Netherhall, Sandilands, South Lanarkshire: Archaeological Watching Brief

Data Structure Report



by Liam McKinstry issued 25th July 2016 on behalf of G2 Energy



Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct.

Signed Date25th July 2016.....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked Date ...25th July 2016........

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Quality Assurance Data

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Date of Issue 25th July Version 1.0

Commissioning G2 Energy

Event Name Netherhall, Sandilands

Event Type Watching Brief

Event Date(s) 22nd June to the 4th July 2016

Rathmell Code RA16031 OASIS Ref rathmell1-252031

Location United Kingdom: Scotland: South Lanarkshire

NGR NS 87875 38936 Parish Lesmahagow

Designation(s) None
Canmore IDs None

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Introduction

- 1. This Data Structure Report has been prepared on behalf of G2 Energy, in support of construction work at Netherhall, Sandilands (NGR: NS 87875 38936) which was granted conditioned Planning Consent by South Lanarkshire Council (CL/15/0091 amending CL/13/0014). The proposed development work includes the construction of a wind turbine, substation, crane pad, access track and the laying out of a stretch of cabling linking the substation to the national grid. These archaeological works were designed to mitigate any adverse impact on any archaeological remains within the development area and were carried from the 22nd June to the 4th of July 2016.
- 2. South Lanarkshire Council required a programme of archaeological works to be undertaken as an element of the granted planning consent. The West of Scotland Archaeology Service, who advise South Lanarkshire Council on archaeology matters, provided guidance on the structure of archaeological works required for the granted conditioned planning consent and the mitigation of the proposed development works.
- 3. A Method Statement (McKinstry 2016) provided the detail of the works (archaeological monitoring, exclusion, excavation, post-excavation analyses and publication) for the mitigation pertaining to ground breaking within the development area and hence the direct physical impact on buried sediments.

Historical and Archaeological Background

- 4. The development area lies to the immediate southeast of an enclosure at Greenstrands (Canmore ID 46462), possibly of prehistoric date. This enclosure is no longer visible and is not depicted on either the 1st or 2nd edition Ordnance Surveys or later mapping and was identified during a programme of aerial photography carried out by the RCAHMS. There are no other known sites within a kilometre of the development area.
- 5. The area is first shown in Roy's map of the lowlands (Figure 1a) which depicts both of the nearby farmsteads of Netherhall and Hillhouse. The farmsteads are also depicted on both the 1st and 2nd edition Ordnance Survey maps. The field in which the development is situated is shown in Roy's map and the 1st edition Ordnance Survey as an area of rough heathland. In the 2nd edition Ordnance Survey (Figure 1b) it is clear that the area is undergoing a process of improvement as the south eastern part of the development area field had been enclosed. This process presumably continued into the twentieth century leading to the current field system.

Project Works

- 6. The programme of works, which was undertaken from the 22nd June to the 4th of July 2016, were carried out in keeping with the agreed Method Statement (McKinstry 2016). The works comprised the archaeological monitoring of the ground breaking works relating to the construction of a wind turbine, substation, crane pad, access track and the laying out of a stretch of cabling linking the substation to the national grid at Netherhall, Sandilands, South Lanarkshire. (Figure 2).
- 7. The site was located within a large rectangular shaped moderately sloping field currently in use as pastureland. The field was enclosed by a mixture of wire and post fencing and low hedgerows.
- 8. All works were conducted in accordance with the West of Scotland Archaeology Service Standard Conditions, the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.



Figure 1a: 2nd edition Ordnance Survey, 6 inch.

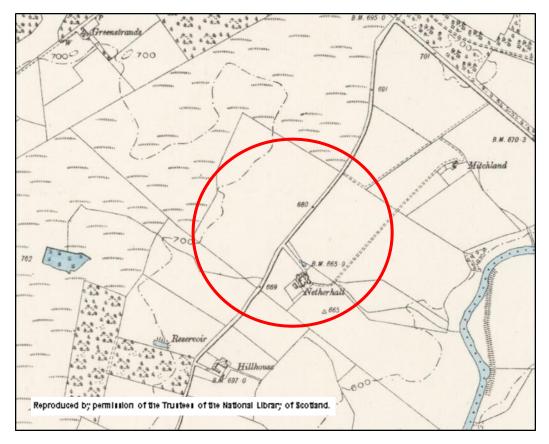


Figure 1b: Ordnance Survey, 1:25,000 maps of Great Britain, 1937-1961.

