Intended for

Viking Energy Wind Farm LLP

Date

October 2021

Project Number **1620009158**

VIKING ENERGY WIND FARM PLANNING MONITORING OFFICER AUDIT REPORT 012: 24TH SEPTEMBER TO 20TH OCTOBER 2021



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CONTENTS

1.	AUDII DEIAILS	1
1.1	Audit Details	1
1.2	Distribution	1
1.3	Terms of Reference	1
1.4	Role of the Planning Monitoring Officer	2
1.5	General Limitations and Reliance	3
2.	INTRODUCTION	4
2.1	Objectives of Audit	4
2.2	Scope of Audit	4
2.3	Site Personnel	4
3.	SITE SETTING, RECORDS AND OBSERVATIONS	5
3.1	Kergord	5
3.2	Sandwater Track	5
3.3	Mid Kame Ridge	6
3.4	North Compound and North Nesting	6
3.5	Main Compound	6
3.6	Nesting	7
3.7	Substation	7
3.8	Communication with Clerks of Work	7
3.9	Scope of next audit	8
4.	AUDIT FINDINGS AND REQUIRED ACTIONS	9

1. AUDIT DETAILS

1.1 Audit Details

Audit Number	PMO 012		
Location	Kergord		
	Sandwater Road		
	Mid Kame Ridge		
	North Compound and North Nesting		
	Main Construction Compound		
	Nesting		
	Substation		
Weather Conditions	Windy, mild, rain (4°C).		
Audit Date	20 th October 2021		
Audit Period	24 th September to 20 th October 2021		
Audit Owner	Ramboll UK Ltd		

1

1.2 Distribution

Position	Action
Ramboll Project Director Planning Monitoring Officer	For information
SSE Renewables Development Manager	For information
SSE Renewables Consents Manager	For information
SSE Renewables Environmental Advisor	For information
RJ McLeod Design Management Engineer	For Information
Shetland Islands Council Planning Enforcement Officer	For information
Shetland Islands Council Natural Heritage Officer	For information

1.3 Terms of Reference

This audit has been completed with reference to the following key documents:

 Application under Section 36C of the Electricity Act 1989 to vary the consent granted under Section 36 of that Act on 4 April 2012 to construct and operate the Viking Wind Farm located in Shetland Islands Council Planning Authority Area and for a direction under Section 57 of the Town and Country Planning (Scotland) Act 1997 for planning permission to be deemed to be granted in respect of the proposed development (i.e. the 'Variation Application').

The Viking Wind Farm project will comprise the construction of 103 wind turbines with a turbine tip height of 155 m; development of a temporary construction compound; construction of associated access tracks; development of a substation; development of a convertor station; erection of permanent Met Masts; and the excavation of borrow pits.

The project was consented as detailed above, receiving Section 36C Consent and deemed planning permission on 24th May 2019.

Separate planning consents are in place for the following specific aspects of the development:

- Construction of the Kergord Access Track¹ (consented on 29th April 2019).
- Re-alignment of Sandwater Road² between the Burn of Weisdale and the junction with the A970 to facilitate construction access for the Viking Wind Farm (consented on 26th May 2020).
- Formation of temporary construction compounds at two locations; Sandwater (Main)³, consented on 22nd June 2020; and North (South of Voe)⁴ consented on 9th September 2020.

1.4 Role of the Planning Monitoring Officer

Condition No. 3 of the Variation Application states that:

"No development shall commence unless and until the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant to assist the Planning Authority in monitoring compliance with the terms of the deemed planning permission and conditions attached to this consent (a Planning Monitoring Officer ("PMO"). The terms of the appointment shall:

- Impose a duty to monitor compliance with the terms of the deemed planning permission and conditions attached to this consent;
- Require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
- Require the PMO to report to the Planning Authority any incidences of non-compliance with
 the terms of the deemed planning permission and conditions attached to this consent at the
 earliest practical opportunity.

