5 x 2.5	5	48996	70934	48994	70938
TP2	3 x 3	5	48996	70919	49002	70914
TP3	3 x 3	4.5	49010	70888	49005	70887
TP4	2.5 x 2.5	5	49027	70917	49024	70917
TP5	2.5 x 7	5	49023	70904	49016	70901
TP6	2.5 x 2.5	5	49012	70910	49007	70908

4. Excavation was carried out using a 20t 360 excavator with a 2m toothless bucket. The trenches were prone to collapse due to the unconsolidated and variable nature of the deposits. None of the trenches was safe to enter. The upper layers of all test pits was composed of made ground as had been revealed in previous excavations of the site. This continued to a depth of between 3.5m and 4m depending on the trench. Below this in each test pit was what appeared to be natural subsoil. In TP1, TP3 and TP4 the subsoil was compact, light red-brown sand. TP4 flooded to about 0.5m. In TP2, TP5 and TP6 the subsoil was dark grey compact clay. A small amount of sand was recovered from the base of TP2.

Observations

5. By examination of the sections of the test pits it is possible to confirm the findings of the previous trenching, carried out on the 24th of October 2013. The entire site, to a depth of between 3.5m and 4m, is composed of made ground. Where it is possible to observe anthropic material within these deposits they all seem to be of modern (late 20th or 21st century) origin. This ground consists of multiple overlapping deposits. There is, therefore, no chance of disturbing the remains of the old line of the canal at depths less than 3.5m.
6. At greater depth three of the test pits opened showed what appeared to be compact sand and the other three showed dark and compact clay. Those test pits which had clay at the base form an irregular line running from NW to SE through the centre of the site and are therefore approximate to the relict line of the canal. Given the known history of the site it is therefore likely that these test pits demonstrate the general drift geology to be sand while the clay may mark a feature related to the original line of the canal – the most obvious options being either the filled channel of the canal or a basal structural clay for

the channel. More likely the former.

7. The extension of TP5 was intended to find the interface between the clay backfill and the natural sand subsoil. This wasn't possible due to the constraints of excavating such a large trench to a depth of more than 5m and the risk of flooding as we approached TP4. TP4 had flooded to a depth of about 0.5m at the base. In addition, a small amount of natural sand was recovered from the base of TP2. This suggested that the deposit of clay, which has been identified as backfilling the canal may only be roughly 1m deep.
8. No structural remains of the canal were observed. There was no sign of the remains of walls or lining and no structural material was recovered from the clay deposit. In fact the clay was so sterile it must have been natural sediment rapidly redeposited from another location.
9. Without evidence for structural remains at the edges of the canal or contemporary material in the clay there may be little gained from further examination. Especially given that the line is known from contemporary mapping.

Conclusion

10. The excavation of six test pits to a depth of approximately 5m on the site at Clydebank Business Park has demonstrated a deposit of compact natural clay running NW to SE through the centre of the site. This deposit corresponds roughly with the old line of the Forth-Clyde Canal. However, no structural remains of the canal were uncovered in any of the trenches and no contemporary anthropic material was noted in the fill. In addition, it is likely, from the natural sand taken from the base of TP2 that the clay deposit is roughly 1m thick. It is probable that this clay is the base of the canal.

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Figure 1: TP1 from the NW



Figure 2: TP6 from the S



Figure 3: TP5 (extended) from the S

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