ORCA
Orkney Research Centre for Archaeology

Copland's Dock
Stromness
Orkney

Evaluation Data Structure Report

March 2012

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Evaluation

Data Structure Report

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Executive Summary

Orkney Research Centre for Archaeology (ORCA) were commissioned by Orkney Islands Council to undertake an intrusive archaeological evaluation on land near Copland's Dock, Stromness, Orkney (hereafter 'the site'). Ten machine excavated trenches were opened under archaeological supervision. The trenches were located to target a series of geophysical anomalies identified in a recent survey of the area (ORCA 2012), and investigate a large mound feature that was highlighted in the walkover survey (ORCA 2011, Aquatera 2011). This work was undertaken in advance of the proposed construction of a pier, access road and contractors' lay down area on land to the west and south of Garson Farm, Stromness.

This evaluation has revealed a low level of archaeological activity over the investigation area, and has indicated that the majority of the responses highlighted by the geophysical survey are geological in origin. In Areas 1 and 2, archaeological features, which are likely to relate to the agricultural use of the area were revealed. In Area 1, two furrow bases, a ditch, and a linear feature associated with two stone lined drains were present in Trench 1, and a shallow ditch / furrow base, a pit or post-hole and a wall were found in Trench 10. A single ditch terminus or pit was uncovered in Trench 8, Area 2, and no archaeological features were present in Area 3.

This evaluation indicates that some of the strong geophysical responses in Area 1 may originate from magnetically enhanced material within the topsoil, which contained a significant amount of charcoal. This enhanced material and charcoal may be derived from possible settlement activity in the vicinity, or alternatively be agricultural enrichment of the topsoil. No evidence for settlement activity was present in the evaluation trenches.

The proposed development will impact upon some of the archaeological remains identified in the evaluation, but these are of limited significance. Further archaeological work such as a watching brief during topsoil strip would ensure that any archaeological remains present within the area investigated by the evaluation and geophysical surveys undertaken to date, are recorded.

The decision as to whether further work is required on site rests with the Local Authority's Planning Archaeologist.

Acknowledgements

This report was commissioned by Orkney Islands Council. Orkney Research Centre for Archaeology (ORCA) would like to thank John Orr, Stuart West and Colin Sutherland of OIC. The work was monitored and approved by Julie Gibson, OIC County Archaeologist, and her support is acknowledged.

The evaluation was directed by Dave Reay, with assistance from Gavin Lindsay, Giles Carey and Linda Somerville.

This report was compiled by Dave Reay, the illustrations and Appendices 2 and 3 were prepared by Linda Somerville. The project was managed on behalf of ORCA by Nick Card.

1.0 Introduction

Orkney Research Centre for Archaeology (ORCA) were commissioned by Orkney Islands Council to undertake an intrusive archaeological evaluation on land near Copland's Dock, Stromness, Orkney (hereafter 'the site'). The archaeological work was undertaken in order to investigate a series of geophysical anomalies identified in a recent survey of the area (ORCA 2012), and investigate a large mound feature that was highlighted in the walkover survey (ORCA 2011, Aquatera 2011). This work was undertaken in advance of the proposed construction of a pier, access road and contractors' lay down area on land to the west and south of Garson Farm, Stromness (Planning Ref: 11/776/PP).

A Written Scheme of Investigation (WSI) for the evaluation has been prepared previously (ORCA 2012b). The WSI was submitted to, and approved by OIC, and Julie Gibson (Orkney Islands Council, County Archaeologist) in advance of the commencement of the fieldwork.

The purpose of the evaluation was to characterise any archaeological deposits which might be affected by the proposed development. The results of this evaluation, in conjunction with the previous archaeological work, will be used to determine if any further archaeological mitigation might be required. This report details the results of the evaluation which was carried out between 27th February and 1st March 2012.

2.0 Site Location, Topography and Geology

The area under investigation runs south from the Garson housing estate on the eastern side of Hamnavoe, through three fields to an area east of Copland's Dock. Copland's Dock itself lies opposite the modern Stromness piers on the other side of the voe.

The development area is bounded to the west by the coast, apart from in Area 3, where the western boundary is formed by Copland's Dock. The broad corridor investigated runs from approximately HY260 094 in the north to HY 259 090 in the south (Figure 1).

The western portion of the two most northerly fields is relatively flat, but rises

steeply upwards to a plateau in the eastern part. The southernmost field is more undulating, but with an overall gentle slope running down to the south and west.

The solid geology of the area is formed of Basal Breccia and Conglomerate from the Middle Old Red Sandstone series. To the west of the area, around Copland's Dock, there is a narrow strip of a Crystalline Basement Complex (Granite-Schist) (BGS 2012, Mykura 1976).

The soils for this area are given as freely and imperfectly drained soils of the Bilbster Series. These are described as podzols with a parent material of glacial drift deposits derived from Stromness Flags of the Middle Old Red Sandstone series (SSS 1981).

3.0 Archaeological Background

The archaeological background has been covered in detail elsewhere (ORCA 2011) and the reader is referred to those documents. However a brief summary is presented here.

Prehistoric

Orkney is home to several internationally important prehistoric sites such as those within The Heart of Neolithic Orkney, a designated UNESCO World Heritage Site and there is an abundance of evidence indicating the Island's focus for Neolithic, Bronze and Iron Age and possibly Mesolithic activity. There is evidence for prehistoric settlement and activity nearby with the Neolithic settlement whose remains are visible in the eroding cliff face east of Quoyelsh (NMRS No: HY20NE 24; NGR HY 268 092). The nearby multi-phase site at Bu of Cairston included a Neolithic gulley.

Iron Age activity is present in the vicinity, with an Iron Age broch and earlier souterrain near Navershaw (NMRS Nos HY20NE 11, NGR HY 26967 09348), with an additional broch site at the Bu of Cairston (NMRS No HY 272 096). Quoyelsh is the location of a domestic structure with early Iron Age pottery, and stone finds (NMRS Nos HY20NE 73, NGR HY 265 089).

Norse and Medieval period

During the Norse Period the site appears to have formed part of an

agricultural landscape. The geophysical survey indicates a series of ridge and furrow systems stretching across the site, which may well be later medieval in origin. A medieval chapel and burial ground was located at Bu of Cairston (NMRS No: HY 272 096).

Post Medieval / modern

Copland's Dock (NMRS No HY20NE 126, NGR HY 258 090), shown the 2nd Edition map is depicted as an enclosed area with seven roofed buildings within of varied size, with three smaller structures nearby outside the perimeter wall probably constructed between 1880 and 1900. Copland's Dock is a well-known local landmark, a relic of the herring industry's boom years, and played an important role in the growth and development of Stromness.

Probably located within the Copland's boatyard perimeter wall is the site of Whitehouse (NMRS No HY20NE 8, NGR HY 2586 0907), believed to be the home of Pirate Gow in his early life, although the construction of the boatyard most likely destroyed any significant *in situ* remains of the house (RCAHMS). The 1st Edition 1880 Ordnance Survey map shows what was most likely the wall surrounding the Whitehouse, and the alignment of that curtilage is respected by some of the buildings and perimeter walls of Copland's Dock, suggesting that parts of the structures standing today may contain elements of those possibly early 18th-century walls. (ORCA 2012)

4.0 Fieldwork Aims and Objectives

The primary aim of the intrusive archaeological evaluation was to investigate a series of geophysical anomalies identified in the geophysical survey (ORCA 2012), and to investigate a prominent mound identified during the walkover survey (ORCA 2011, Auqatera 2011). The objectives were to identify the nature, extent, condition, significance, survival and depth below the current ground surface of archaeological deposits and features.

The investigations aimed to clarify the potential impact upon the archaeological resource of the proposed development, and seek to aid in the establishment of a mitigation strategy.

The work was carried out in accordance with accepted professional

standards outlined by the *Institute for Archaeologists* (2008).

