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The Results of a Desk-Based Assessment and Archaeological Field Evaluation of St Margaret's Hope Wharf, Rosyth

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Report Status: Approved



Executive Summary

Headland Archaeology conducted an archaeological evaluation by desk-based assessment and trial trenching at St Margaret's Wharf, Rosyth, NGR: NT 12412 81474. The aim of the work was to record an upstanding wharf that survived within an area of reclaimed land, and to establish if any earlier structures or vessels were present adjacent to the wharf. The work was commissioned by Transport Scotland, managed by Jacobs Arup and undertaken in advance of the proposed Forth Replacement Crossing (FRC).

Three trenches totalling 63.6m² were excavated around the wharf identified in the Environmental Statement (Transport Scotland 2010). Due to the constraints of groundwater levels and the presence of services, limited areas were available for trenching along the relict shoreline close to the wharf. An assessment of all readily available documentary and cartographic sources was undertaken following the completion of fieldwork. Trial trenching established that the main structure of the wharf survived in good condition including features such as a protective wooden framework present along the seaward elevation. No evidence of any vessels were identified. The structure of the wharf was recorded as part of the programme of works, as well as the location of an earlier wharf to the north, and the remnants of part of a later pier further to the south-west. A study of desk based sources indicated that the wharf was constructed c 1900, and was in use for around 30 years, probably for transporting stone and coal from small scale local enterprises mainly quarrying. There was one low rectangular structure to the rear of the wharf, but this was removed in the mid 20th century, during which time the whole of St Margaret's Bay was being infilled and reclaimed as part of the wider expansion of Rosyth Naval Dockyard. Any structures present in the wider area to the north of the wharf now lie under the extensive embankments relating to the A90 and B981 slip-road.

ARCHAEOLOGICAL EVALUATION

Forth Replacement Crossing: Land Parcel 3, St Margaret's Hope Wharf

PROJECT SUMMARY SHEET (FRCE10)

<i>Client</i>	Transport Scotland
<i>Consultant</i>	Jacobs Arup
<i>National Grid Reference</i>	NT 12412 81474 (wharf)
<i>Project Manager</i>	Edward Bailey
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<i>Schedule</i>	
Fieldwork	22 nd – 23 rd Nov 2010
Report	Dec 2010

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1 Introduction

1.1 General

1.1.1 This Data Structure Report reports on a programme of archaeological investigation in respect of the proposed Forth Replacement Crossing (hereinafter 'FRC'), and in accordance with the mitigation measures recommended in the FRC Environmental Statement Chapter 14 (Cultural Heritage) wherein a programme of trial trenching was recommended. The report was initially submitted to Jacobs Arup and Transport Scotland.

1.1.2 Between the 22nd and 23rd November, Headland Archaeology (UK) Ltd. undertook a programme of archaeological evaluation by trial trenching on Land Parcel 3 on the northern side of the landfall for the FRC (Illus 1). The project was managed by Edward Bailey (Project Manager), the fieldwork and reporting was overseen by Kirsty Dingwall (Project Officer). Two further staff assisted during the fieldwork.

1.2 Project Background

1.2.1 In December 2007, following the completion of the FRC Study as part of the Strategic Transport Project Review (hereinafter 'STPR'), the Scottish Government confirmed the intention to provide a new cable-stayed bridge to the west of the existing Forth Road Bridge. Jacobs Arup (as a joint venture) was commissioned in January 2008 to assist Transport Scotland to develop the FRC proposals, to undertake an Environmental Impact Assessment (hereinafter 'EIA') and to prepare an Environmental Statement (hereinafter 'ES') (Transport Scotland 2010, 30).

1.2.2 The cultural heritage component of the FRC EIA was largely completed in 2008. The purpose of the assessment was to identify the cultural heritage baseline, evaluate the likely significant impacts that the proposed development would have on this resource, and provide mitigation measures to ameliorate any impacts.

1.2.3 The cultural heritage baseline data for the EIA was obtained via a desk-based assessment and walkover survey undertaken in 2008 in accordance with the principles set out in DMRB Volume 11 (1993) (Archaeological Assessment Stages 1-2). Further information was also gathered during an archaeological watching brief on the Ground Investigations for the proposed scheme that was carried out during 2008 and 2009 by Jacobs Arup, Glasgow University Archaeology Research Division and Headland Archaeology Ltd in accordance with the requirements of Historic Scotland to whom the results were reported (Transport Scotland 2010, 30).