Findings

- 10. The initial works comprised the cutting of a narrow, 1.5m wide, trench for cabling which ran from the main construction area, across the main road and into the field which lay adjacent to Netherhall Farm. The cable trench was orientated in a northwest to southeast direction and it had an excavated length of 278.5m. The trench was 1.5m wide and was excavated to a depth range of between 300-400mm. The main works comprised the excavation of the access track (Figure 3a) which ran alongside the north eastern boundary of the field in which the development was situated. The majority of the track was orientated in a northwest to southeast direction and measured 270m in total and was excavated to a depth of 300-410mm. The first 10m of the track, where it joined the main road in the southeast, was not monitored as it was already covered in a thick layer of type 2 stone and tarmac which was to be retained. At the north western end of the track there was a turning point where the last 20m was orientated in an east to west direction before joining the main construction area.
- 11. The Crane pad (Figure 3b) joined on to the western end of the access track and consisted of a large rectangular area which measured 35m from southwest to northeast and 20m from northwest to southeast. The crane pad excavation had a depth range of 400-450mm. The turbine pad (Figure 4a) and substation (Figure 4b) were located to the immediate northwest and northeast respectively. The turbine pad was sub circular shaped with a diameter of 10m and was excavated to a depth of 350-400mm. The substation was rectangular shaped and measured 7.5m from southwest to northeast and 8.5m from northwest to southeast.
- 12. The topsoil, (001), with in the development area consisted of moderately compacted, dark brown sandy clay with frequent root material and occasional small stone inclusions. This topsoil layer extended across both fields within the development area. The topsoil had a depth range of between 100-370mm across the whole site. The main naturally occurring subsoil within the development area, (002), comprised of firmly compacted, pale mottled orange/yellow/brown sandy clay with frequent small stone inclusions. Within this layer patches of other naturally occurring subsoil were observed and became more frequent in the north western part of the development area. These patches of subsoil, (005), comprised of moderately compacted, light to mid grey brown silty sand with very occasional small stone, pebble and gravel inclusions.
- 13. The excavation within the main construction area, access track revealed two series of modern drains. The first series of drains, (003), encountered was in the crane pad, north western end of the access track and cable trench. These drains (Figure 3b) comprised of red/buff coloured ceramic pipes running in a NNE-SWW direction across the site. The ceramic pipes had a diameter of 100mm and were within a narrow trenches which had a width of 0.2m. The fill surrounding the pipe consisted of mid to dark grey-brown sandy clay with no inclusions. The drains were located 300-350mm below ground level and each individual drain was spaced at intervals of approximately 5.2m. The second series of drains, (004), were located in the south eastern part of the access track and cable trench. These drains (Figure 3a) comprised of linear features running in a WNW-ESE direction across the site. The linear features had a width of 0.35m and each individual drain was spaced at intervals of approximately 11m. The features fills consisted of a compact, mixed mid orange-brown/red-brown silty sand with occasional small and medium stone and pebble inclusions.
- 14. No other archaeological features were identified within the development area.

Discussion

15. The only anthropic features within the development area were the two series of modern field drains, (003) and (004), which were located throughout the development area. These drains are most likely the result of what appears to be a programme of land improvement in the area surrounding the development area. The earliest map evidence for the area, Roy's eighteenth century Map of the Lowlands, shows the area around the site as heathland. The first, second and third Ordnance Surveys of the area show that a process

of land improvement and enclosure had been started around the 1860's and continued into the early twentieth century. It seems probable that the series of drains encountered during the excavation of the site may relate to this activity or represent later maintenance of the area.

16. Heavy ploughing observed in a field adjacent to the development area during the works along with 19th and 20th century land improvement may be the reason why only modern agricultural features were identified. Any other subsurface features of a greater antiquity which may have been within the development area would have been destroyed.

Recommendations

- 17. This Data Structure Report covers archaeological works undertaken in support of construction work of a wind turbine and supporting infrastructure on land at Netherhall, Sandilands, South Lanarkshire (Planning Ref: CL/15/0091 amending CL/13/0014).
- 18. The archaeological monitoring works uncovered only modern agricultural features such as field drains. As such, it is recommended that no further work should be carried out.
- 19. The appropriateness and acceptability of our recommendations rest with South Lanarkshire Council and their advisors, the South Lanarkshire Archaeological Service.