5.0 Fieldwork Methodology

The positions of Trenches 1 – 8 were located using a Leica Viva Series GNSS to target the anomalies identified during the geophysical survey (ORCA 2012). Additional Trenches 9 and 10 were located by hand following consultation with Julie Gibson (OIC County Archaeologist) and were positioned to investigate a prominent mound identified in the walkover survey (ORCA 2011, Aquatera 2011) (Trench 9) and to further investigate a series of geophysical anomalies (Trench 10).

The trenches were opened using a backhoe mechanical excavator with a 1.8m wide toothless grading bucket, under constant archaeological supervision. Initially, just the turf was removed, then the topsoil and subsoil (if present) was removed in 50mm spits, until the underlying natural geology or archaeological deposits were encountered. The turf, topsoil and subsoil were stored separately, to allow the excavated material to be reinstated in the same stratigraphic sequence during the backfilling process.

Where archaeological features were identified, these were hand cleaned and were sample excavated stratigraphically. Trenches that contained no archaeological features were hand cleaned where appropriate, to ensure that no potential features were missed, and a representative section through the deposits was recorded.

Archaeological deposits, features, structures and naturally derived deposits were recorded using ORCA's *pro-forma* recording system, under the site code COD12, and ORCA Project code 333. Archaeological deposits, features and structures were planned at an appropriate scale of 1:20, and sections were recorded at 1:10 on drawing film.

All trenches, archaeological features, levels, plans and sections were located using a Leica Viva Series GNSS in order to provide an accurate plan record of the evaluation. All evaluation survey data was recorded using the OSGB36 British National Grid coordinate system. During fieldwork, digital plans were produced using AutoCAD.

A photographic record of the site was created using high resolution digital

images (including appropriate scales). A number of general site photographs were also taken to give an overview of the site and the progress of the evaluation.

None of the archaeological features investigated contained any dateable material, consequentially; no environmental samples were taken from the site.

6.0 Fieldwork Results

The results are presented below by area and by trench. The geophysical survey divided the investigation area into Areas 1, 2 and 3, which relates to the current land division into three fields from north to south. A summary of the contexts are presented below, and full context descriptions are contained within Appendix 1.

6.1 Area 1

6.1.1 Trench 1

Trench 1 (Figures 2 and 3) measured 29.32m by 2.2m and was aligned north east to south west. Trench 1 was machine excavated to a maximum depth of 0.45m. The turf and topsoil **114** was between 0.2m and 0.4m thick, being deeper towards the south east end of the trench. The underlying natural geology comprised mottled light yellow brown sandy clay glacial till **115**, overlying horizontally orientated mid grey laminated flagstone bedrock **116**. Four linear features were identified, one of which was associated with two stone lined field drains. All of the linear features were broadly on the same alignment (WNW to ESE).

Linear feature **102** (Figure 3) was aligned WNW to ESE and was 2.3m wide, and 0.1m deep, and was exposed for 2m within Trench 1. It had shallow concave sides and a concave base, which were slightly irregular in places. It contained single secondary fill **103** which was a mid greyish brown sandy silt, with moderate angular and sub-angular stone inclusions, 10 – 20mm in size. This feature corresponds to one of the trends identified in anomaly 11 in the geophysical survey. Linear feature **102** is most likely to be a furrow base, given its broad and shallow profile.

Located 0.94m to the south west of furrow base **102**, was a similar linear

feature **100** (Figure 3) aligned WNW - ESE. It measured 1.42m wide and was exposed for 2m within the trench, and measured 0.19m deep. Linear feature **100** had shallow concave sides and a concave base, and contained primary fill **101**, which was a mid yellowish brown sandy clay with frequent sub-angular stone inclusions, up to 0.15m in size. This feature seems to correspond to a rig and furrow trend in the geophysical survey (anomaly 15), and is most likely to be a furrow base.

To the south west of furrow base **100**, ditch **106** (Figure 3, Plate 1) was aligned north west to south east. This feature measured 1.8m wide, by 0.42m deep and was exposed for 1.8m within the trench. The north east side of the ditch was moderately sloping and slightly concave, with a double step towards the base. The south west side had three steps evident, and the base had a 0.18m wide by 0.05m deep slot cut into it with a flat base. The stepped portions of this feature, particularly on the south west side reflect where this feature was cut through the underlying bedrock **116**, the north east side of the feature was primarily cut through the glacial till **115**. Ditch **106** contained three fills, **107**, **108** and **109**. Fill **107** was uppermost and was a dark greyish brown silty clay with frequent charcoal flecking and moderate sub-rounded to sub-angular stone inclusions, between 50 – 120mm in size, and the fill was a maximum of 0.31m thick. It was probably derived from the gradual inwash of topsoil into a partially filled feature. Fill **108** was a mid yellowish brown silty clay, and was a maximum of 0.14m thick, with rare sub-angular stone inclusions up to 60mm in size. It appears to be derived from redeposited natural clay, and slumped into the feature from the north east side, and is perhaps indicative of a bank on this side of the feature. Fill **109** was a mid brown clay matrix around 70% sub-angular flagstone inclusions, between 50 – 150mm in size. This fill is likely to be a primary fill, derived from the initial weathering of the sides of the cut. Ditch **106** corresponds to anomaly 11 on the geophysical survey, which has a positive response, and a negative response on the north east side, which supports the interpretation of a ploughed out bank on this side of the feature.

To the south west of **106** was linear feature **111** (Figure 3, Plate 2), which was aligned WNW to ESE and measured 3.6m wide, by 0.35m(+) deep, and was exposed for 1.8m within the trench. The north east side was moderately steep, and slightly convex, and the south west side was shallow and convex at the top, with a break of slope, with a steeply sloping straight lower portion,

and the base was predominantly flat. Linear feature **111** contained a stone constructed field drain **113**, which consisted of horizontally orientated flagstones measuring between 0.2m and 0.32m, which rested on vertically set orthostats lining the edge of a deeper portion of cut **111** which was 0.7m wide. The construction of **113** appears to be integral to wide, shallow cut feature **111**, so are both probably part of the same drainage feature. The construction of **113** was not fully investigated, as it was still an active drain. Sealing **113** and filling the whole of **111** was **112**, a mid brownish grey clayey silt, with occasional sub-angular stone inclusions, which probably derived from the gradual silting up of this feature. A later drain cut **104** on the same alignment as **113** was cut through fill **112**. Cut **104** was 0.75m wide, and was excavated to a depth of 0.26m, and had steep, straight, near vertical sides. It contained a stone constructed field drain **105**, which comprised horizontally orientated sub-angular flagstones between 0.35m and 0.30m in size, which rested on vertically set orthostats which lined the sides of the cut. This feature was not fully investigated as it was still an active drain. Sealing the capstones of **105** was **117**, a backfill deposit of mid brownish grey silty clay, with frequent sub-angular flagstone inclusions.

In the south west end of Trench 1, an irregular spread measuring 1.5m east to west by 0.8m wide, and 0.1m deep, of mid greyish brown sandy silt **110** was investigated, which was derived from root disturbance.

6.1.2 Trench 2

Trench 2 (Figures 1 and 2) measured 19.2m by 1.8m and was aligned WNW to ESE. The trench was machine excavated to a maximum depth of 0.58m. The turf and topsoil **200** was between 0.3m and 0.36m thick, being deeper towards the ESE end of the trench. Subsoil **201** was present in the ESE 13m of the trench, and was a mid brownish grey sandy clay with occasional charcoal flecking and frequent sub-angular to sub-rounded light brown sandstone inclusions. This deposit was 0.2m thick in the ESE end of the trench, and tailed off to the WNW, and corresponds to an area of underlying softer, sandier natural. Subsoil **201** was cut by a modern stone lined field drain aligned north to south, which was identified in the geophysical survey. The underlying natural geology **202** comprised a light greyish brown clayey sand in the ESE, which merged into a mid orange sandy clay with heavy iron panning present, with localised patches of gravelly sand.

