

Flotta MOL Free Span Rectification Works 2019

Location Information:

Coordinates of works location:

From:	To:
Lat: 58° 49' 43.14" N	Lat: 58° 50' 01.86" N
Long: 02° 51' 30.49" W	Long: 02° 53' 21.29" W

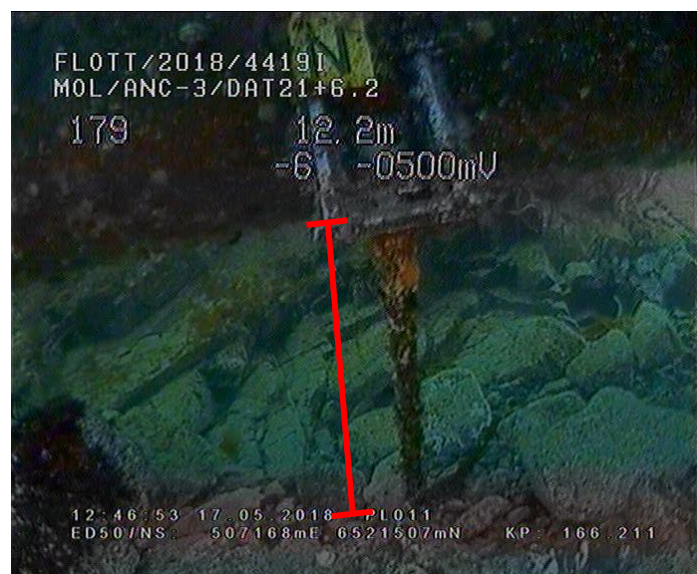
RSRUK are carrying out an ROV routine inspection of the 30" Piper/Claymore to Flotta Main Oil Line (MOL) (PL11) approximately 2 km off the East Coast of South Ronaldsay, Orkney towards the end of April 2019 (Drawing 1 – Pipeline Route at Orkney Areas). This inspection survey will highlight any areas of the pipeline free span which are over and above the allowable limit. Areas along the 2 km stretch of PL11 that require rectification will be subject to the planned air diving campaign scheduled for mid-May 2019. Rectification of identified areas will be undertaken using grout bags and mattresses where deemed applicable.

The seabed at the shore approach to South Ronaldsay is highly uneven and rocky; as such the pipeline has several long spans. At this geographic location high wave and current action exist and as the water depth is relatively shallow the pipeline is exposed to high wave and current loads. Owing to this the pipeline has been identified as being potentially susceptible to wave and current / force induced fatigue failure.

Along the free span there are areas where scour is known to occur and it is anticipated these areas will require support material to be laid. Therefore, it is proposed to deposit support material (grout bags/mattresses) potentially at 5 rock anchor points (03, 27, 31, 41 & 52) along PL11 where scour has been identified previously. However, it should be noted that the April survey may well identify further areas for rectification along PL11. Drawing 2 – Free Span Rectification – UWC-PML-LIN-00012_I01 outlines grout and mattress deposits.

Areas of known scour – Rock Anchor Points:

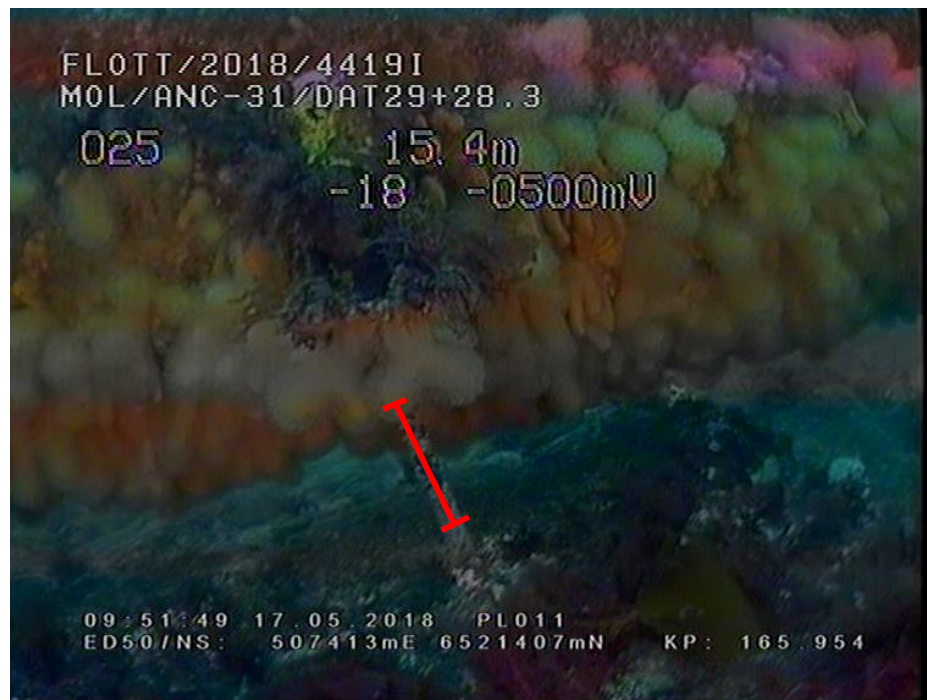
Rock Anchor Point 03: Located 600 m east from the South Ronaldsay Landfall a scour of approx. 600 mm has been identified in multiple inspections as shown below. It is deemed appropriate to adequately support the pipeline and the rock anchor with grout bags/mattresses.



Rock Anchor Point 27: Located 835 m east from the South Ronaldsay Landfall a scour of approx. 100 mm has been identified in multiple inspections as shown below. It is deemed appropriate to adequately support the pipeline and the rock anchor with grout bags/mattresses.



Rock Anchor Point 31: Located at 870 m east from the South Ronaldsay Landfall a scour of approx. 300 mm has been identified in multiple inspections as shown below. It is deemed appropriate to adequately support the pipeline and the rock anchor with grout bags/mattresses.



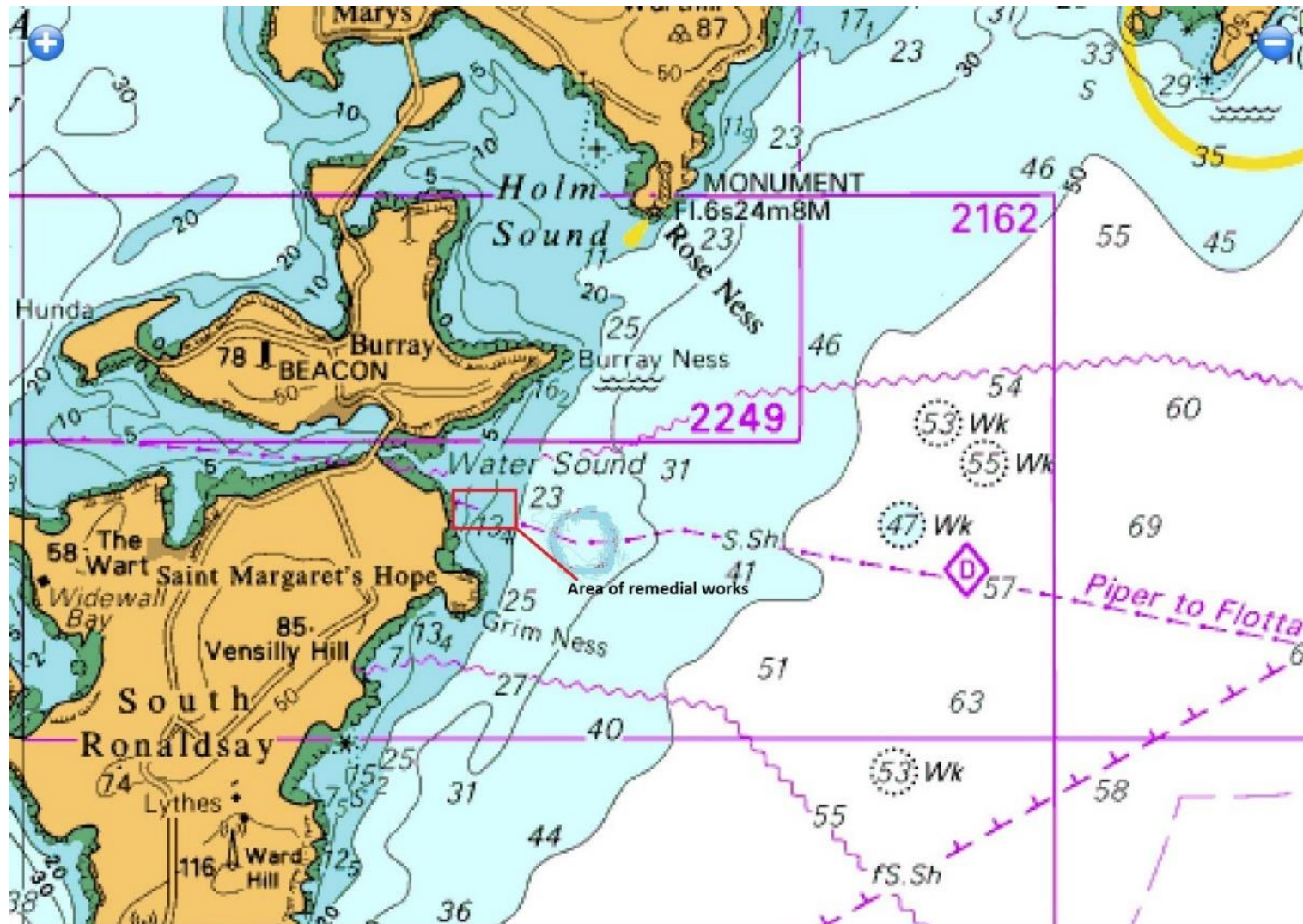
Rock Anchor Point 41: At a depth of approximately 16 m and 970 m east from the South Ronaldsay Landfall a scour of approx. 300 mm has been identified. It is deemed appropriate to adequately support the pipeline and the rock anchor with grout bags/mattresses.



