

# Earth Observation Training Exercises

**CleanSeaNet Basic Training**  
**SEG Exercises**

Version : 1.0

**Date: September 2020**



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## Version History

Version	Date	Description	Author
1.0	01/09/2017	CSN Train the Trainer on SEG Interface	EMSA
2.0	01/09/2018	CSN Training in SEG Interface	EMSA
3.0	01/09/2019	CSN Training in SEG Interface	EMSA
4.0	01/09/2020	CSN Online training	EMSA

## Scope

The “Earth Observation Training Exercises” handbook provides several exercises which aim to develop basic skills on the use of the SafeSeaNet Ecosystem GUI (SEG). These exercises encompass all necessary actions in SEG for management of oil spills detection related activities and alert reporting.

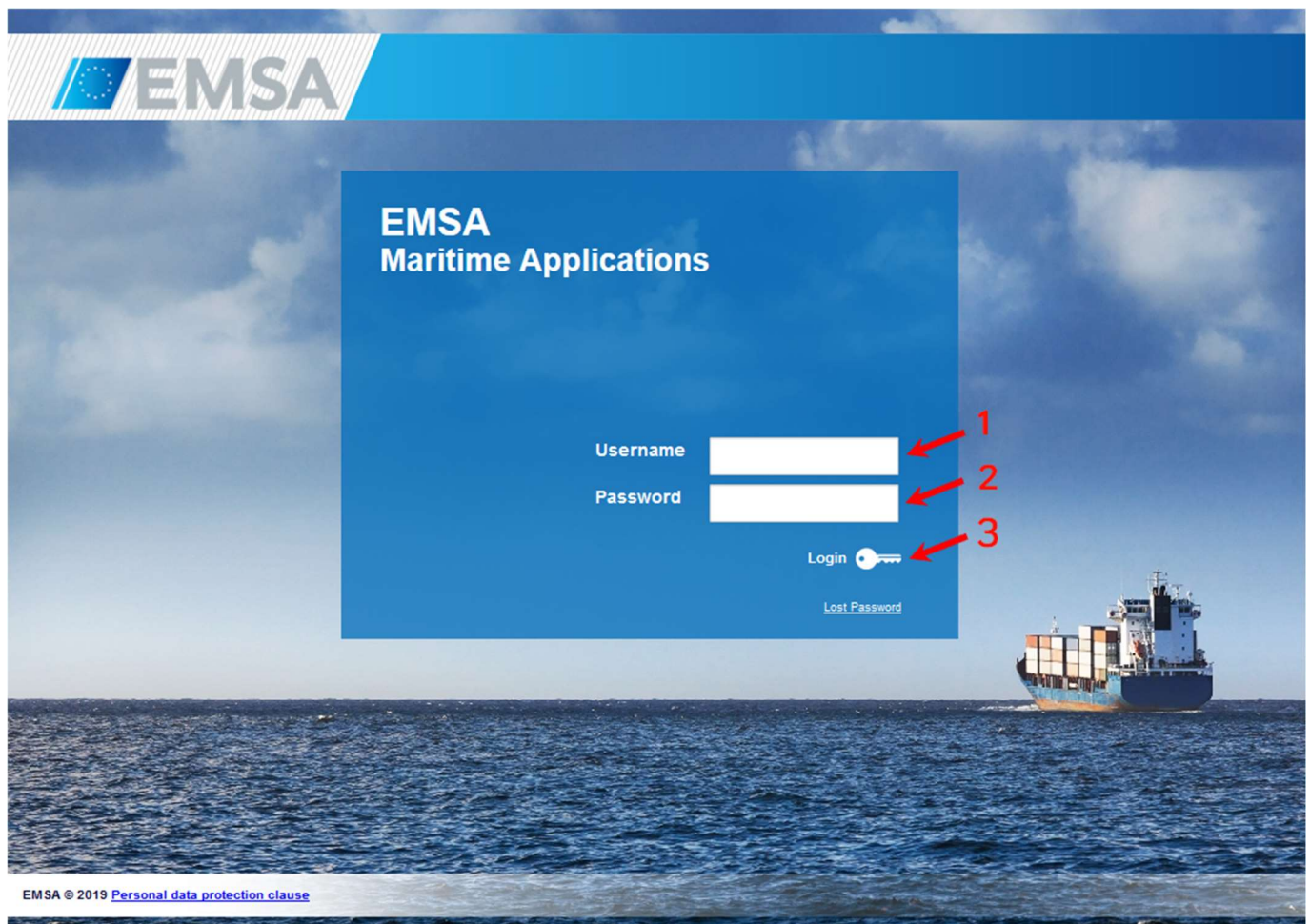
## List of Abbreviations

AIS	Automatic Identification System
AOI	Area of Interest
C&I	Command and Info card
CSN	CleanSeaNet
ENP	European Neighbourhood Policy
EO	Earth Observation
EOS	Earth Observation Services
KML	Keyhole Markup Language
IMS	Integrated Maritime Services
IVTMIS	Integrated Vessel Traffic Monitoring and Information System
LRIT CDC	Long Range Identification and Tracking Cooperative Data Centre
MMSI	Maritime Mobile Service Identity
MRS	Mandatory Reporting System
N/A:	Not Applicable
RPAS	Remotely Piloted Aircraft Systems (RPAS)
RS-2	Radarsat-2
SAR	Synthetic-aperture radar
SAR SURPIC	SAR SURPIC
SEG	SafeSeaNet Ecosystem GUI
SSN	SafeSeaNet
TSX	TerraSAR-X
TTT	Tables, Thumbnails and Timeline
VAP	Value Added Products

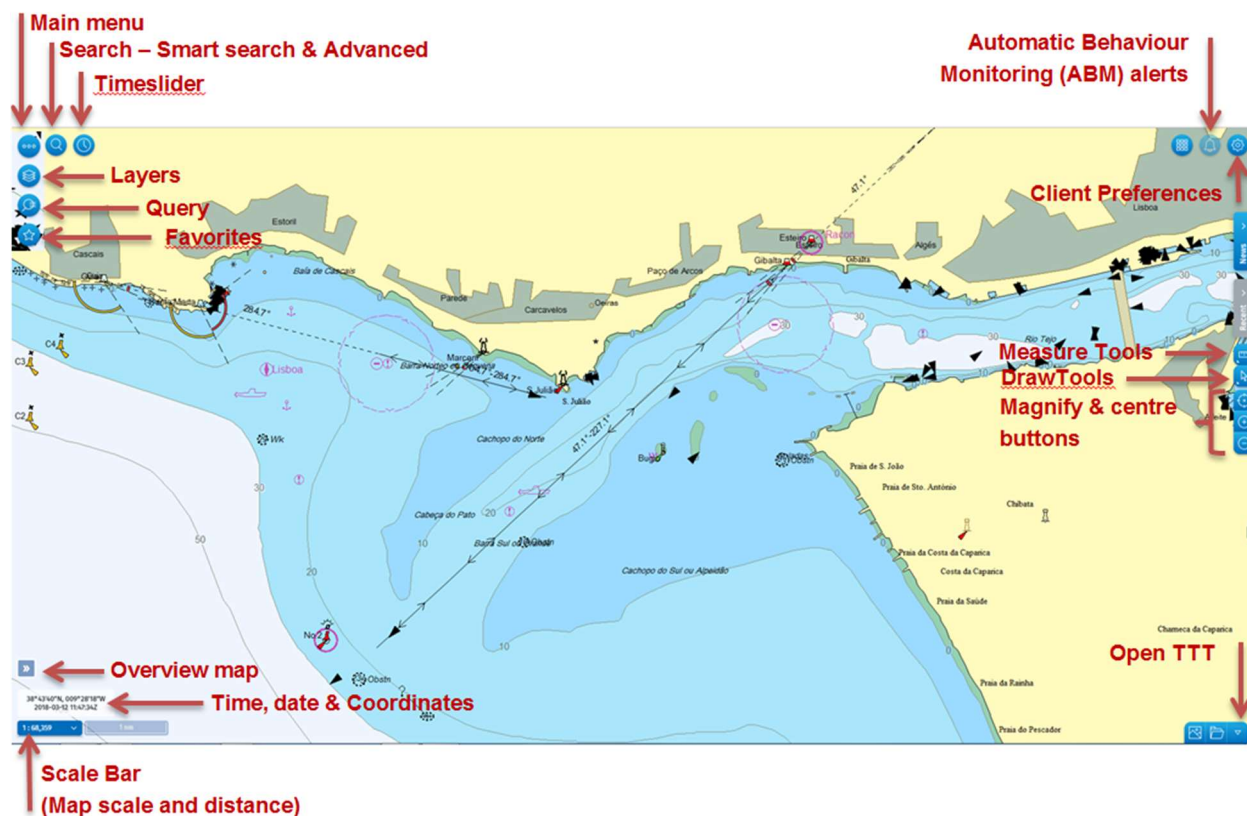
VDS	Vessel Detection Service
VMS	Vessel Monitoring System
UTC	Coordinated Universal Time

# 1. Access to SEG & Training Material

- Login to EMSA Maritime Applications Portal:
  - It is recommended to use the most recent version of Chrome web browser (preferred) or alternatively Mozilla Firefox. The SEG is also compatible with Safari. On your internet browser go to:  
<https://portal.emsa.europa.eu/SEGServer/>
  - Insert Login (1).
  - Insert Password (2).
  - Click Login (3).