Trench 2 targeted geophysical anomalies 2 and 3. Anomaly 2 was an irregular series of positive responses and it is likely to be patches of iron panning evident in the natural glacial till **202** in the WNW end of the trench. Anomaly 3 was a north to south aligned linear negative response, which corresponds to an area of clayey sand within glacial till **202**.

6.1.3 Trench 10

Trench 10 (Figures 2 and 4) measured 28.05m by 1.8m, was aligned east to west and was machine excavated to a maximum depth of 0.5m in the west. The turf and topsoil **1000** was between 0.25m and 0.4m and was deeper at the west end of the trench, and had frequent charcoal inclusions present. The natural geology consisted of a mottled light greyish brown sandy clay glacial till **1001**, with patches of weathered bedrock and manganese panning. Glacial till **1001** overlay **1002**, which was the weathered upper surface of the underlying flagstone bedrock.

A north to south aligned linear feature **1003** (Figure 4) was revealed in the east end of the trench. The feature measured 1.32m wide by 0.2m deep and was exposed for 1.85m within the trench. It had gently sloping, slightly irregular sides and a concave base, and contained secondary fill **1004** a mid grey brown silty clay, with occasional sub-angular sub-rounded stone and burnt stone inclusions, and occasional charcoal flecking. Linear feature **1003** is probably a shallow ditch, or alternatively a furrow base.

In the west end of the trench, a small, shallow, sub-circular depression **1005** (Figure 4) was investigated. This feature measured 0.32m east to west, by 0.05m deep and extended beyond the southern limit of the trench. It contained fill **1006** which was a mid grey brown silty clay with moderate charcoal inclusions. It was not clear if this feature was a true archaeological feature, the fill was fairly similar to the topsoil, and it may have been a depression left by the removal of a stone. Alternatively it may be a truncated pit or post-hole. It cut layer **1007** a deposit of mid grey brown sandy clay, which was a localised variation in the natural glacial till.

In the west end of Trench 10, the truncated remains of wall **1009** (Figure 4, Plate 3) were uncovered. The wall was aligned north to south and was 0.65m wide, by 0.2m deep, and was exposed for 1.8m within the trench. Wall **1009** was constructed of large flagstone blocks, which measured up to

0.75m in size, it was double faced and survived to only one course, as it had been severely robbed. It was contained by construction cut **1013** which was 1.13m wide and 0.2m deep. The eastern, upslope side of **1013** was steep, with a sharp break of slope at the top and base, which was primarily flat. The western side of **1013** was shallow and concave, and it appears that the construction cut primarily provided a level, consolidated surface for the wall to be built on. The western side of the cut contained backfill deposit **1012**, which was a mid yellow brown silty clay derived from redeposited glacial till. This deposit abutted the western face of wall **1009** and relates to the construction of this feature. Backfill deposit **1012** was sealed by context **1011** a deposit of dark grey brown silty clay with frequent charcoal inclusions, which extended 1m to the west of wall **1009**. It is likely that **1011** was a buried soil, and was sealed by demolition layer **1010**. Context **1010** was a dark greyish brown silty clay matrix, with c.50% sub-angular flagstones, predominantly around 0.35m in size, with some up to 0.5m, and was derived from either the robbing of wall **1009**, or may have been rubble tumble deriving from this structure. Overlying wall **1009** was context **1014**, a deposit of dark greyish brown silty clay with occasional sub-angular flagstone, up to 0.3m in size, which derived from the robbing of wall **1009**. This deposit may be contemporary with **1010** to the west.

The geophysical survey in the area of Trench 10 (Figure 2) showed a large amount of both positive and negative responses, which may relate to magnetically enhanced material within the topsoil, as a significant amount of charcoal was evident within it (topsoil **1000**). Linear feature **1003** seems to correspond to a north to south aligned negative trend within anomaly 4 in the geophysical survey, but the nature of this anomaly is very irregular outside of the area investigated in Trench 1.

6.2 Area 2

6.2.1 Trench 3

Trench 3 (Figure 2) was aligned north to south. This trench measured 23.35m by 1.8m and was machine excavated to a maximum depth of 0.46m in the north. The turf and topsoil **300** was 0.3m deep, and overlay subsoil **303** which was a mottled mid greyish brown sandy clay, with occasional sub-angular to sub-rounded sandstone, up to 40mm, with rare charcoal flecking.

Subsoil **303** was only present in the northern, deeper portion of Trench 3, and corresponds to an underlying area of clayey sand natural glacial till **301**, it was 0.15m thick in the north end of the trench, and thinned to the south. The natural glacial till **301**, was mottled mid orangey yellow sandy clay in the north, and merged into a light grey silty clay with heavy iron panning in the south. In the south end of Trench 3, glacial till **301** overlay bedrock **302**, this was the weathered upper portion of the underlying flagstone, and had bedding planes tipping down c.45^{o} to the north.

No archaeological features were present in this trench. Trench 3 was targeted over large linear geophysical anomaly 20, which was aligned ENE to WSW. It is possible that the negative portion of this anomaly corresponds to the clayey sand area of the glacial till **301**, with the positive response being attributable to iron panning to the south of this. Alternatively, anomaly 20 may be an igneous dyke that was below the level of the glacial till, which would have not been visible at the depth excavated to.

6.2.2 Trench 4

Trench 4 was aligned north west to south east (Figure 2). This trench measured 19.33m by 1.8m and was machine excavated to a maximum depth of 0.35m. The turf and topsoil **400** was between 0.2m and 0.3m deep, and overlay natural glacial till **401**. Context **401** was a mottled mid orange brown sandy clay, with patches of sub-angular weathered bedrock fragments, which sealed flagstone bedrock **402** which was visible in places across the trench.

No archaeological features were present in this trench, which was positioned to investigate linear geophysical anomaly 21. The possible terminus of this feature was found in Trench 8 to the north, which was quite shallow and ephemeral, so this potential linear feature may have been plough truncated in this area.

6.2.3 Trench 8

Trench 8 was aligned ENE to WSW (Figures 2 and 5). The trench measured 18.84m by 1.8m and was machine excavated to a maximum depth of 0.6m. The turf and topsoil **802** was between 0.3m – 0.45m deep, and overlay subsoil **804**, which was a mottled mid greyish brown silty clay, with rare sub-

angular to sub-rounded sandstone, between 20mm – 40mm in size, and rare charcoal flecking. The natural geology **803** comprised a mottled mid orange brown gravelly clayey sand, with frequent patches of weathered broken bedrock present.

A single cut feature **800** (Figure 5, Plate 4) which measured 1.4m ENE to WSW, and was exposed for 0.55m within the trench, and extended beyond the southern trench edge. Cut **800** was 0.15m deep and was sub-oval in plan (as revealed) with fairly irregular sides and base, and contained fill **801**. Context **801** was a mid grey brown sandy silt with occasional mottles of redeposited glacial till. Cut **800** appears to be either a pit, or most probably a ditch terminus, as it corresponds to the terminus of linear geophysical anomaly 21. This feature was not identified in Trench 4, and was poorly preserved in Trench 8. It was perhaps less truncated due to the presence of subsoil **804** in this trench.

6.3 Area 3

6.3.1 Trench 5

Trench 5 (Figure 2) measured 19.08m by 1.8m and was aligned north west to south east. This trench was machine excavated to a maximum depth of 0.7m. The turf and topsoil **500** was between 0.38m and 0.26m deep. Subsoil **501** was a mottled mid grey brown sandy silty clay with rare charcoal flecks and moderate sub-angular to sub-rounded sandstone inclusions. This deposit occupied the north west 13m of the trench, and was deepest in this area, being 0.35m thick. The natural glacial till **502** was variable in the trench, and was a grey brown sand in the north west, patchy mid orange brown sand, and mid grey sandy clay in the south east.