1.3 Aims and Objectives of the Archaeological Works

1.3.1 The general objectives of the programme of archaeological works (Transport Scotland 2010) were to:

- ensure that significant archaeological or palaeoenvironmental remains shall be neither needlessly destroyed, nor destroyed without record;
- identify any unknown archaeological remains that may be affected by the scheme;
- enable a more confident assessment of the impact of construction of the proposed scheme on archaeological remains;
- enable the identification and design of any measures that may be necessary to mitigate the impact of the proposed scheme on newly identified archaeological remains;
- enhance available information about known archaeological remains, where existing information is insufficient to enable a full assessment of impact or the design of mitigation measures.

2 Site Background

2.1 *Archaeological and Historical Background*

- 2.1.1 The ES identified a total of 356 sites (within a study area ranging from 500m from the development corridor to 6km from the proposed main crossing), whilst an archaeological desk-based assessment of a wider study area undertaken in advance of the proposed scheme, identified a total of 1200 sites of cultural heritage significance. The results from these studies show that the proposed development corridor and the wider study area collectively constitute a landscape containing archaeological evidence dating from the Mesolithic period, through the prehistoric and medieval periods, up to post-medieval and modern times.
- 2.1.2 Land parcel 3 (Illus 1) was highlighted as a site of potential cultural heritage significance against the background of increasing industrial activity across the Firth of Forth as a whole from the 18th century onwards, with the advent of coal mining and associated salt panning (Transport Scotland 2010, 34). A study of the Ordnance Survey mapping in the area indicates this process, with quarries, railways and harbour developments appearing from the mid 19th century onwards. The assessment also notes the presence of a number of wrecks known in the Firth of Forth, the majority of which are 19th century cargo ships. There is also potential for previously unknown wrecks in the area, either from ships which sank in the Firth, or from vessels which were berthed at the wharf and had begun to decay and sank as a result. In general, the main focus of activity highlighted in the EIA was post-medieval in date and industrial in nature.
- 2.1.3 The ES identified Land Parcel 3 as having archaeological potential due to the presence of a wharf. The wharf, along with another slightly to the north, had been recorded as part of a desk-based assessment undertaken in 2000 (Farrell 2000) in association with a watching brief on the insertion of a water pipe (NMRS No: NT 18 SW 256). The current works were intended to record the details of the wharf, and establish whether further structures or remains associated or predating it survived in the adjacent area.

2.2 *Site Topography and Land Use (Illus 1)*

2.2.1 The site lies on the eastern fringe of a large area of reclaimed land. At the time of the fieldwork, it was largely covered by bracken and reeds, with extensive marshland extending out to the south-west. The larger part of St Margaret's Marsh is statutorily designated as a Site of Special Scientific Interest (SSSI), and as a result there were specific requirements in the methodology which are outlined below. The site is under the ownership of Scarborough Muir Group and Fife Council.

2.3 *Site Geology*

2.3.1 Geotechnical investigations have demonstrated that the subsurface stratigraphy underlying the development corridor as a whole generally constitutes glacial till deposits of varying thickness; these are predominantly comprised firm to very stiff boulder clay deposits with occasional granular till deposits.

2.3.2 This part of the route of the crossing straddles the boundary between the quartz dolerite and the Sandy Craig formation sequence along much of its length. At the west of the area, beyond the old shoreline, made ground was underlain by reclaimed estuarine deposits up to 2.2 m thick and marine beach deposits up to 4.0 m thick. To the east above the former shoreline, weathered and fresh glacial till lay under the made ground.

3 **Methodology**

3.1.1 The agreed methodology for evaluating St Margaret's Wharf was to excavate a trench around the base of the extant remains, down to foundation level. This was to be done by machine. A further five 25m trenches were to be excavated to the north, west and east of the wharf, again by machine, to establish the extent of land reclamation deposits and presence or absence of further archaeological remains.

3.1.2 Initially two trenches were excavated along the sides of the wharf, one on the top whilst the area to the south-west of the wharf was cleared of vegetation to reveal the structure. As a result of ground water appearing at a depth of c 2.00 m, it became apparent it would not be possible to fully reveal the foundations of the structure to its base. In addition, a combined sewer outfall pipe ran across the site from south-east to north-west (the construction of which, the watching brief of 2000 had monitored). This meant there was a wide strip across the middle of the site not available for trenching. Much of the remainder of the area was occupied by steep embankments leading up to the B981.