The SEG GUI is map centric. Menus and Tabs are managed in the corners of the screen and may be expanded and collapsed to maximise map coverage. See below figure of the SEG user interface.



Some of the relevant training material can be accessed by visiting the EMSA webpage.

Visit the CleanSeaNet and the SEG User Training page for tutorial videos (two new videos addressing feedback published), interface overview, start guide and other useful content:

- SEG User Training page:

<http://www.emsa.europa.eu/seg-user-training/>

- CleanSeaNet Service Page:

<http://www.emsa.europa.eu/csn-menu.html>

- CleanSeaNet general service information and publications

<http://www.emsa.europa.eu/csn-menu/csn-background.html>

- CleanSeaNet Training Materials page:

<http://www.emsa.europa.eu/csn-menu/training-materials.html>

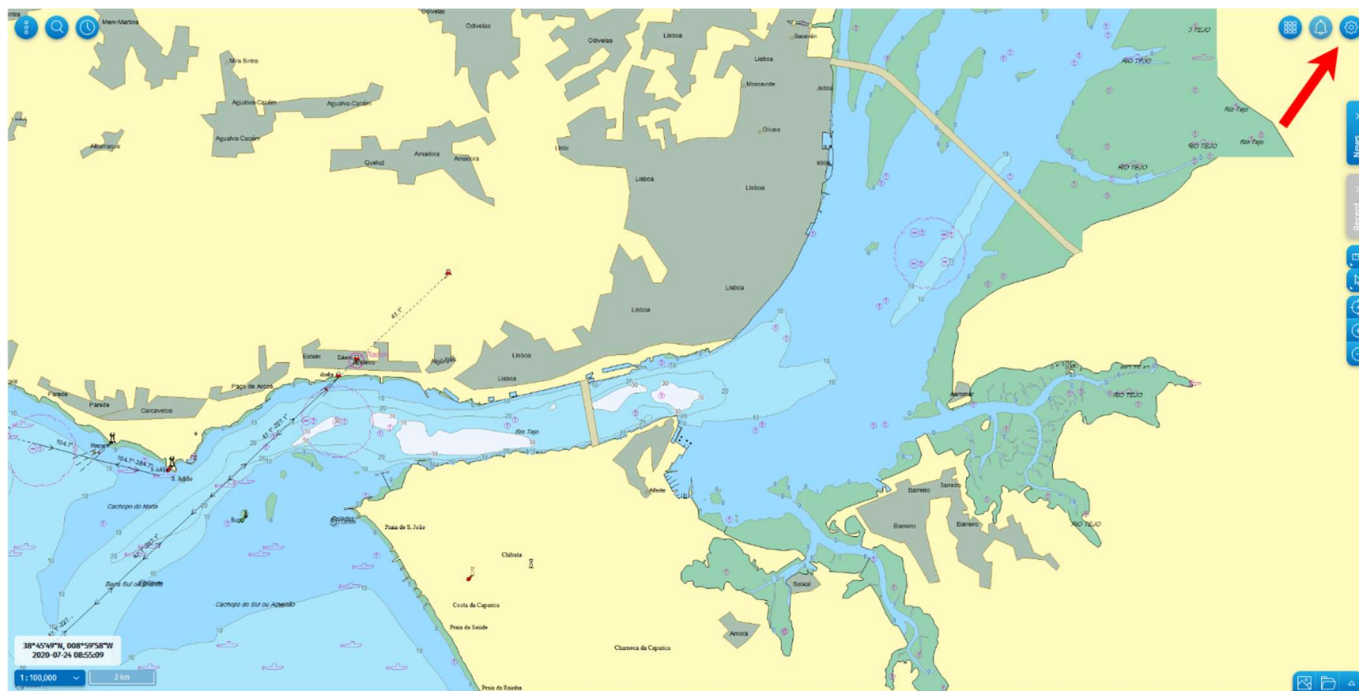
- CleanSeaNet past relevant training material:

<http://www.emsa.europa.eu/csn-menu/training-materials/training-material.html>

## 2. Customise your preferences

Before executing the exercises below, a list of configurations shall be applied, via 'Preferences' window:

- Open 'Preferences'



Under the 'Info' tab: verify that:

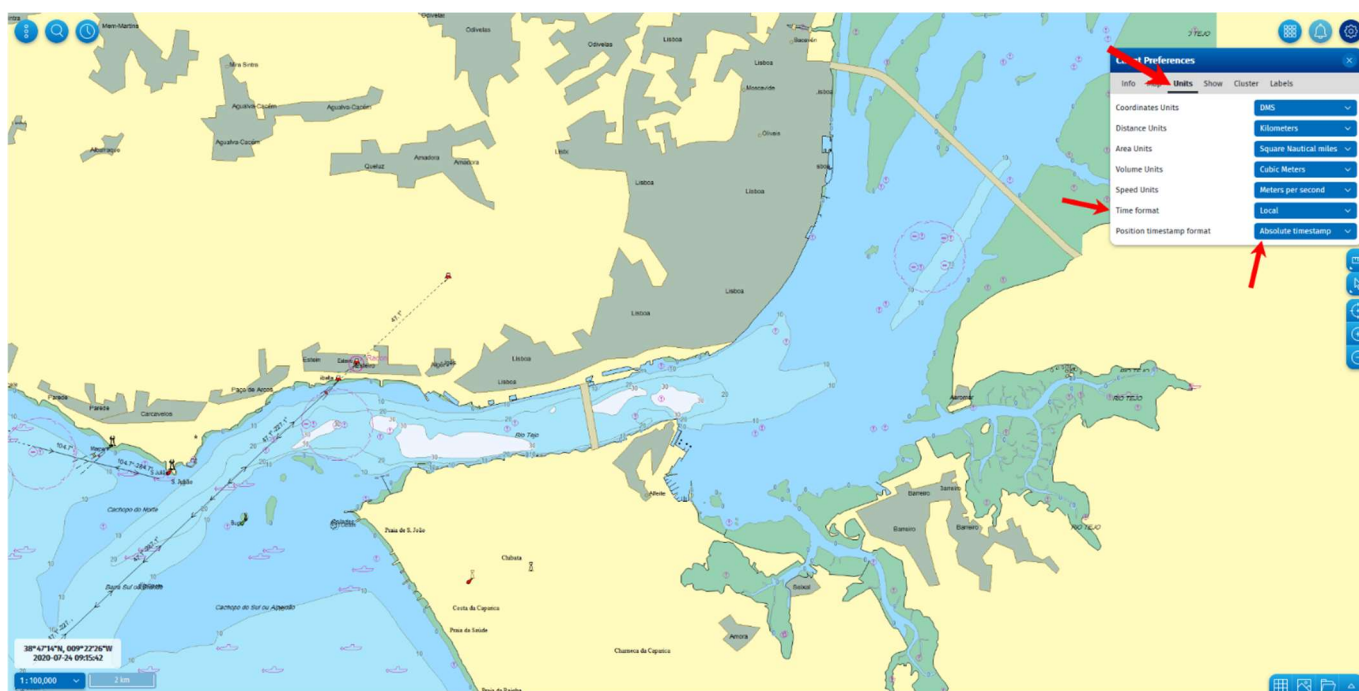
- the name of the Current Operation is 'CleanSeaNet'.
- Verify your User ID.



- Under the **'Map'** tab:
  - Zoom in to your area of interest and select the Starting viewpoint as 'User Specified' and press the button 'Set to Current Centre and Scale'.
  - Click "Apply".
  - By clicking on F5, the window will refresh and the map will open at the set centre and scale.



- Under the **'Units'** tab: review your preferences for time format (Local or UTC) and position timestamp format (absolute timestamp and time relative).



- Under the '**Labels**' tab: review the selected options for the 'Vessel Tooltip'. Make sure the options 'Show vessel labels' and 'Show EO labels' are turned off.



- Under the '**Show**' tab, ensure the 'Recent detected oil spills' and 'recently added EO products' are turned on.



### 3. Using filters and layers

- Click  to expand the main menu.