The geophysical survey identified a series of positive responses in this area (anomaly 32) which all appear to be geological in origin.

6.3.2 Trench 6

Trench 6 (Figure 2) was aligned north east to south west. The trench measured 18.29m by 1.8m and was machine excavated to a maximum depth of 0.36m. The turf and topsoil **600** was between 0.2m and 0.3m deep, and overlay natural glacial till **601**. Context **601** was very variable in nature, and comprised mid orange brown silty sand, dark reddish brown silty clay,

and light yellow grey clay, there was extensive evidence of iron panning and patches of angular and sub-angular stone inclusions. Flagstone bedrock **602** was encountered in localised patches within the trench.

No archaeological features were identified in Trench 6, geophysical anomalies 30 and 31, appear to be geological in origin.

6.3.3 Trench 7

Trench 7 (Figure 2) measured 22.66m by 1.8m, was aligned north to south and was machine excavated to a maximum depth of 0.35m. The turf and topsoil **700** was between 0.19m and 0.3m, and overlay natural glacial till **701**. Context **701** was very mixed and comprised mid reddish brown clayey sand with pale yellow brown patches, with abundant rubble inclusions, with concentrations of rubble in localised patches. Context **701** overlay granite bedrock **702**, which was present in localised areas within the trench.

This trench was targeted on geophysical anomalies 35 and 36, which appear to be geological in origin.

6.3.4 Trench 9

Trench 9 (Figure 2) measured 17.85m by 1.8m, was aligned east to west and was machine excavated to a maximum depth of 0.35m. The turf and topsoil **900** was between 0.18m and 0.3m, and overlay natural geology **901**. Context **901** consisted of weathered granite bedrock in the west, with mid orange brown mottled firm clay in the eastern down-slope 7m of the trench.

The granite bedrock is likely to be the cause of the large mound-like feature identified in the walkover survey (Site 34, ORCA 2011, Aquatera 2011).

7.0 Discussion

7.1 Summary of the fieldwork results

7.1.1 Area 1

The evaluation identified a series of archaeological features in Trenches 1 and 10, which are most likely to relate to the agricultural use of this area.

All of the archaeological features in Trench 1 were broadly on the same alignment (WNW to ESE), and appear to respect each other. Two furrow

bases **100** and **102** were present in the north east of the trench, with ditch **106** to the south west. All of these features filled up by natural processes, and contained no culturally derived material (except charcoal) which suggests an agricultural origin. Ditch **106** was probably a drainage or boundary feature, and it may have had a bank present on the north east side. The ground conditions in this field were very boggy, perhaps due to natural springs in this area, and archaeological features were encountered that relate to drainage. Stone lined drain **113** was contained within a broad, shallow cut **111**. Fill **112** of cut **111** was truncated by the insertion of a later stone lined drain **105** contained within cut **104**. A modern stone lined field drain was encountered in Trench 2, which was aligned north to south, and cut subsoil **201** which, from the geophysical survey, appears to link up with the drains encountered in Trench 1. The archaeological features in Trench 1 all correspond to trends or anomalies identified in the geophysical survey.

Trench 2 did not contain any archaeological features, except the modern field drain, and geophysical anomalies 2 and 3 were both of geological origin.

Trench 10 contained shallow ditch or furrow base **1003**, possible pit or post-hole **1005**, the robbed out remains of a dry stone wall **1009**, and other deposits relating to this structure's construction and abandonment. No finds were recovered from these features, and they are likely to be agricultural in origin. The course of wall **1009** may correspond to a weak, negative response which was part of anomaly 4 on the geophysical survey, and it was probably a field boundary which ran parallel to the coastline to the west. This structure is unlikely to relate to settlement as there were no archaeologically significant deposits or finds associated with it. The geophysical survey showed a very high level of both positive and negative responses in this area (anomaly 1). These responses may have derived from concentrations of magnetically enhanced material within the topsoil, as there was a significant amount of charcoal present within **1000**. Additionally, some of the responses may have been geological in origin.

7.1.2 Area 2

Trenches 3 and 4 contained no archaeological features, and only a single cut feature **800** was identified in Trench 8. Cut **800** was either a shallow pit, or most likely a ditch terminus, as it corresponds to the terminus of linear

geophysical anomaly 21. Trench 4 was also targeted on anomaly 21, but it was not present in this trench, and was possibly plough truncated in this area. The topsoil was shallower in Trench 4, and Trench 8 had subsoil **804** present, which may have protected this feature from plough truncation in this area, it was, however, poorly preserved and ephemeral, suggesting that it was heavily truncated. Anomaly 20 in Trench 3 was geological in origin, and no evidence of anomaly 22 was present in Trench 8, suggesting that it was either geological in origin or heavily plough truncated.

7.1.3 Area 3

No archaeological features were uncovered in Trenches 5, 6, 7 or 9. Trenches 5, 6 and 7 were targeted on geophysical anomalies 30, 31, 32, 35 and 36, which were all demonstrated to be geological in origin. Trench 9 was positioned to investigate the prominent mound identified in the walkover survey (Site 34), which was found to be an outcrop of granite bedrock.

7.2 Phasing

None of the archaeological features contained any artefacts. As a consequence, all of the features are undated. It is likely that the archaeological features uncovered in Area 1 relate to the Post Medieval (possibly extending back into the late medieval period) agricultural use of the area. The possible ditch terminus **800** may be earlier in date, but it was so ephemeral and truncated it is difficult to interpret.

8.0 Conclusions and Recommendations

The intrusive evaluation has revealed a low level of archaeological activity over the investigation area, and has indicated that the majority of the responses highlighted by the geophysical survey are geological in origin. In Areas 1 and 2, the geophysical survey was successful in identifying archaeological features, which are likely to relate to the agricultural use of the area. In Area 1, two furrow bases, a ditch, and a linear feature associated with two stone lined drains were present in Trench 1, and a shallow ditch / furrow base, a pit or post-hole and a wall were found in Trench 10. A single ditch terminus or pit was uncovered in Trench 8, Area 2, and no archaeological features were present in Area 3.

Some of the strong geophysical responses in Area 1 may have originated from magnetically enhanced material within the topsoil, which contained a significant amount of charcoal. This enhanced material and charcoal may be derived from possible settlement activity in the vicinity, or alternatively be agricultural enhancement of the topsoil. No evidence for settlement activity was present in the evaluation trenches.

The proposed development will impact upon some of the archaeological remains identified in the evaluation, but these are of limited significance. Further archaeological work such as a watching brief during topsoil strip would ensure that any archaeological remains present within the area investigated by the evaluation and geophysical surveys undertaken to date are recorded.

The decision as to whether further work is required on site rests with the Local Authority's Planning Archaeologist.

