

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	20/04/2020
	Ref: 8460001-PC0010-MWE-REP-0059	Rev: 01

Work Planned for the Period 20.04.2020 to 26.04.2020

Construction work for Moray East Offshore Wind Farm commenced on the 18th May 2019.

The key aim of the Weekly Notice of Operations is to give a global view of activities and vessels involved. Questions regarding the operations will be welcome preferably well in advance of each construction activity.

Moray East is developing the Moray East Offshore Wind Farm in the Outer Moray Firth on the south eastern area of the Smith Bank located to the north of the Aberdeenshire and Moray coast. The development will consist of 100 offshore wind turbines (WTGs) (with a total capacity of approximately 950 MW) and three Offshore Substation Platforms (OSPs). Water depths in the Moray East site range from approximately 38 m below LAT to 54 m below LAT. The generated power will be transmitted to the grid via three subsea export cable circuits to the landfall location at Inverboyndie bay on the Aberdeenshire coast. The onshore export cables continue underground to the Moray East substation currently under construction near New Deer. The Moray East offshore development boundary is shown in black on Figure 1 below. Details of location of work activities within this area will be provided as work progresses.

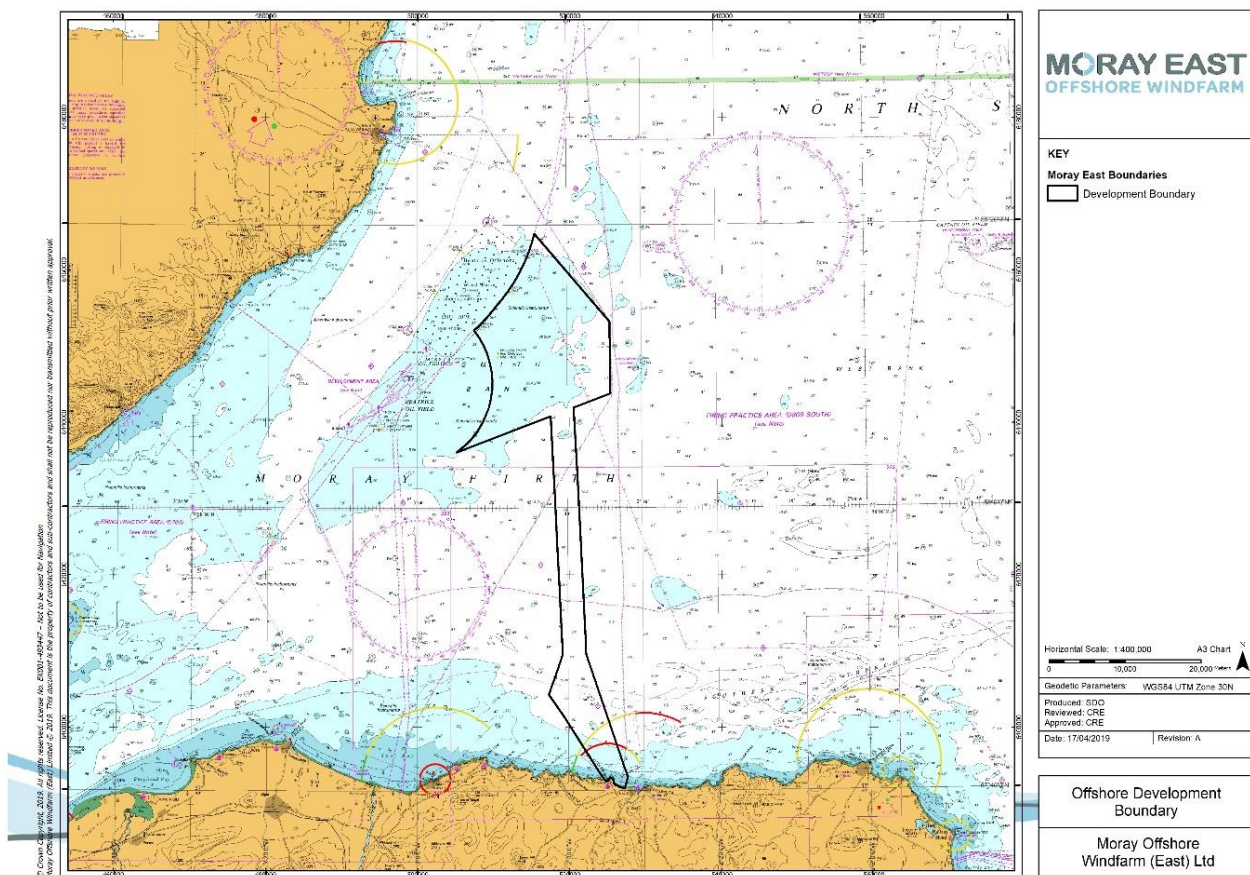


Figure 1 - Moray East Offshore Development Boundary

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It is currently anticipated that weather permitting offshore construction works will be carried out year-round and on a continuous basis (i.e. 24 hour working, seven days a week) unless notified otherwise.

Moray East's Marine Coordination Centre in Fraserburgh is manned 24 hours, 7 days per week.

The construction works, which have commenced from the 18th May 2019, are as follows:

- Soil plug removal operations from completed piles (detailed in this notice);
- Guard vessel duties (detailed in this notice);
- Horizontal Directional Drilling (HDD) works (detailed in this notice); and
- Deployment / Recovery of University of Aberdeen Noise Recorders (detailed in this notice).

1 Contact Details for Marine Coordination

The following contact can provide more information if required. Please note that specific queries can also be addressed to the relevant vessel or shore based representative.

Telephone Number (Day Operations)	+44 (0) 778 706 5714
Emergency Contact (24/7)	+44 (0) 1346 511 838
Marine Coordinator Email	MarineCoordination.MORAYEAST@Morayeast.com
Address	Dalrymple Hall, Dalrymple St, Fraserburgh, AB43 9BD

2 Completed Operations

2.1 Moray East Construction Markers

Moray East has completed the deployment of nine construction marker buoys around the Moray East site. The marker buoys will remain in place until after construction of the Moray East Offshore Wind Farm is complete. The co-ordinates for the as-built marker buoys are provided in the Table 1 below.