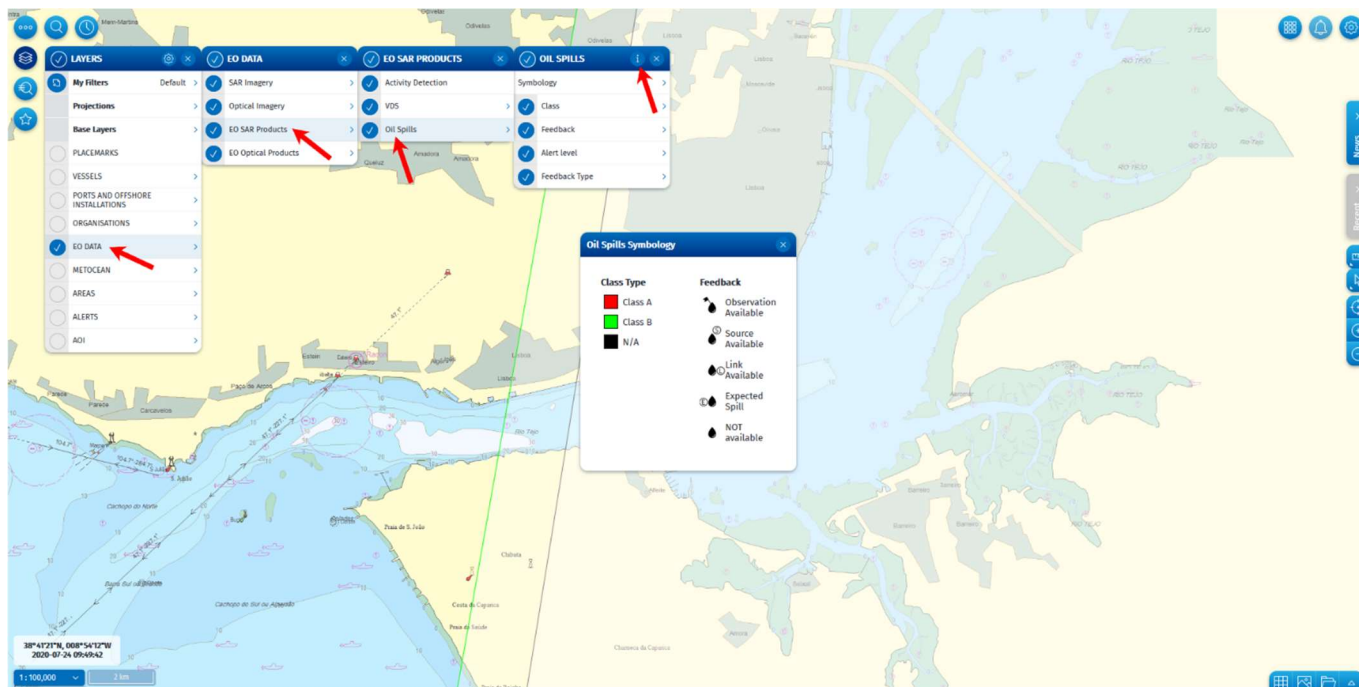
- Open the Layers by clicking .



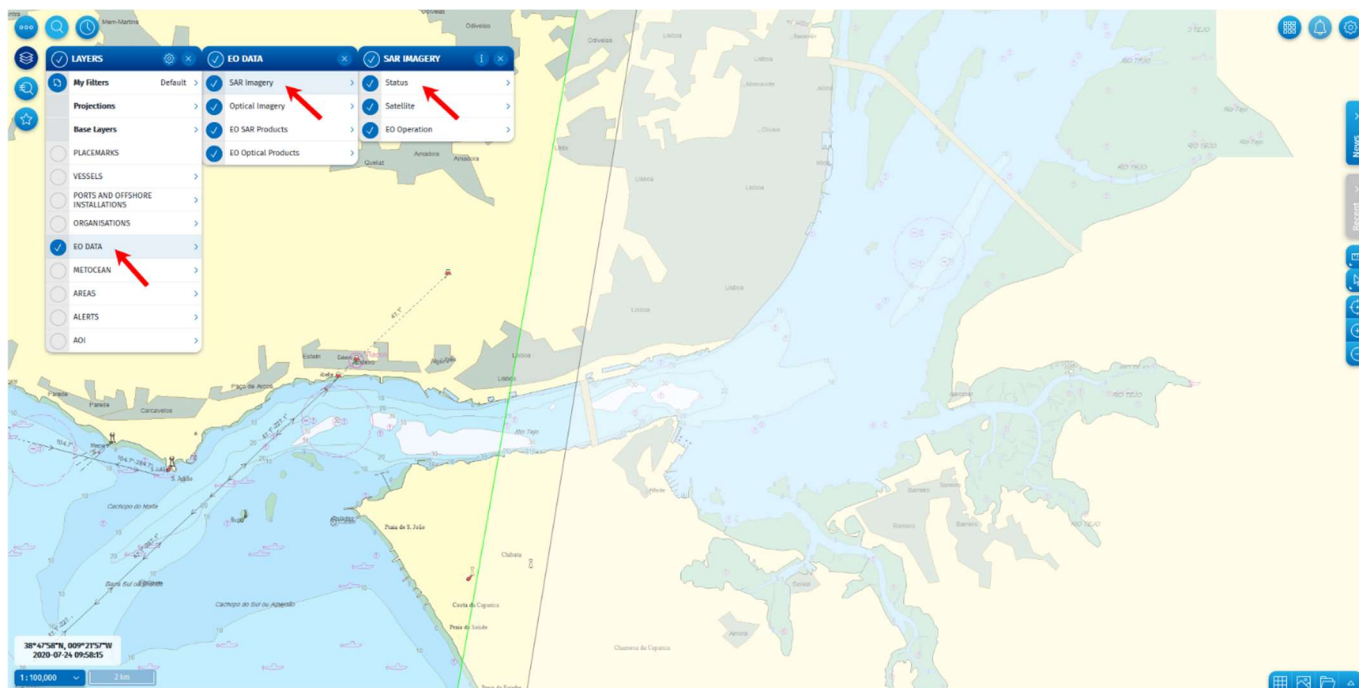
- Select only the 'EO Data' layer (unselect the other layers).



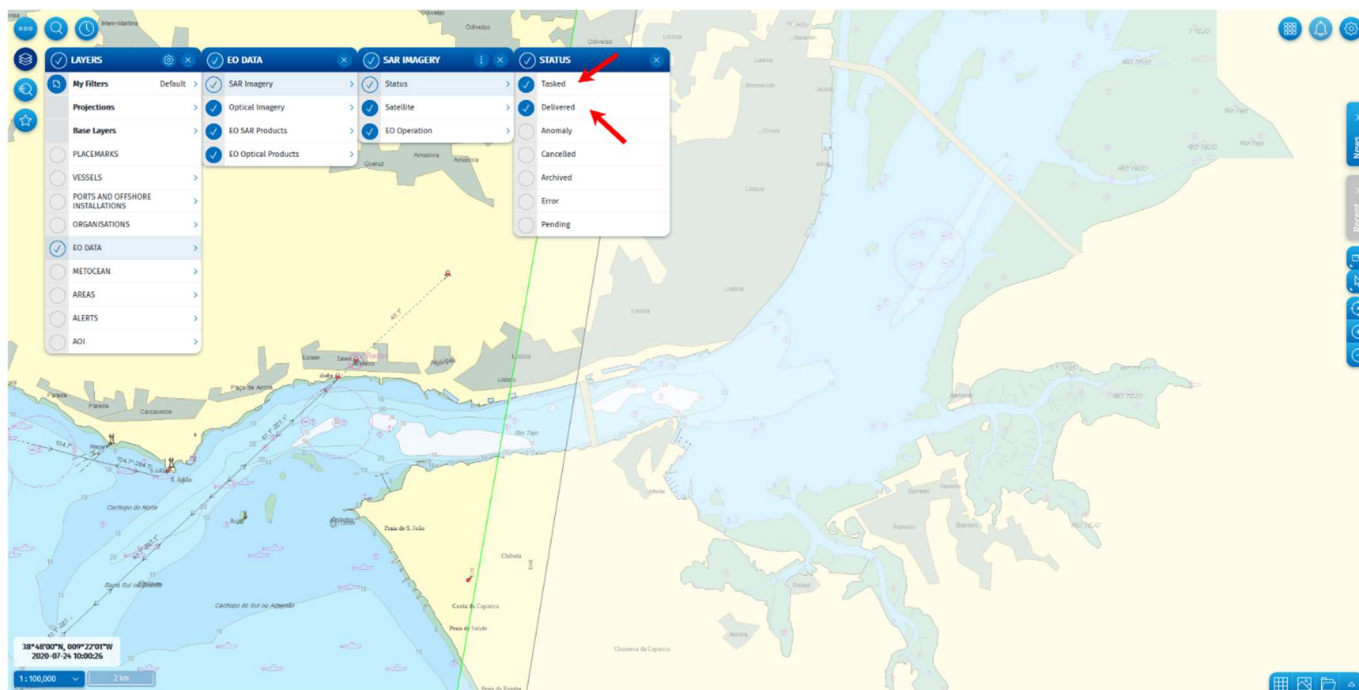
- In the EO Data->EO SAR Products->Oil Spills expand the 'Symbology' layer and click on  to visualise the possible legends (Class Type, Alert Level, Feedback Type). Select the different symbology options and check how the oil spill symbology changes on the map.



- In the EO Data layer, expand the 'SAR Imagery' layer. Expand the 'Status' layer.