The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

In order to discharge the above requirements, the PMO undertakes site-based audits at monthly intervals to monitor the compliance with the conditions of the consent. The primary documents used for compliance monitoring are the Construction Environmental Management Plan (CEMP); and the Pollution Prevention Plan (PPP). Additional documents will be referenced as required for specific detail.

The following traffic light system is used to indicate action status:

Green – activities appear to be compliant with the CEMP, PPP and other applicable environmental management procedures and plans and there are no other issues.	
Amber – in general activities are compliant with the CEMP, PPP and other applicable environmental management procedures and plans but there are minor actions required.	
Red – activities may not be compliant with the CEMP, PPP and other applicable environmental management procedures and there are critical actions.	

¹ Shetland Islands Council Planning Reference No: 2018/096/PFF

 $^{^{2}}$ Shetland Islands Council Planning Reference No: 2019/079/PPF

³ Shetland Islands Council Planning Reference No: 2019/188/PPF

⁴ Shetland Islands Council Planning Reference No: 2019/210/PPF

1.5 General Limitations and Reliance

This report has been prepared by Ramboll UK Limited ("Ramboll") exclusively for the intended use by Viking Energy Wind Farm LLP (the "client"). No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon site observations, publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended to form a record for the purpose of documenting compliance with Condition No. 3 of the Variation Application. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

2. INTRODUCTION

2.1 Objectives of Audit

The purpose of the PMO Audits is to monitor the provision of appropriate environmental management at active work sites of the project, via desk-based review of relevant documentation and site visits to be undertaken on a monthly basis to ensure compliance with the conditions of the planning consent and associated environmental management plans.

2.2 Scope of Audit

The scope of the audit was as follows:

- Liaison with SIC regarding public concerns or complaints received during the audit period.
- Review of documents provided by the Client and Principal Contractor prior to and following the audit visit. Specific references are included in the relevant sections of the report.
- A site visit attended by the PMO, SSE Renewables Environmental Site Manager, RJM Design Engineer and SIC Planning Enforcement Officer undertaken on 20th October 2021 which included the following locations:
 - Kergord;
 - Sandwater Road;
 - Mid Kame Ridge;
 - North Compound and North Nesting;
 - Main Compound;
 - Nesting; and
 - Substation.
- Discussions were held with the Geotechnical Clerk of Works (GCoW), Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW).

A selection of photographs taken during the audit are included in Appendix 1.

2.3 Site Personnel

The following site personnel were interviewed as part of this audit:

Company	Position	
SSE Renewables	Environmental Advisor	
RJ McLeod	Design Engineer	
Tony Gee and Partners	Geotechnical Clerk of Works	
MBEC	Environmental Clerk of Works	
Headland Archaeology	Archaeological Clerk of Works	

3. SITE SETTING, RECORDS AND OBSERVATIONS

Observations made during the audit are described in this section. Corresponding photographs are included in Appendix 1, alongside a plan of the site indicating the location of each photograph.

3.1 Kergord

3.1.1 Site Setting and Activities

Access to the Kergord Arrays is taken via the Kergord Access Track (KAT), which was accessed from the Sandwater track along the southern boundary of the central area of the development.

Activities in this area during the audit included progression of access tracks and peat restoration areas, rock extraction at borrow pits, formation of crane pad hardstanding areas and installation of steel cages at turbine foundations.

3.1.2 Observations

Construction of track in the north of Kergord is near completion at K42, with ongoing preparation for peat reinstatement works. Following the dry summer and early autumn periods, rainfall has increased. In response to this, the construction of bases where it is known that free-draining will not be possible, has been delayed. Where pooled water has occurred, then these bases are being pumped to remove the water in a controlled manner so as not to incur any additional environmental impact(example shown in Photo 1). The installation of steel cage has been completed at K52 and K59 with K48 being progressed.

