Tom na Clach Wind Farm Extension Appendix 13.B: Peat Depth Survey Report

for Nan Clach Extension Limited



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Tom na Clach Wind Farm Extension Appendix 13.B: Peat Depth Survey Report February 2022

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1 Introduction

Fluid Environmental Consulting Ltd (Fluid) were commissioned by Nan Clach Extension Limited, the Applicant, into complete depth of penetration probing and coring at the site of the proposed Tom na Clach Wind Farm Extension, located about 20km southeast of Inverness, Scotland.

The Tom na Clach wind farm extension comprises seven turbines, a substation (extension of existing consented Tom na Clach wind farm substation), a construction compound, a borrow pit and associated access tracks. The existing access tracks for the Tom na Clach windfarm are used to access the proposed site.

The peat survey includes a 100m grid across the site application area and a more intensive investigation into the proposed locations of the infrastructure, with the exclusion of the main access track from the B9007 public road which is already utilised by the operational Tom na Clach Wind Farm.

The existing access tracks will be joined by 1.5km of new floated tracks and 2.5km of new excavated tracks, 7 wind turbine locations and associated crane hardstandings, a construction compound, a substation and a borrow pit. The total area of the Proposed Development footprint final layout is 123,378m², which includes existing excavated tracks that will be widened, an additional area of 17,150m² is also considered as this is the area on peat outside of the infrastructure footprint that would either be excavated or covered by hardcore to build the infrastructure or for associated drains.

This document presents the methodologies and guidance associated with the various phases of this survey, the data obtained and calculations of peat volumes required to be excavated based on the Proposed Development Layout.

2 Depth of Penetration Surveys

Four depth of penetration surveys, considered to be equivalent to peat depth, have been completed in 2020 and 2021. These were undertaken in accordance with the guidance in Scottish Government, Scottish Natural Heritage, SEPA (2017) Peatland Survey, Guidance on Developments on Peatland.

Phase 1

A first phase of peat depth probing was undertaken in November 2020 and comprised a 100 m grid across the part of the site that was considered for development. A total of 202 peat probes were undertaken and 10 cores. These data were used as an input to the constraints map for development of the initial infrastructure layout.

Phase 2

Once an initial layout was determined Fluid completed detailed probing and coring over three separate campaigns in June 2021 (2,823 probes and 9 cores), August 2021 (243 probes) and October 2021 (465 probes) at the following specification:



- Depth of penetration probing:
 - at 50 m intervals with 10 m offset probes along all proposed and existing access tracks;
 - at all 7 turbine bases and hardstanding areas on a 10 m grid, along with probing in the 50 m micrositing area on a 20 m grid;
 - \circ $\,$ at the construction compound and the substation on a 10 m grid; and
 - \circ at the borrow pit search area on a 10m grid.
 - Cores at randomised infrastructure locations.

The surveys included completion of the following:

- Record the depth of penetration at each probing location along with an estimate of the geology at the limit of penetration;
- Collect data from cores on total peat depth, Von Post measurements every metre, the thickness of the acrotelm, catotelm and amorphous peat (if present), the underlying geology and comments on water table if possible;
- Take a photographic record of all cores;
- Present all data in tables with appropriate labelling of locations according to the specification document;
- Provide a peat depth contour plan across the area of probing and coring; and
- Provide a factual report detailing the work completed and the data collected.

The data collected from both phases of site investigation are presented in detail in the attached appendices.

A gps linked photographic record of peat locations and other peat features was taken and provides a detailed record across the site. Typical peat equipment and characteristics are presented in Annex I.

A record of the data collected at all 3,733 probe locations is presented in Annex II.

The data collected from each of the 19 cores is presented in Annex III.

A photographic record and log of the peat for each core is presented in Annex IV.

3 Methodology

The project commenced with liaison between Fluid and the Client and an exchange of information including the site layout, mapping information, shapefiles, specification of works, information on access contacts and other conditions relating to the site. Fluid reviewed all available information and produced a map with the probing and coring locations marked. Fluid also completed a Risk Assessment and Health and Safety plan for the field work campaign.

Peat probing, coring and sampling was undertaken in accordance with the locations and frequencies outlined above and legislative guidelines. This task included field data collection and data management.