Table 1 – Marker buoy locations

Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 1 - North Cardinal Buoy, Pillar shaped with a north cardinal shaped top mark, exhibiting a Quick (Q) White (W) light character and AIS.	58° 18' 6.600" N	2° 41' 4.800" W	518481.96	6462358.27
Buoy 2 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 16' 48.300" N	2° 37' 55.380" W	521579.08	6459952.33

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Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 3 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 15' 8.460" N	2° 35' 57.300" W	523521.05	6456875.58
Buoy 4 - East Cardinal Buoy, Pillar shaped with an east cardinal shaped top mark, exhibiting a Very (V) Q (3) 5 second (s) W light character	58° 10' 44.10" N	2° 32' 45.85" W	526697.39	6448719.65
Buoy 5 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 7' 49.680" N	2° 35' 20.640" W	524201.44	6443309.27
Buoy 6 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 6' 43.980" N	2° 38' 19.860" W	521280.40	6441260.65
Buoy 7 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 4' 57.240" N	2° 47' 9.360" W	512624.16	6437922.64
Buoy 8 – South Cardinal, Pillar shaped with a south cardinal shaped top mark, exhibiting a V Q (6) + L Fl 10s W light character and AIS.	58° 4' 1.140" N	2° 52' 6.660" W	507757.35	6436175.21
Buoy 9 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 8' 37.080" N	2° 50' 37.080" W	509205.67	6444712.15

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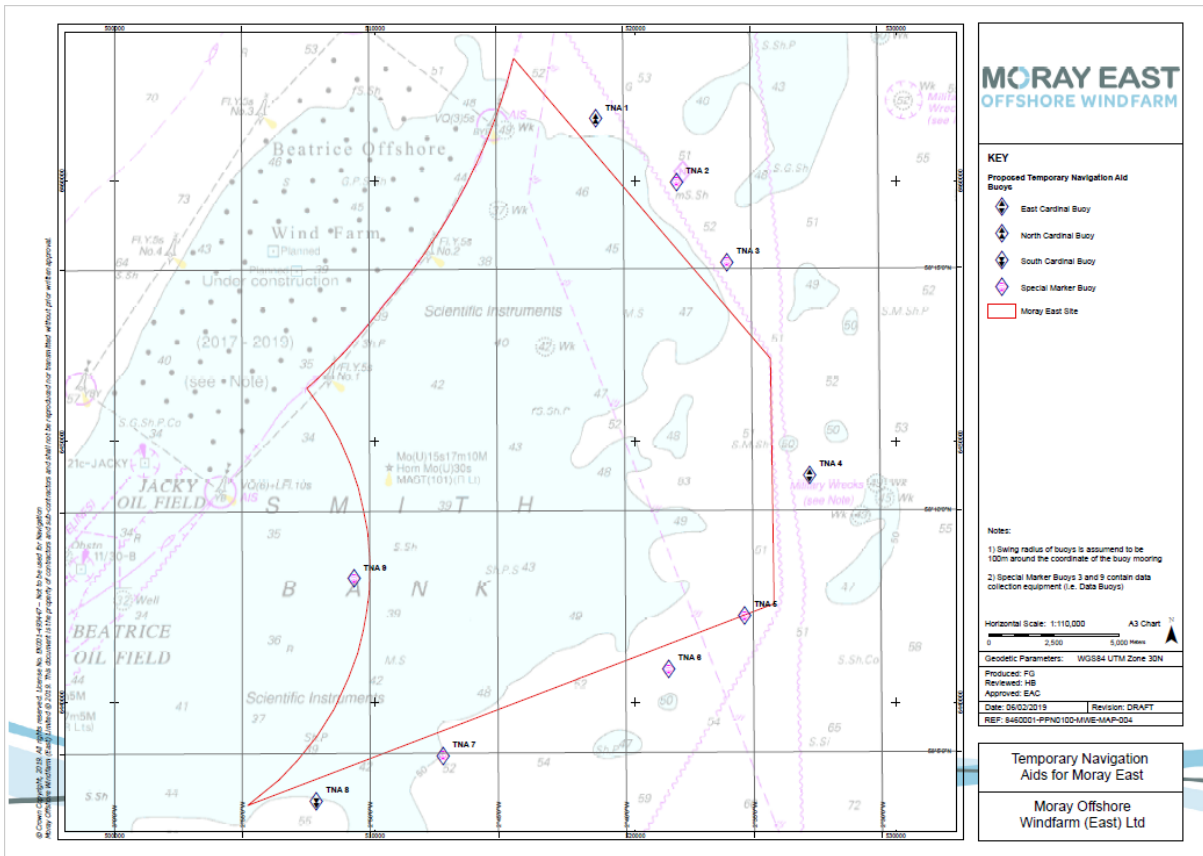


Figure 2 - Layout of demarcation buoyage

3 Piling Operations

GeoSea NV Geotechnical & Offshore Solutions have been contracted by Moray East to carry out pile foundation installation at the Moray East site. The vessels associated with the planned works are detailed in Section 3.1 below.

The piling operations commenced on the 19th May 2019 and were completed on 27th February 2020. Information on the WTG and OSP foundation locations in the Moray East site are provided in Sections 3.2 and 3.4 below.

The Data/positions for the installed piles are available for the following Electronic chart Plotters:

- Maxsea
- Sodena
- Olex
- Time Zero

The information is made available by contacting John Watt (Brown and May)

John.watt@brownmay.com 07590880746

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3.1 Vessels associated with the planned works

MV Apollo	
General Description and Dimensions:	Offshore Heavy Lift DP2 jack up vessel LOA: 89 m, Beam: 45 m, Draught: 15 m
Call Sign:	LXBP
MMSI:	253586000
On Board Contact:	Mob: +32 470 783 880
Offshore Manager / Party Chief:	Vessel Master
E-mail:	captain.apollo@ships.deme-group.com
Onshore Representative:	Edward Maycock



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3.2 Foundation Locations

Foundation locations for piling operations are shown in Table 2 below. Locations where piling has been completed are highlighted in Figure 3 – Turbine location map.

Table 2 – WTG locations and Installation Status

Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-A01	58° 4.550' N	2° 52.147' W	19/08/2019
ME-A02	58° 5.158' N	2° 52.144' W	13/10/2019
ME-B02	58° 5.147' N	2° 50.570' W	02/11/2019
ME-B03	58° 5.755' N	2° 50.567' W	20/11/2019
ME-B04	58° 6.364' N	2° 50.564' W	01/09/2019
ME-B05-OFF	58° 6.967' N	2° 50.544' W	14/10/2019
ME-B13	58° 11.838' N	2° 50.540' W	01/11/2019
ME-B14	58° 12.446' N	2° 50.538' W	09/07/2019
ME-C05	58° 6.961' N	2° 48.986' W	30/08/2019
ME-C07	58° 8.177' N	2° 48.980' W	17/10/2019
ME-C08	58° 8.785' N	2° 48.977' W	22/01/2020
ME-C09	58° 9.394' N	2° 48.973' W	17/10/2019
ME-C10	58° 10.002' N	2° 48.970' W	29/10/2019
ME-C11	58° 10.610' N	2° 48.967' W	30/10/2019
ME-C12	58° 11.218' N	2° 48.964' W	31/10/2019
ME-C13	58° 11.826' N	2° 48.961' W	20/01/2019
ME-C14	58° 12.435' N	2° 48.958' W	08/07/2019
ME-C15	58° 13.043' N	2° 48.955' W	10/07/2019
ME-C16	58° 13.651' N	2° 48.951' W	12/07/2019
ME-D04	58° 6.341' N	2° 47.414' W	26/01/2020
ME-D05	58° 6.949' N	2° 47.410' W	16/12/2019
ME-D07	58° 8.166' N	2° 47.403' W	22/01/2020
ME-D08	58° 8.774' N	2° 47.399' W	07/12/2019
ME-D09	58° 9.382' N	2° 47.396' W	07/12/2019
ME-D10	58° 9.990' N	2° 47.392' W	04/12/2019
ME-D11	58° 10.598' N	2° 47.389' W	24/01/2020
ME-D12	58° 11.207' N	2° 47.385' W	31/01/2020
ME-D13	58° 11.815' N	2° 47.381' W	06/12/2019
ME-D14	58° 12.423' N	2° 47.378' W	02/02/2020
ME-D15	58° 13.031' N	2° 47.374' W	13/11/2019
ME-D16	58° 13.639' N	2° 47.371' W	11/07/2019
ME-D17	58° 14.248' N	2° 47.367' W	13/07/2019
ME-E04	58° 6.329' N	2° 45.838' W	17/11/2019
ME-E05	58° 6.937' N	2° 45.834' W	18/11/2019
ME-E19	58° 15.452' N	2° 45.778' W	14/07/2019

