Intended for Viking Energy Wind Farm LLP

Date January 2023

Project Number **1620009158** 

# VIKING ENERGY WIND FARM PLANNING MONITORING OFFICER AUDIT REPORT 027: 26<sup>TH</sup> DECEMBER 2022 TO 17<sup>TH</sup> JANUARY 2023



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## **1. AUDIT DETAILS**

#### 1.1 Audit Details

Audit Number	PMO 027			
Location	Kergord			
	Mid Kame Ridge			
	Nesting			
	North Nesting			
	North Compound			
	Substation			
Weather Conditions	Dry, snow cover, moderate breeze (2°C).			
Audit Date 18 <sup>th</sup> January 2023				
Audit Period	21 <sup>st</sup> November to 20 <sup>th</sup> December 2022			
Audit Owner	Ramboll UK Ltd			

#### 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 24<sup>th</sup> May 2019.

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

- Construction of the Kergord Access Track<sup>1</sup> (consented on 29<sup>th</sup> April 2019).
- Re-alignment of Sandwater Road<sup>2</sup> between the Burn of Weisdale and the junction with the A970 to facilitate construction access for the Viking Wind Farm (consented on 26<sup>th</sup> May 2020).
- Formation of temporary construction compounds at two locations; Sandwater (Main)<sup>3</sup>, consented on 22<sup>nd</sup> June 2020; and North (South of Voe)<sup>4</sup> consented on 9<sup>th</sup> 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.

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.

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

 $<sup>^{1}</sup>$  Shetland Islands Council Planning Reference No: 2018/096/PFF

<sup>&</sup>lt;sup>2</sup> Shetland Islands Council Planning Reference No: 2019/079/PPF

<sup>&</sup>lt;sup>3</sup> Shetland Islands Council Planning Reference No: 2019/188/PPF

<sup>&</sup>lt;sup>4</sup> 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. As stated in Section 1.1, the site visit on this occasion was replaced by a virtual visit using live video links, recorded video, photographs and discussion with the Clerks of Work and SEE Environmental Advisor.

#### 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 (if any).
- 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, RJM Environmental Clerk of Works and SIC Planning Enforcement Officer undertaken on 18<sup>th</sup> of January 2022 which included the following locations:
  - Kergord;
  - Sandwater track;
  - Main Compound;
  - Northern Compund;
  - Nesting; and
  - North Nesting.
- 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 by the SSE Environmental Advisor, as requested by the PMO. These are included in Appendix 1.

#### 2.3 Site Personnel

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

Company	Position	
SSE Renewables	Site Environmental Manager	
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 recorded during the audit are described in this section. Corresponding photographs are included in Appendix 1.

It is noted that the site has been shut over the Christmas period between the 22<sup>nd</sup> of December and the 9<sup>th</sup> of January, and at the time of the audit, the site had been operational for little over a week since the last PMO audit.

#### 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 and backfilling of cable trenches, rock extraction at borrow pits and conversion of KBP05 to laydown area for turbine components.

#### 3.1.2 Observations

All construction of turbine bases has been completed in this area.

During the visit, KBP05 was being cleared in preparation for Vestas in 2023. Proposed Vestas compounds are at KBP05 and the North Compound.

In response to periods of heavy rainfall and prevention of silty water events, a water pump with reactor is being used between K61 and K62 on settlement ponds by Maa Water (Photo 1). The reactor is a flocculation system that helps settle out the sediment within the drainage water. This was first observed during the November PMO audit, and further information is available in the PMO025 report.

During periods of heavy rainfall, a small sediment plume has occasionally been noted in the loch. It is noted that sediment concentrations were below the permitted levels. It is believed that a peat pipe transports water from the vegetated area, directly to the loch. It was agreed by all parties that best practice drainage management is currently in place in the area adjacent to Maa Water at present, with the settlement ponds and several silt fences (Photo 2). Due to cable trenches being excavated in the upcoming month, the drainage management in this area will need to be changed, which may include investigation into the exact location of the peat pipe. Ongoing monitoring during the construction is required in this area.

During the visit, drilling was occurring in KBP02 in preparation for a further rock extraction in the borrow pit. The drilling also aids in the reprofiling of the borrow pit face in preparation for reinstatement. Following discussions between SSE and SEPA, it has been agreed that the north-east section of the borrow pit is to be capped and reinstated by the end of March. This approach was agreed partly in order to remediate the metal concentrations in the Burn of Lunklet.