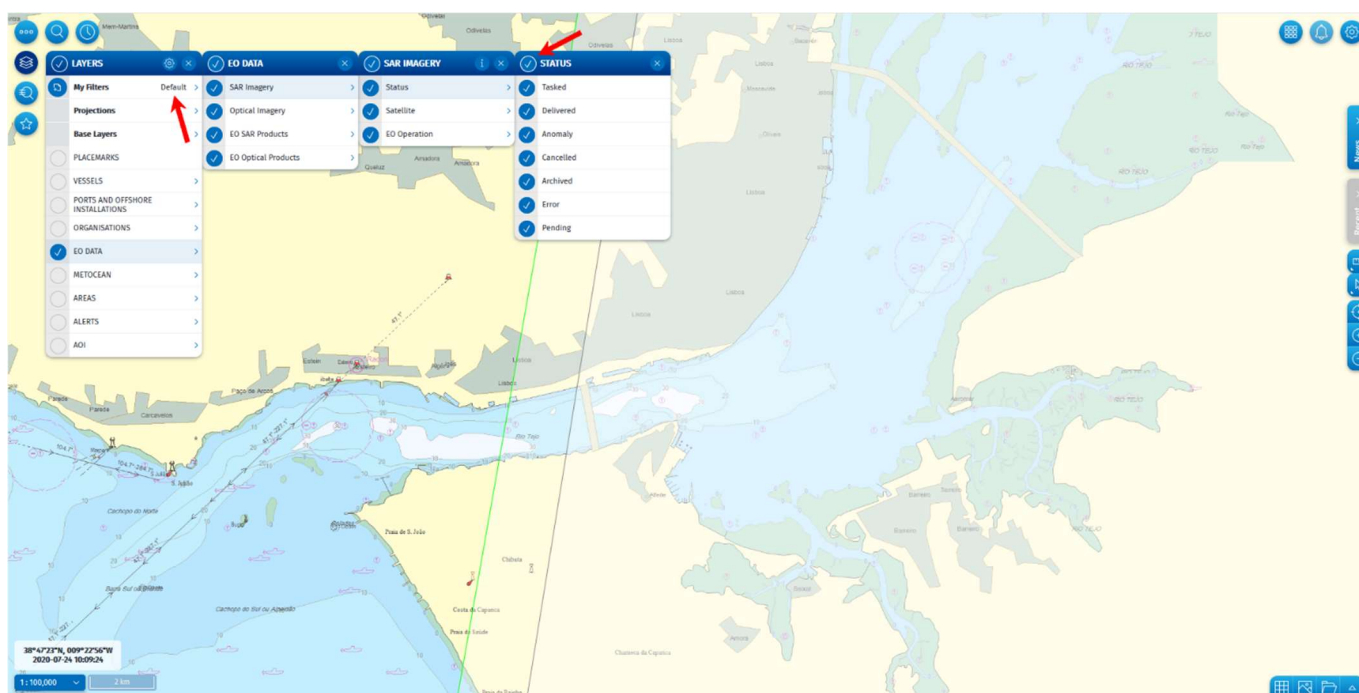
- By ticking/unticking the different available options, display only images that will be acquired in the future (Status = Tasked), and then only those already delivered (Status = Delivered).



- Save this last Layer configuration using the MyFilter option: Create a new filter and save it with name 'Delivered'.



- Then, select My Filters-> Default and make sure all options in the STATUS Menu are selected.

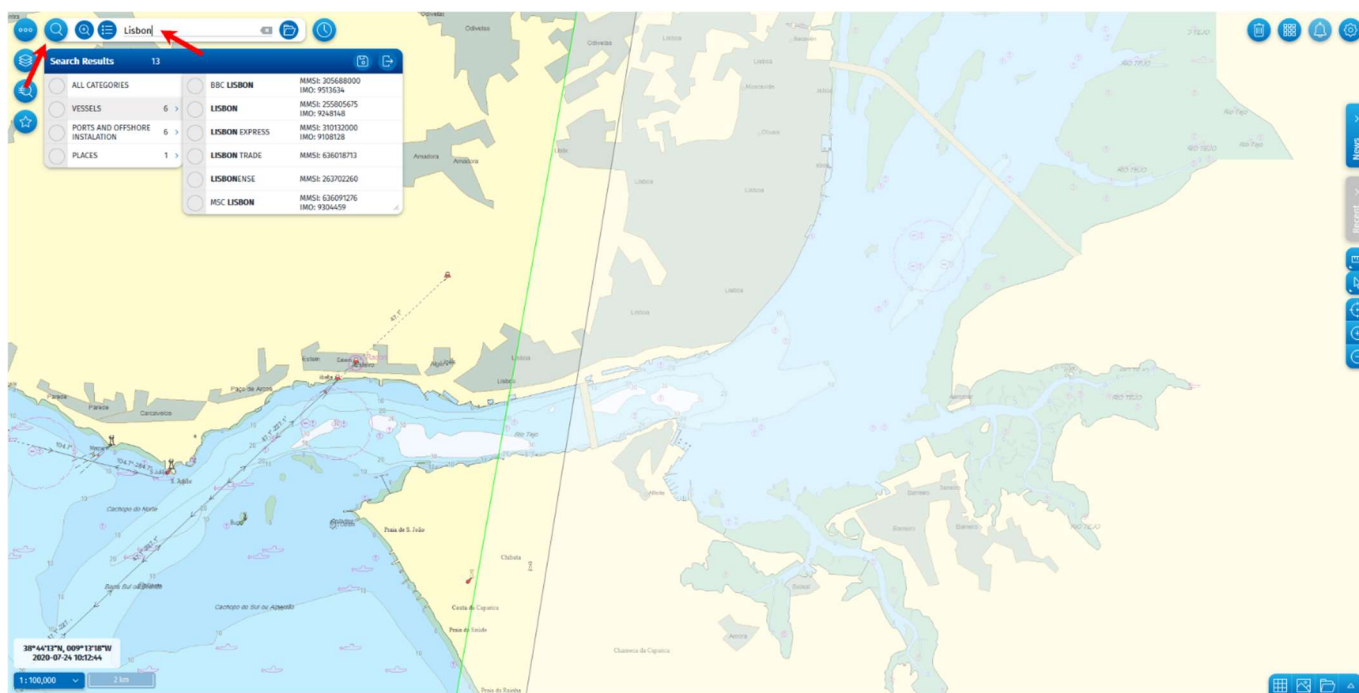


## 4. Search

Using the Search tool locate vessels containing the name “Lisbon”. It will also return ‘Places’ and ‘Ports’ containing that string.



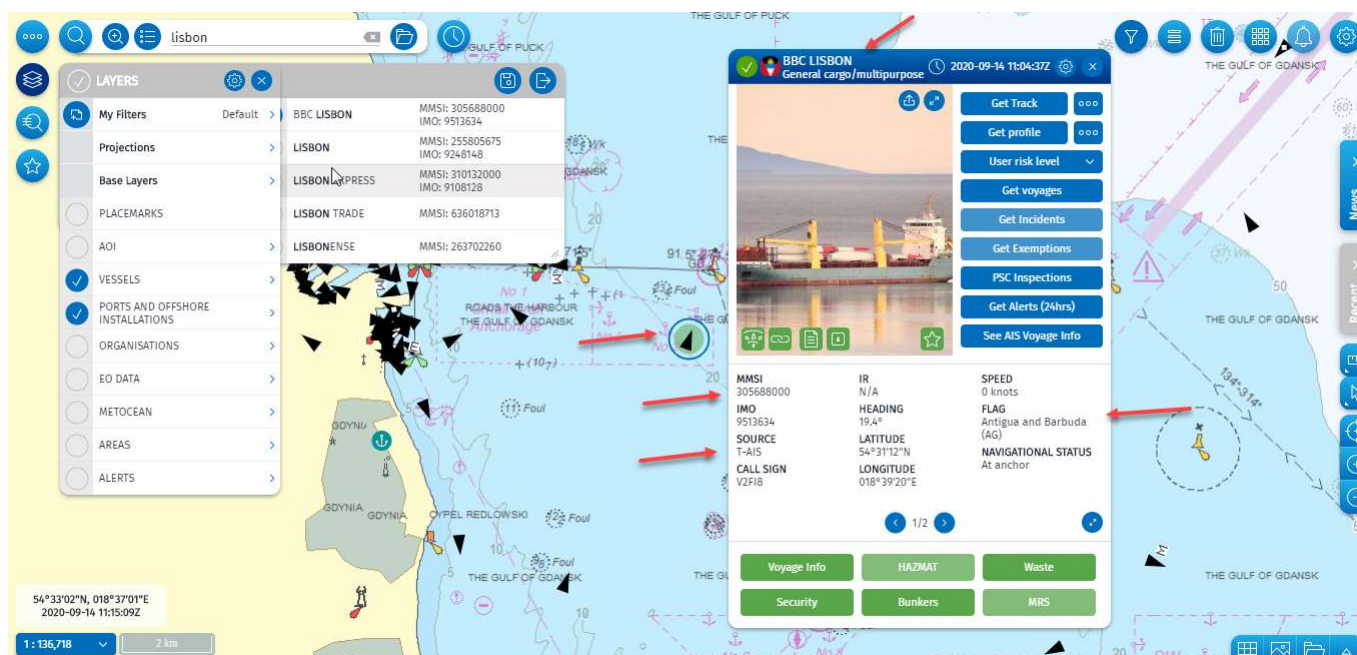
- Use the Search icon on the top left corner of the window.
  - Search enables the user to quickly find and filter across different object categories (e.g. Vessels, Ports, Places, EO images, Oil spills, Place marks etc.).
  - The Search query will return results for vessels that have reported a position from any reporting source within the last 24 hours. To find a vessel that has NOT reported a position in the last 24 hours, the **Advanced Search** function must be used.
  - EO data may be searched within a time window -3 / +3 days. The **Advanced Search** function must be used to search for EO data and products outside this time window.