Clean surface water flow is controlled by cut off trenches which direct flow away from construction areas (example shown in Photos 2 and 3). The ditches are designed to ensure the flow of water towards ecologically sensitive environments is protected. Silt traps are installed throughout the area as construction progresses to manage runoff. A proactive approach to drainage, the installation of settlement ponds and the deployment of silt traps and fencing are used in anticipation of higher rainfall in coming months.

A temporary bridge at watercrossing 3 (towards K66) has been completed, allowing works to continue into Spurs 6, 7 and 9. Construction in the south of Kergord has extended towards K74. The peat reinstatement along tracks are ongoing, there are sections where the reinstatement of turves is awaiting installation of cabling.

3.2 Sandwater Track

3.2.1 Site Setting and Activities

A track has been constructed at Sandwater, located at the southern limit of the central site area, which provides access to the Kergord and Mid Kame Ridge wind farm areas for all construction traffic. The new track is located adjacent to the existing Sandwater Road (B7095), which remains operational for public traffic. Landscaping has been completed on the south side of the western section of Sandwater Track. Landscaping has also been completed at a managed settlement pond to the north of the western section.

The Sandwater Loch is located directly to the south of the site boundary. Sandwater Loch is designated as a Site of Special Scientific Interest (SSSI)⁵, notified for 'Open Water Transition Fen' and 'Mesotrophic Loch' habitats.

 $^{^{\}rm 5}$ As notified under the Nature Conservation (Scotland) Act 2004

3.2.2 Observations

Works on Pettawater bridge are ongoing to complete construction, awaiting cabling and construction of tarmac. The PMO observed that the south face and part of the north face of the eastern section of the Sandwater track has been reinstated.

3.3 Mid Kame Ridge

3.3.1 Site Setting and Activities

The Mid Kame Ridge (MKR) is accessed from the Sandwater track and stretches northwards to Hamarigrind Scord. Construction personnel were pouring concrete for a turbine foundation/base during the audit at turbine K88.

3.3.2 Observations

At the time of visit, all of the bases in the area have had concrete poured, except K85 and K88. Bases that have been set and are without temperature restrictions have had their jackets removed (example shown in Photo 4). K85 has been prepared for concrete pouring with concrete being poured at K88 at the time of visit (Photo 5). Vehicles used during the concrete pouring were noted to be washing out residual concrete into a designated concrete wash-out pit, which is appropriately lined with impermeable plastic sheeting (Photo 6). The stockpiled material at each base will be tested and graded for suitability as backfill for the turbine bases.

3.4 North Compound and North Nesting

3.4.1 Site Setting and Activities

The North Compound and northern Nesting turbine arrays are located towards the northern limit of the site on the eastern side of the A970. Track and bridge construction, peat restoration, reinstatement and crane pad hardstanding formation was also being undertaken during the audit. At the North Compound batching plant 1 and 2 are in place.

3.4.2 Observations

The construction of a microsited track route towards N105 has been completed, successfully avoiding an area of good quality sensitive habitat through use of the micrositing process (Photo 7). Construction of the temporary bridge between N95 and N96 (watercrossing 15) has begun (Photo 8), which once completed will allow the track construction of Spur 45, 45A and N97.

Phase 1 of the peat restoration at P7 and P19 has been completed with ongoing restoration at P11 (Photo 9).

3.5 Main Compound

3.5.1 Site Setting and Activities

The Main Compound is located at the southern extent of the development site, accessed from the A970. The lower level comprises car parking and site offices and welfare facilities. The upper level is in use for material and equipment laydown.

3.5.2 Observation

The car parking, site offices and welfare facilities are functioning well. All materials are stored according to regulations. No evidence of leaks or staining was observed in the vicinity of the store.

3.6 Nesting

3.6.1 Site Setting and Activities

The Nesting arrays are accessed from the A970. Activities in this area during the audit included progression of access tracks, bridges and peat restoration areas, rock extraction at borrow pits and formation of crane pad hardstanding areas.