Rock Anchor Point 52: At a depth of approximately 19 m and 1060 m east from the South Ronaldsay Landfall approx. 200-300 mm has been identified in multiple inspections as shown below. It is deemed appropriate to adequately support the pipeline and the rock anchor with grout bags/mattresses.



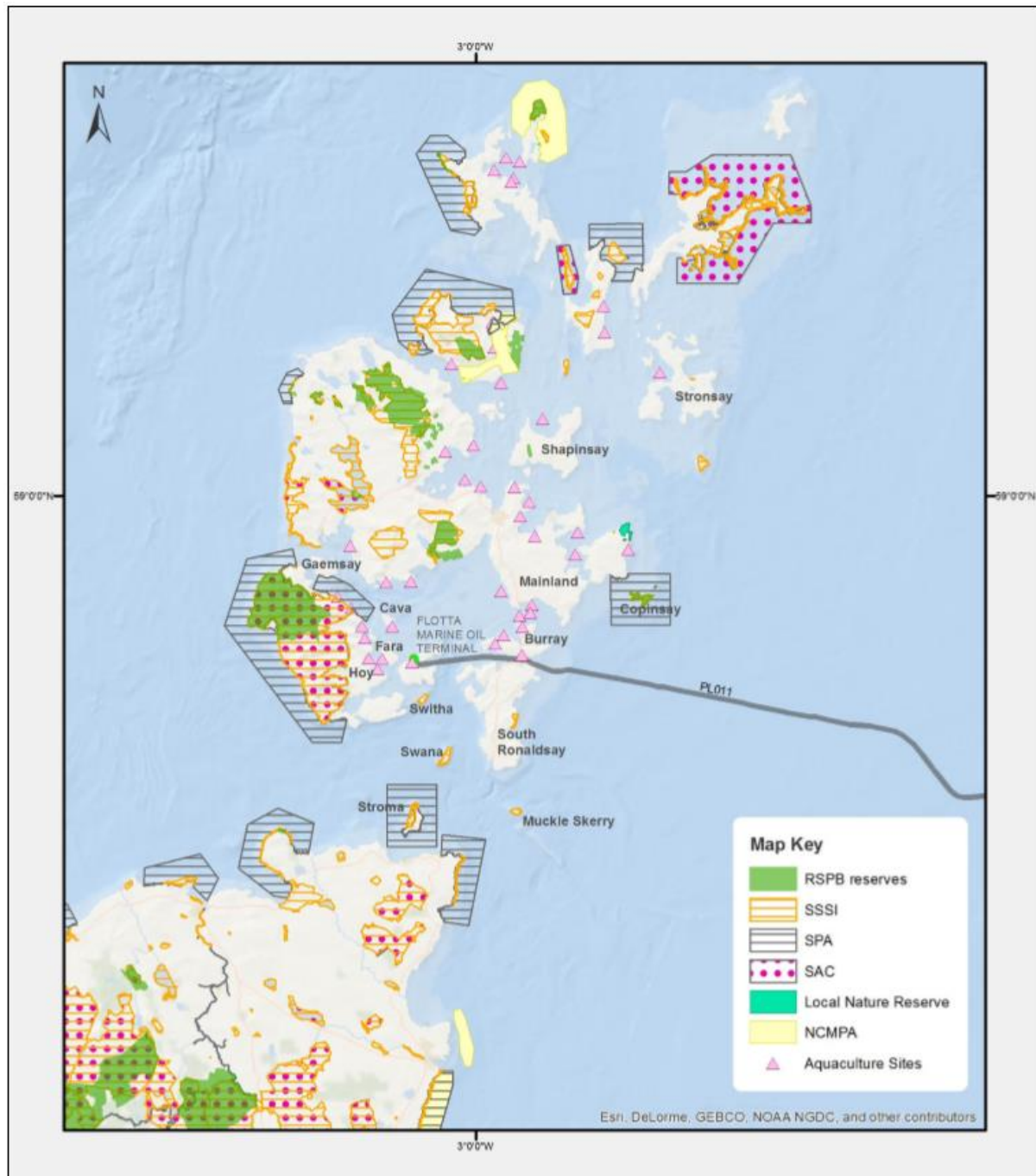
Admiralty Chart of the Location of works:



Environmental Sensitivities & Protected Areas Map:

As can be seen from the environmental sensitivities map the area of the proposed deposit location along a 2 km free span stretch of PL11 is not within the vicinity of a conservation area boundary.

The nearest Special Protection Area (SPA) is Copinsay which is located ca. 14 km north east of PL11 at South Ronaldsay. The area qualifies as an SPA by regularly supporting seabird assemblage of international importance. During the breeding season the area regularly supports 70,000 individual seabirds. Given the distance from South Ronaldsay it would not be expected that this SPA would be impacted by the proposed operations.



Fisheries:

The 2 km section where the proposed works on the 30" Piper/Claymore to Flotta MOL PL11 off the East Coast of South Ronaldsay is located within the International Council for the Exploration of the Sea (ICES) rectangle 46E7.

Spawning grounds for Herring, Lemon Sole, Sandeel and Sprat coincide with the area of operations within ICES rectangle 46E7 (Table 1). Operations covered by this application will take place during May and will therefore coincide with part of the spawning periods for Lemon Sole and Sprat.

Table 1: Fisheries sensitivities within Block 12/6 at South Ronaldsay and ICES rectangle 46E7

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Herring			S	S				S	S			
Lemon sole				S	S	S	S	S	S			
Sandeel	S	S									S	S
Sprat					S*	S*	S	S				

Key		
	S	Spawning
	S*	Peak spawning
	Blank	No Data

The area of operations within ICES 46E7 is also a nursery ground for Saith, Lemon Sole, Sandeel and Sprat.

The proposed deposit activities may have a minor impact to species within the localised area along the pipeline. However, given the short duration and localised nature of these operations, it would not be expected that these operations would have a significant impact on any species.

Commercial fisheries data (fishing effort, quantity and value) for ICES rectangle 46E7 located within this rectangle are presented below (Table 2).