Peat bunds had undergone further maintenance along the access track between Junction 13 and K50. During periods of heavy rainfall, runoff from the road was flowing into the catchment area. The peat bunds have been put in place to divert the runoff into the vegetation in order to filter the sediment prior to surface water entering the Burn of Lunklet (Photo 3).

The cross-country cable track from Kergord to the substation has commenced. Clean water culverts are being installed as the track is progressed (Photos 4 and 5).

#### 3.2 Mid Kame Ridge and Sandwater Track

#### 3.2.1 Site Setting and Activities

The Mid Kame Ridge (MKR) is accessed from the Sandwater track and stretches northwards to Hamarigrind Scord.

Due to snow and ice impacting access, works on the ridge had been suspended two days prior to the visit. Cable trench works had begun during the day of the audit.

#### 3.2.2 Observations

Mid Kame Ridge was not observed during the PMO audit, as no further works on the cross country route or the ridge had been undertaken since the previous PMO audit.

The burn of Weisdale was observed in connection with communication received by SIC during the festive period. Further information is included in Section 3.8.

#### 3.3 North Compound

#### 3.3.1 Site Setting and Activities

The North Compound is located towards the northern limit of the site on the eastern side of the A970. Concrete batching plant 1 and 2 are currently being demobilised in preparation for Vestas to take over the compound as a site office area.

#### 3.3.2 Observations

The batching plants were observed to have been decommissioned; however, tanks, IBCs and other plant were awaiting removal from the compound (Photos 6 and 7). It was noted by the Design Engineer that the tanks were empty. IBCs with contents still in them were stored in the concrete bunds. Concrete hardstanding had been broken out to the east of the compound and the hardstanding remained in the west of the compound.

#### 3.4 North Nesting

#### 3.4.1 Site Setting and Activities

The northern Nesting turbine arrays are located towards the northern limit of the site on the eastern side of the A970.

Work includes the excavation of cable trenches, laying of cables and backfill of cable trenches, as well as track and drainage maintenance.

#### 3.4.2 Observations

The silt fences have been cleared of the silt caught to date to ensure they are operating in the most efficient way. In addition, a series of ponds have been installed as a more long-term solution to drainage management from the access tracks (Photos 8 and 9).

The capping layer for the access track was being installed between bases 93 and 95.

Water had built up in NBP01 over the Christmas break and the water in the base of the borrow pit was being pumped out of the base during the audit (Photo 10). There is further rock extraction to be undertaken in this borrow pit.

The peat movement at N97 has been relandscaped (Photo 11).

#### 3.5 Nesting

#### 3.5.1 Site Setting and Activities

The Nesting arrays are accessed from the A970

Activities in this area during the audit included progression and backfilling of cable trench excavations, rock extraction at borrow pit and formation of turbine hardstandings.

#### 3.5.2 Observations

Cracking of the edge of the hardstanding surface at N114 as previously reported (PMO025). This is already included in the project geotechnical risk register and is continues to be monitored by the GCoW while the cause is being investigated. This was not observed during PMO027 since no further works have been completed in this area.

NBP05 was observed due to a comment from the ECoW regarding a peat slip covering the area of blanket bog. Further information is provided in Section 3.7.2.

#### 3.6 Substation

#### 3.6.1 Site Setting and Activities

The Substation occupies the northern third of the HVDC Converter Station Platform located in the Kergord Valley, between Mid Kame Ridge and Kergord. Access to the Substation is taken via the KAT. Only the substation area is subject to the PMO audit.

#### 3.6.2 Observations

The substation was not observed during the PMO audit; however, aerial photos have been provided showing the most recent works.

Construction of substation cable arrays under the diverted Northern Watercourse has been completed and the cable trenches have been backfilled (Photo 12). The area is currently being landscaped (Photo 13) and will then be handed over from the Design Engineer to the Principal contractors of the substation area.

#### 3.7 Communication with Clerks of Work

#### 3.7.1 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 and after the site visit, on the 16<sup>th</sup> of January 2023.

The GCoW described the ongoing monitoring work across the site. This has included monitoring of the general construction works including cable routes, monitoring peat restoration areas, included new temporary areas and providing advice on peat handling. The GCoW mentioned that due to site closure for the Christmas period and during inclement weather, there is no further observations since the PMO026 audit. Observations that continue to be investigated from the December audit are set out below.