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Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-F04	58° 6.317' N	2° 44.263' W	28/01/2020
ME-F21	58° 16.656' N	2° 44.187' W	16/07/2019
ME-G05	58° 6.913' N	2° 42.683' W	01/12/2019
ME-G06	58° 7.521' N	2° 42.678' W	12/01/2020
ME-G07	58° 8.129' N	2° 42.673' W	24/08/2019
ME-G09	58° 9.345' N	2° 42.663' W	07/08/2019
ME-G10	58° 9.954' N	2° 42.658' W	18/08/2019
ME-G11	58° 10.562' N	2° 42.653' W	05/01/2020
ME-G13	58° 11.778' N	2° 42.643' W	05/07/2019
ME-G15	58° 12.995' N	2° 42.633' W	27/06/2019
ME-G16	58° 13.603' N	2° 42.629' W	24/06/2019
ME-G17	58° 14.211' N	2° 42.624' W	17/06/2019
ME-G18	58° 14.819' N	2° 42.619' W	16/06/2019
ME-G19	58° 15.428' N	2° 42.614' W	09/06/2019
ME-G20	58° 16.036' N	2° 42.609' W	13/02/2020
ME-G21	58° 16.644' N	2° 42.604' W	22/07/2019
ME-G22	58° 17.252' N	2° 42.599' W	17/07/2019
ME-H05	58° 6.900' N	2° 41.107' W	30/11/2019
ME-H06	58° 7.508' N	2° 41.102' W	25/12/2019
ME-H07	58° 8.116' N	2° 41.096' W	24/12/2019
ME-H08	58° 8.724' N	2° 41.091' W	18/12/2019
ME-H09	58° 9.333' N	2° 41.086' W	05/08/2019
ME-H10	58° 9.941' N	2° 41.080' W	31/12/2019
ME-H13	58° 11.765' N	2° 41.064' W	04/07/2019
ME-H14	58° 12.374' N	2° 41.059' W	28/06/2019
ME-H16	58° 13.590' N	2° 41.048' W	23/06/2019
ME-H17	58° 14.198' N	2° 41.042' W	19/06/2019
ME-H18	58° 14.806' N	2° 41.037' W	08/08/2019
ME-H19	58° 15.415' N	2° 41.032' W	08/06/2019
ME-H20	58° 16.023' N	2° 41.026' W	24/07/2019
ME-H21	58° 16.631' N	2° 41.021' W	21/07/2019
ME-H22	58° 17.239' N	2° 41.015' W	18/07/2019
ME-I06	58° 7.495' N	2° 39.526' W	23/10/2019
ME-I07	58° 8.103' N	2° 39.520' W	26/12/2019
ME-I19	58° 15.401' N	2° 39.450' W	05/06/2019
ME-I20	58° 16.010' N	2° 39.444' W	07/06/2019
ME-J07	58° 8.090' N	2° 37.943' W	23/08/2019
ME-J08	58° 8.698' N	2° 37.937' W	22/08/2019
ME-J09	58° 9.306' N	2° 37.930' W	05/02/2020
ME-J10	58° 9.914' N	2° 37.924' W	04/08/2019
ME-J12	58° 11.131' N	2° 37.912' W	06/02/2020

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Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-J13	58° 11.739' N	2° 37.905' W	02/07/2019
ME-J14	58° 12.347' N	2° 37.899' W	30/06/2019
ME-J16	58° 13.563' N	2° 37.886' W	21/06/2019
ME-J17	58° 14.172' N	2° 37.880' W	02/06/2019
ME-J18	58° 14.780' N	2° 37.874' W	20/06/2019
ME-J19-OFF	58° 15.383' N	2° 37.887' W	27/02/2020
ME-K09	58° 9.292' N	2° 36.353' W	28/12/2019
ME-K10	58° 9.900' N	2° 36.346' W	29/07/2019
ME-K11	58° 10.509' N	2° 36.339' W	29/07/2019
ME-K16	58° 13.550' N	2° 36.306' W	31/05/2019
ME-K17-OFF	58° 14.189' N	2° 36.133' W	30/05/2019
ME-L09	58° 9.278' N	2° 34.775' W	27/07/2019
ME-L11	58° 10.494' N	2° 34.761' W	27/07/2019
ME-L12	58° 11.103' N	2° 34.754' W	25/07/2019
ME-L13	58° 11.711' N	2° 34.747' W	30/12/2019
ME-E18	58° 14.844' N	2° 45.782' W	14/07/2019
ME-E14	58° 12.411' N	2° 45.798' W	07/07/2019
ME-I18	58° 14.793' N	2° 39.455' W	17/08/2019
ME-F08	58° 8.750' N	2° 44.245' W	29/08/2019
ME-G08	58° 8.737' N	2° 42.668' W	23/12/2019
ME-H11	58° 10.549' N	2° 41.075' W	22/12/2019
ME-C04	58° 6.353' N	2° 48.989' W	21/10/2019
ME-C02	58° 5.136' N	2° 48.995' W	06/11/2019
ME-D06	58° 7.557' N	2° 47.407' W	15/12/2019
ME-OSP1	58° 7.546' N	2° 45.830' W	21/08/2019
ME-OSP2	58° 13.007' N	2° 44.214' W	19/08/2019
ME-OSP3	58° 9.928' N	2° 39.502' W	20/08/2019