An extendable fibre glass peat probe of up to 7m length was used by Fluid field technicians to obtain the depth of penetration data. It is pushed into the ground until there is sufficient resistance to prevent further penetration and the depth recorded as the depth of penetration. A description of the resistant substrate below is made based on the feel of the resistance (grit, bedrock, clay, sand, rock or resistance where unable to differentiate).

This probe provides the depth of penetration in soft formations and if peat is present is often representative of the actual peat depth when the formation underlying the peat is sands and gravels or bedrock. However, the depth of penetration can be an overestimate of the depth of peat where the substrate below is soft and penetrable, such as soft clay or silt. In some cases, peat may not be present and the whole of the probe penetrates through silt or clay sediments. Coring is therefore necessary to verify some of the probe results by extracting a core of the deposits for examination.

A series of cores have therefore been obtained using a gouge auger to determine the actual depth of the peat and obtain a sample of the underlying formation. Observations on the soil and peat characteristics were determined from the cores using recognised criteria (Von Post assessment). The acrotelm, catotelm and amorphous layers (if present) within the peat have also been identified within the peat where possible. Observations on underlying geology, nearby water features, ground conditions and habitat were also noted.

The probes and gouge auger used at the site are of the types shown in Photo 1, Annex I.

The data obtained from the current site investigation was verified with the coring data and is presented in Figure 13.9 of the EIA report. The depths were then contoured within ArcGIS to produce a contour plot of probe penetration (Figure 13.10 of the EIA report).

In addition to the data collected by Fluid a further 799 survey points from previous surveys are located within the site boundary. These were also used to generate a peat depth map across the site and are shown in Figure 13.9 of the EIA report.

A shaded contour interval of 0-0.5m, >0.5m-1m, >1m - 1.5m, >1.5m - 2m, >2m - 3m, >3m - 4m, >4m - 5m, >5m has been used on the figures as the deepest probe encountered 5.6m of peat.

Probe locations were located and recorded using a handheld global position system (GPS) device, with Birdseye aerial imagery, to a six-figure grid reference (to 1m) and georeferenced photographic records were obtained for all cores.

3.1 Limitations

As with any sampling, this study has extrapolated data to be representative of the whole. This may mean that localised variations in peat depth and characteristics were not captured, where they fell within the gaps of the 100m or 10m sampling grids.



4 Results

4.1 Depth of Penetration Probing

A total of 3,733 probes were undertaken across the site with each probe recording the depth of penetration and the potential substrate at the limit of penetration (Annex II).

Of the 3,733 locations probed a total of 1,713 probes (45.9%) recorded depths of 0.5m or less (no peat) and as shown in Table 1.

Depth Range (m)	Number of Probes	Percentage of Probes			
0 to 0.5 (no peat)	1,713	45.9%			
>0.5 - 1.0	893	23.9%			
>1.0 - 1.5	399	10.7%			
>1.5 - 2.0	371	9.94%			
>2.0 - 3.0	173	4.63% 2.97%			
>3.0 - 4.0	111				
>4.0 - 5.0	63	1.69%			
>5.0	8	0.21%			
Total	3,733	100%			

Table 1Depth of Penetration Distribution

The depth of penetration at each probe location is presented on Figure 13.9 of the EIA report.

The probes recorded substrate information based on feel as the probe made contact with the formation underlying the peat as follows:

Table 2 - Substrate across all probe locations

Substrate	Number of Probes	Percentage of Probes
Grit	1385	37.10%
Rock	1214	32.52%
Silt	642	17.20%
Gritty Silt	323	8.65%
Sand	85	2.28%
Gritty sand	31	0.83%
Sandy grit	24	0.64%
Sandy silt	15	0.40%
Silty grit	5	0.13%
Clay	4	0.11%



Substrate	Number of Probes	Percentage of Probes
Silty clay	2	0.05%
Gritty clay	1	0.03%
Resistance	1	0.03%
Silty sand	1	0.03%
Total	3,733	100%

Based on the data collected an interpreted peat depth map (Figure 13.10 of the EIA report) was produced to demonstrate the variation in peat across the site and at the various infrastructure locations. A comparison of the peat depth with the site infrastructure footprint is presented in Table 3.