The GCoW mentioned observations of peat slumps and required clarification on the plans for the reinstatement of these areas. The peat slumps did not have any significant environmental impacts.

As reported in Section 3.5.2, the GCoW is monitoring the crack at the edge of the hardstanding surface at N114.

#### 3.7.2 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 16<sup>th</sup> January 2023.

The ECoW continues to work with the Principal Contractor to identify and implement mitigation measures throughout different stages of construction. The measures aim to ensure the project maintains compliance with relevant licences. The ECoW is monitoring the progress of these measures on an ongoing basis.

The ECoW raised a movement of peat that had occurred at NBP05. It was noted that there were no geotechnical issues about the current position of the peat, and it was agreed by all parties that the risk of further movement is low. The peat movement has spread into an area of blanket bog (Photo 14); however, it is noted that this movement is within the area originally agreed the borrow pit would extend into. This will continue to be monitored as further rock extraction is undertaken and will be raised when the plans for borrow pit restoration have been reviewed.

#### 3.7.3 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 9<sup>th</sup> December 2022.

The ACoW described the ongoing and completed monitoring works across the site. Ongoing works mostly related to cabling work.

#### 3.8 Communication with SIC

A communication was received via email, enquiring about the drainage along the Kergord Farm Access Road. The email mentioned that a person had observed silty water in the drainage ditch and was concerned about the water reaching the Weisdale Burn.

During PMO027 audit, the area of concern was observed. The silty water gathered in the roadside drainage swale is pumped into high ground to allow drainage through vegetation before entering the drainage swale that leads to the Burn of Weisdale (Photos 15 and 16). The Design Engineer noted that it is good practise not to leave pumps running unattended for long periods of time and so the pumps were not used during the Christmas break. Provision was in place to check sensitive areas during the break, including this location. Due to the pump not being constantly switched on, the drainage water from the road had built up in the roadside swale.

Following the complaint, a member of site staff and a local SEPA representative had visited the site to monitor the suspended sediment concentrations entering the Burn of Weisdale. All values were found to be below the permitted level. It was decided that the pump would be switched on as an additional precaution.

#### 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 North Nesting, Main Compound and Nesting.
- Update on the capping and reinstatement of the lower Section of KBP02.
- Update on the drainage works in the area of Maa Loch.
- 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 cable track areas.
- Update on the construction of the VEWF Substation and undertake PMO audit of the substation area.
- Updates from the ACoW, ECoW and GCoW teams.