3.1.3 Following the excavation of Trenches 1-3, and as a result of the limited areas available for trenching, on site discussion took place between Jacobs, the consultants for the project, and Headland Archaeology. It was agreed that further trenching was not practical and would not help to achieve the aims of the project. Further discussion later took place, where it was agreed that a retrospective desk-based assessment would be undertaken for the site and immediate area, to place the wharf remains in context.

- 3.1.4 The trenches were excavated by a 3CX JCB fitted with a back-actor using a ditching bucket 1.8m wide. The excavator was operated under continuous archaeological supervision and vegetation, turf and landfill material was removed down to the first archaeological horizon, or to the point where ground water made further excavation impossible. Spoil was stored in two separate areas, differentiating between 'Type 1' silt and similar and 'Type 2' hardcore and landfill material. As the trenches did not end up encountering material other than these two types, no third storage areas were utilised. Due to the RED nature of the site (as a SSSI and in accordance with the Site Investigation Steering Group's 'Guidelines for the Safe Investigation by Drilling of Landfills and Contaminated Land'; Transport Scotland 2010, 51) consent to work had to be granted by Scottish Natural Heritage and a number of conditions in place before work could begin. A decontamination unit was used by the site team to ensure no contamination was transferred to the 'clean' area beyond the site boundary. In addition, the spoil was stored on two layers of impermeable plastic sheeting to ensure there was no contamination of the ground the spoil was sitting on.
- 3.1.5 Once the wharf was exposed as fully as practicable, a photographic and drawn record was made of the extant remains, including details of the metal and wood fixings. Photographs were taken using colour slide film, black and white negative film and digital.
- 3.1.6 Due to the potentially contaminated nature of the site, no finds or environmental samples were removed from the site. Finds within the deposits excavated were noted on context sheets and are included in the context descriptions.

4 Results of Desk-based Assessment (Illus 2)

- 4.1.1 The desk based assessment comprised a systematic search of all relevant archaeological/historical records, maps and photographs with the following resources consulted:
- National Monuments Record of Scotland (NMRS)
 - Fife Council Sites and Monuments Record (SMR)
 - National Map Library for historic maps of the area
 - National Archives of Scotland
 - Fife Council Archives Catalogue
 - SCRAN (www.scran.ac.uk)
 - Special Collections Department of the University of St Andrews Library
 - Statistical Accounts of Scotland
 - Scottish Burgh Survey
- 4.1.2 St Margaret's Wharf (NMRS No: NT 18 SW 256) lies within a broad bay to the west of North Queensferry. The NMRS number relates to a watching brief event carried out in 2000 when the wharf, along with a second wharf structure further to the north, was first recorded (Farrell 2000). The area is included within the parish of Inverkeithing and the bay is known as St Margaret's Hope. Pre-Ordnance Survey maps of the area show settlement further to the south at North Queensferry, with little detail in the bay to the north. A map from the first half of the 19th century (Greenwood, Fowler and Sharp, 1828) shows a single building halfway along the bay, but there are no structures extending out into the bay.