Table 2: Fishing effort, quantity and value for ICES rectangle 46E7 in 2017

ICES Rectangle	46E7		
Annual Effort (days)	807		
Annual Quantity (tonnes)	1,201		
Annual Value (£)	2,302,320		
Month	Effort (days)	Quantity (tonnes)	Value (£)
January	65	103	192,388
February	56	78	125,154
March	51	100	189,329
April	56	61	130,530
May	89	62	135,777
June	120	157	336,808
July	63	73	159,118
August	75	107	201,455
September	50	128	193,904
October	55	97	164,185
November	67	156	277,881
December	59	80	195,792
Species Type			
Demersal	Not applicable	672	975,034

Pelagic	Not applicable	1	1,250
Shellfish	Not applicable	528	1,326,036
Gear Type Effort (days)			
Dredges	216		
Harvesting machines	Disclosive data		
Hooks and lines	Disclosive data		
Miscellaneous gear	Disclosive data		
Seine nets	70		
Traps	427		
Trawls	81		
Landings data provides the quantity (live weight) and value of landings of sea fish by UK vessels into the UK and abroad, and landings into the UK by foreign vessels. Data is shown for rectangles where five or more UK vessels and/or foreign vessels landings into the UK undertook fishing activity in a given year. Rectangles in which less than five UK vessels and/or foreign vessels landings into the UK undertook fishing activity in a given year are identified but the data is disclosive so is not shown.			

Fishing effort within the proposed area for 2017 was recorded as 807 days, with the maximum effort recorded during June. When taken as a percentage of the fishing effort in the North Sea, effort in ICES rectangle 46E7 represents <1% of the overall effort (2017), excluding 'disclosive' data.

Fishing activities within this area are considered as high with the overall relative commercial fish value considered to be moderate. The annual value for the following species in this area are described as:

- Demersal species – High;
- Pelagic species – Low;
- Shellfish – High.

The proposed activities may impact on fishing within the general area although given the short duration and localised nature of the operations, it would not be expected that fishing practices would be significantly impacted.

Marine Mammal Sensitivities:

Marine mammals observed in the waters surrounding Flotta include whales, dolphins and seals. Sightings data suggest that a number of species have been sighted in the surrounding areas, these include Minke Whale, Harbour Porpoise, White-Beaked Dolphin, Grey Seal, Common Seal, Killer Whale, Risso's Dolphin, Bottlenose Dolphin, Common Dolphin and Otters. Most sightings occur during the summer months. Overall, sightings of cetaceans tend to be low. For seals, Scapa Flow is an important area as it provides a number of ideal haul-out sites. Overall, sightings of seals tend to be high.

Given the short duration and localised nature of the proposed operations, it would not be expected that these species would be significantly impacted.

Scottish National Marine Plan:

Under the National Marine Plan, the following policies have been identified to be relevant to the proposed operations at approximately 2 km off the East Coast of South Ronaldsay, Orkney:

- **Landscape/seascape (Gen 7).** It is proposed to lay deposits along a 2 km free span stretch of the Piper/Claymore to Flotta MOL PL11. As these operations are subsea and vessel activity is only intended for a short duration it is unlikely there will be any long term adverse effects to the seascape.
- **Natural Heritage (Gen 9).** There may be localised seabed disturbance along the 2 km free span stretch of PL11 during the deposit operations. However, this should not pose as a significant impact to spawning species during the time of the proposed operations. The nearest SPA, Copinsay, is located ca. 14 km north east of the location of the operations.
- **Noise (Gen 13).** – Given the workscope to be undertaken it is believed the noise levels generated by the vessel are not considered to pose a high risk of injury to marine mammals. Additionally, to minimise disturbance vessel time on location will be optimised.
- **Sea Fisheries (Policy 6).** Consideration has been given toward the fisheries policies, as a result, appropriate notifications will be made and maritime notices posted prior to the commencement of the operations to ensure other users of the sea are made aware of the presence of the vessel. The activities will be short in duration and are therefore not expected to impact significantly on fishing practices.
- **Oil and Gas (Policy 9).** The proposed operations are required to ensure the safety and integrity of the 30" Piper/Claymore to Flotta Main Oil Line PL11 is maintained and thus complies with policy 9 ensuring safe and continued oil and gas activity.
- **Shipping, ports, harbours and ferries (Policy 13).** To comply with this policy, appropriate notifications will be made and maritime notices posted prior to the commencement of the operations to ensure other users of the sea are made aware of the presence of the vessel.