Depth Range (m)	Area of Infrastructure Footprint (m ³)	Area of Infrastructure Footprint (%)			
0 to 0.5 (no peat)	59,846	48.5%			
>0.5-1.0	25,184	20.4%			
>1.0 - 1.5	16,191	13.1%			
>1.5 - 2.0	11,485	9.31%			
>2.0 - 2.5	7,418	6.01%			
>2.5 - 3.0	2,605	2.11%			
>3.0 - 3.5	618	0.50%			
>3.5+	31	0.03%			
Total	123,378	100%			

Table 3 Peat Depth Distribution across Infrastructure Footprint

Note: area of infrastructure footprint does not include the existing access tracks constructed for the operational Tom na Clach wind farm that are used to access the extension. The area is purely the shapefile footprint and does not include side slopes, drains or other adjacent disturbance associated with the works, although these are included in the peat excavation calculations in Annex 13.C Outline Peat Management Plan.

4.2 Coring

A total of 19 locations have been cored and the data collected included Von Post test results, acrotelm and catotelm thickness, observations on the peat structure and any observations on water features nearby as presented in Annex III.

Comparison of the probe depth of penetration and the peat depth verified from the core is also presented in Annex III and full logs of each core including photographic record are presented in Annex IV.



Of the 19 locations cored, a total of 13 identified peat greater than 0.5 m depth (this indicates a slight bias toward coring at locations where there was peat which is reasonable as part of the purpose of the coring is for peat depth verification purposes).

Comparison of the coring to the depth of penetration probes demonstrated that all the probe depths were the same (within 0.1 m) as the core verified depth of peat - these are spread across a variety of depths:

- 6 at 0 m 0.5 m;
- 9 at >0.5 m 1.0 m;
- 2 at >1.0 m 1.5 m;
- 1 at >1.5 m 2.0 m; and
- 1 at >2.0 m 2.5 m.

The cores identified a distinctive acrotelm layer in 17 of the cores that averaged 0.11m in thickness and ranged between 0.06m and 0.20m. The catotelm thickness ranged from 0.15m to 2.10m in depth.

Based on the data collected an interpreted peat depth map (Figure 2) was produced to demonstrate the variation in peat across the survey area.

Amorphous peat was identified at site in one location in an area that had previously been excavated and then restored. Probing in the surrounding area indicated uneven distribution of peat that is mixed with grit, silt and rocks. While the core obtained contained mainly peat, it was not deposited naturally and is not representative for the general site.

5 Summary

The following summarises the results of the peat survey campaign and subsequent peat depth contouring and excavated volume calculations:

- The coring results have verified the depth of penetration probing to be representative of peat depth.
- The data collected has been used to produce an interpreted maximum depth of peat contour map using ArcGIS.
- Peat has been determined to be present up to a depth of 5.6m based on 3,733 depth of penetration probes and 19 cores.
- Amorphous peat was identified at site in an area that was previously restored and is therefore not representative of the site conditions.
- The acrotelm is on average 0.11 m thick.
- The mapping indicates that the site has variable peat depths with widespread areas of deeper peat, some areas of shallow peat and areas where there is an absence. About 23% of the site has no peat and 47.4% of the site has deep peat.



- The various iterations of the Proposed Development layout design have allowed areas of deeper peat to be avoided where possible (refer to Chapter 2).
- There is no peat (0 0.5 m depth) at 48.5% of the infrastructure footprint and deep peat (>1 m depth) is present across 31% of the footprint.



Appendices



Annex I - Example Photographs of Typical Ground Conditions



Photo 1 Example of a peat core showing a distinct layer of acrotelm.



Photo 2 Example of core and detail of general vegetation.





Photo 3 Example of ground conditions on site.



Photo 4 Example of ground conditions on site.



Photo 5 Example of ground conditions on site.



Annex II

PROBING DATA						
SITE: Tom na Clach Wind farm						
CLIENT: Infinergy						
SURVEY DATES:	4 - 5/11/2020, 6 - 11/6/2021, 16/6/2021, 3 - 6/8/2021, 18/8/2021 and 27 - 29/10/2021					



Annex III

CORING DATA – PEAT DATA AND VON POST MEASUREMENTS						
SITE:	Tom na Clach Wind farm					
CLIENT:	Infinergy					
SURVEY DATES:	4 - 5/11/2020, 6 - 11/6/2021, 16/6/2021, 3 - 6/8/2021, 18/8/2021 and 27 - 29/10/2021					