- 4.1.3 By the mid 19th century (Illus 2, OS 1st edition 1856 map), at least two individual structures are illustrated along the bay to the north of the later location of the wharf under investigation. One of these lies next to the label 'North Ferry T. P'. T.P normally marks the location of a turnpike, and in this situation could have been marking the road to the ferry i.e. North Queensferry. A rectangular inlet in the coastline to the north of this may be an indication of a pier, and this could suggest that a ferry also ran from this location. The 1st edition OS map also indicates two whinstone quarries to the north-west and south-east of the ferry terminal.
- 4.1.4 Later in the 19th century, the North Queensferry branch of the North British Railway ran alongside the bay (Illus 2, OS 1896). The ferry toll is still marked and to the south a square ended wharf has been constructed. A track leads from the surviving southern whinstone quarry down to the wharf. Presumably the wharf was constructed to allow the transport of the stone from what appeared to be a reasonably sized enterprise. The location of the wharf which is the subject of this evaluation still shows a blank coastline, although a track leads south past the site.
- 4.1.5 By the early 20th century, Ordnance Survey mapping (Illus 2, OS 1915 map) shows the northern wharf extended by a wooden pier, which reaches out some distance into the bay. There is also a tramway marked leading from the inland quarry to the end of the pier. To the south is the wharf under investigation within this document. The actual date of construction can be more closely defined as there are postcard images of St Margaret's Hope dated prior to 1920 showing the second wharf from various angles and held in the Robert M Adam Collection held in the University of St Andrews. One postcard dated 1909 shows the wharf in some detail, with wooden facing on the seaward side, and a compacted surface (perhaps packed earth?) with a mound of what might be coal sitting on the wharf. The wharf structure extends back several metres on the south-eastern side, although on the side not facing the camera, it looks to be more extensive.
- 4.1.6 On the basis of the photographic and map evidence, the second wharf must have been constructed between 1896 and 1909. The specific reason for the construction of this second wharf is not clear, but must be an indication of the expansion of the quarries and coal mines around Inverkeithing which the wharves were serving. A map from 1915 shows what may be an associated building adjacent to the track leading from the quarry (Illus 2, OS 1915 map). On the same mapsheet, to the north of the older ferry toll building two further structures are visible, noted as "Mission Hall" and "Labour Exchange".
- 4.1.7 By the 1927 edition of the OS map there have been substantial changes within the bay as a whole (Illus 2, OS 1927 map). These mostly relate to the construction of Rosyth Naval base at the north end of the bay, with a curved groyne introduced to gradually reclaim some of the ground at the north. The military acquired the site in the early years of the 20th century and construction began in 1909. By the late 1920s the northern wharf and pier appear to have gone out of use. The tram line which ran from the quarries to the north-east has been removed and the end of the pier seems to be in disrepair. An additional railway line, or siding runs immediately to the rear of the southern wharf, effectively cutting off access to the quarry. The reason for the shift of focus away from these two wharves is the construction of a substantial pier on the southern edge of the bay. This had rail access and a number of buildings seem

to have been constructed to service it. Even in 1927, the southern wharf must have been on the verge of being abandoned.

- 4.1.8 From the 1930s onwards the bay was in-filled and by the 1960s, there is no sign of the northern wharf and pier, and little evidence of the southern one. Something of the outline of the southern edge is visible on maps (Illus 2, OS 1961 map), but the northern side is indistinct and the whole structure lies within solid ground. Any evidence of structures to the rear have gone, and there is what appears to be a rough track running south across the landward side of the wharf. A few years later, even more land around the wharves has been reclaimed, although a large pond occupies much of the central part of the old bay.
- 4.1.9 As a general comment, there are very few documentary sources relating to the wharves, the quarries and mines they presumably served, any ferry services across the Forth, or the process by which the bay was then used as landfill. The implication is that the wharves were relatively small, local enterprises. It is interesting to note that in all the images of the wharves in use, there is never more than one vessel berthed, and there appears to be little traffic on the roads and railways they serve.
- 4.1.10 The Statistical Accounts for Inverkeithing (which include the parish of Rosyth) make little mention of the bay, ferries, wharves or industry related to them. The Old Statistical Account (OSA, 1791-99, vol 10) merely indicates the presence of the bay between Rosyth Castle and North Queensferry, commenting that the name (St Margaret's Hope) refers to Queen Margaret, wife of Malcolm III. No mention is made of a harbour or ferry of any description. By the time the New Statistical Account was produced in the middle of the 19th century, it seems likely that any ferry would have been active, but again no mention is made of it (NSA, 1834-45, vol 9). The only mention is of the fact that the name of the bay supposedly is the result of an incident when Queen Margaret had to land in the bay during a storm.
- 4.1.11 The results of the desk-based assessment seem to suggest that the two wharves within the bay were relatively short-lived and not of great significance. Whilst they must have had a role in the transport of stone from the quarries behind them, this does not appear to have been a massive industry at this location, and the second wharf in particular (the specific study of this phase of work) was relatively short lived, being constructed sometime between 1896 and 1909 (and most likely well before 1909), and then probably went out of use in the 1930s.