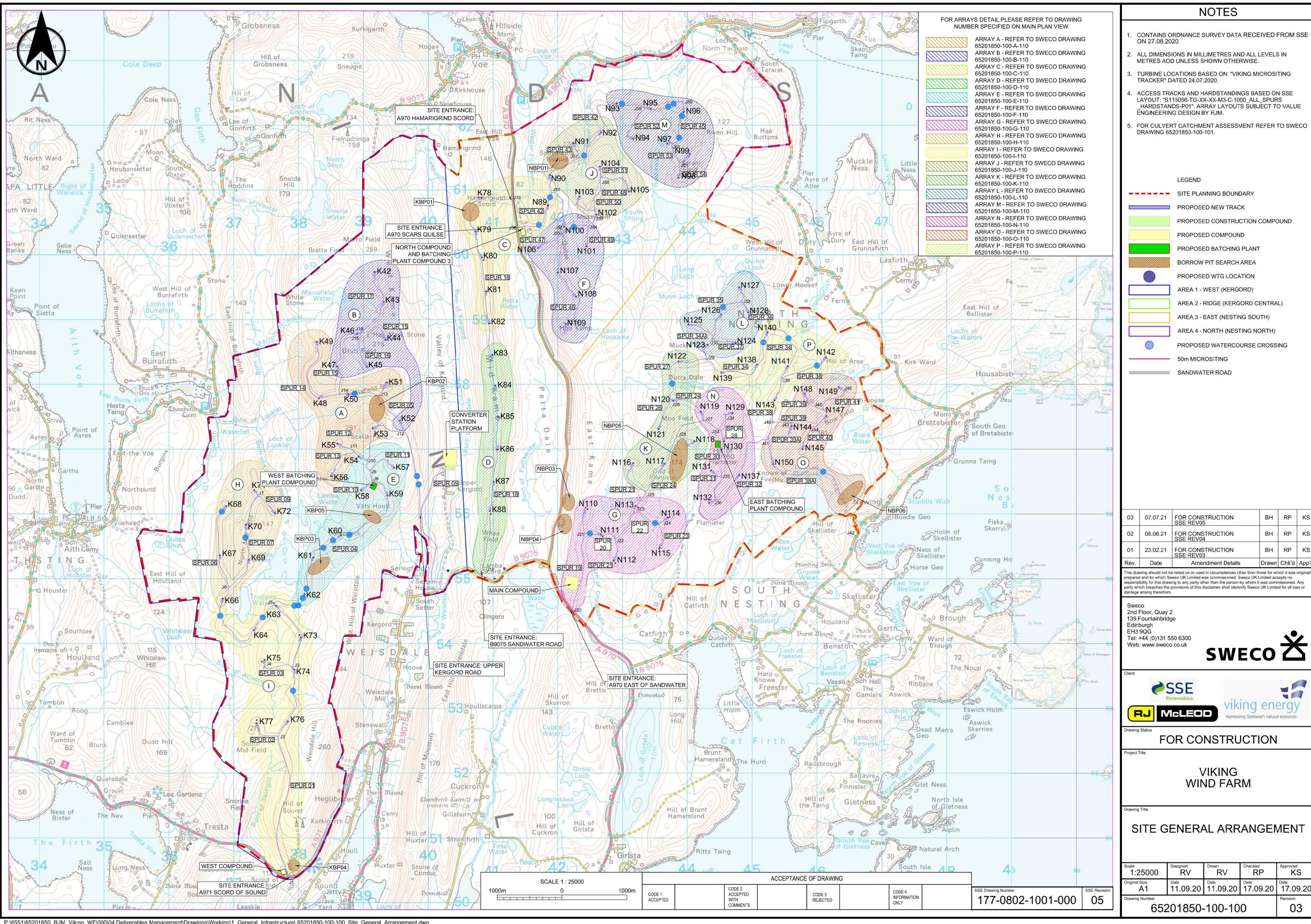
# 4. AUDIT FINDINGS AND REQUIRED ACTIONS

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	Principal Contractor	Green
Natural and Built Environment (e.g. ecology, biosecurity, protected sites, archaeology and site restoration).	Ecological constraints identified 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 archaeological constraints are identified. Where there are known archaeological features the track is micro-sited to avoid the feature.	No action required.	N/A	Green