					Peat depths and characteristics		Vo	Von Post H scores			Von Post B scores				
Ref ID	Easting	Northing	Peat Probe Depth (m)	Depth with Auger (m)	Actual Peat Depth (m)	Acrotelm Thickness (m)	Catotelm Thickness (m)	Acrotelm Von Post	Catotelm Von Post 0-1m		Catotelm Von Post 2-3m	Acrotelm Von Post	Catotelm Von Post 0-1m		Catotelm Von Post 2-3m
Pr_40	286050	834050	1.00	1.00	1.00	0.12	0.78	H4	H7			B3	B3		
Pr_102	287550	834350	0.65	0.67	0.65	0.07	0.58	H3	H7			B4	B3		
Pr_103	287750	834350	0.55	0.55	0.55	0.10	0.45	H2	H6			B4	B3		
Pr_105	287650	834450	1.10	1.10	1.10	0.10	1.00	H3	H6			B3	B3		
Pr_109	287150	835150	1.35	1.35	1.35	0.10	1.25	H5	H6	H7		B3	B3	B3	
Pr_110	287550	835250	0.35	0.35	0.35	0.06	0.29	H2	H6			B3	B3		
Pr_115	287650	835650	0.80	0.80	0.80	0.10	0.70	H2	H6			B3	B3		
Pr_116	286550	834250	1.00	1.00	1.00	0.08	0.92	H4	H8			B3	B3		
Pr_118	287350	834050	1.00	1.00	1.00	0.06	0.94	H4	H7			B3	B3		
Pr_201	287550	834850	0.70	0.70	0.70	0.08	0.62	H3	H5			B3	B3		
Core_1	285848	834194	2.30	2.30	2.30	0.20	2.10	H2	H6	H7	H8	B3	B4	B4	B3
Core_13	287241	834829	0.90	0.90	0.90	0.00	0.90		H8				B3		
Core_14	287297	834835	0.25	0.35	0.25	0.10	0.15	H2	H7			B2	B3		
Core_15	287526	835273	0.60	0.60	0.60	0.15	0.45	H3	H5			B3	B3		
Core_16	287580	835258	0.40	0.45	0.40	0.10	0.30	H3	H8			B3	B3		
Core_17	287295	835403	0.40	0.45	0.40	0.20	0.20	H2	H6			B3	B3		
Core_18	287256	835444	0.50	0.50	0.50	0.15	0.35	H3	H8			B3	B3		
Core_19	287222	834965	2.00	2.30	2.10	0.00	2.10		H8	H9	H9		B3	B3	B3
Core_2	289596	835774	0.30	0.30	0.30	0.15	0.15	H2	H7			B3	B3		



					Peat dep	ths and charact	teristics		
Ref ID	Easting	Northing	Peat Probe Depth (m)	Depth with Auger (m)	Actual Peat Depth (m)	Acrotelm Thickness (m)	Catotelm Thickness (m)	Comments on Core	Comments on Location
Pr_40	286050	834050	1.00	1.00	1.00	0.12	0.78	Rock at 1.00 m	Open Moor, gentle slope
Pr_102	287550	834350	0.65	0.67	0.65	0.07	0.58	Thin layer of gritty sand on top of rock at 0.67m	Open Moor, moderate slope
Pr_103	287750	834350	0.55	0.55	0.55	0.10	0.45	Rock at 0.55 m	Open Moor, gentle slope
Pr_105	287650	834450	1.10	1.10	1.10	0.10	1.00	Rock at 1.10 m	Open Moor, moderate slope
Pr_109	287150	835150	1.35	1.35	1.35	0.10	1.25	Grit at 1.35 m	Open Moor, moderate slope
Pr_110	287550	835250	0.35	0.35	0.35	0.06	0.29	Grit at 0.35 m	Open Moor, gentle slope
Pr_115	287650	835650	0.80	0.80	0.80	0.10	0.70	Rock at 0.8m	Open Moor, gentle slope
Pr_116	286550	834250	1.00	1.00	1.00	0.08	0.92	Rock at 1.0m	Open Moor, gentle slope
Pr_118	287350	834050	1.00	1.00	1.00	0.06	0.94	Rock at 1.0m	Open Moor, moderate slope
Pr_201	287550	834850	0.70	0.70	0.70	0.08	0.62	Grit at 0.7m	Open Moor, moderate slope
Core_1	285848	834194	2.30	2.30	2.30	0.20	2.10	Rock at 2.30m	Open moor, fairly flat
Core_13	287241	834829	0.90	0.90	0.90	0.00	0.90	Rock at 0.90m	Disturbed ground, moderate slope
Core_14	287297	834835	0.25	0.35	0.25	0.10	0.15	Sand at 0.25m	Open moor, moderate slope
Core_15	287526	835273	0.60	0.60	0.60	0.15	0.45	Rock at 0.60m	Open moor, gentle slope
Core_16	287580	835258	0.40	0.45	0.40	0.10	0.30	Sandy grit at 0.40m	Open moor, gentle slope
Core_17	287295	835403	0.40	0.45	0.40	0.20	0.20	Silt at 0.40m	Open moor, gentle slope
Core_18	287256	835444	0.50	0.50	0.50	0.15	0.35	Thin layer of silt on top of rock at 0.50m	Open moor, gentle slope
Core_19	287222	834965	2.00	2.30	2.10	0.00	2.10	Sand at 2.1m	Disturbed ground, moderate slope
Core_2	289596	835774	0.30	0.30	0.30	0.15	0.15	Rock at 0.30m	Open moor, moderate slope