5 Results of Fieldwork (Illus 3)

5.1 General

- 5.1.1 The evaluation was focused on the southern wharf, the later of the two discussed above. Whilst on site however, the opportunity was taken to survey in the visible remains of the northern wharf, and also upstanding concrete posts which lay to the south-west of the wharf. These are discussed briefly below.

5.2 Southern wharf (Illus 4)

- 5.2.1 One trench was excavated alongside each side of the wharf, one on the surface, and the vegetation was cleared away from the south-eastern (seaward) side (Illus 5). The

three trenches revealed the structure and construction method of the wharf. On the north-western side, Trench 1 (Illus 6) was 12.20 m in length extending from the visible remains on that side of the wharf. Following excavation to a depth of 1.90m, the water table was encountered and excavation ceased. Approximately 9 m from the upstanding (??) original corner of the wharf, deposit c.002 appeared, extending back to the north-east. This deposit comprised a silty clay probably *in-situ* estuarine deposits. The interface between this and deposit C001 above may indicate the original waterline prior to the bay being in-filled. Deposit C001 comprised dark sandy silt with a high concentration of ash throughout with large amounts of broken glass, mostly bottles, china, tableware, tin cans, plastic bottles and other general domestic debris. At the south-western end of the trench the final depth of this deposit was not ascertained. Local tradition holds that this area was used for dumping material from a nearby papermill (close to Inverkeithing harbour), which may account for the high concentration of ash.

- 5.2.2 The wharf structure (C003) revealed along the side of the trench was constructed from large roughly dressed whinstone blocks, laid in rough courses but with no formal bonding longer visible or present. Some of the larger blocks measured up to 0.80 m by 0.50 m by 0.50 m. The facing surface of the blocks had been dressed and was flat and even. There did not appear to be any appreciable batter to the face of the wharf. About 9 m from the terminus of the wharf (roughly the same point that C002 begins to appear), the well-built structure became much looser, with large amounts of rubble present in the section, and no obvious face to the structure. It is thought that the wharf had either collapsed or been dismantled at this point.
- 5.2.3 To the south-east of the wharf, Trench 2 measured 10.60m in length from the southern corner of the wharf, to the north-east. The face of the wharf C003 was revealed within this trench, demonstrating the same construction of large roughly shaped blocks. Estuarine silts (c002) were visible at a depth of around 1.60 m, 5.00m to the north-east of the corner of the wharf, where similar deposits of domestic waste (c001) were revealed. Again, ground water was encountered at a depth of around 2m, and excavation ceased at this depth. A sondage was then excavated within the trench below the level of the water, using the JCB bucket to test the full depth of the stone foundation. While the full extent of the foundation was not visible, the machine driver was able to note the depth at which bucket encountered soft deposits rather than the stone construction of the wharf. This occurred at a depth of 4.40 m below the top of the wharf. It was also possible to examine the material being removed from the sondage, and from this establish that the river silts (c002) were encountered to the foundation courses of the wharf with no indication that the wharf had been constructed upon natural gravels or bedrock.
- 5.2.4 Following the discovery of high groundwater levels, it was decided that excavating into the area on the seaward side of the wharf would only reveal further ground water. Therefore, it was considered more effective to concentrate on clearing back the vegetation from this area to more fully reveal the structure. What this revealed was a series of wooden uprights, 0.40 m square, deeply embedded in the ground and aligned with the wharf. There were five uprights present, although the location of a sixth, now absent, was noted. Across the top was a large wooden lintel, comprising a single beam (Illus 8). The north-west corner of the wharf was badly damaged and collapsed, and although the uprights along this section were still *in-situ*, the lintel had collapsed and was badly decayed in places. Where the lintel and uprights joined,

iron fittings were visible attaching the two, and where the upright was absent, the fittings were visible fixed into the wharf.

5.2.5 These wooden features form a protective timber framework (C004) on the wharf (Illus 9). This protective superstructure, attached in this case to the seaward elevation, was to protect both the wharf itself and the vessels berthed alongside. There was no evidence found during excavation to suggest it had ever been present along the sides of the wharf, and this fits with the evidence seen in the photos from the early 20th century, where the framework can be clearly seen on the seaward side of the wharf.