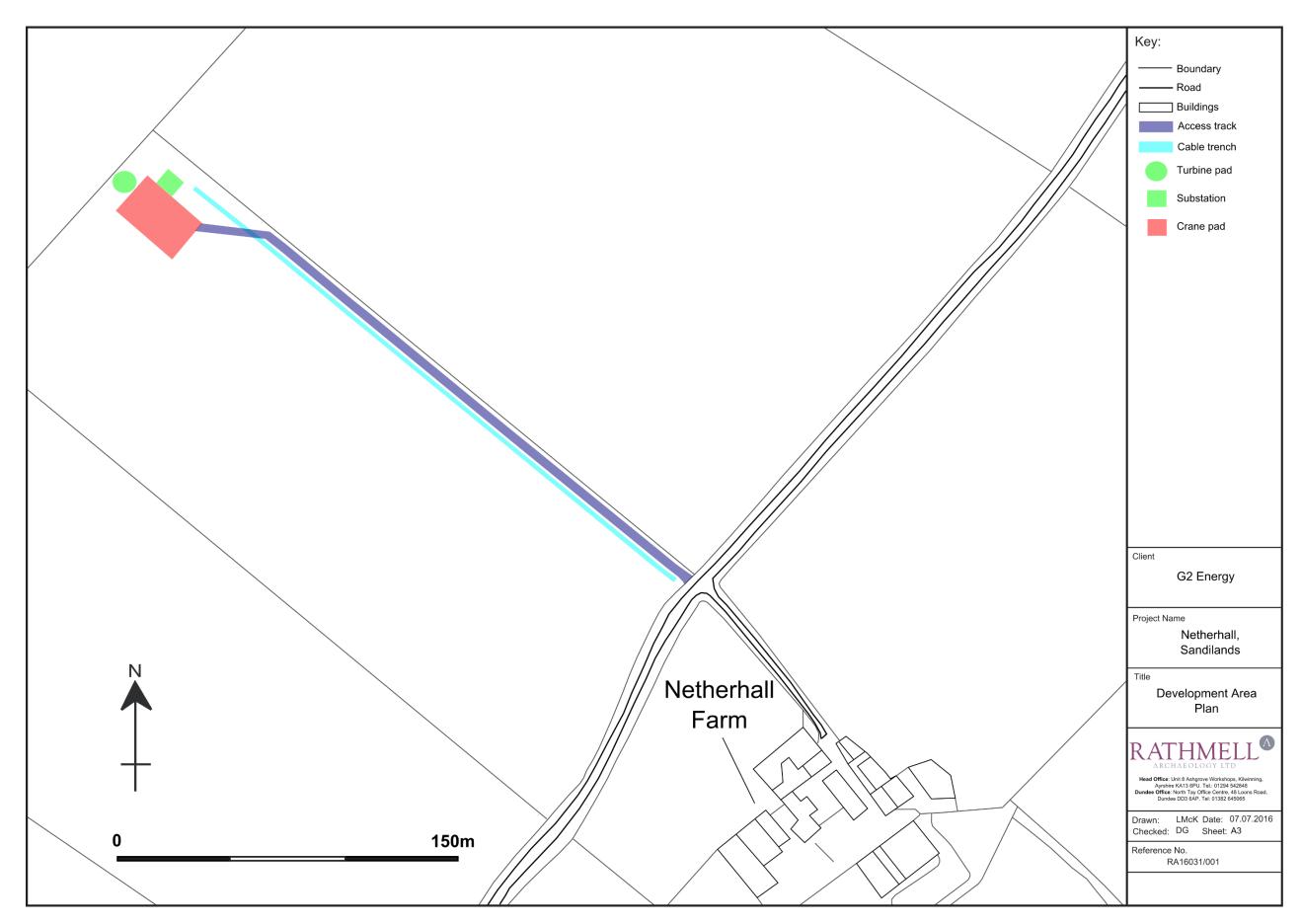


Figure 2: Development Area Plan.



Figure 3a: Post excavation view of access track near main road showing field drains (004). From the NW.



Figure 3b: Post excavation view of the crane pad showing ceramic drains (003). From the \mbox{WNW}



Figure 4a: Post excavation view of substation. From the S.



Figure 4b: Post excavation view of turbine pad. From the SE.

Conclusion

- 20. Archaeological monitoring work was carried out for G2 Energy, in support of construction work on land at Netherhall, Sandilands, South Lanarkshire (Planning Ref: CL/15/0091 amending CL/13/0014). These archaeological works are designed to mitigate any adverse impact on the archaeological remains within the development area.
- 21. The works at Netherhall consisted of an archaeological watching brief during the construction of a wind turbine with its associated substation, crane pad, access track and cable trench. During these works only modern agricultural field drains were identified with no significant archaeological features being identified.