3.6.2 Observations

The construction of the track for Spur 35 has been progressed to N128 (Photo 10). The concrete abutment for the permanent bridge over the Burn of Forse (watercrossing 19, between N120 and N122) has been completed, awaiting the arrival of the permanent bridge body (Photo 11).

An area of eroded and degraded peatland was identified around the location of N148. This was identified as per the remit of the Habitat Management Plan Officer (HMPO) who has defined and managed the deposition of peat into this area with a view to it being considered and additional peat restoration area under the HMP Implementation Plan. Construction has progressed towards N149 and N150.

On the day of the visit, there was blasting planned at NBP05 (Photo 12).

3.7 Substation

3.7.1 Site Setting and Activities

The Substation is located behind the Converter Platform between Mid Kame Ridge and Kergord. Access to the Substation is taken via the KAT. Activities in this area included completion of the temporary site office and welfare facilities, excavation and foundation work for buildings within the Substation.

3.7.2 Observations

The structure of the temporary site office and welfare facilities has been completed with electricity being connected. Foundation work for buildings within the Substation is ongoing (Photo 13).

A fuel storage area has been set up and is controlled in keeping with CEMP requirements. Access to the store is controlled and the store is bunded. No evidence of leaks or staining was observed in the vicinity of the store, spill kits and fire extinguisher were available (Photo 14).

A peripheral drain has been constructed to capture and discharge clean water from the western side of the platform area, PMO observed no discharge during visit (Photo 15).

3.8 Communication with Clerks of Work

3.8.1 GCoW

Condition 39 of the planning consent requires the appointment of a Geotechnical Clerk of Works (GCoW) to minimise the risk of peat failure arising from the development. A discussion was held between the PMO and GCoW before the site visit, on the 15th October 2021.

The GCoW described the ongoing monitoring work across the site. This has included monitoring of the general construction works, monitoring peat restoration areas, providing advice on peat handling and surveying of cable routes. The GCoW reported good working practices on peat restoration areas with ongoing supervision to ensure high standard throughout. The GCoW reported completion of routine inspection of geotechnical items, none of which resulted in environmental incident.

3.8.2 ECoW

Condition 19 of the planning consent requires the appointment of an Ecological Clerk of Works to ensure protection of the natural heritage of the area. A discussion was held between the PMO and ECoW before the site visit, on the 15th October 2021.

The ECoW continues to work with the Principal Contractor to identify and implement mitigation measures ahead of construction. This includes pre construction surveys ahead of planned works, predicting ornithology constraints in the coming year to advise construction schedule and additional surveying of cable routes.

The ECoW noted dialogue has taken place with the Principal Contractor regarding best practices during the construction of floating road to minimise peat instability and on turf reinstatement.

3.8.3 ACoW

Condition 29 of the planning consent requires the appointment of an Archaeological Clerk of Works to ensure archaeological features are protected and recorded during the development. The ACoW communicated the ongoing works to the PMO on the 15th October 2021.

The ACoW described the ongoing and completed monitoring works across the site. In the Nesting Array, peat stripping on Spur 26 (near N121) has been completed with ongoing monitoring on peat stripping on Spur 41 (near N149) and Spur 36 (near N128).

In North Nesting monitoring has been completed at spur 45 with ongoing monitoring at spur 48 (near N107).

In Kergord, most of the monitoring areas have been completed with the remaining expected to be completed next month.

The ACoW has continued with daily checks across the project site and has completed surveying of cable routes.

3.9 Scope of next audit

The scope of the next PMO audit will be dependent on the specific activities undertaken at the development site in the preceding days and weeks. This is likely to include:

- Update on progress of construction works at Kergord, Mid Kame Ridge, Sandwater Road, North Compound and Nesting.
- Consideration of any comments received by the SIC or the Developer in relation to the works, including visits to view specific areas of concern.
- Update on the formation of peat restoration areas.
- Update on the construction of borrow pits.
- Update on the construction of the VEWF Substation.
- Updates from the ACoW, ECoW and GCoW teams.