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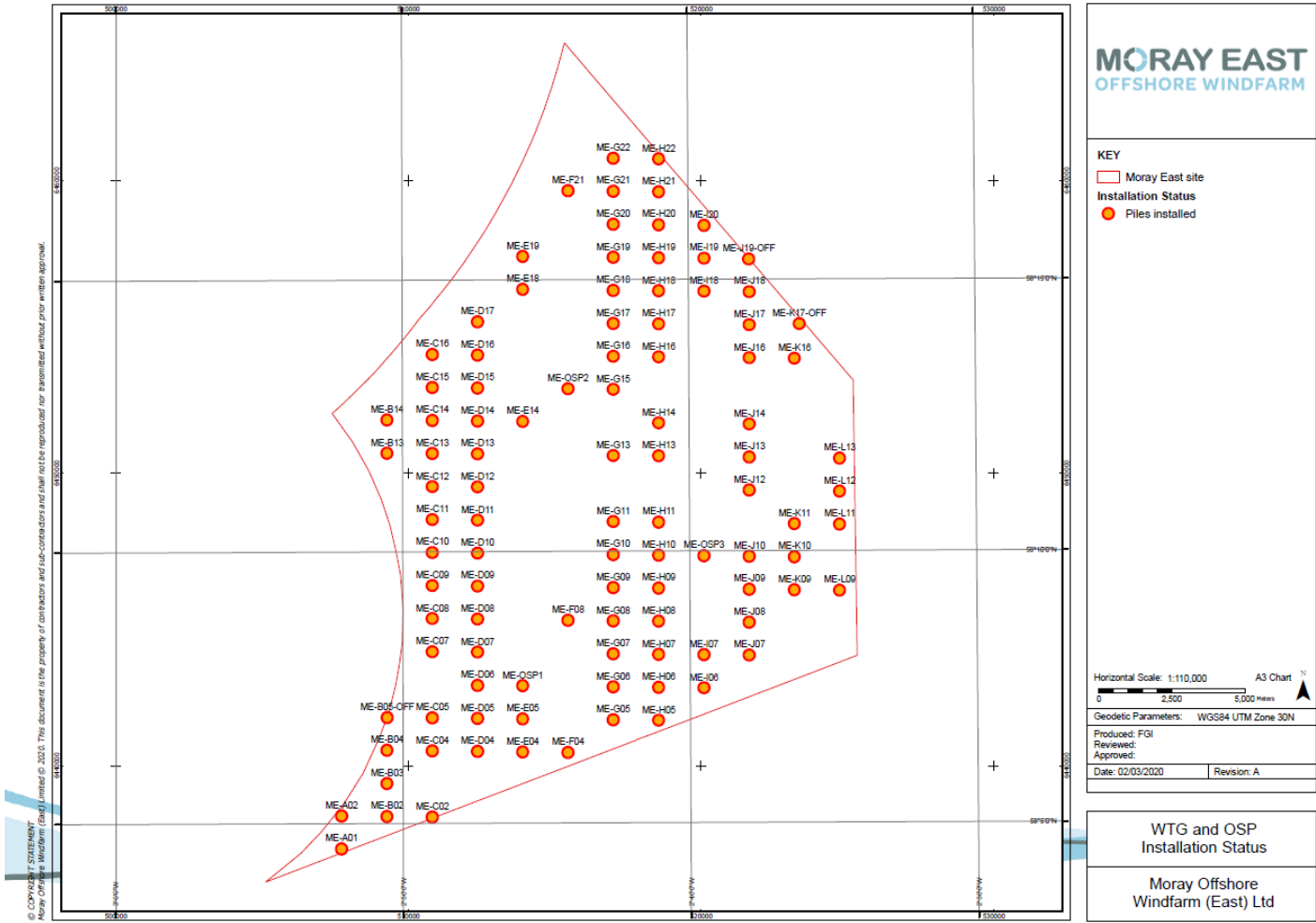


Figure 3 – Turbine location and Installation Status

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3.3 Piling Operations – Complete

Installation of all piles was completed on 27/02/2020.

3.4 Soil Plug Removal works

The HLV Apollo will re-visit the previously piled locations to carry out soil plug removal upon completion of the piling campaign. The Apollo will position, jack-up (within the same footprint as during piling operations) and remove the build-up of soil inside the piles in readiness for jacket installation. The Apollo will use a mechanical grab, air lift tool and drill to remove the soil build up to the required depth for grout adhesion during the jacket installation campaign. The coordinates for the area where the soil plug removal are expected for the month ahead will be updated on a weekly basis, once a sequence has been established after the completion of piling and demob of the Apollo in readiness for the Soil plug removal. The initial locations will be within the construction area shown in Figure 4 below.

3.5 Soil plug removal works for the month ahead

Pile driving works have been completed and will be followed by soil plug removal as described below, in the area highlighted in yellow in Figure 4 below. Construction works could take place out of this area due to unforeseen circumstances.

Table 3 – Coordinates for soil plug removal activity area up and coming scour protection campaign expected for between 20th April and 18th May 2020

Id	Latitude (DMS)	Longitude (DMS)	Latitude (DM)	Longitude (DM)
1	58°6' 1.723" N	2°45' 43.506" W	58°6.029' N	2°45.725' W
2	58°6' 5.520" N	2°49' 36.186" W	58°6.092' N	2°49.603' W
3	58°11' 34.617" N	2°49' 32.923" W	58°11.577' N	2°49.549' W
4	58°14' 30.444" N	2°47' 47.249" W	58°14.507' N	2°47.787' W
5	58°17' 34.094" N	2°43' 31.196" W	58°17.568' N	2°43.520' W
6	58°17' 32.355" N	2°40' 22.982" W	58°17.539' N	2°40.383' W
7	58°15' 35.557" N	2°37' 33.898" W	58°15.593' N	2°37.565' W
8	58°11' 45.109" N	2°34' 14.542" W	58°11.752' N	2°34.242' W
9	58°8' 29.656" N	2°34' 11.412" W	58°8.494' N	2°34.190' W

The above figure and coordinates for the area where soil plug removal works are expected in the month ahead will be updated on a weekly basis through the Weekly Notice of Operations together with an update on the planned soil plug removal operations.

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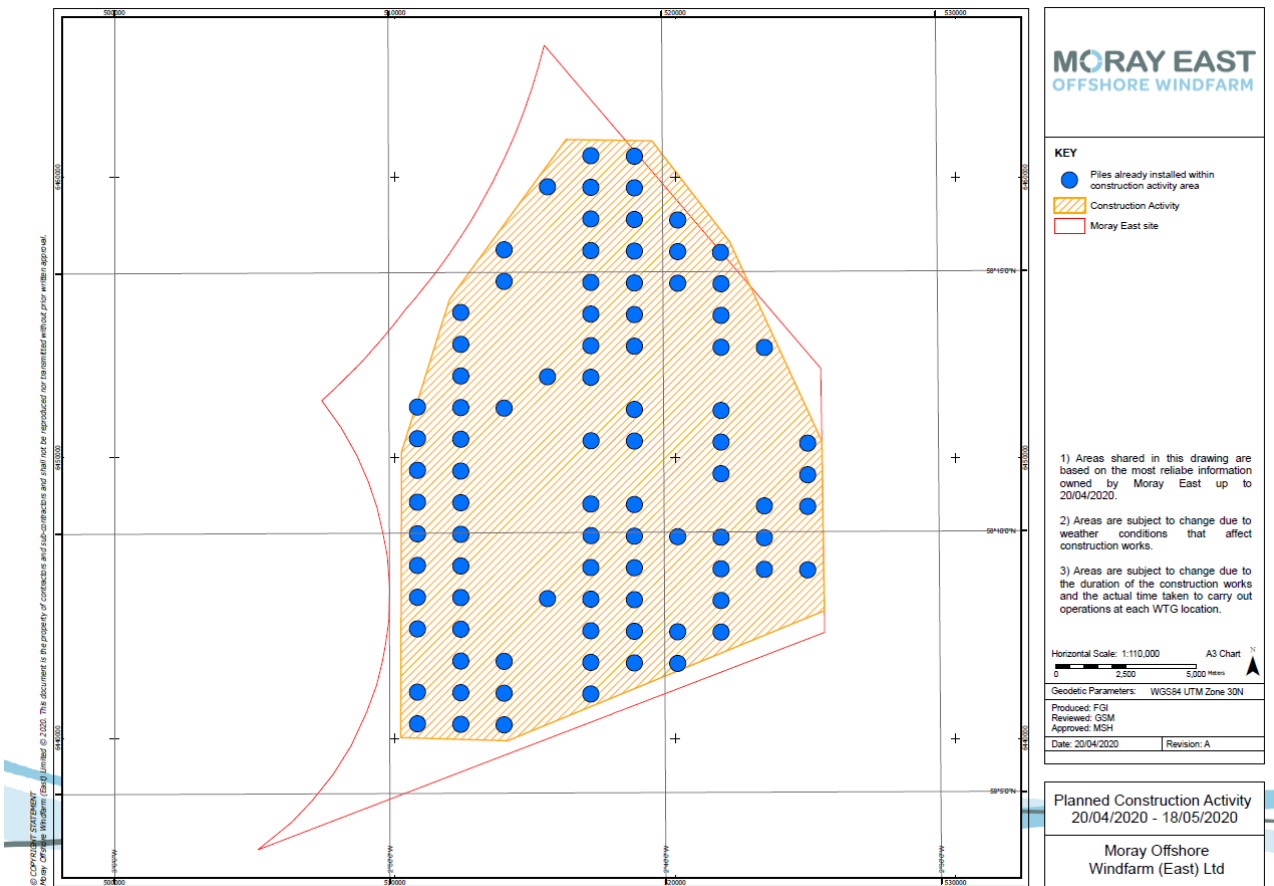