		Fine Fibro content, F2 F3 =		erate co		content, R2	Coarse fibre (R0 = nil, R1 = low ontent, R2 = moderate content, R3 = high content)			Wood remains (W0= nil, W1 = low content, W2 = moderate content, W3 = high content)			
Ref ID	Peat Probe Depth	Acrotelm	0-1m	1-2m	2-3m	Acrotelm	0-1m	1-2m	2-3m	Acrotelm	0-1m	1-2m	2-3m
Pr_40	1.00	F2	F2			R2	RO						
Pr_102	0.65	F2	F1			R2	R1						
Pr_103	0.55	F2	F2			R1	R1						
Pr_105	1.10	F2	F1			R2	R1						
Pr_109	1.35	F2	F1	F1		R1	R1	R1					
Pr_110	0.35	F1	F1			R1	RO						
Pr_115	0.80	F2	F2			R2	R1						
Pr_116	1.00	F2	F1			R1	RO						
Pr_118	1.00	F1	F1			R1	R1						
Pr_201	0.70	F2	F2			R2	R1						
Core_1	2.30	F2	F2	F2	F1	RO	RO	RO	RO	W0	W0	W0	W0
Core_13	0.90		F1				RO				W0		
Core_14	0.25	F2	F1			RO	R1			W0	W0		
Core_15	0.60	F2	F2			R2	R1			W0	W0		
Core_16	0.40	F2	FO			R1	R1			W0	W0		
Core_17	0.40	F3	F1			R2	R1			W0	W0		
Core_18	0.50	F2	F1			R1	RO			W0	W0		
Core_19	2.00		F1	FO	FO		RO	RO	RO		W0	W0	W0
Core_2	0.30	F3	F1			R1	R1			W0	W0		



Annex IV

CORING LOGS	
SITE:	Tom na Clach Wind Farm
CLIENT:	Infinergy
SURVEY DATES:	4 - 5/11/2020, 6 - 11/6/2021, 16/6/2021, 3 - 6/8/2021, 18/8/2021 and 27 - 29/10/2021

Concernence PPR.40 Auger Depth (m) Tal 0.0 Page 1 of 1 Formation Depth (m) Thickness (m) Von Post Image: Concernence of the set of t	Site Client	Tom na Infine	rgy		Easting Northing			86050 34050	
Page 1 of 1 void to the set of marking in the set of the set of marking in the set of the set	Survey Dates			Probe Depth (m)			1.00		
Acrotelm 0.12 0.12 H4 B3 at 0.08 m Image: Catotelm 0.12 0.12 H4 B3 at 0.08 m Image: Catotelm 1.00 0.78 H7 B3 at 0.80 m Image: Catotelm 1.00 0.78 H7 B3 at 0.80 m							1.00		
Catotelm 1.00 0.78 H7 B3 at 0.80 m Rock at 1.00 m			Formation	Depth (m)	Thickness (m)		Von Post		
Rock at 1.00 m			Acrotelm	0.12	0.12	H4	В3	at 0.08 m	
			Catotelm	1.00			Β3	at 0.80 m	
		N X X C			Rock at 1.00	m			
Notes: Open Moor, gentle slope	Notes: Open Moor, gentle s	lope							