Acknowledgements

- 22. The author would like to thank the client G2 Energy and the onsite contractors J & J Fergusson Civil Engineering and Maxwell Construction for their support throughout the project and Douglas Gordon, Senior archaeologist with Rathmell Archaeology Ltd for his input and editing.
- 23. This author would also like to thank Martin O'Hare from the West of Scotland Archaeological Service who has given guidance and direction throughout.

References

Documentary

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Cartographic

Ordnance Survey, 1864, 6-inch, Lanarkshire. Sheet XXXII

Ordnance Survey, 1898, 6-inch, Lanarkshire. Sheet XXXII.SE

Ordnance Survey, 1912, 6-inch, Lanarkshire. Sheet XXXII.SE

Roy, William, 1752-55, Map of the Lowlands

Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the watching brief:-

Context Register

Context No.	Area/ Trench	Туре	Description	Interpretation
001	-	Deposit	Moderately compacted, dark brown sandy clay with frequent root material and occasional small stone inclusions. Extended across the entire development area. Depth range of between 100-370mm.	Turf and topsoil covering the whole development area.
002	-	Deposit	Firmly compacted, pale mottled orange/yellow/brown sandy clay with frequent small stone inclusions. Extended across the entire development area. Excavated depth range of between 20mm to 180mm	Natural subsoil within the development area.
003	-	Feature	Red/buff ceramic drains running in a NNE-SWW direction across the site. The ceramic pipes had a diameter of 100mm and were within a narrow trenches which had a width of 0.2m. The fill surrounding the pipe consisted of mid to dark grey-brown sandy clay with no inclusions. The drains were located 300-350mm below ground level and each individual drain was spaced at intervals of approximately 5.2m. The drains were present within the crane pad and substation areas and 100m of the tracks north western end.	Series of parallel modern ceramic drains running across the north western end of the site.
004	-	Feature	Linear features running in a WNW-ESE direction across the site. The linear features had a width of 3.5m and were located within 170m at the SE of the track. The features fill consisted of a compact, mixed mid orange-brown/red-brown silty sand with occasional small and medium stone and pebble inclusions.	Series of narrow modern field drains running across the south eastern end of the site.
005	-	Deposit	Moderately compacted, light to mid grey brown silty sand with very occasional small stone, pebble and gravel inclusions. Located as patches within the main naturally occurring subsoil, (002), mainly within the NW end of the	Naturally occurring subsoil within the development area.

Context No.	Area/ Trench	Туре	Description	Interpretation
			track and crane pad.	

Photographic Register

Image No.	Digital	Description	From	Date
01	DSCF2037	General view. Pre excavation shot.	SE	22/06/16
02	DSCF2038	General view. Pre excavation shot.	SE	22/06/16
03	DSCF2039	General view of the NW end of the cable trench.	NW	22/06/16
04	DSCF2040	General view of the NW end of the cable trench.	SE	22/06/16
05	DSCF2041	Sample SW facing section	S	22/06/16
06	DSCF2042	Working shot of the stripping of the cable trench	NW	22/06/16
07	DSCF2043	General view along the cable trench, from +100m from NW	SE	22/06/16
08	DSCF2044	General view along the cable trench, from +130m from NW	SE	22/06/16
09	DSCF2045	General view along the cable trench, from +200m from NW	SE	22/06/16
10	DSCF2046	General view along the cable trench, from +250m from NW	SE	22/06/16
11	DSCF2047	View of the SE end of the cable trench	NW	22/06/16
12	DSCF2048	View of the SE end of the cable trench	SE	22/06/16
13	DSCF2049	Pre excavation view of the access to the track	E	28/06/16
14	DSCF2050	View of the main road next to the development area	ENE	28/06/16
15	DSCF2051	Pre excavation view of the track from the main entrance	SE	28/06/16