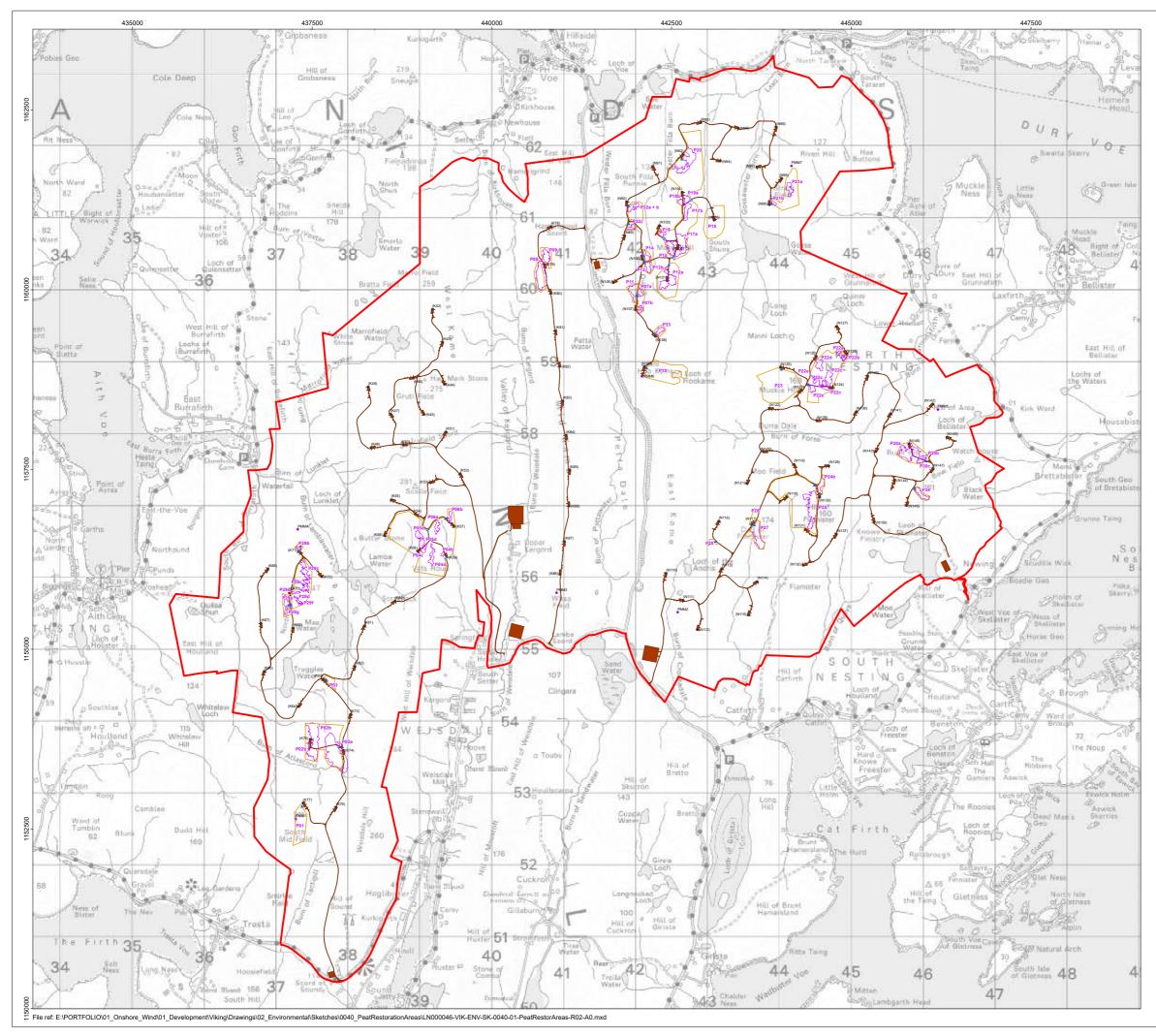
Issue	Auditor Comments	Required Action	Action Owner	Status
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The project has received authorisation to abstract water from eight locations from SEPA. The authorisation allows the water to be used 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	No action required.	N/A	Green
	liquids are stored. The project continues to improve the pollution prevention measures with additional measures installed in high risk areas. PMO observed effective measures in place including but not limited to cut off drains, settlement ponds, silt controls, track side ditches and water pumps.			
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	Silty water has been observed being discharged for a short time into watercourses during period of heavy rainfall. This was discreet, rare, short- lived and do not exceed reportable thresholds The levels of sediment in the water have not exceeded the permitted levels. Further mitigation has been put in place in the areas of concern.	No action required. Field testing for suspended solids determines whether further action and/or external reporting is required.	N/A	Green
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The SSE Renewables Environmental Manager notified the PMO that there have been some exceedances of Environmental Quality Standards of some trace metals in water quality sampling in the Burn of Lunklet. Further remediation is planned to attempt to lessen the source of the metals by capping and reinstating the lower section of KBP02. This is to be monitored as the works progress.	Investigation into the source of the trace metals is ongoing. PMO has confirmed the engagement between VEWF and SEPA and response from SEPA has been received in November 2022.	Principal Contractor	Amber

Issue	Auditor Comments	Required Action	Action Owner	Status
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 archaeological watching brief, community liaison. Potential constraints are identified and suitable mitigation measures implemented to prevent negative impacts.I		No action required.	N/A	Green