Site	Tom na	Clach		Easting		2	87550	
Client	Infine		Northing			834350		
Survey Dates	4 - 5/11,			Probe Depth (m)		0.65		
Core Number	PR_1		ļ	Auger Depth (m)			0.67	
Page	1 of	1						
P		Formation	Depth (m)	Thickness (m)		Von Po	ost	
		Acrotelm	0.07	0.07	H3	B4	at 0.05 m	
		Catotelm	0.65	0.58	H7	В3	at 0.50 m	
		TI	hin layer of g	gritty sand on to	p of rock	at 0.67m	ן ו	
Notes:								
Open Moor, moderat	e slope							

	Easting		Clacif	Site Tom na	
	Northing				
	uger Depth (m)	ļ			
Page 1 of 1				Page 1 of	
Formation Depth (m) Thickness (m) Von Post	Thickness (m)	Depth (m)	Formation		
Acrotelm 0.10 0.10 H2 B4 at 0.06 m	0.10	0.10	Acrotelm		
Catotelm 0.55 0.45 H6 B3 at 0.40 m		0.55	Catotelm		
Rock at 0.55 m	Rock at 0.55				
	1001 at 0.00			otes:	Notes:
				en Moor, gentle slope	

Site	Tom na			Easting		287650		
Client	Infine			Northing		8	34450	
Survey Dates Core Number	4 - 5/11/ PR_1		Probe Depth (m) Auger Depth (m)			1.10 1.10		
Page	1 of		,			1.10		
		Formation	Depth (m)	Thickness (m)		Von Post		
	AND	Acrotelm	0.10	0.10	H3	В3	at 0.07 m	
	PUCCUS	Catotelm	1.10	1	H6	Β3	at 0.80 m	
				Rock at 1.10	m			
Notes:								
Open Moor, moderate	e slope							

Site Client Survey Dates	Tom na Infine 4 - 5/11	rgy /2020		Easting Northing Probe Depth (m)		287150 835150 1.35	
Core Number	PR_1		1	Auger Depth (m)			1.35
Page	1 of	Formation	Depth (m) Thickness (m)			Von Po	nst
		Acrotelm	0.10	0.10	H5	B3	at 0.07m
		Catotelm	1.35	1.25	H6	Β3	at 0.70
					H7	В3	at 1.15m
				Grit at 1.35	n		
Notes:							
Open Moor, moderat	e slope						

Client Infinergy Northing 835250 Survey Dates 4 - 6/11/2020 Probe Depth (m) 0.35 Page 1 of 1	Site	Tom na	Clach		Easting		2	287550	
Survey Dates 4 - 5/11/2020 Probe Depth (m) 0.35 Core Number PR 101 Auger Depth (m) Thickness (m) Van Post Page 1 of 1 Earnation Depth (m) Thickness (m) Van Post Image: Core Number Page 1 of 1 Image: Core Number Page									
Core Number PR_110 Auger Depth (m) Total (m) Von Post Page 1 of 1 Formation Depth (m) Thickness (m) Von Post Image: Im	Survey Dates			ſ	Probe Depth (m)		0.35		
Formation Depth (m) Thickness (m) Von Post Image: Constraint of the state of		PR_1	10	/	Auger Depth (m)				
Acrotelm 0.06 0.06 H2 B3 at 0.04 m Acrotelm 0.06 0.06 H2 B3 at 0.04 m Catotelm 0.35 0.29 H6 B3 at 0.25 m Interview Grit at 0.35 m 0.29 H6 B3 at 0.25 m	Page	Page 1 of 1							
Image: Second			Formation	Depth (m)	Thickness (m)		Von Pc	st	
Operation Grit at 0.35 m			Acrotelm	0.06	0.06	H2	В3	at 0.04 m	
lotes:			Catotelm	0.35	0.29	H6	B3	at 0.25 m	
lotes:					Grit at 0.35	m			
Dpen Moor, gentle slope	Notes:								