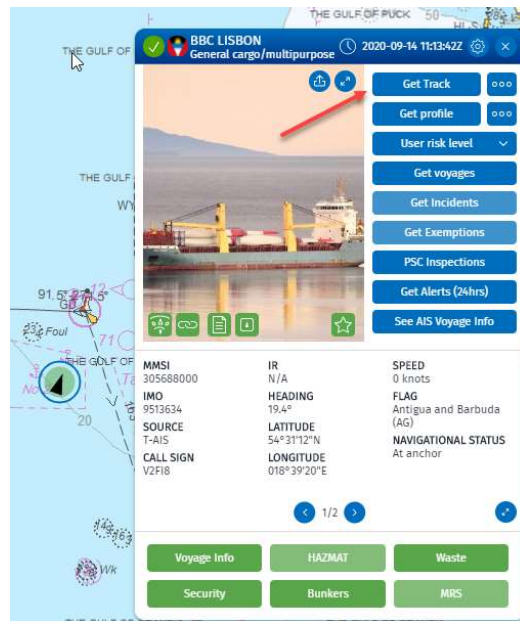
- In the Layers, deactivate the ‘EO Data’ and activate the ‘Vessels’ and the ‘Ports and Offshore Installations’ layers.



- Select one of the vessels and view it on the map.
- Open the Command & Information window for this vessel.



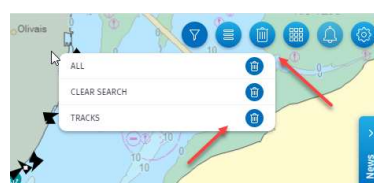
- What is the corresponding MMSI, Ship Name and Flag?
- What is the ship type and source of the latest position report?
- What is the vessel length?
- Use the function 'Get track'.



- Visualise the messages in the Timeline.



- To finalise the exercise, use the 'Bin' icon on top, to delete the displayed track.



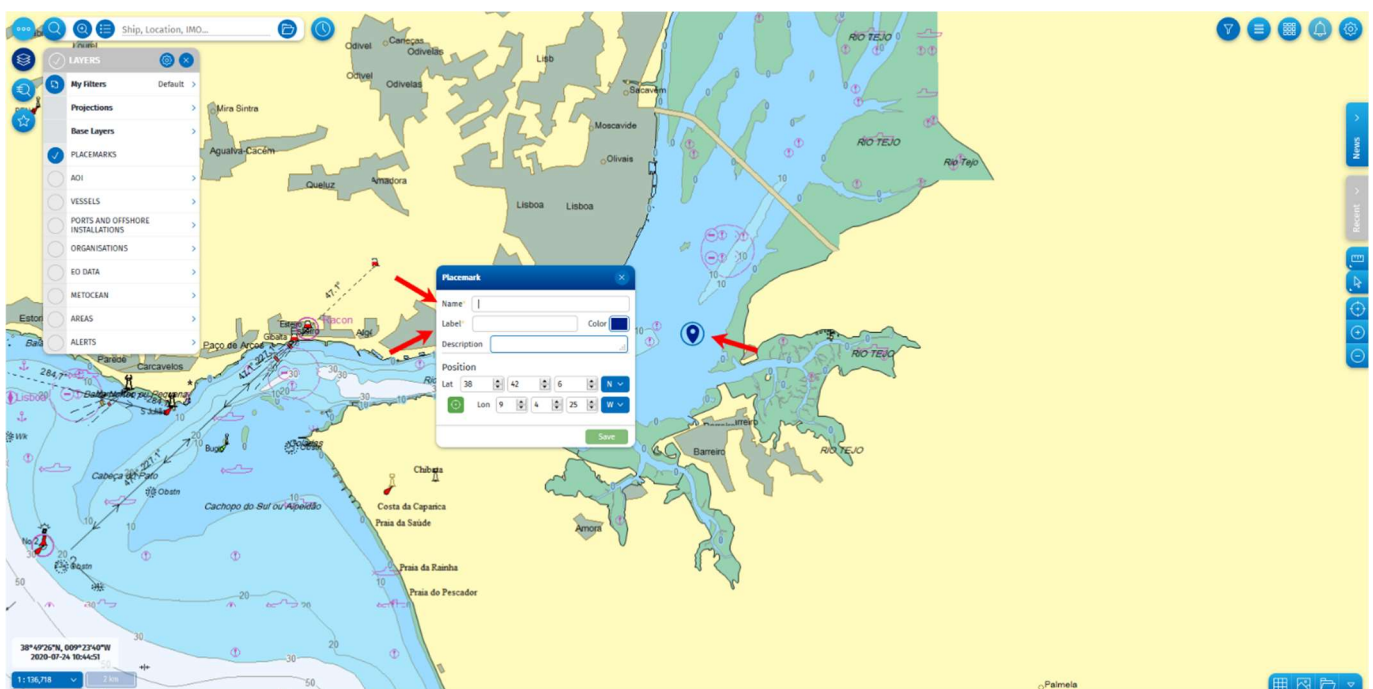
## 5. Placemarks

This exercise is to demonstrate how you can define your own locations of interest and visualise them in SEG.

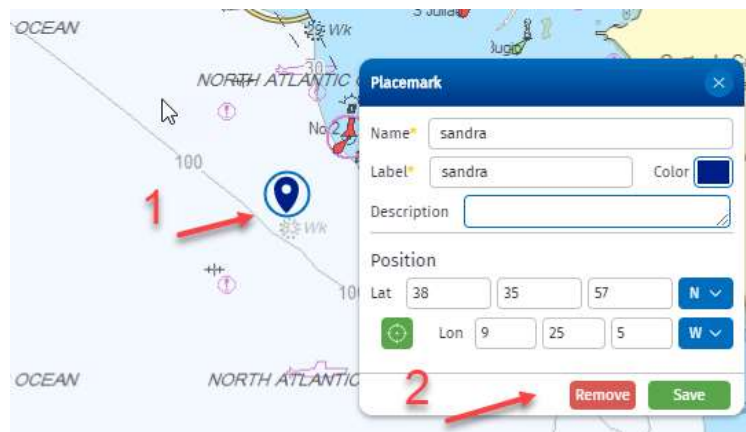
- Open the 'Layers' Menu (1) and ensure the Layer 'Placemarks' is activated (2).
- Now, open the 'Draw Tools' (3) and use the 'Placemark' button (4).



- Select a Location on the Map,
  - and ensure you fill in the mandatory options 'Name' and 'Label'



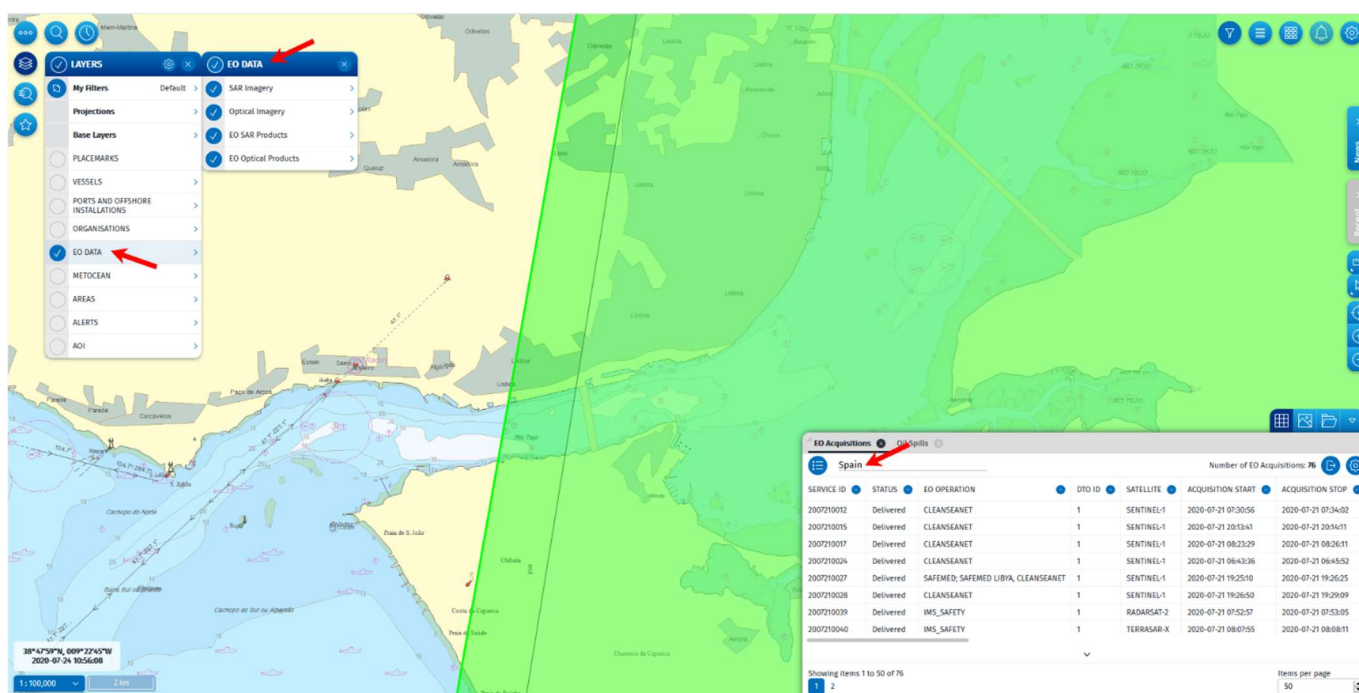
- To finalise the exercise, delete the created Placemark.