Figure 4 – Soil plug removal activity and up and coming scour protection campaign area expected for between 20th April and 18th May

The latitude and longitude for the soil plug removal activities in the above highlighted area is referenced in the Table 3 on page 10.

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4 Guard Vessels

Kinnaird Marine Limited has been appointed by Moray East to provide guard vessels during the soli plug removal campaign. Apart from times of extreme weather, there will always be at least one guard vessel on station during soil plug removal operations. The guard vessel’s primary duty is security of the construction site by informing and warning non-construction vessels of the ongoing activities and associated Safety Zones.

Mariners are requested to navigate with caution and keep continued watch on VHF Ch. 16, 87 and 73 when navigating the area.

4.1 Guard Vessel – GV Replenish

GV Replenish	
General Description and Dimensions:	Guard Vessel LOA: 24.36 m, Beam: 7.17 m, Draught 3.48 m
Call Sign:	MASY7
MMSI:	235055180
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	gvreplenish@gmail.com
Onshore Representative:	Enrique Alvarez



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4.2 Guard Vessel – Ability

KMS Ability	
General Description and Dimensions:	Guard Vessel LOA: 23.6m, Beam: 6.4 m, Draught 3.3m
Call Sign:	MDFW3
MMSI:	235014666
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	kmsability@gmail.com
Onshore Representative:	Enrique Alvarez



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5 Horizontal Directional Drilling (HDD) Completed

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) have completed HDD construction works, the site is currently marked with a G1500 Buoy (Position and photograph shown below)

Table 4 - Buoy Position

Latitude	Longitude
57 40.8431	002 33.2214
Light Characteristics	Flash Yellow every 5 seconds – Fl.Y (5s).



Figure 5 - Photograph of installed G1500 buoy

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6 General Safety Advice

Please be aware that by virtue of their mode of operation and the equipment deployed the MV Apollo, Havila Venus and Coral Wind will be Restricted in their Ability to Manoeuvre (RAM) as defined under COLREGs (International Regulations for Preventing Collisions at Sea 1972, Rule 3). Masters of vessels are therefore requested to maintain their vessels and gears at a minimum safe distance from these vessels of 500 metres when it is undertaking its work and showing the appropriate shapes and lights in accordance with COLREGs Rule 18.

In order to not compromise the safety of the MV Apollo and the Ocean Enterprise, the crew of each, and each vessel's ability to undertake its contracted works, fishermen who have static fishing gears deployed within the defined Moray East site (see Figure 2) are requested to provide the coordinates of such deployed gears in DMS and details of whether the surface markers used are visible at all states of visibility to Alex Winrow-Griffin (Brown & May Marine) using the contact information in the Fisheries Liaison section below (Section 58 of the Merchant Shipping Act 1995).

Fishermen who have static gears deployed beyond 12 nm are reminded that static gear must be marked in accordance with Commission Implementing Regulation (EU) No. 404/2011 (<https://www.gov.uk/guidance/markings-of-fishing-gear-retrieval-and-notification-of-lost-gear#markings-of-fishing-gear>).

The Scottish Ministers have authorised the use of the following safety zones as per Notice to Mariners to follow:

1. A 500 metre radius around each WTG and OSP where construction works are taking place that include sensitive activities being undertaken by vessels RAM. A maximum of three of such zones is permitted at any one time.
2. A 50 metre radius around partially completed WTGs and OSPs where work is not underway and the risk assessments identify a need.
3. A 50 metre radius around each completed WTG and OSP prior to commissioning and as required by a risk assessment process.

All mariners are requested to give all construction and support vessels a wide berth.

Mariners are requested to navigate with caution, to use all means appropriate to aid safe navigation as defined under COLREGs Rule 7, and keep continued watch on VHF Ch. 16, 87 and 73 when navigating the area.

7 Meteorological Mast Unlit

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) Meteorological Mast (Figure 6 and 7, Table 5) the aviation light is still currently not operating.

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Figure 06 – Photograph of the Meteorological Mast