9.0 References

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Garson Estate

Hamnavoe

N

Trench 10

Trench 1

Trench 2

Trench 3

Trench 8

Trench 4

Trench 5

Trench 6

Trench 9

Trench 7

Copland's dock

0 125m

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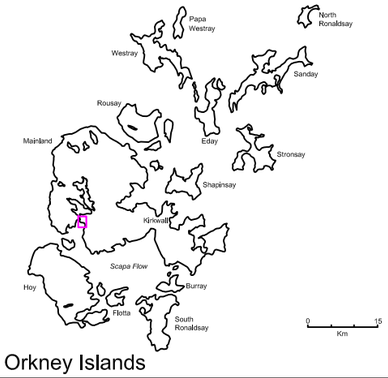
OS basemap

Site location (inset)

ORCA trench

Proposed road and contractor's area



The Orkney Islands

Figure.1. Site location

Project Name	Copland's Dock, Stromness
Project No.	ORCA 333
Date	22/03/2012
Creator	LS
Scale 1:2500 @ A3	Revision No. 1

ORCA, Orkney College, East Road, Kirkwall, KW15 1LX

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Garson Estate

Hamnavoe

N

Area 1

Area 2

Area 3

Trench 10

Trench 1

Trench 2

Trench 3

Trench 8

Trench 4

Trench 5

Trench 6

Trench 9

Trench 7

Copland's dock

0 125m

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- OS basemap
- ORCA trench
- Location of geophysical survey
- ?Archaeology - positive anomaly
- ?Archaeology - negative anomaly
- Ridge and furrow
- Trend
- Ferrous
- 24 Anomaly number

Figure.2. Evaluation Trench Location Plan Showing Geophysical Survey

Project Name	Copland's Dock, Stromness
Project No.	333
Date	22/03/2012
Creator	LS
Scale 1:2500 @ A3	Revision No. 1

ORCA, Orkney College, East Road, Kirkwall, KW15 1LX

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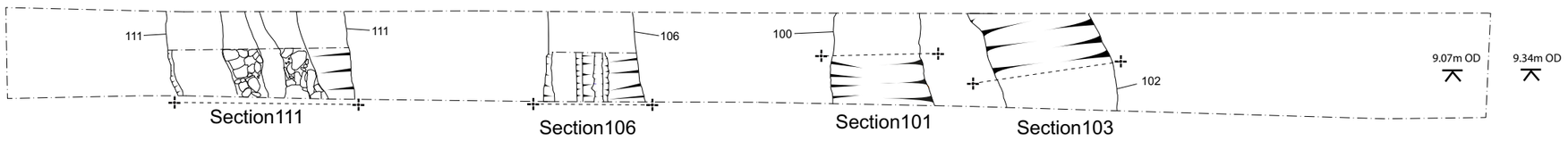
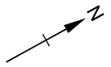
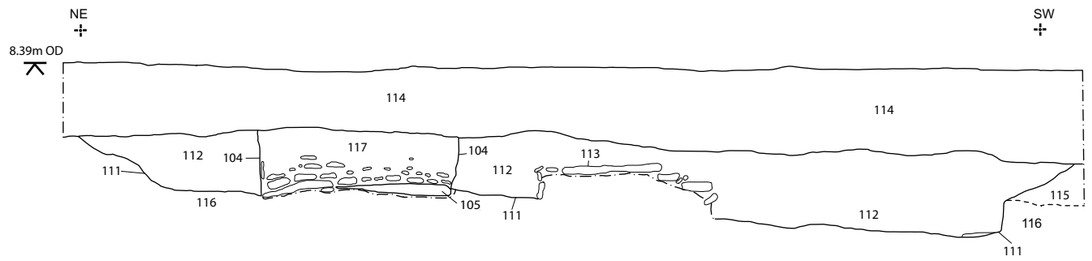


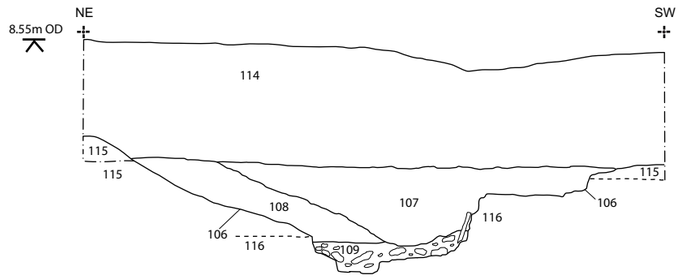
Plan of Trench 1



Section 111, north west facing section of drains **104** and **111**

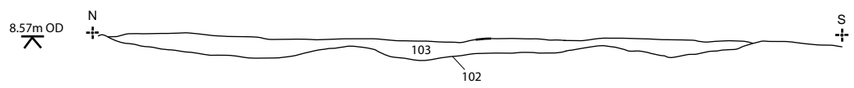


Section 106, north west facing section of ditch **106**



Section 101, south east facing section of furrow base**100**

Section 103, west facing section of furrow base **102**



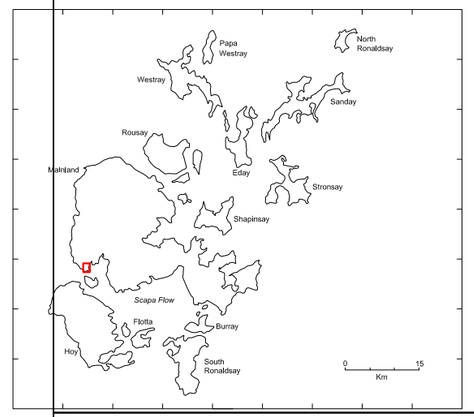


Figure 3. Trench 1, Plan and Sections

Project Name	Coplands Dock
Project No.	ORCA 333
Date	20/03/2012
Creator	LS
Scale N/A	Revision No.1

ORCA, Orkney College, East Road, Kirkwall, KW15 1LX

This map is based on original survey data and site plans.

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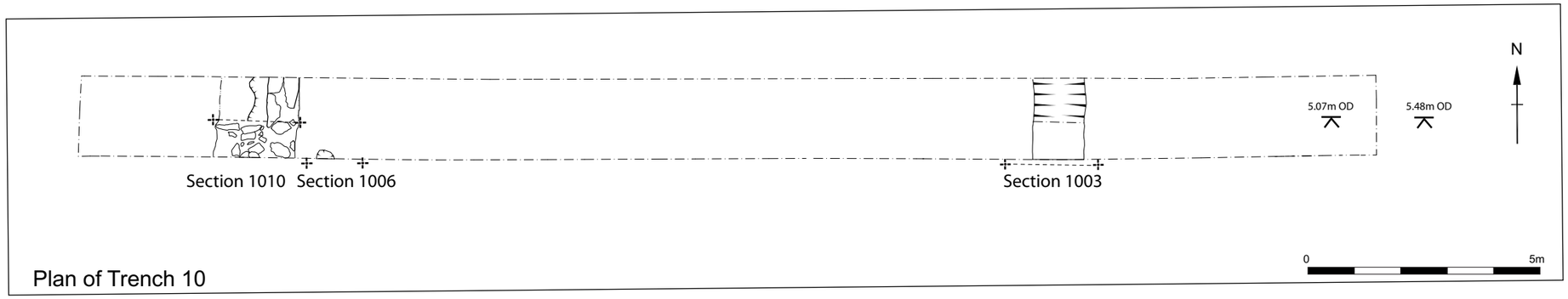
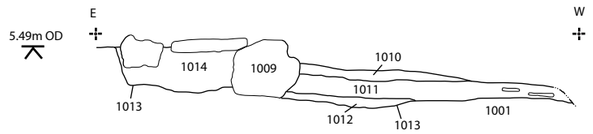
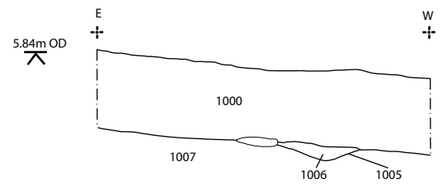


Plan of Trench 10

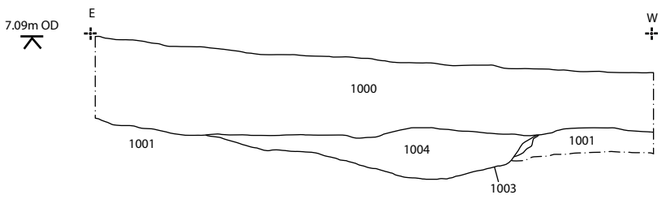
Section 1010, north facing section of wall **1009**



Section 1006, north facing section of pit/posthole **1005**



Section 1003, north facing section of ditch/ furrow base **1003**



0 0.5m

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Figure 4. Trench 10, Plan and Sections

Project Name	Copland's Dock
Project No.	ORCA 333
Date	22/03/2012
Creator	LS
Scale N/A	Revision No.1

ORCA, Orkney College, East Road, Kirkwall, KW15 1LX

This map is based on original survey data and site plans.