5.2.6 A final shallow test trench was excavated on the surface of the wharf (Trench 3). Below the surface vegetation a layer of irregularly shaped quarried stone (C006), was revealed with individual stones generally measuring less than 0.05 m by 0.05 m by 0.05 m. This deposit was c 0.30 m in depth. Underlying it was a layer of larger stones (C005), similarly quarried, and measuring c0.10m by 0.10m by 0.20m. The smaller stones of c.006 appear to comprise a surface for the wharf, although it is likely that further compacted layers would have overlain this deposit when the wharf was in use.

5.3 *Northern wharf*

5.3.1 The visible remains of this wharf comprise an L-shaped length of wall face, overgrown with vegetation and constructed from blocks similar to those from which the southern wharf was constructed. No evidence of a wooden pier was noted.

5.4 *Concrete foundations*

5.4.1 Approximately 140 m to the south-west of the southern wharf, close to where the reed beds of the former bay become much more extensive, five small square concrete foundations were identified (Illus 10). They measured c 0.40 m across, and were aligned south-west – north-east. These foundations are thought to relate to the remains of a pier on the southern side of the bay constructed between 1915 and 1927 on the basis of map evidence. This coincides with a period during which there is considerable development on the southern side of the bay with further railway construction and the construction of several large buildings (Illus 2, OS 1927 map).

6 **Conclusions**

6.1.1 The evaluation has established that the wharf survives in good condition although partially buried by landfill which mainly comprises domestic refuse and ash from a large paper mill currently being demolished nearby in Inverkeithing. The protective timber framework visible in a contemporary photograph of the wharf also still survive largely intact, although a portion on the north-west corner is somewhat damaged. Estuarine silts were encountered at a depth of around 2 m and overlain by the landfill. This sequence is similar to the one revealed during a previous archaeological watching brief (Farrell 2000). This evaluation has recorded the construction of the wharves and the industrial activity in the area and demonstrated that no earlier features or structures are present.

6.1.2 The trial trenching and desk-based study suggests that the wharf was of low importance, even when in use, with few records relating to it and no indication that it

was ever a major location for the shipment of goods. It seems that it was intended for the movement of small amounts of locally quarried stone and potentially coal. As such, there were few associated structures, with only a single long building lying to the rear of the wharf. Overlaying the current road layout onto the 1927 OS map and onto the survey of the surviving remains shows that building would lie under the route of the current track down from the B981 road to the east (Illus 11). This track slopes down steeply from the main road, and much of the width of this, and the A90 even further east, was built up extensively during its construction in the late 20th century. The embankments visible today overlie over the location of the buildings that once served the two wharves.

7 References

7.1 *Bibliographic References*

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'United parishes of Inverkeithing and Rosyth' in New Statistical Account of Scotland: vol 9, 1834-45
'The parish of Inverkeithing' in Old Statistical Account of Scotland: vol 10, 1791-99
Transport Scotland 2010 *Forth Replacement Crossing*. 'Competition for the Land Based Invasive and Non-Invasive Archaeological Survey and Evaluation Contract Volume 2: Tender Document'
Turner Simpson, A & Stevenson, S 1981 Historic Inverkeithing. Scottish Burgh Survey

7.2 *Cartographic References*

Greenwood, C, Fowler, W & Sharp, T 1828 Map of the Counties of Fife and Kinross

1856 (surveyed 1854) *Fifeshire Sheet 39* 1:10560
1896 (surveyed 1895) *Fifeshire Sheet XLIII.2* 1:2500
1915 (surveyed 1913) *Fifeshire Sheet XLIII.2* 1:2500
1927 (surveyed 1925) *Fifeshire Sheet XLIII.2* 1:2500
1961 (surveyed 1960) *Sheet NT1281 and NT 1381* 1:2500
1967 (surveyed 1965) *Sheet NT1281 and NT 1381* 1:2500
1967 (surveyed 1966) *Sheet NT1081 and NT1181* 1:2500
1992 (surveyed 1991) *Sheet NT18SW* 1:10000