## APPENDIX 1 SITE LOCATION PLAN, PEAT RESTORATION PLAN AND PHOTOLOG

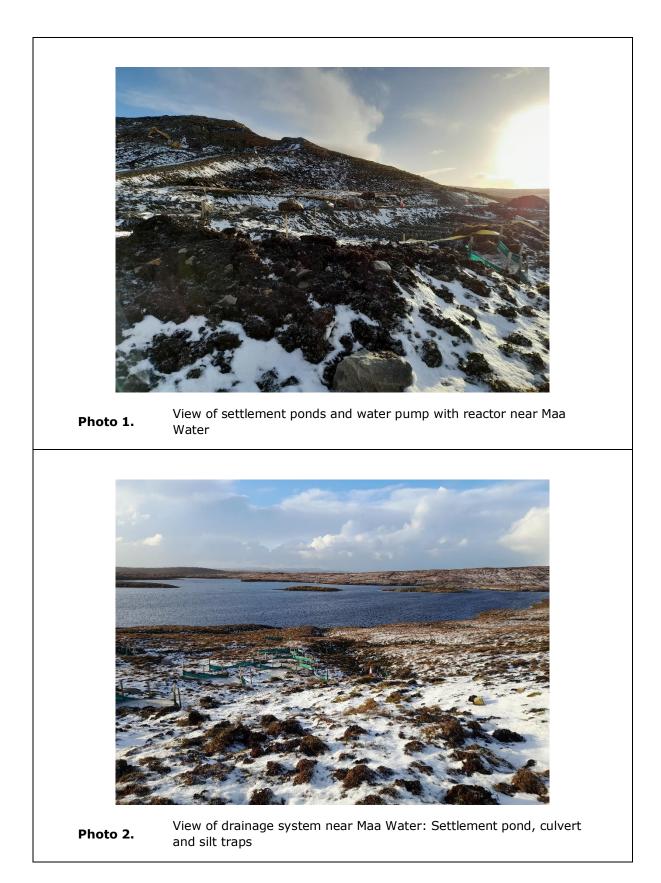


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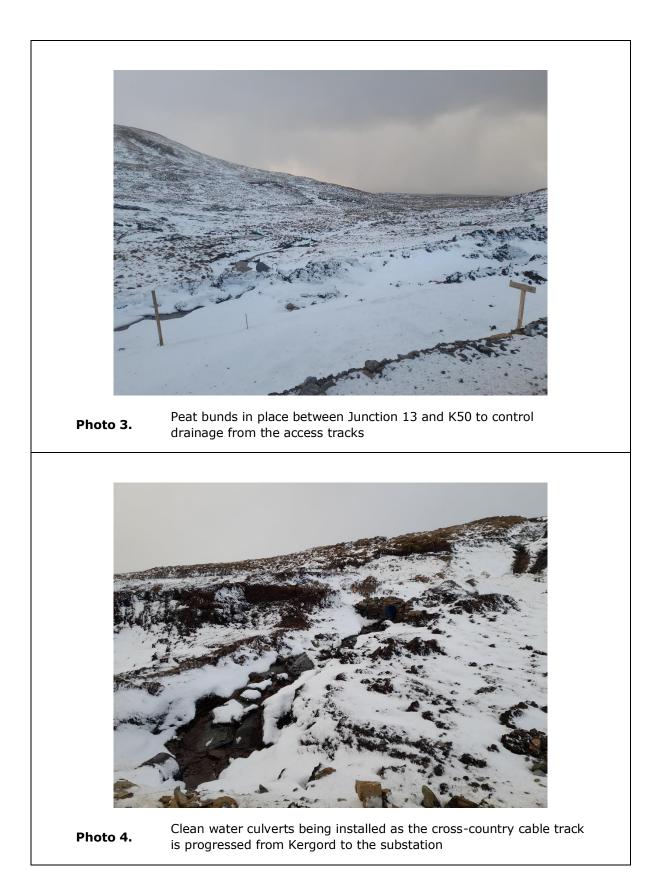
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	Project Name VIKING ENERGY WIND FARM						
Draw	ing Title						
		PEAT RESTORATION					
Rev	Date	Remarks	Drwn	Chkd			
R0	23/02/2021	First Issue	TD	EM			
R1 R2	12/01/2022 04/02/2022	Revised HMP Fencing boundary changes, gates and cattle grids added	AM AM	DM DM			
				2.11			
Draw	ving Number						
	LN000046-VIK-ENV-SK-0040-01						
Scale	1:18,			BNG			
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Site:	Viking Energy Wind Farm	Date:	18 <sup>th</sup> January 2023