4. AUDIT FINDINGS AND REQUIRED ACTIONS

Issue	Auditor Comments	Required Action	Action Owner	Status
Materials Storage and Handling (e.g. oil/fuel storage and peat/mineral soil storage and handling).	Peat restoration areas are managed through the project Habitat Management Plan and by a dedicated HMPO which balances the geotechnical and ecological objectives of the restoration. Potential risks relating to storage of peat are recorded on the PRRs and communicated to the Principal Contractor to allow mitigation/monitoring to be undertaken. The PMO will request evidence in future audits to confirm compliance with requirements for GCOW and ECOW approval of proposed peat restoration areas. The project COSHH stores are typically used for the storage of maintenance oils and greases. The stores were all locked and the assessment for each substance was readily available in each store. The stores were bunded and no leaks or staining was observed around the stores.	No action required.	N/A	Green
Natural and Built Environment (e.g. ecology, biosecurity, protected sites, archaeology and site restoration).	Ecological constraints identifed by the ECoW team are communicated to the Principal contractor and Developer to allow mitigation measures to be implemented and rescheduling of preparatory and construction work as required. These are also marked out by poles on the site and included on ecological sensitive plans issued to the Principal contractor. Watching briefs have been undertaken by the AcoW where potential archaeolgical constraints are identifed. Where there are known archaelogical features the track is micro-sited to avoid the feature.	No action required.	N/A	Green

VIKING ENERGY WIND FARM

Issue	Auditor Comments	Required Action	Action Owner	Status
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The project has recieved authorisation to abstract water from eight locations from SEPA. The authorisation allows the water to be used for dust suppression. The PMO has reviewed documents confirming that the appropriate registration is in place with SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended. During the audit the PMO observed spill kits to be well stocked and readily available in areas where liquids are stored.	No action required.	N/A	Green
Noise, Dust, and Air Quality	No dust complaints had been received during the reporting period. Given the wet weather, dust suppression measures have not been required but effective measures are in place if required.	No additional actions required other than continued monitoring of dust conditions and implementation of control measures as needed; and ongoing liaison as required with other construction operators.	N/A	Green
Resources, Waste and Transport.	The project manages wastes through a Site Waste Management Plan, the plan identifies the contractors transferring the waste and the disposal sites. Documents are retained in line with regulatory requirements.	No action required.	N/A	Green
Pre-Planning Works (e.g. site set-up and general management, access tracks, community liaison).	Evidence of pre-planning works observed and reported during the audit included pre-construction surveys, nesting bird surveys, and micro-siting of access tracks to account for constraints. Potential constraints are identified and suitable mitigation measures implemented to prevent negative impacts.	No action required.	N/A	Green