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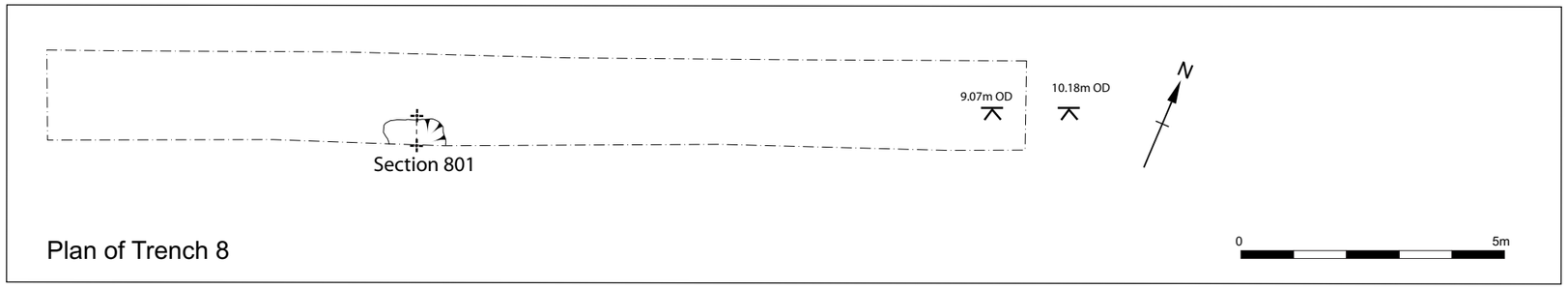

Plan of Trench 8

Section 801, north east facing section of ditch terminus/ pit **800**

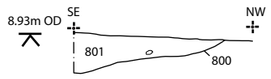

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Figure 5. Trench 8 Plan and Section

Project Name	Copland's Dock
Project No.	ORCA 333
Date	22/03/2012
Creator	LS
Scale N/A	Revision No.1

ORCA, Orkney College, East Road, Kirkwall, KW15 1LX

This map is based on original survey data and site plans.

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Plate 1: West facing section of ditch 106

Plate 2: West facing section of drains 105 (left) and 113 (right)

Plate 3: Wall 1009, within cut 1013, looking south

Plate 4: Ditch terminus / pit 800, looking south east

Appendix 1: Evaluation Trench Summaries

Trench no. 1	**Type:** Machine Evaluation	**Dimensions:** 29.32m x 2.1m	**Alignment:** NE - SW
Minimum depth: 0.3m	**Maximum depth**: 0.45m	**Ground level (mOD)** 9.34 (NE), 8.29 (SW)	**Natural geology(mOD)** 9.07 (NE), 8.05 (SW)

Context	**Description**		**Depth (m bgl)**
100	Cut	Cut of furrow base aligned WNW - ESE. It measured 1.42m wide and was exposed for 2m within the trench, and was 0.19m deep. Linear feature **100** had shallow concave sides and a concave base, and contained primary fill **101**.	0.19m deep
101	Fill	Primary fill **101**, of furrow base **100**, mid yellowish brown sandy clay with frequent sub-angular stone inclusions, up to 0.15m in size.	0.19m deep
102	Cut	Linear feature **102** was aligned WNW to ESE and was 2.3m wide, and 0.1m deep, and was exposed for 2m within Trench 1. It had shallow concave sides and a concave base, which were slightly irregular in places. It contained single secondary fill **103**.	0.1m deep
103	Fill	Secondary fill of furrow base **102**, mid grey brown sandy silt, with moderate angular and sub-angular stone inclusions, 10 – 20mm in size.	0.1m deep
104	Cut	Construction cut for drain, 0.75m wide, and was excavated to a depth of 0.26m, and had steep, straight, near vertical sides. It contained a stone constructed field drain **105** and backfill deposit **117**, cut fill **112** of drain cut **111**	0.26m (+) deep
105	Structure	Stone lined drain constructed with horizontally orientated sub-angular flagstones between 0.35m and 0.30m in size, which rested on vertically set orthostats which lined the sides of the cut. This feature was not fully investigated as it was still an active drain.	U/X
106	Cut	Cut of ditch aligned north west to south east, and measured 1.8m wide, by 0.42m deep and was exposed for 1.8m within the trench. The north east side of the ditch was moderately sloping and slightly concave, with a double step towards the base. The south west side had three steps evident, and the base had a 0.18m wide by 0.05m deep slot cut into it with a flat base. The stepped portions of this feature, particularly on the south west side reflect where this feature was cut through the underlying bedrock **116**.	0.42m deep
107	Fill	Secondary fill of ditch **106**, dark greyish brown silty clay with frequent charcoal flecking and moderate sub-rounded to sub-angular stone inclusions,	0.31m thick

		between 50 – 120mm	
108	Fill	Fill of ditch **106**, mid yellowish brown silty clay, and was a maximum of 0.14m thick, with rare sub-angular stone inclusions up to 60mm in size. It appears to be derived from redeposited natural clay, and slumped into the feature from the north east side, and is perhaps indicative of a bank on this side of the feature.	0.14m thick
109	Fill	Primary fill of ditch **106**, mid brown clay matrix around 70% sub-angular flagstone inclusions, between 50 – 150mm in size, derived from the initial weathering of the sides of the cut.	0.1m thick
110	Layer	Irregular spread of mid grey brown sandy silt, measuring 1.5m east to west by 0.8m wide, derived from root disturbance	0.1m thick
111	Cut	Linear feature aligned WNW to ESE, 3.6m wide, by 0.35m(+) deep, and was exposed for 1.8m within the trench. The north east side was moderately steep, and slightly convex, and the south west side was shallow and convex at the top, with a break of slope, with a steeply sloping straight lower portion, and the base was predominantly flat. Contained fill **112** and stone drain **113**.	0.35m + deep
112	Fill	Fill of **111**, mid brownish grey clayey silt, with occasional sub-angular stone inclusions, which probably derived from the gradual silting up of this feature.	0.35m thick
113	Structure	Stone lined drain constructed of horizontally orientated flagstones measuring between 0.2m and 0.32m, which rested on vertically set orthostats lining the edge of a deeper portion of cut **111** which was 0.7m wide	0.1m + thick
114	Layer	Turf and topsoil, mid greyish brown silty clay.	0 – 0.3m
115	Layer	Natural glacial till mottled light yellow brown sandy clay.	0.3m +
116	Layer	Natural bedrock horizontally orientated mid grey laminated flagstone bedrock.	0.45m + where encountered.
117	Fill	Backfill deposit within stone lined drain cut **104**, mid brownish grey silty clay, with frequent sub-angular flagstone inclusions.	0.3m thick

Trench no. 2	**Type:** Machine Evaluation	**Dimensions:** 19.2m x 1.8m	**Alignment:** WNW - ESE
Minimum depth: 0.45m (WNW)	**Maximum depth:** 0.58m (ESE)	**Ground level (mOD)** 7.21 (WNW), 8.08 (ESE)	**Natural geology (mOD)** 6.84 (WNW), 7.48 (ESE)

Context	**Description**		**Depth (m bgl)**
200	Layer	Turf and topsoil, dark greyish brown silty clay with rare sub-angular to sub-rounded sandstone, up to 150mm, occasional charcoal flecking.	0 – 0.3m
201	Layer	Subsoil, present in the ESE 13m of the trench, and was a mid brownish grey sandy clay with occasional charcoal flecking and frequent sub-angular to sub-rounded light brown sandstone inclusions. This deposit was 0.2m thick in the ESE end of the trench, and tailed off to the WNW, and corresponds to an area of underlying softer, sandier natural.	0.3 – 0.5m
202	Layer	Natural glacial till, light brown clayey sand in the ESE, which merged into a mid orange sandy clay with heavy iron panning present, with localized patches of gravelly sand.	0.5m +