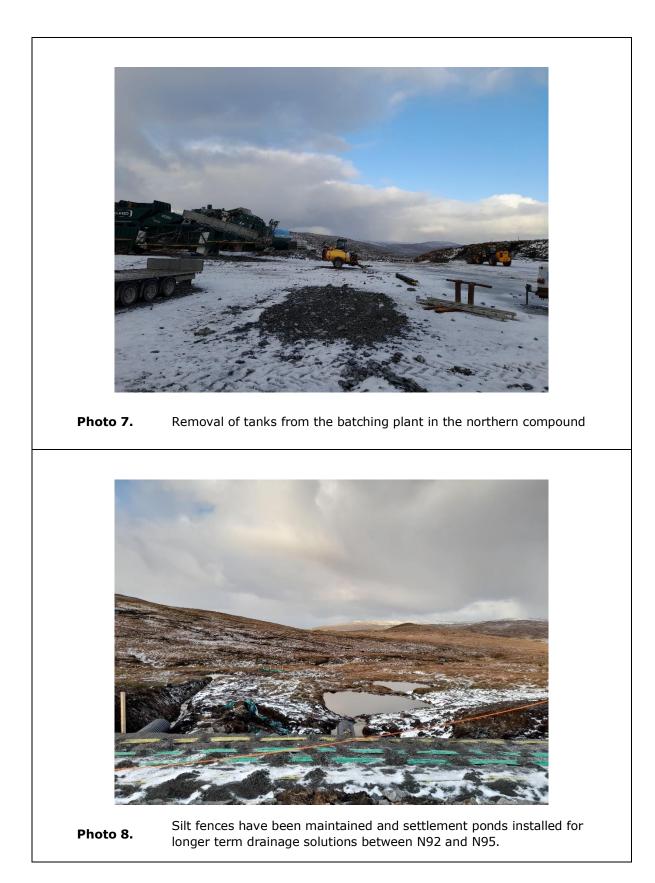
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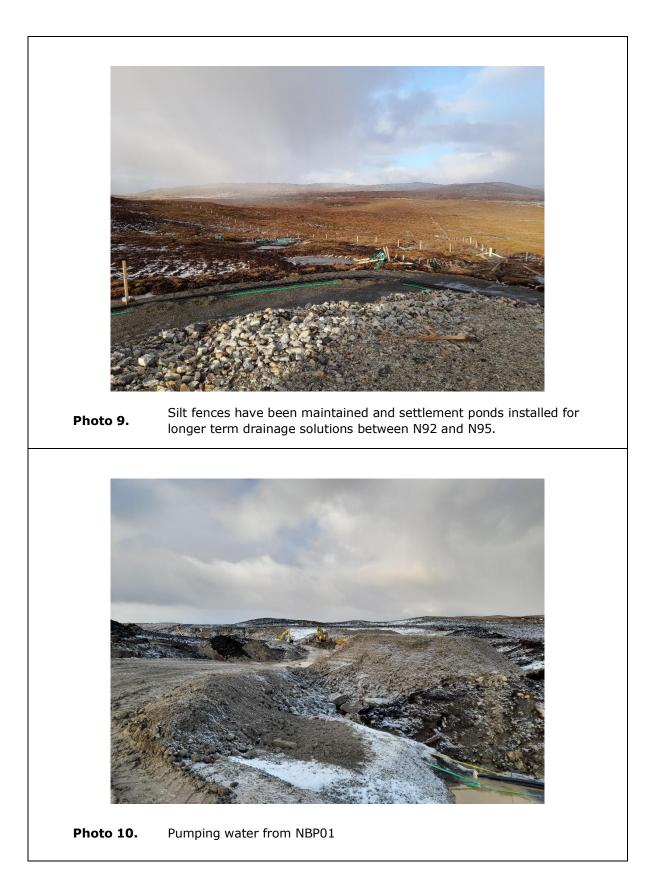
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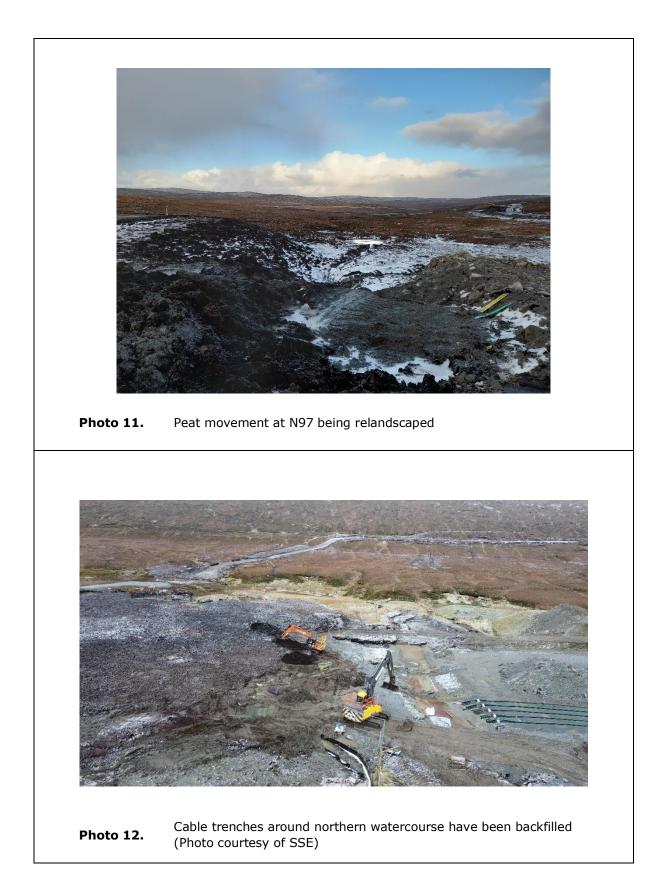
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