## 6. EO Images for Specific Country – 3 days delivered and tasked

When you log in, images and oil spills from the last 3 days, from today, and for the coming 3 days will be listed in the TTT. The footprints and oil spills of all these images will also be displayed in the Map.

- Ensure the Layer 'EO Data' is active, with all sublayers active.
- To visualise only footprints intersecting the alert area of one specific country, one possibility is to use the filter in the TTT: write Spain in the TTT.



- To double-check, you can display the alert areas of Spain (1), by selecting those entries in the 'Layers' Menu 'Alert Areas' -> Spain (2).
- Export the list of images from the TTT by clicking the  (3), selecting 'CSV' format (4) and pressing submit (5).

**LAYERS**

- My Filters
- Projections
- Base Layers
- PLACEMARKS
- VESSELS
- PORTS AND OFFSHORE INSTALLATIONS
- ORGANISATIONS
- EO DATA
- METOCEAN
- AREAS**
- ALERTS
- AOI

**AREAS**

- Lithuania
- Malta
- Montenegro
- Morocco
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovenia
- Spain**
- Sweden
- Tunisia
- Turkey
- United Kingdom

**Export EO Acquisitions**

Column selection: ☐ All ☒ Visible

Export to: ☒ CSV ☐ XLS ☐ PDF ☐ GML ☐ SHP ☐ KML ☐ GPX

**EO Acquisitions**

Spain

Number of EO Acquisitions: 76

SERVICE ID	STATUS	EO OPERATION	DTO ID	SATELLITE	ACQUISITION START	ACQUISITION STOP
2007210012	Delivered	CLEANSEANET	1	SENTINEL-1	2020-07-21 07:30:56	2020-07-21 07:34:02
2007210015	Delivered	CLEANSEANET	1	SENTINEL-1	2020-07-21 20:13:41	2020-07-21 20:14:01
2007210017	Delivered	CLEANSEANET	1	SENTINEL-1	2020-07-21 08:22:29	2020-07-21 08:26:11
2007210024	Delivered	CLEANSEANET	1	SENTINEL-1	2020-07-21 06:43:36	2020-07-21 06:45:52
2007210027	Delivered	SAFEEMED; SAFEEMED LIBIA, CLEANSEANET	1	SENTINEL-1	2020-07-21 19:25:10	2020-07-21 19:26:25
2007210028	Delivered	CLEANSEANET	1	SENTINEL-1	2020-07-21 19:26:50	2020-07-21 19:29:09
2007210039	Delivered	IMS_SAFETY	1	RADARSAT-2	2020-07-21 07:52:57	2020-07-21 07:53:05
2007210040	Delivered	IMS_SAFETY	1	TERRASAR-X	2020-07-21 08:07:55	2020-07-21 08:08:11

Showing items 1 to 50 of 76

Items per page: 50

## 7. Search for a specific oil spill

Potential oil spills detected in EO images are displayed on the map as oil droplets, or as polygons, depending on the zoom level.

By hovering over an oil droplet or a polygon a Tooltip with summary information on the possible spill is displayed. Clicking on the oil droplet or polygon will open the Command and Info window

In this exercise, you will search for a specific oil spill, using the spill identifier, displayed in the main page of the CSN alert reports:

**EMSA** European Maritime Safety Agency

**CleanSeaNet Alert Report**

**SPAIN**

Acquisition Start Time: 2019-01-28 06:35:15 UTC

Service Identifier: 1901280004 SENTINEL-1 - CSAR - IWS

[GIS Viewer](#)

**Comments**

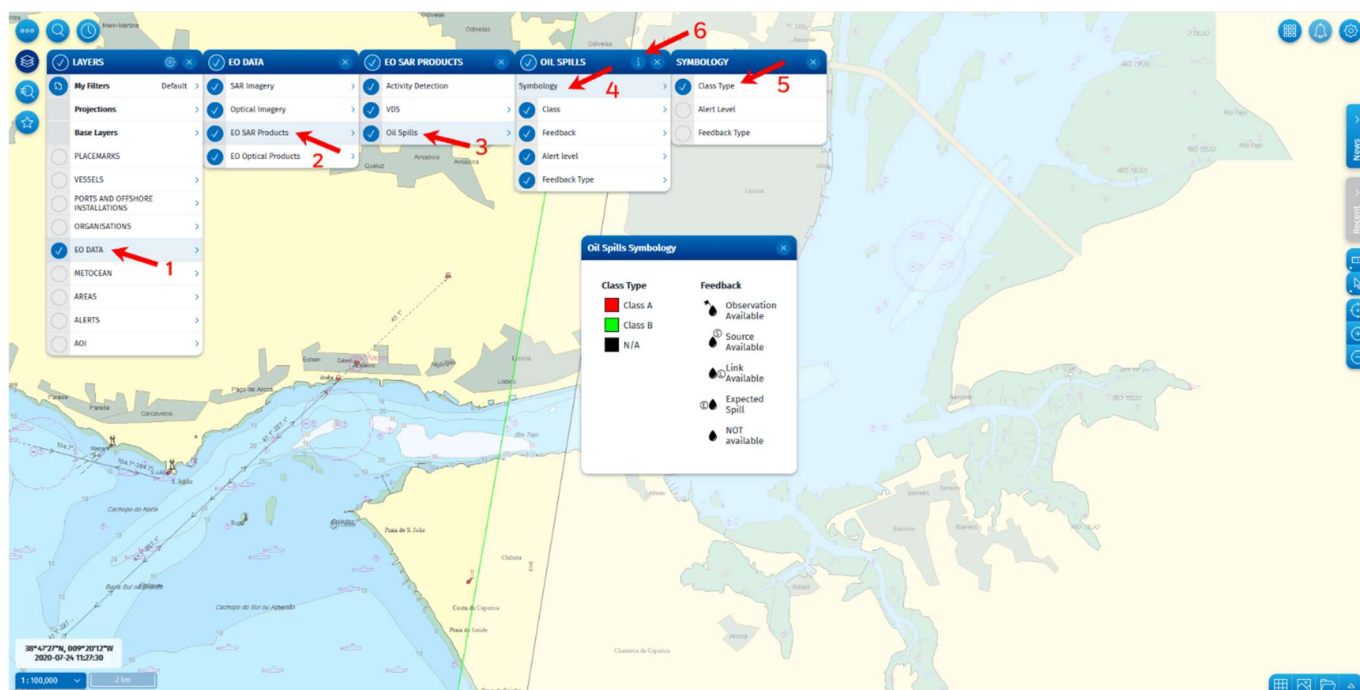
**List of possible spills**

Spill # on map	Spill Identifier	Centre Position		Area (km <sup>2</sup> )	Length (km)	Width (km)	Alert	Oil Spill Warning Issued	Possible Source	
		Latitude	Longitude						Detected	Identified
1	OS_1901280004_1			3.03	10.29	0.51	Red	YES	Yes	Yes

Note: Possible spills outside alert area are presented on map - Additional spills may also have been reported outside the map - Please consult GIS Viewer

The id OS\_1901280004\_1 will be used.

- Ensure the Layer 'EO Data' is active, with all sublayers active.
- Select the Symbology EO Data (1) -> EO SAR Products (2) ->Oil Spills (3) ->Symbology (4) = 'Class Type' (5).
- Visualise with the 'i' how the Legend should be (6).



- Now Use the 'Advanced Search'(1) ->Oil spills (2) to search for the Oilspill ID = OS\_1901280004\_1. (3).
- Press the submit button (4).



- Select the row in the TTT 'Oil Spills Adv. Search' (1).
- Check the values in the Oil Spill C& I window (2).
- Confirm that the colour of the droplet is correct (check the Class (3)).