Image No.	Digital	Description	From	Date
16	DSCF2052	Pre excavation view of the middle point of the track facing the entrance	NW	28/06/16
17	DSCF2053	Pre excavation view of the middle point of the track facing the NW	SE	28/06/16
18	DSCF2054	Pre excavation view of the NW end of the track	SE	28/06/16
19	DSCF2055	Pre excavation view of the crane pad, turbine pad and sub station	SE	28/06/16
20	DSCF2056	Pre excavation view of the crane pad and sub station	S	28/06/16
21	DSCF2057	Pre excavation view of the turbine pad	ESE	28/06/16
22	DSCF2058	Pre excavation view of the turbine pad and substation	NE	28/06/16
23	DSCF2059	Pre excavation view of track and crane pad	NW	28/06/16
24	DSCF2060	Pre excavation view of cable trench within field adjacent to farm buildings	W	28/06/16
25	DSCF2061	Pre excavation view of track showing setting out markings	SE	28/06/16
26	DSCF2062	View of first 24m of track at the entrance	NW	28/06/16
27	DSCF2063	Sample section at first 24m.	SW	28/06/16
28	DSCF2064	Post excavation view of track at NS 87973 38867	NW	28/06/16
29	DSCF2065	Post excavation view of track at NS 87952 38882	NW	28/06/16
30	DSCF2066	Sample section at NS 87952 38882	SW	28/06/16
31	DSCF2067	Post excavation view of track at end of the day at 101m from entrance	SW	28/06/16
32	DSCF2068	Post excavation view of track at NS 87908 38918	NW	29/06/16
33	DSCF2069	Sample section at NS 87908 38918	SW	29/06/16
34	DSCF2070	Post excavation view of track at NS 87879 38941	NW	29/06/16

Image No.	Digital	Description	From	Date
35	DSCF2071	Sample section at NS 87879 38941	SW	29/06/16
36	DSCF2072	Post excavation view of track at NS 87867 38952	NW	29/06/16
37	DSCF2073	Post excavation view of track at NS 87825 38983	NW	29/06/16
38	DSCF2074	Sample section at NS 87825 38983	SW	29/06/16
39	DSCF2075	Post excavation view of track at NS 87815 38987	W	29/06/16
40	DSCF2076	Sample section at NS 87815 38987	S	29/06/16
41	DSCF2077	Post excavation view of track at NS turning point	SE	29/06/16
42	DSCF2078	Sample section at turning point	W	29/06/16
43	DSCF2079	Pre excavation view of the crane pad	SE	29/06/16
44	DSCF2080	View of heavy ploughing in progress in a field adjacent to the development area	W	29/06/16
45	DSCF2081	Post excavation view of the track at the end of the day	-	29/06/16
46	DSCF2082	Sample section at the end of the day	-	29/06/16
47	DSCF2083	Working shot of the crane pad under excavation	S	30/06/16
48	DSCF2084	SE end of the crane pad excavated	WSW	30/06/16
49	DSCF2085	SE end of the crane pad excavated	W	30/06/16
50	DSCF2086	Sample section at crane pads S corner	W	30/06/16
51	DSCF2087	SE end of the crane pad excavated	W	30/06/16
52	DSCF2088	Mid point excavated at crane pad	NW	30/06/16
53	DSCF2090	Working shot of excavation within NW end of crane pad	NW	30/06/16

Image No.	Digital	Description	From	Date
54	DSCF2091	Post excavation view of NW end of crane pad	NW	30/06/16
55	DSCF2092	Post excavation view of NW end of crane pad	WNW	30/06/16
56	DSCF2093	Post excavation view of NW end of crane pad	NW	30/06/16
57	DSCF2094	View of crane pad and track covered in stone	E	04/07/16
58	DSCF2095	View of crane pad and track covered in stone	E	04/07/16
59	DSCF2096	View of crane pad and track covered in stone	SE	04/07/16
60	DSCF2097	Working shot of substation excavation	E	04/07/16
61	DSCF2098	Post excavation view of substation	NNW	04/07/16
62	DSCF2099	Post excavation view of substation	SW	04/07/16
63	DSCF2100	Post excavation view of turbine pad	N	04/07/16
64	DSCF2101	Post excavation view of turbine pad	SW	04/07/16
65	DSCF2102	Post excavation view of turbine pad	SW	04/07/16

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	South Lanarkshire
PROJECT TITLE/SITE NAME:	Netherhall, Sandilands
PROJECT CODE:	RA16031
PARISH:	Lesmahagow
NAME OF CONTRIBUTOR:	Liam McKinstry
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Watching brief
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NS 87875 38936 (Centred)
START DATE (this season)	22 nd June 2016
END DATE (this season)	4 th July 2016
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	Archaeological monitoring work was carried out for G2 Energy, in support of construction work on land at Netherhall, Sandilands, South Lanarkshire (Planning Ref: CL/15/0091 amending CL/13/0014). These archaeological works are designed to mitigate any adverse impact on the archaeological remains within the development area.
	The works at Netherhall consisted of an archaeological watching brief during the construction of a wind turbine with its associated substation, crane pad, access track and cable trench. During these works only modern agricultural field drains were identified with no significant archaeological features being identified.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	G2 Energy
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
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ARCHIVE LOCATION (intended/deposited)	Report to Dumfries & Galloway Archaeology Service and archive to HES Collections

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