Trench no. 3	**Type:** Machine Evaluation	**Dimensions:** 23.35m x 1.8m	**Alignment:** N - S
Minimum depth: 0.35m (S)	**Maximum depth:** 0.45m (N)	**Ground level (mOD)** 8.71 (N), 9.15 (S)	**Natural geology (mOD)** 8.29 (N), 8.87 (S)

Context	**Description**		**Depth (m bgl)**
300	Layer	Turf and topsoil, mid grey brown silty clay, moderate sub-rounded stone inclusions 150 – 200mm	0 – 0.3
301	Layer	Natural glacial till, mottled mid orangey yellow sandy clay in the north, which merged into a light grey silty clay with heavy iron panning in the south.	0.45m +
302	Layer	Bedrock, present in the south end of the trench, weathered upper portion of the underlying flagstone, with bedding planes tipping down c.45^{o} to the north.	0.35m + (in S of trench)
303	Layer	Subsoil, present in the northern, deeper portion of Trench 3, and corresponds to an underlying area of clayey sand natural glacial till **301**, it was 0.15m thick in the north end of the trench, and thinned to the south.	0.3 – 0.45

Trench no. 4	**Type:** Machine Evaluation		**Dimensions:** 19.33m x 1.8m	**Alignment:** WNW - ESE
Minimum depth: 0.3m (ESE)	**Maximum depth:** 0.35m (WNW)		**Ground level (mOD)** 9.98 (ESE), 8.70 (WNW)	**Natural geology (mOD)** 9.71 (ESE), 8.41 (WNW)
Context	**Description**			**Depth (m bgl)**
400	Layer	Turf and topsoil, mid grey brown silty clay, occasional sub-rounded stone inclusions, up to 120mm.		0 – 0.25m
401	Layer	Natural glacial till, mottled mid orange brown sandy clay, with patches of sub-angular weathered bedrock fragments.		0.25m +
402	Layer	Weathered upper portion of the flagstone bedrock, visible in localized places within the trench.		0.25m +

Trench no. 5	**Type:** Machine Evaluation		**Dimensions:** 19.08m x 1.8m	**Alignment:** NW - SE
Minimum depth: 0.26m (SE)	**Maximum depth:** 0.7m (NW)		**Ground level (mOD)** 4.53 (NW), 4.65 (SE)	**Natural geology (mOD)** 3.90 (NW), 4.39 (SE)
Context	**Description**			**Depth (m bgl)**
500	Layer	Turf and topsoil, dark grayish brown fine sandy silty clay with occasional sub-angular to rounded sandstone, 20 – 100mm.		0 – 0.38m
501	Layer	Subsoil, mottled mid grey brown sandy silty clay with rare charcoal flecks and moderate sub-angular to sub-rounded sandstone inclusions.		0.38 – 0.65m
502	Layer	Natural glacial till, was variable in the trench, and was a grey brown sand in the north west, patchy mid orange brown sand, and mid grey sandy clay in the south east.		0.65m +

Trench no. 6	**Type:** Machine Evaluation		**Dimensions:** 18.29m x 1.8m	**Alignment:** NE - SW
Minimum depth: 0.26m	**Maximum depth:** 0.36m (middle)		**Ground level (mOD)** 4.08 (NE), 3.53 (SW)	**Natural geology (mOD)** 3.82 (NE), 3.25 (SW)
Context	**Description**			**Depth (m bgl)**
600	Layer	Turf and topsoil, mid grey brown silty clay, with occasional sub-rounded stone inclusions, 50 – 100mm.		0 – 0.23m
601	Layer	Natural glacial till, mid orange brown silty sand, dark reddish brown silty clay, and light yellow grey clay, there was extensive evidence of iron panning and patches of angular and sub-angular stone inclusions.		0.23m +
602	Layer	Bedrock, encountered in localized patches within the trench		0.23m +

Trench no. 7	**Type:** Machine Evaluation		**Dimensions:** 22.66m x 1.8m	**Alignment:** N - S
Minimum depth: 0.25m (N)	**Maximum depth:** 0.36m (middle)		**Ground level (mOD)** 4.47 (N), 4.18 (S)	**Natural geology (mOD)** 4.24 (N), 3.92 (S)
Context	**Description**			**Depth (m bgl)**
700	Layer	Turf and topsoil, mid grey brown silty clay with occasional sub-rounded stone inclusions, up to 120mm		0 – 0.25m
701	Layer	Natural glacial till, very mixed and comprised mid reddish brown clayey sand with pale yellow brown patches, with abundant rubble inclusions, with concentrations of rubble in localized patches.		0.25m +
702	Layer	Granite bedrock, present in localized areas within the trench.		0.25m +

Trench no. 8	**Type:** Machine Evaluation		**Dimensions:** 18.84m x 1.8m	**Alignment:** ENE - WSW
Minimum depth: 0.3m (ENE)	**Maximum depth:** 0.6m (WSW)		**Ground level (mOD)** 10.22 (ENE), 8.66 (WSW)	**Natural geology (mOD)** 9.62 (ENE), 8.35 (WSW)
Context	**Description**			**Depth (m bgl)**
800	Cut	Cut of ditch terminus, or pit, 1.4m ENE to WSW, and was exposed for 0.55m within the trench, extending beyond the southern trench edge, and it was 0.15m deep. Cut **800** was sub-oval in plan (as revealed in the trench) with fairly irregular sides and base, and contained fill **801**.		0.15m deep
801	Fill	Fill of ditch terminus or pit **800**, mid grey brown sandy silt with occasional mottles of redeposited glacial till.		0.15m thick
802	Layer	Turf and topsoil, dark grey brown silty clay with rare sub-angular to sub-rounded sandstone inclusions, 20 – 100mm, rare charcoal flecks, 0.4m deep in the ENE, 0.22m deep in the WSW.		0 – 0.4m
803	Layer	Natural glacial till, mottled mid orange brown gravelly clayey sand, with frequent patches of weathered broken bedrock present.		0.55m +
804	Layer	Subsoil, mottled mid greyish brown silty clay, with rare sub-angular to sub-rounded sandstone, between 20mm – 40mm in size, and rare charcoal flecking, thickest in the ENE		0.4 – 0.55m

Trench no. 9	**Type:** Machine Evaluation	**Dimensions:** 17.85m x 1.8m	**Alignment:** E - W
Minimum depth: 0.2m (W)	**Maximum depth:** 0.35 (E)	**Ground level (mOD)** 5.38 (W), 5.11 (E)	**Natural geology (mOD)** 5.18 (W), 4.89 (E)

Context	**Description**		**Depth (m bgl)**
900	Layer	Turf and topsoil, mid brown silty clay.	0 – 0.25m
901	Layer	Natural geology, weathered granite bedrock in the west, with mid orange brown mottled firm clay in the eastern down-slope 7m of the trench.	0.25m +

Trench no. 10	**Type:** Machine Evaluation	**Dimensions:** 28.05m x 1.8m	**Alignment:** E - W
Minimum depth: 0.3m (E)	**Maximum depth:** 0.5 (W)	**Ground level (mOD)** 5.44 (W), 7.54 (E)	**Natural geology (mOD)** 5.02 (W), 7.22 (E)