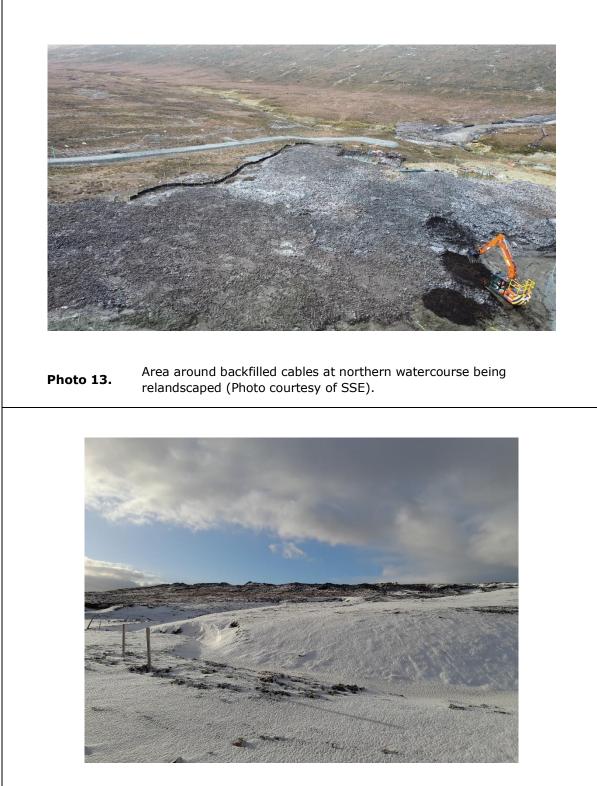
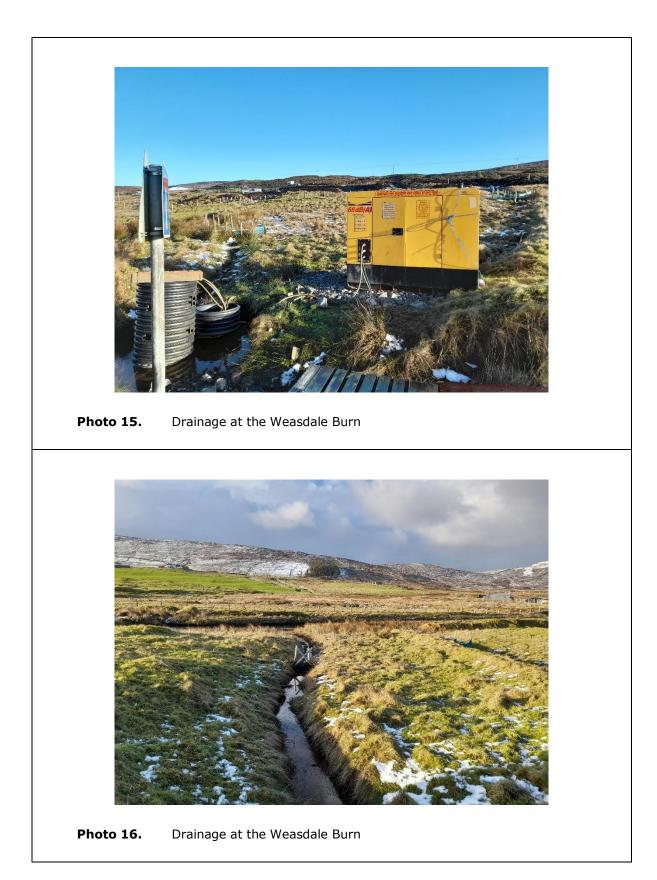


Photo 14. Peat movement at NBP05

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	18 <sup>th</sup> January 2023





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