8 Appendices

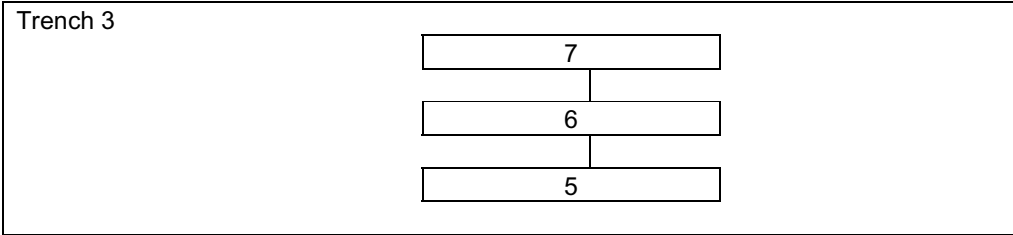
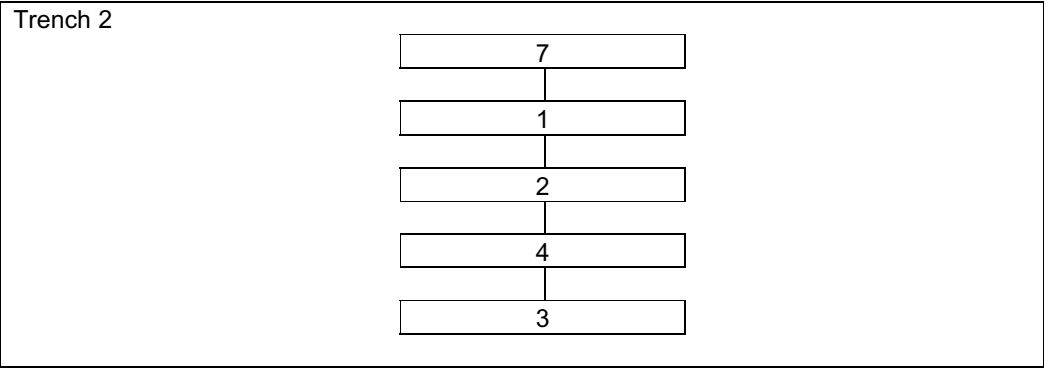
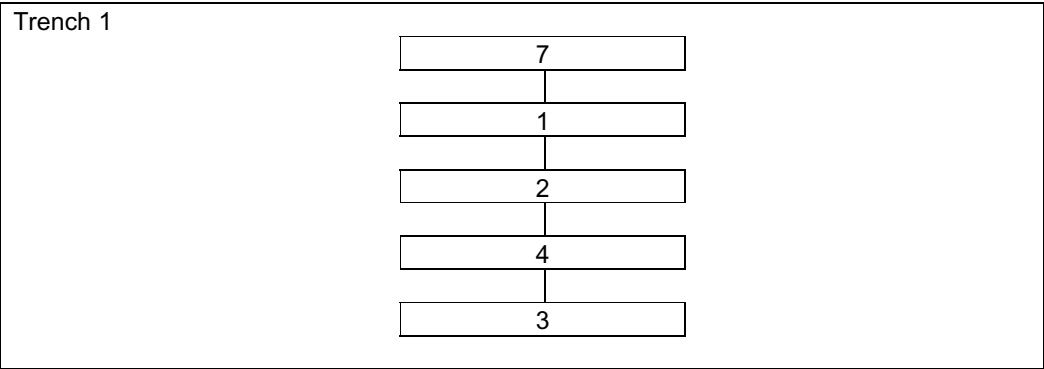
Appendix 1: Trench Register

Trench	Length (m)	Maximum depth	Description
1	12.20 m x 2 m	1.90 m	Excavated alongside north-west side of wharf, to depth of 1.90 m. Revealed substantial stone built structure, with relatively modern landfill deposits abutting it, overlying in situ silt deposits which would have once been at the edge of the River Forth. On the landward (north-east) side, the structure of the wharf appeared to have been deliberately demolished or removed. Ground water encountered at depth of 2m and excavation stopped.
2	10.60 m x 2 m	4.40 m	Excavated alongside south-east side of wharf, to depth of 2.20 m. Revealed substantial stone built structure with same deposits present as to northern side of wharf. In situ river silts appear at north-east end of trench, c 2m down from top of wharf. Ground water was encountered at roughly the same depth and the excavation stopped. A sondage was later excavated below the level of ground water, and the foundation of the wharf was reached at a depth of c 4.40 m below the top of the wharf.
3	3 m x 3.20 m	0.40 m	Excavated on top of wharf to depth of 0.40 m. Revealed internal construction of wharf – layer of large irregularly shaped blocks, covered with layer of much smaller stones.