The screenshot displays the CleanSeaNet interface with the following components:

- Advanced Search Panel:** Located on the left, it includes sections for Vessels, EO, Oilspills, and Alerts. The Oilspill Identification section shows a Service ID of 1902220006 and an Oilspill ID of OS\_1901280004\_1. The Acquisition Time section shows a date of 2019-01-28 06:35:14Z. The Area of Interest section shows a selected area of 1 km².
- Map:** A map of the North Atlantic Ocean with a yellow rectangle highlighting a specific area. A red arrow labeled '2' points to a red line on the map.
- Oil Spill Information Panel (Top Right):** A detailed view of an oil spill. It includes a satellite image, a table of data, and buttons for Area Query, Display drift model, Possible source, Report in SSN, and Click info... The data table is as follows:


OILSPILL ID	LONG (CENTER)	DISTANCE FROM COAST (KM)
OS_1901280004_1	007°14'44"W	86.208
SERVICE ID	AREA (KM2)	NUMBER OF SLICKS
1901280004	0.884	1
ACQUISITION START	LENGTH (KM)	ORIGIN
2019-01-28 06:35:14	10.290	DETECTED
LAT (CENTER)	WIDTH (KM)	CLASS
36°12'28"N	0.511	A
- Oil Spill Information Panel (Bottom):** A detailed view of an oil spill. It includes a satellite image, a table of data, and buttons for Area Query, Display drift model, Possible source, Report in SSN, and Click info... The data table is as follows:

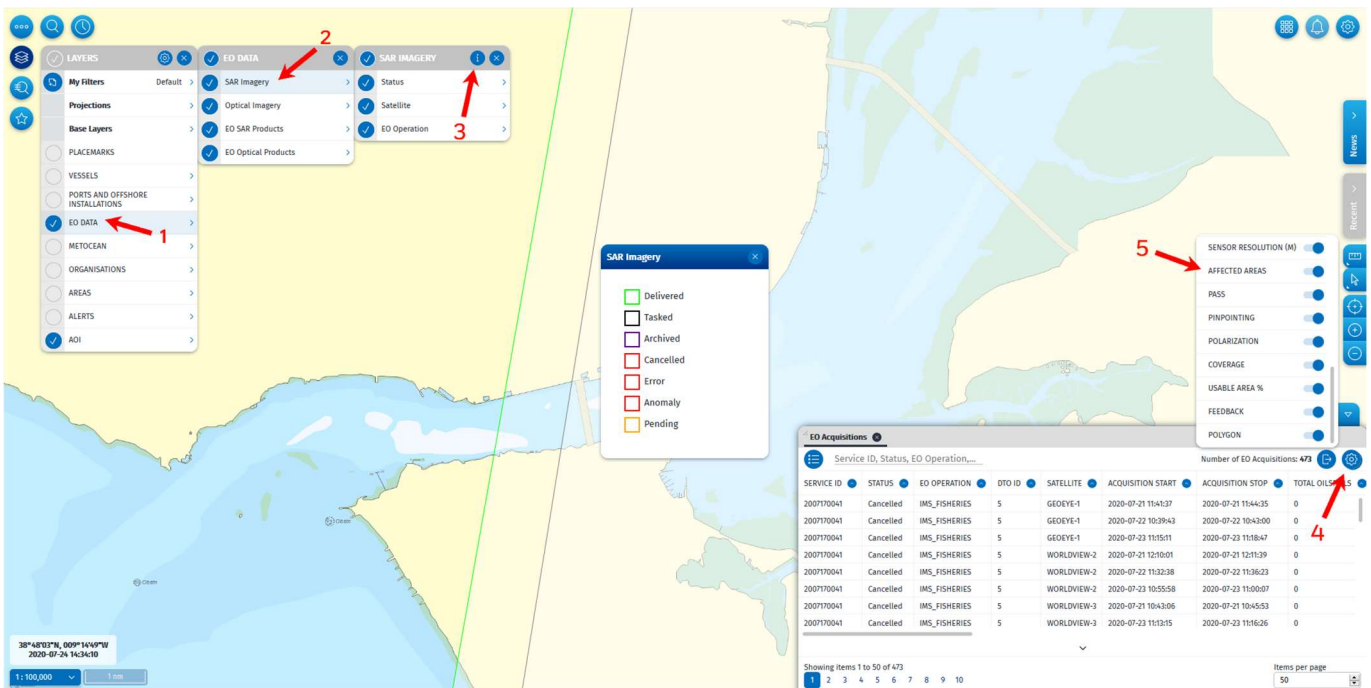
OILSPILL ID	LONG (CENTER)	DISTANCE FROM COAST (KM)
OS_1901280004_1	007°14'44"W	86.208
SERVICE ID	AREA (KM2)	NUMBER OF SLICKS
1901280004	3.032	1
ACQUISITION START	LENGTH (KM)	ORIGIN
2019-01-28 06:35:14Z	10.290	DETECTED
LAT (CENTER)	WIDTH (KM)	CLASS
36°12'28"N	0.511	A
- Oil Spills Ads. Search Panel:** A table of oil spills. A red arrow labeled '1' points to the first row. The table is as follows:

OILSPILL ID	SERVICE ID	ACQUISITION START	LAT (CENTER)	LONG (CENTER)	AREA (KM2)	LENGTH (KM)	WIDTH (KM)
OS_1901280004_1	1901280004	2019-01-28 06:35:14	36°12'28"N	007°14'44"W	0.884	10.290	0.511

## 8. Analyse a specific EO image

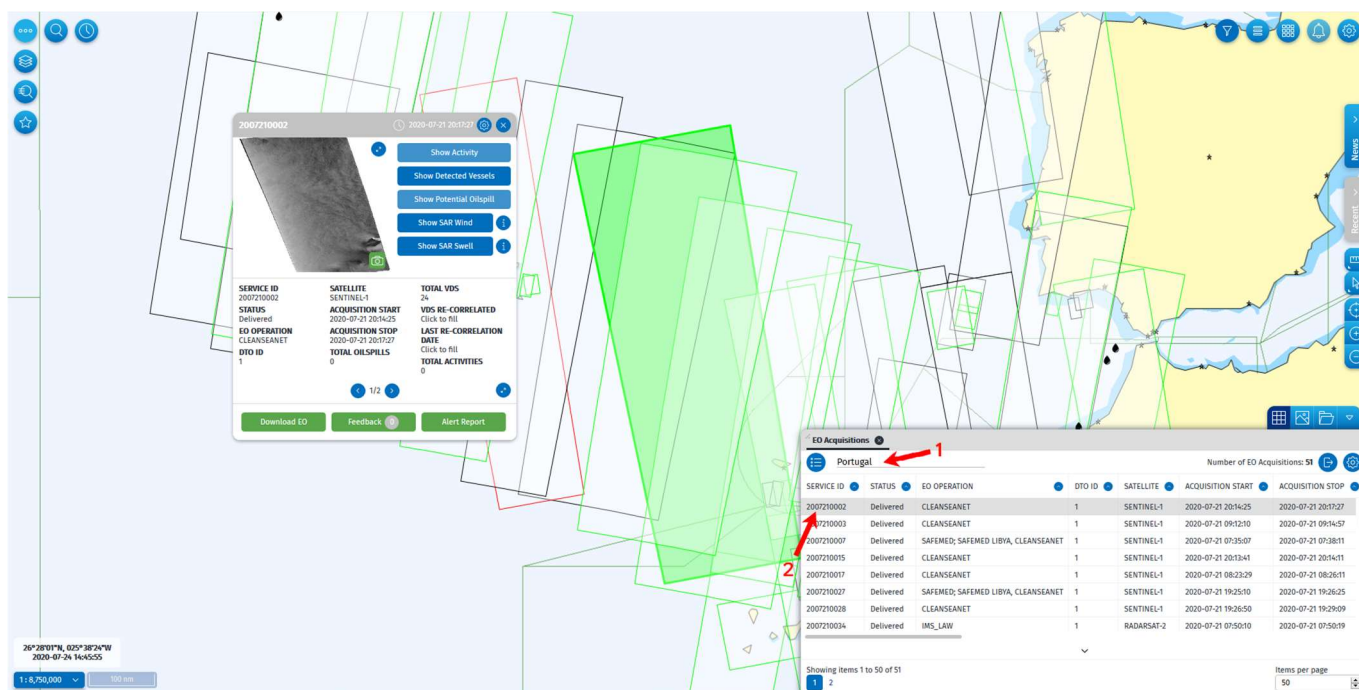
- Ensure the Layer 'EO Data' is active, with all sublayers active.
- Expand the EO Data->'SAR Imagery' window (1)(2).
- Select the 'i' to analyse the Legend entry for SAR imagery (3).
- Check the content of the columns in the TTT tab 'EO Acquisitions'.

- Enable the visualisation of the additional column 'Polygon' by using the icon  (4)(5).