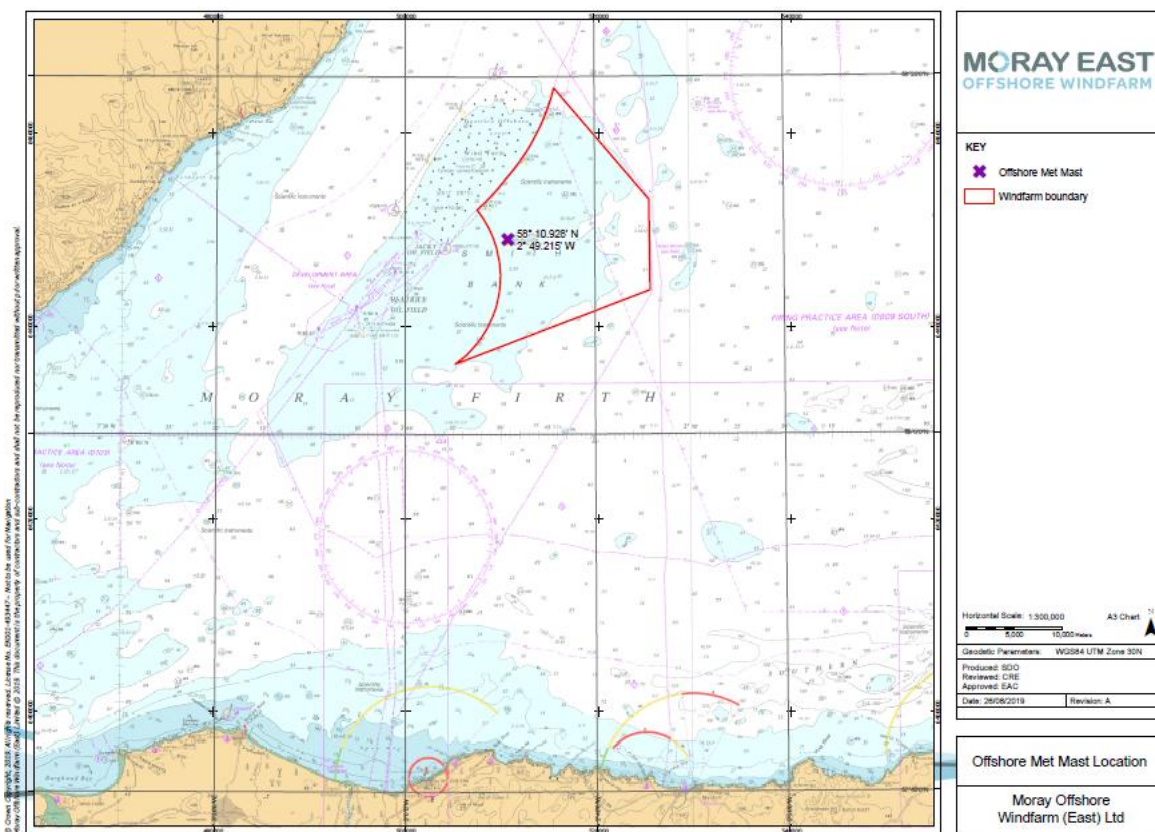


Figure 07 – Meteorological Mast location map

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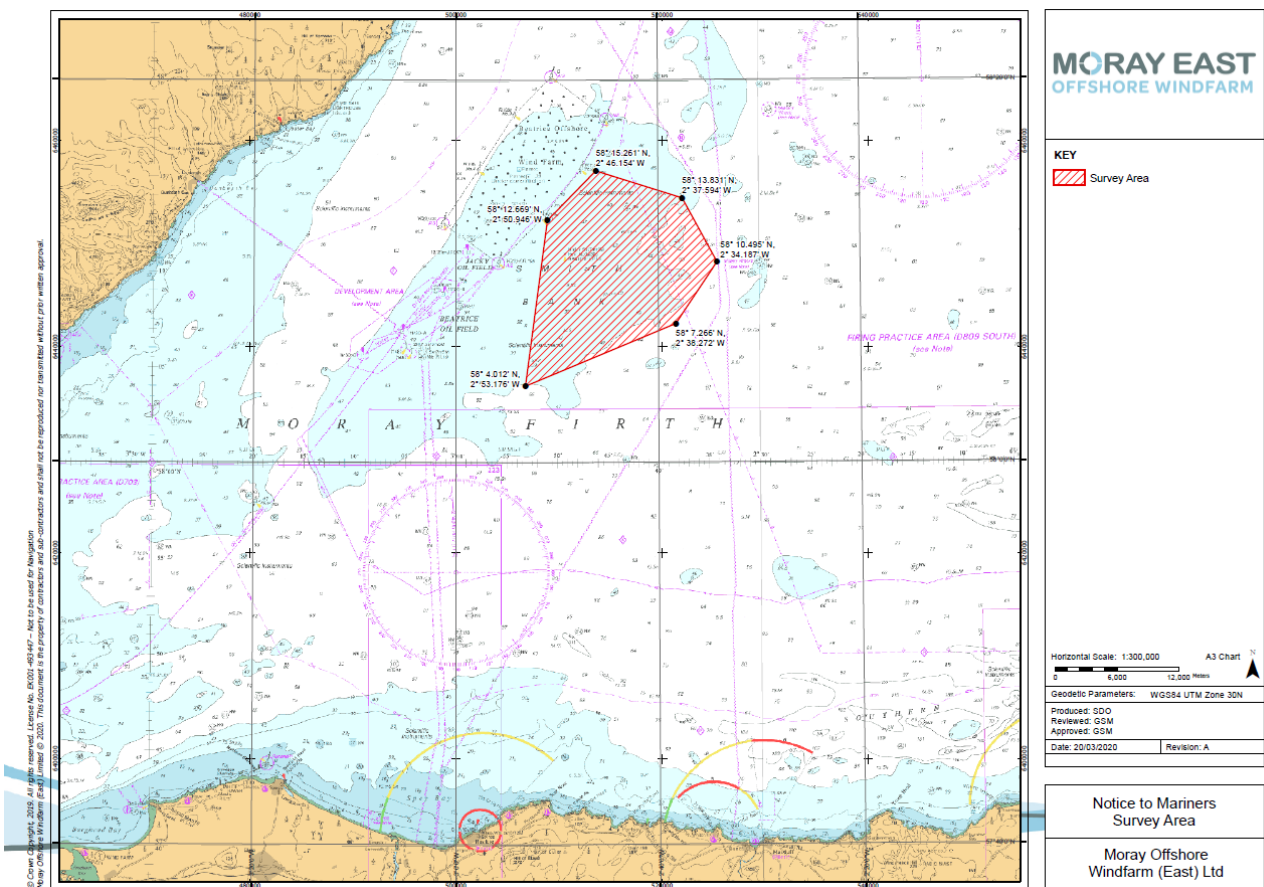
Table 5 – Met mast coordinates

Name	Latitude (DMS)	Longitude (DMS)	Latitude (DM)	Longitude (DM)
Met Mast	58° 10' 55.680" N	2° 49' 12.892" W	58° 10.928' N	2° 49.215' W

8. Bathymetric Survey

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) are planning to continue a Bathymetric survey within the bounds of Moray East Offshore Windfarm (Survey area shown in Figure 8) commenced on the 10th April 2020 until further notice, originally using an ASV (Autonomous surface vessel) supported by MV Ocean Enterprise, the work scope will be completed by the MV Coral wind (shown in 8.1)

Figure 8. Bathymetric Survey Area



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8.1 Survey Vessel Details

Coral Wind	
General Description and Dimensions:	MCA Workboat Cat 2 LOA: 14. m, Beam: 5 m, Draught: 1.3 m
Call Sign:	2EMX8
MMSI:	235086491
On Board Contact:	Mob: +44 7775 802963
Offshore Manager / Party Chief:	Vessel Master
E-mail:	bill@moraymarine.com
Onshore Representative:	Edward Maycock