Client	Infine			N a set la tra a	287650				
			Northing Probe Depth (m)			835650 0.80			
Survey Dates Core Number	4 - 5/11/ PR_1		Auger Depth (m)			0.80			
Page	1 of	1	,			0.80			
1480		Formation	Depth (m)	pth (m) Thickness (m)			Von Post		
		Acrotelm	0.10	0.10	H2	В3	at 0.07m		
		Catotelm	0.80	0.70 Bock at 0.8	H6	B3	at 0.60m		
			Rock at 0.8m						
Notes:									

Site	Tom na			Easting			286550	
Client	Infine			Northing		8	34250	
Survey Dates Core Number	4 - 5/11/ PR_1		Probe Depth (m) Auger Depth (m)			1.00		
Page	PR_1 1 of		Auger Depth (m)			1.00		
	1 01	Formation	Depth (m) Thickness (m)			Von Post		
		Acrotelm	0.08	0.08	H4	В3	at 0.05m	
		Catotelm	1.00	0.92	H8	B3	at 0.70m	
			Rock at 1.0m					
Notes:				Rock at 1.0r	n			

Site Tom n	a Clach		Easting		287350		
	ergy		Northing		8	334050	
	1/2020		Probe Depth (m)			1.00	
	_ <u>118</u> of 1	Auger Depth (m)			1.00		
Page 1 c	Formation	Depth (m)	Thickness (m)		Von Post		
	Acrotelm	0.06	0.06	H4	В3	at 0.04m	
	Catotelm	1.00	0.94 Rock at 1.0r	H7	Β3	at 0.70m	
Notes:	L						
Open Moor, moderate slope							

Site Tom na					287550	
Client Infin			Northing		8	334850
Survey Dates 4 - 5/1		Probe Depth (m)			0.70	
Core Number PR_ Page 1 o		Auger Depth (m)			0.70	
Page 1 o	Formation	Depth (m) Thickness (m)			Von Post	
	Tormation	Depth (III)	mickness (m)		Volitie	
	Acrotelm	0.08	0.08	H3	В3	at 0.05m
	Catotelm	0.70	0.62 Grit at 0.7m	H5	B3	at 0.50m
Notes:	<u>I</u>			1		
Open Moor, moderate slope						

Site	Tom na (Clach		Easting		28	35848
Client	Infiner			Northing			34194
Survey Dates	6/6/2021 - 18			Probe Depth (m)			2.30
Core Number	Core_		/	Auger Depth (m)		4	2.30
Page	1 of 1		Douth (m)			Von Pos	+
		Formation Acrotelm	Depth (m) 0.20	Thickness (m) 0.20		H2 B3	
<image/>		Catotelm	2.30	2.10	H6	Β4	at 0.80m
Open moor, fairly flat							
Site	Tom na (Clach		Easting		28	35848
Jite	Tom na v			Lasting		20	0-00

Client	Infine	rgy		Northing		8	34194
Survey Dates	6/6/2021 - 1			Probe Depth (m)		2.30	
Core Number	Core		1	Auger Depth (m)		2.30	
Page	2 of	2					
		Formation	Depth (m)	Thickness (m)		Von Po	st
		Catotelm	2.30	2.10	H7	Β4	at 1.80m
					H8	В3	at 2.20m
24.10°	A Real Providence			Deals at 0.00			
				Rock at 2.30	m		

Site	Tom na (Clach		Easting		2	87241
Client	Infiner			Northing		8	34829
Survey Dates	6/6/2021 - 18		Probe Depth (m)			0.90	
Core Number Page	Core_ 1 of	13	F	Auger Depth (m)		0.90	
i age	1 01	Formation	Depth (m)	Thickness (m)		Von Po	ost
		Catotelm	0.90	0.90 Rock at 0.90	H8	B3	at 0.80m
Notes:							
Disturbed ground, m	oderate slope						

Client Infinergy Northing 834835 Survey Dates 66/6/2021 - 18/08/2021 Probe Depth (m) 0.25 Core Number Core 14 Auger Depth (m) 0.35 Page 1 of 1 Image: Survey Dates 0.00 Post Formation Depth (m) Thickness (m) Von Post	Site	Tom na			Easting		287297	
Core Number Core_14 Auger Depth (m) 0.35 Page 10f1 Thickness (m) Von Post Formation Depth (m) Thickness (m) Von Post Acrotein 0.10 0.10 H2 B3 Image: Core Number Network (m) H2 B3 H2 B3								
Page 1 of 1 Image: Constraint of the second se								
Formation Depth (m) Thickness (m) Von Post Image: Acrotelm 0.10 0.10 H2 B3							0.00	
Acrotelm 0.10 0.10 H2 B3	0			Depth (m)	Thickness (m)		Von Post	
Catotelm 0.25 0.15 H7 B3 at 0.20m			Acrotelm	0.10			H2 B3	
			Catotelm	0.25	0.15	H7	B3 at 0.20m	
Sand at 0.25m					Sand at 0.25	m		
Notes: Open moor, moderate slope	Notes: Open moor moderat	te slope						