VIKING ENERGY WIND FARM

APPENDIX 1 SITE LOCATION PLAN AND PHOTOLOG

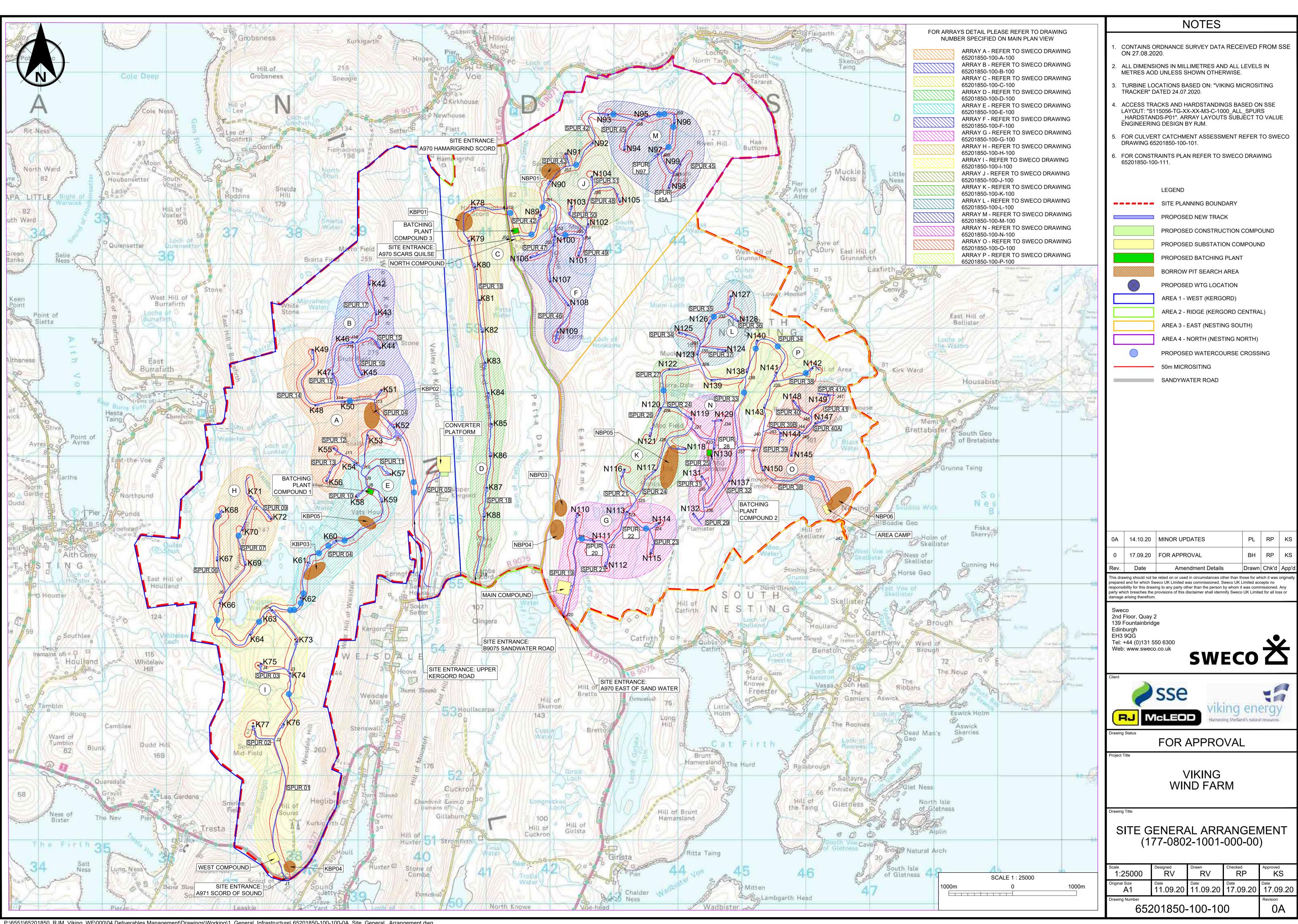






Photo 1. Water pump being used at K47 in preparation for installation of steel cages



Photo 2. Example of cut off trenches that direct clean surface water flow away from construction areas at K64 (inflow)

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 3. Example of working culvert under track to K64 (outflow)



Photo 4. View of exposed concrete work at K79, the excavated area will then be backfilled

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 5. View of concrete being poured at K88



Rinsing of vehicle being used for concrete pouring with mitigation in place to avoid pollution and run offs.

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 7. View of good quality sensitive habitat avoided with modified track route towards N105, track now on the left of photo instead of through the habitat in the middle



Photo 8. View of the temporary bridge abutment works for WC15 (Array M)

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 9. View of ongoing peat restoration at P11



Photo 10. View of track construction at N128

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 11. View of completed concrete abutment at watercrossing 19



Photo 12. View of blasting preparation at NBP05

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 13. View of foundation work for buildings within the Substation



Photo 14. View of spill kit and fire extinguisher near fuel storage at Substation

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021





Photo 15. View proposed clean water discharge point, no discharge observed

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	20 th October 2021