Appendix 2: Context Register

Context	Location	Description
1	Trenches 1 & 2	Loose light greyish black sandy silt with high ash content. Contains large amount of domestic waste, of seemingly recent date – glass, bottles, food containers, plastic bottle, some pipe fittings, lighting units etc. Material is the result of landfill at the site, which took place from the 1930s onwards. At the south-west end of the wharf the deposit was not bottomed, however, where river silts were encountered at the base of the trenches, it was found to be 1.30 m deep. Abuts wharf structure [003].
2	Trenches 1 & 2	Dark greyish brown firm silty clay. Not bottomed. Probable in situ river silts. Abuts wharf structure [003]
3	Trenches 1 & 2	Stone structure of wharf. Comprises stone retaining wall constructed of very large roughly faced stone blocks, up to 0.80 m x 0.50 m x 0.50 m. The stones were more carefully shaped on their outer (visible) face, whilst the back faces were more rough. Each course is made up of some squared blocks, with the spaces between filled by more randomly shaped stones. No bonding was visible between the stones. At least 5 courses were visible above the level of ground water, but the full depth was not seen. The wharf is thought to be 4.40 m deep. The structure is abutted by wooden posts [004] on its seaward side.
4	Seaward side of Wharf	Wooden uprights and lintel abutting south-western side of wharf structure, forming a protective framework. The uprights are 0.40 m square and are presumed to reach at least as far as the stone wharf structure into the ground. The lintel is 0.25 m square, and there appears to be a second lintel lying above it which has been lost. On the western corner of the wharf, the protective framework did not survive well although two uprights were still visible in the ground. There were iron brackets tying together the uprights and cross beams, which then were embedded in the stones of the wharf [003]. The purpose of the protective framework was to protect the structure of the wharf from vessels when they were mooring, and also to protect the vessels from being damaged.
5	Trench 3	Layer of medium to large quarried stones (0.20 m x 0.10 m x 0.10 m) forming top of wharf, contained by structure of wharf [003]. Probably forms much of body of wharf, faced by wharf walls [003]. Overlain by deposit C006 probably forming surface of wharf.
6	Trench 3	Layer of small 'Type 1' style stones (0.05m x 0.05m x 0.05m) overlying larger stones on wharf, forming surface.
7	Trenches 1, 2 & 3	Vegetation and thin topsoil present over whole site. Mostly bracken and reeds with rotting leaf matter.

Appendix 3: Trench Matrices



Appendix 4: Photographic Register

Photo	Direction	Description
1	-	ID Shot
2	NE	Pre-condition shot of wharf
3	NW	Pre-condition shot of wharf
4	NW	Pre-condition shot of wharf
5	NE	Pre-condition shot of wharf
6	NE	Pre-condition shot of wharf
7	SW	Pre-condition shot of wharf
8	NE	NW-facing elevation of north-west side of wharf, 0-5m
9	NE	NW-facing elevation of north-west side of wharf, 0-5m
10	NE	NW-facing elevation of north-west side of wharf, 5-10m
11	NE	NW-facing elevation of north-west side of wharf, 5-10m
12	NW	SE side of wharf showing rising ground water
13	NW	SE side of wharf showing rising ground water
14	SW	General shot of Trench 1
15	NW	SE-facing elevation of south-east side of wharf, 0-3m
16	NW	SE-facing elevation of south-east side of wharf, 3-6m
17	NW	SE-facing elevation of south-east side of wharf, 6-9m
18	N	General shot of Trench 2
19	NE	SW-facing elevation of end of wharf, showing Trench 3
20	NE	SW-facing elevation of end of wharf
21	NE	Detail of iron bracket on upright, 1 st from south
22	NE	Detail of iron bracket on upright, 2 nd from south
23	N	General shot of seaward side of wharf
24	E	General shot of seaward side of wharf showing collapse/damage at western corner.
25	NE	Detail of iron bracket and stone with socket
26	E	Sondage in Trench 2
27	E	Sondage in Trench 2
28	E	Sondage in Trench 2
29	S	Shot of remains of pier to south
30	S	Shot of remains of pier to south
31	S	Detail of remains of pier to south

Appendix 5: Drawing Register

Drawing	Section	Plan	Description
1	1:50	1:100	Plan and section of Trench 1
2	1:50	1:100	Plan and section of Trench 2
3	1:50		SW-facing elevation of seaward side of wharf, showing detail of the protective framework