Site	Tom na	Clach		Easting		287526
Client	Infine			Northing		835273
Survey Dates Core Number	6/6/2021 - 1			Probe Depth (m) Auger Depth (m)		0.60
Page	Core_ 1 of	<u>15</u> 1	,	Auger Depth (III)		0.00
1050		Formation	Depth (m)	Thickness (m)		Von Post
		Acrotelm	0.15	0.15		H3 B3
		Catotelm	0.60	0.45 Rock at 0.60	H5	B3 at 0.50m
				Rock at 0.60	m	
Notes:						
Open moor, gentle s	lope					

Site	Tom na (Easting		287580	
Client	Infiner			Northing		835258	
Survey Dates	6/6/2021 - 18			Probe Depth (m)		0.40	
Core Number Page	Core_ 1 of	1	/	Auger Depth (m)		0.45	
T age	101	Formation	Depth (m)	Thickness (m)		Von Post	
		Acrotelm	0.10	0.10		H3 B3	
		Catotelm	0.40	0.30	H8	B3 at 0.30m	
				Sandy grit at 0.	40m		
Notes:							
Open moor, gentle s	lope						

Site	Tom na		Easting			287295	
Client				Northing Probe Depth (m)		835403 0.40	
Survey Dates Core Number	6/6/2021 - 18 Core_			Auger Depth (m)		0.40	
Page	001e 1 of		,			0.43	
1450		Formation	Depth (m)	Thickness (m)		Von Post	
		Acrotelm	0.20	0.20	H2	B3	
		Catotelm	0.40	0.20	H6	B3	
Neter							
Notes:	lana						
Open moor, gentle s	lobe						

Site	Tom na (Easting		287256	
Client Survey Dates	Infine 6/6/2021 - 18			Northing Probe Depth (m)		835444 0.50	
Core Number	Core_			Auger Depth (m)		0.50	
Page	1 of						
		Formation	Depth (m)	Thickness (m)		Von Post	
		Acrotelm	0.15	0.15		H3 B3	
		Catotelm	0.50	0.35	H8	B3 at 0.30m	
			Thin layer	of silt on top of	rock at 0	.50m	
Notes:							
Open moor, gentle s	lope						

Site	Tom na Clach			Easting		2	87222
Client	Infinergy			Northing		834965	
Survey Dates	6/6/2021 - 18/08/20)21	F	Probe Depth (m)		2.00	
Core Number	Core_19 1 of 2		/	Auger Depth (m)		2.30	
Page		mation	Depth (m)	Thickness (m)		Von Po	ct
<image/>	Car	totelm	2.10	2.10	H8	B3	at 0.80m
Open moor, fairly fla							
Site	Tom na Clach			Easting		2	87222

Coring logs	

Client	Infine	rgy		Northing		8	334965
Survey Dates	6/6/2021 - 18	3/08/2021		Probe Depth (m)			2.00
Core Number	Core_			Auger Depth (m)			2.30
Page	2 of	2				-	
		Formation	Depth (m)	Thickness (m)		Von Po	ost
		Catotelm	2.10	2.10	H9	B3	at 1.80m
					H9	B3	at 2.05 m
				Sand at 2.1n	n		

Site	Tom na (Clach		Easting		2	89596
Client	Infiner	gy		Northing			35774
Survey Dates	6/6/2021 - 18			Probe Depth (m)			0.30
Core Number Page	Core_ 1 of		ļ A	Auger Depth (m)			0.30
Fage	101	Formation	Depth (m)	Thickness (m)		Von Po	st
		Acrotelm	0.15	0.15		H2 B	
		Catotelm	0.30	0.15	H7	Β3	at 0.25m
				Rock at 0.30	m		
Notes:							
Open moor, moderat	e siohe						