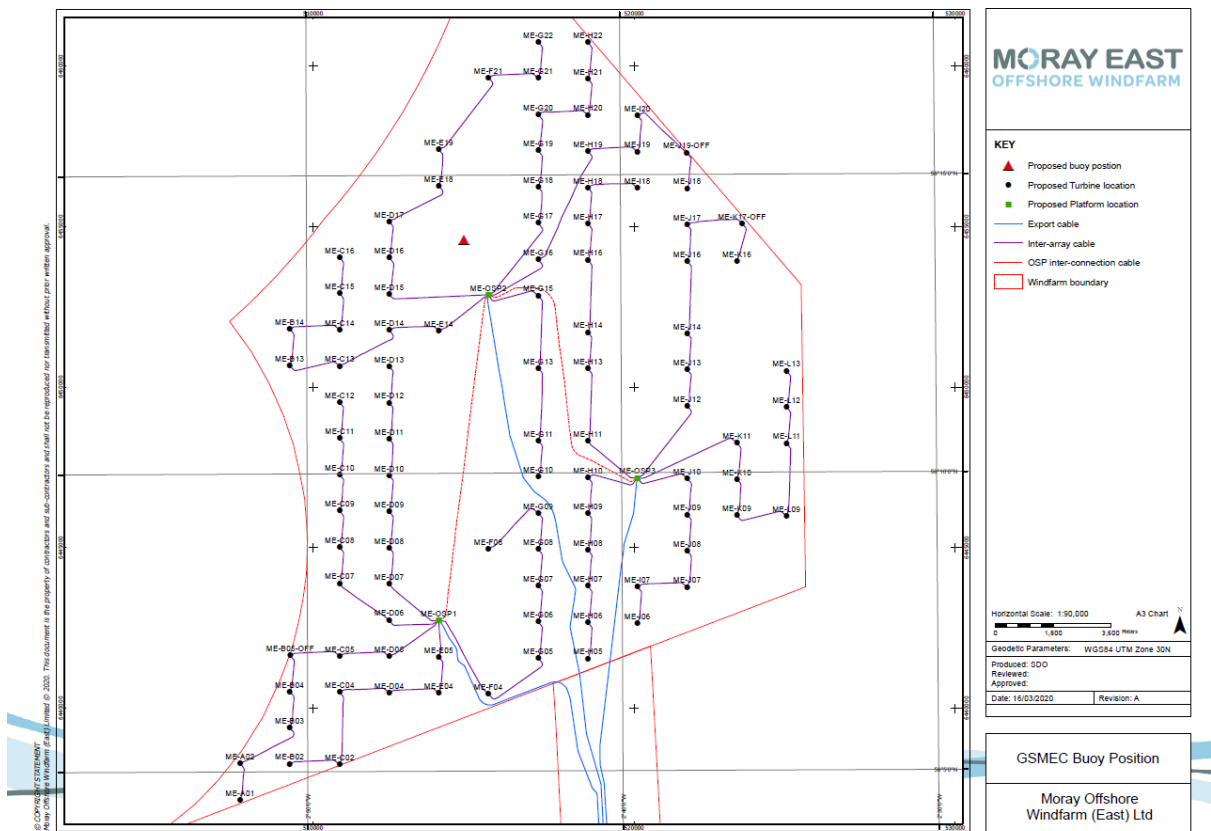


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9. Deployment of Directional Wave rider Buoy


Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) are planning to deploy a directional wave rider buoy within the bounds of Moray East Offshore Windfarm. Deployment circa week commencing 20th April 2020 and deployed from Apollo.

Figure 9. Directional wave rider buoy location



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Figure 10. Directional Wave rider Specifications



Directional Waverider MkIII

Datawell - Oceanographic Instruments

The Directional Waverider DWR-MkIII: Over three years of continuous operation

The Directional Waverider hardly needs any introduction: it is the world's standard for measuring wave height and wave direction. Its success is due to the proprietary well-proven and accurate Datawell stabilized platform sensor, enabling wave height measurements by a single accelerometer. For the wave direction, direct pitch and roll measurements are performed needing no integration. In combination with horizontal accelerometers and a compass this forms the complete sensor unit, the heart of the instrument.

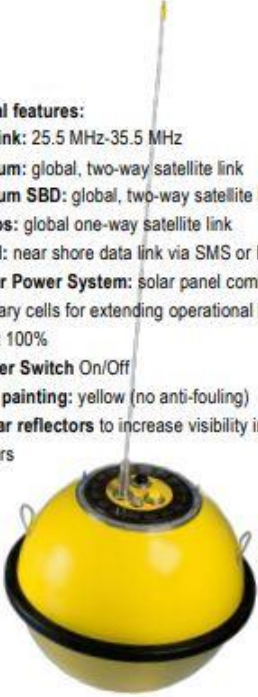
The highlights:

- **Real time** measurement of wave height with half-hourly heave and directional spectra updates.
- **HF link up to 50 km** over sea. The proprietary Datawell HF link module is easy replaceable if a different transmission frequency is required.
- **LED flashlight** integrated in the top of the antenna increasing the buoy's visibility.
- **GPS receiver** for buoy positioning has now become a standard feature of the DWR-MkIII, and facilitates its retrieval.
- **Integrated datalogger** based on the latest flash card technology.
- A **water temperature sensor** in the mooring eye providing sea surface temperature
- **High capacity primary cells** operating reliably and safely under all wave conditions and weather circumstances for **up to three years** without replacement.
- Built-in **energy meter** reports an accurate estimation of the remaining operating life.
- **Intelligent Test Box** enables sequential discharge of individual battery strings

The DWR-MkIII comes standard with the Datawell HF link for ranges up to 50 Km over sea. For larger ranges the HF link can be combined or replaced with Iridium or Argos satellite communication. For near shore applications, a GSM link is also available. The MkIII can be supplied in a 70 cm hull offering easier handling and a 90 cm hull.

Optional features:

- **HF link:** 25.5 MHz-35.5 MHz
- **Iridium:** global, two-way satellite link
- **Iridium SBD:** global, two-way satellite link
- **Argos:** global one-way satellite link
- **GSM:** near shore data link via SMS or Internet
- **Solar Power System:** solar panel combined with primary cells for extending operational life by at least 100%
- **Power Switch** On/Off
- **Hull painting:** yellow (no anti-fouling)
- **Radar reflectors** to increase visibility in busy waters