Context	**Description**		**Depth (m bgl)**
1000	Layer	Turf and topsoil, mid brown silty clay, with moderate charcoal inclusions, up to 0.4m deep at west end of trench.	0 – 0.25m
1001	Layer	Natural glacial till, light grey brown sandy clay.	0.25m +
1002	Layer	Bedrock, weathered upper surface of the flagstone bedrock, visible in isolated patches within the trench, bedding planes orientated horizontally.	0.25m +
1003	Cut	North to south orientated linear feature which measured 1.32m wide by 0.2m deep and was exposed for 1.85m within the trench. It had gently sloping, slightly irregular sides and a concave base, and contained secondary fill **1004**. Feature is either a shallow ditch or a furrow base.	0.2m deep
1004	Fill	Secondary fill of ditch / furrow base **1003**, mid grey brown silty clay, with occasional sub-angular sub-rounded stone and burnt stone inclusions, and occasional charcoal flecking.	0.2m thick
1005	Cut	Cut of pit / post hole (?),which measured 0.32m east to west, by 0.05m deep and extended beyond the southern limit of the trench.	0.05m deep
1006	Fill	Fill of **1005**, mid grey brown silty clay with moderate charcoal inclusions.	0.05m thick
1007	Layer	Variation in the glacial till, cut by **1005**, mid grey brown sandy clay.	0.25m +
1008	Void	Context void	
1009	Structure	North to south aligned dry stone wall, 0.65m wide, by 0.2m deep, and was exposed for 1.8m within the trench. Wall constructed of large flagstone blocks, which measured up to 0.75m in size, it was double faced and survived to only one course, as it had been severely robbed.	0.2m deep

1010	Layer	Layer associated with demolition of wall **1009**, dark grey brown silty clay matrix, with c.50% sub-angular flagstones, predominantly around 0.35m in size, with some up to 0.5m. Abutts west side of **1009**.	0.17m thick
1011	Layer	Possible buried soil, dark grey brown silty clay with frequent charcoal inclusions, which extended 1m to the west of wall **1009**. Sealed by layer **1010**.	0.06m thick
1012	Fill	Backfill deposit contained by construction cut **1013**, mid yellow brown silty clay derived from redeposited glacial till.	0.07m thick
1013	Cut	Construction cut for wall **1009**, 1.13m wide and 0.2m deep. The eastern, upslope side of **1013** was steep, with a sharp break of slope at the top and base, which was primarily flat. The western side of **1013** was shallow and concave, and it appears that the construction cut primarily provided a level, consolidated surface for the wall to be built on.	0.2m deep
1014	Fill	Fill overlying wall **1009**, dark greyish brown silty clay with occasional sub-angular flagstone, up to 0.3m in size, which derived from the robbing of wall.	0.14m thick

Appendix 2: Drawing Register

Drawing No.	Type	Site Subdivision	Description	Scale
100	Plan	Trench 1	Plan of furrow [100]	1:20
101	Section	Trench 1	SE facing section [100]	1:10
102	Plan	Trench 1	Plan of furrow [102]	1:20
103	Section	Trench 1	W facing section [102]	1:10
106	Section	Trench 1	NW facing section of [106]	1:10
107	Plan	Trench 1	Plan of ditch [106]	1:20
111	Section	Trench 1	W facing section of drains [104 & [111]	1:10
112	Plan	Trench 1	Plan of drains [104] & [111]	1:20
114	Section	Trench 1	W facing representative section	1:10
115	Plan	Trench 1	Overall plan	1:50
200	Section	Trench 2	N facing representative section	1:10
300	Section	Trench 3	E facing representative section	1:10
400	Section	Trench 4	SE facing representative section	1:10
500	Section	Trench 5	NE facing representative section	1:10
600	Section	Trench 6	SE facing representative section	1:10
700	Section	Trench 7	E facing representative section	1:10
800	Plan	Trench 8	Plan of possible pit [800]	1:10
801	Section	Trench 8	NE facing section of [800]	1:10
802	Section	Trench 8	NW facing representative section	1:10
803	Plan	Trench 8	Overall plan	1:100
900	Section	Trench 9	NE facing representative section	1:10
1003	Section	Trench 10	N facing section of ditch [1003]	1:10
1004	Plan	Trench 10	Plan of ditch [1003]	1:20
1005	Plan	Trench 10	Plan of possible posthole	1:10
1006	Section	Trench 10	N facing section of [1005]	1:10
1009	Plan	Trench 10	Pre-ex of wall [1009]	1:20
1010	Section	Trench10	N facing section [1009]	1:10
1011	Plan	Trench 10	Post-ex wall [1009]	1:20

Appendix 3: Photographic Register

Batch 1

Frame	Description	Direction of shot
1	Deep Excavation signs	
2	Deep Excavation signs	
3	Deep Excavation signs	
4	Deep Excavation signs	
5	[102] pre-ex	E
6	[102] pre-ex	E
7	[102] pre-ex	E
8	[106] pre-ex	E
9	[100] post-ex plan	E
10	[100] post-ex section	NW
11	[102] E facing section	E
12	[103] post-ex plan	E
13	[104] pre-ex plan	W
14	[104] pre-ex plan	S
15	[106] half- section	E
16	[106] half- section	E
17	W facing baulk section showing [106]	E
18	W facing baulk section showing [106]	E
19	Trench 2, general overview	E
20	Trench 2, representative section, N facing	S
21	Trench 2, representative section, N facing	S
22	Trench 1, representative section, W facing	E
23	[110] half-sectioned	E
24	[113] mid excavation	N
25	[105] mid excavation	W
26	[113] mid excavation	W
27	[113] F6, [105] B6, mid-ex	N
28	Trench 3, general overview	N
29	Trench 8, general overview	SW
30	Trench 3, Representative section, E facing	W
31	[105] & [113] post-ex, W facing section	W
32	[105] post-ex, W facing section	W
33	[113] post-ex, W facing section	W
34	[113] post-ex, W facing section	W
35	[105] post-ex, W facing section	W
36	[800] post-ex	SE
37	[800] post-ex	SE
38	Trench 4, general overview	NE

39	Trench 4, representative section, SE facing	NW
40	Trench 6, general overview	SW
41	Trench 6, representative section	NW
42	Trench 5, representative section, NE facing	SW
43	Trench 5, general overview	NW
44	Trench 7, general overview	S
45	Trench 7, representative section, W facing	E
46	Trench 9, representative section, N facing	S
47	Trench 9, general overview	S
48	Trench 10, general overview	E
49	Detail of [1003] to E of trench 10	S
50	[1003], plough furrow post-ex	S
51	[1003] N facing section (baulk)	N
52	[1009] & [1010] pre-ex	S
53	[1009] & [1010] pre-ex	N
54	[1005] pre-ex	S

Batch 2

Frame	Description	Direction of shot
1	[1009], post-ex [1013]	S
2	[1009], post-ex [1013]	S
3	[1009], post-ex [1013]	N
4	[1009] S facing section	N
5	[1009] N facing section	S
6	[1009] post-ex	E
7	[113] post-ex, some capstones removed	E
8	[113] post-ex, some capstones removed	E
9	[113] post-ex, some capstones removed	E
10	Working shots, GL & GC recording trench 10	W
11	Working shots, GL & GC recording trench 11	W
12	Working shots, GL & GC recording trench 12	W
13	Working shots, GL & GC recording trench 13	W
14	Working shots, GL & GC recording trench 14	W
15	Working shots, GL & GC recording trench 15	W
16	Working shots, GL & GC recording trench 16	W
17	Working shots, GL & GC recording trench 17	W
18	Working shots, GL & GC recording trench 18	W
19	Re-instated field drain, tr.2	S
20	Site cabin	
21	Site cabin	
22	Site cabin	

23	Trench 10 reinstated	W
24	Trench 10 reinstated	W
25	Trench 1 reinstated	S
26	Trench 1 reinstated	S
27	Trench 2 reinstated	NE
28	Trench 2 reinstated	NE

Batch 3

Frame	Description	Direction of shot
1	Trench 3 backfilled	N
2	Trench 8 backfilled	NE
3	Trench 4 backfilled	SW
4	Trench 5 backfilled	SW
5	Trench 6 backfilled	NE
6	Trench 7 backfilled	S
7	Trench 9 backfilled	E