DWR-MkIII with optional solar panels, power switch and painted hull

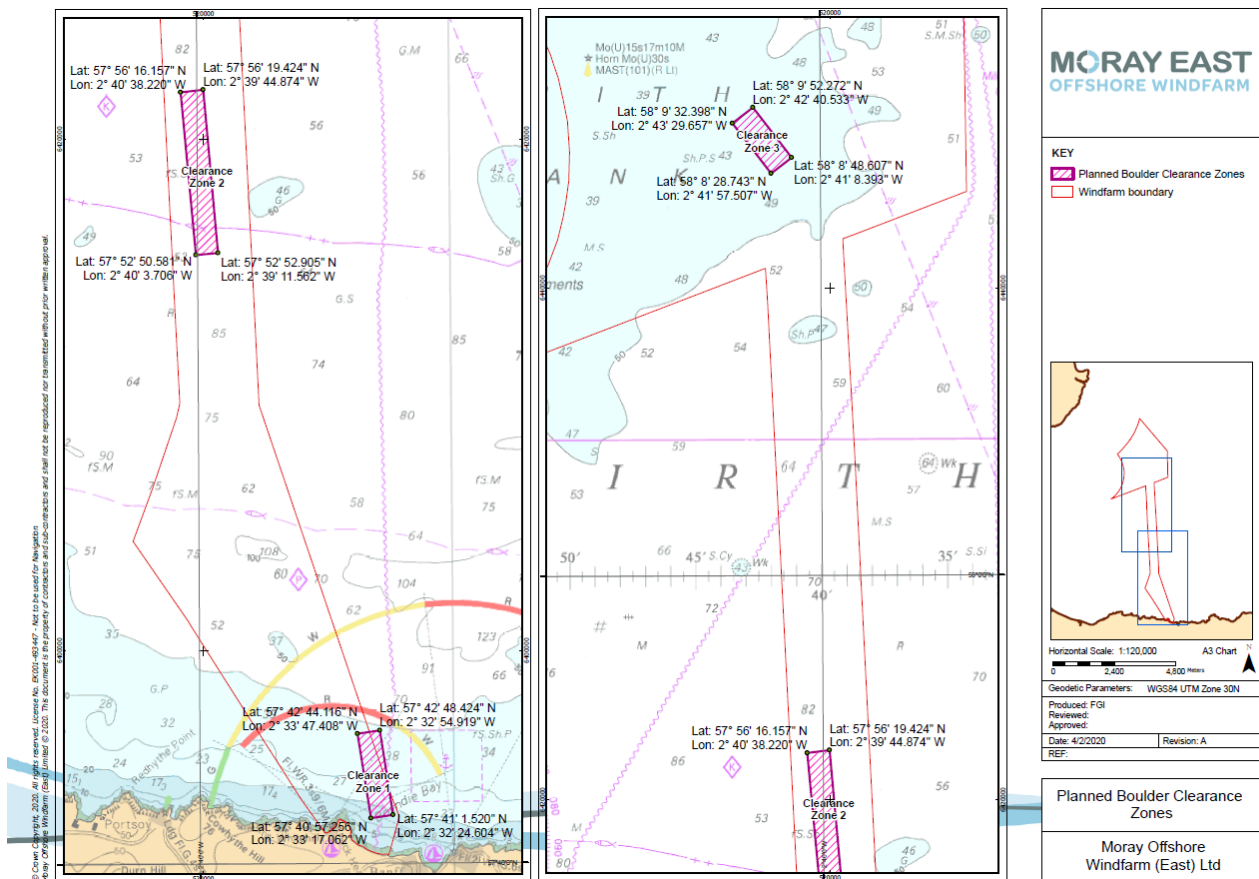
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10 Boulder Clearance

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) are planning to commence boulder clearance operations in preparation for forthcoming cable lay and trenching work scopes on the Offshore Export Cable (OEC) routes circa 24th of April 2020 with a duration of circa 21 days.

The work will comprise boulder clearance operations using the OISL RP15 boulder clearance system (Figure 12) towed from the AHTS Havila Venus to create a 20m wide lay corridor in areas where boulder accumulations exist on the seabed followed by pre and post lay surveys conducted by the ROV.

Figure 11. Boulder Clearance Areas



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Clearance Area	Latitude DDM UTM30N	Longitude DDM UTM30N	Latitude DMS UTM30N	Longitude DMS UTM30N
Clearance Area 1	57° 42.735' N	2° 33.790' W	57° 42' 44.116" N	2° 33' 47.408" W
	57° 42.807' N	2° 32.915' W	57° 42' 48.424" N	2° 32' 54.919" W
	57° 41.025' N	2° 32.410' W	57° 41' 1.520" N	2° 32' 24.604" W
	57° 40.954' N	2° 33.284' W	57° 40' 57.256" N	2° 33' 17.062" W
Clearance Area 2	57° 56.269' N	2° 40.637' W	57° 56' 16.157" N	2° 40' 38.220" W
	57° 52.843' N	2° 40.062' W	57° 52' 50.581" N	2° 40' 3.706" W
	57° 52.882' N	2° 39.193' W	57° 52' 52.905" N	2° 39' 11.562" W
	57° 56.324' N	2° 39.748' W	57° 56' 19.424" N	2° 39' 44.874" W
Clearance Area 3	58° 9.540' N	2° 43.494' W	58° 9' 32.398" N	2° 43' 29.657" W
	58° 8.479' N	2° 41.958' W	58° 8' 28.743" N	2° 41' 57.507" W
	58° 8.810' N	2° 41.140' W	58° 8' 48.607" N	2° 41' 8.393" W
	58° 9.871' N	2° 42.676' W	58° 9' 52.272" N	2° 42' 40.533" W

Table 6. Coordinates for Boulder clearance bounded boxes.

Figure 12. Description of Plough

The 15m Route Preparation Plough is designed to clear debris or obstructions such as boulders from the proposed route corridor in order to allow cable lay and burial operations to proceed with minimal risk.

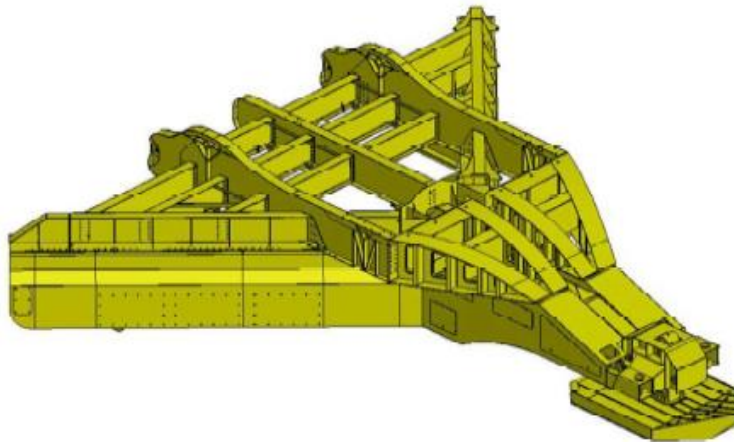


Figure 8: 15m Route Preparation Plough

Item	Value
Width	15.8m
Length	16.1m
Height	3.8m
Mass in air	85,000kg
Submerged Mass	74,000kg

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1. Boulder clearance vessel

Havila Venus	
General Description and Dimensions:	LOA: 92 m, Beam: 22 m, Draught: 7.1 m
Call Sign:	LAZC
MMSI:	259305000
On Board Contact:	Mob: +47 23675864
Offshore Manager / Party Chief:	Vessel Master
E-mail:	Bridge.venus@havalaship.com
Onshore Representative:	Andy Small



11 Fisheries Liaison

Fisheries liaison associated with the activity will be co-ordinated by Brown and May Marine. For any commercial fishery queries please contact:

Alex Winrow-Giffin - Brown and May Marine Ltd.

Email: alex@brownmay.com

Tel: +44 1379 872148 / + 44 7760 160039

Fisheries liaison support is also available through the Fisheries Liaison Officer onboard of the MV Apollo and the Havila Venus. Contacts provided below:

Name: Zander West (Apollo)

Email: Zander.West@btinternet.com

Mobile: +44 7989 808130

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Name: Derek Anderson (Havila Venus)

Email: anderson77@btinternet.com

Mobile: +44 7860 804316

12 Distribution List

The distribution of this notice is as per email recipient's header. A central list of recipients is maintained by the Marine Coordinator; if you are not the appropriate recipient of these notices, or do not wish to receive the notices in the future, please contact us at the address included in Section 1 of this notice.

13 Website

The official website of Moray Offshore Windfarm (East) Limited can be found at:

<https://www.morayeast.com/current-works/offshore-works>

This website will contain all Notices to Mariners (NtMs) published by Moray East during the construction phase of the project, Weekly Notices of Operations and general information about the project.