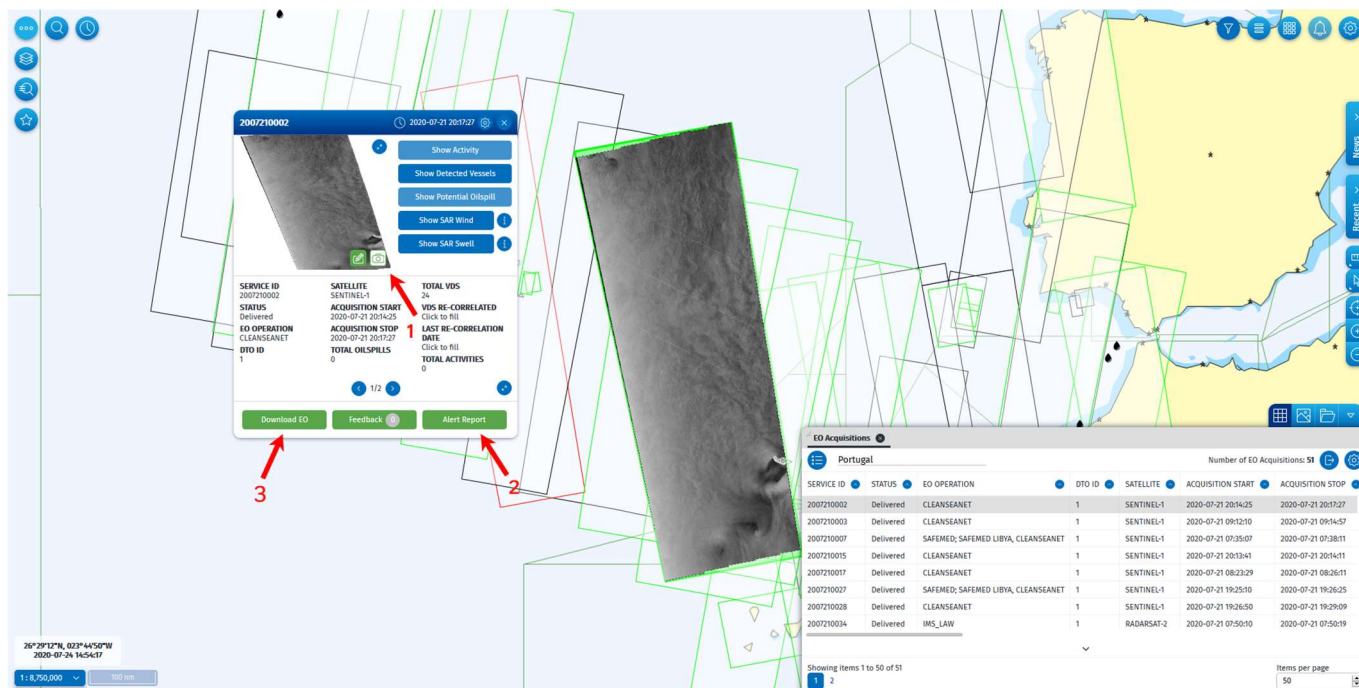


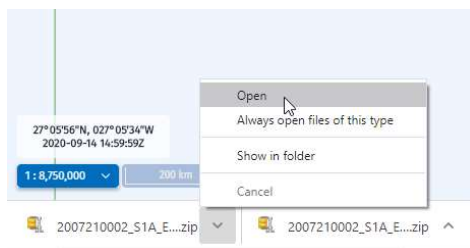
The screenshot shows the CleanSeaNet interface with a map of a coastal area. The 'LAYERS' panel on the left has 'EO DATA' selected, which is expanded to show 'SAR Imagery'. The 'SAR Imagery' legend is open, showing various status options. The 'EO Acquisitions' table is visible at the bottom, showing columns for Service ID, Status, EO Operation, DTO ID, Satellite, Acquisition Start, Acquisition Stop, and Total Oils. A gear icon in the table header is highlighted, and a settings panel is open on the right, showing the 'POLYGON' checkbox checked.

- In the TTT apply a filter by writing your country (affected area) in the TTT (1).
- Select any entry/row from the TTT from the 'EO Acquisitions' tab – a service ID with status = 'delivered' (2).
- Examine the C&I window that pops up.



- Display the EO image on the map by using the camera icon (1).
- From the C&I window download the Alert Report and examine it (2).
- From the C&I window download the image (3).
  - Unzip it and open the image





## 9. EO data - SAR Wind and Oil Spill Class

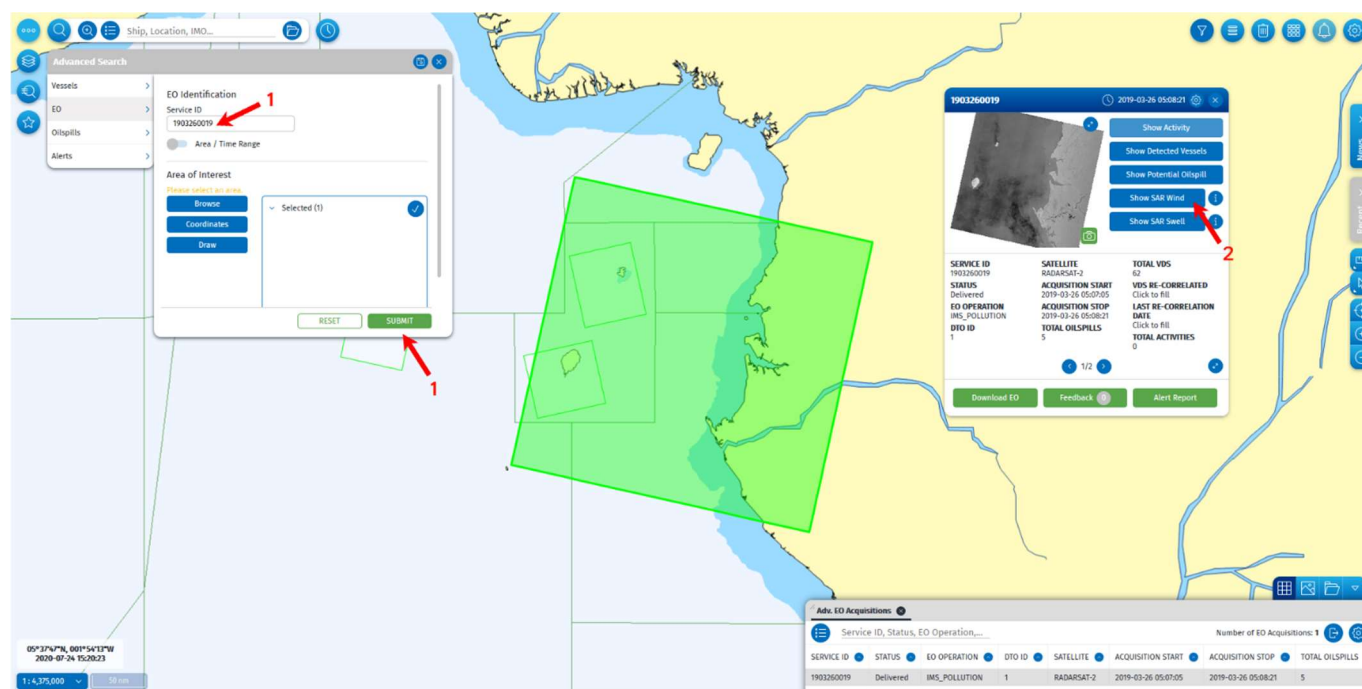
SAR Wind information derived from the SAR image may be displayed on the map.

With Regards to Oil Spill Class there are 2 possibilities:

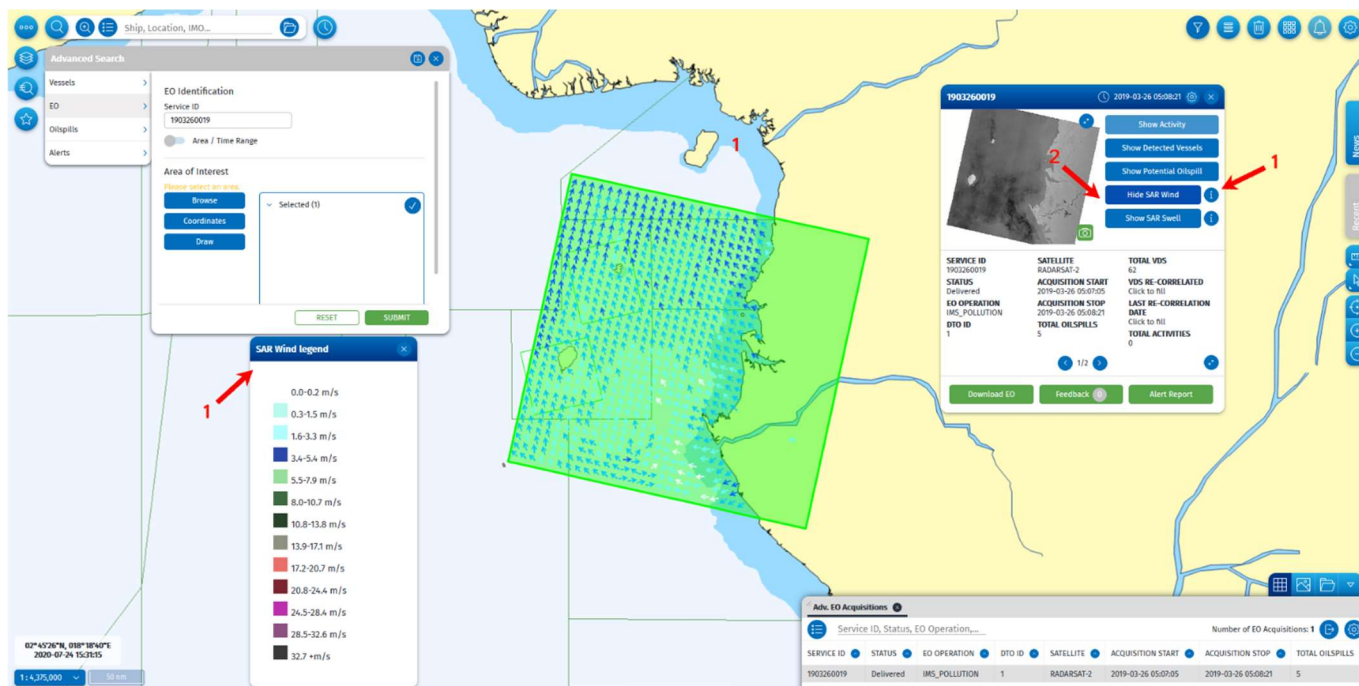
**Class A** –the detected spill has a higher detection confidence level.

**Class B** –the detected spill has a lower detection confidence level.

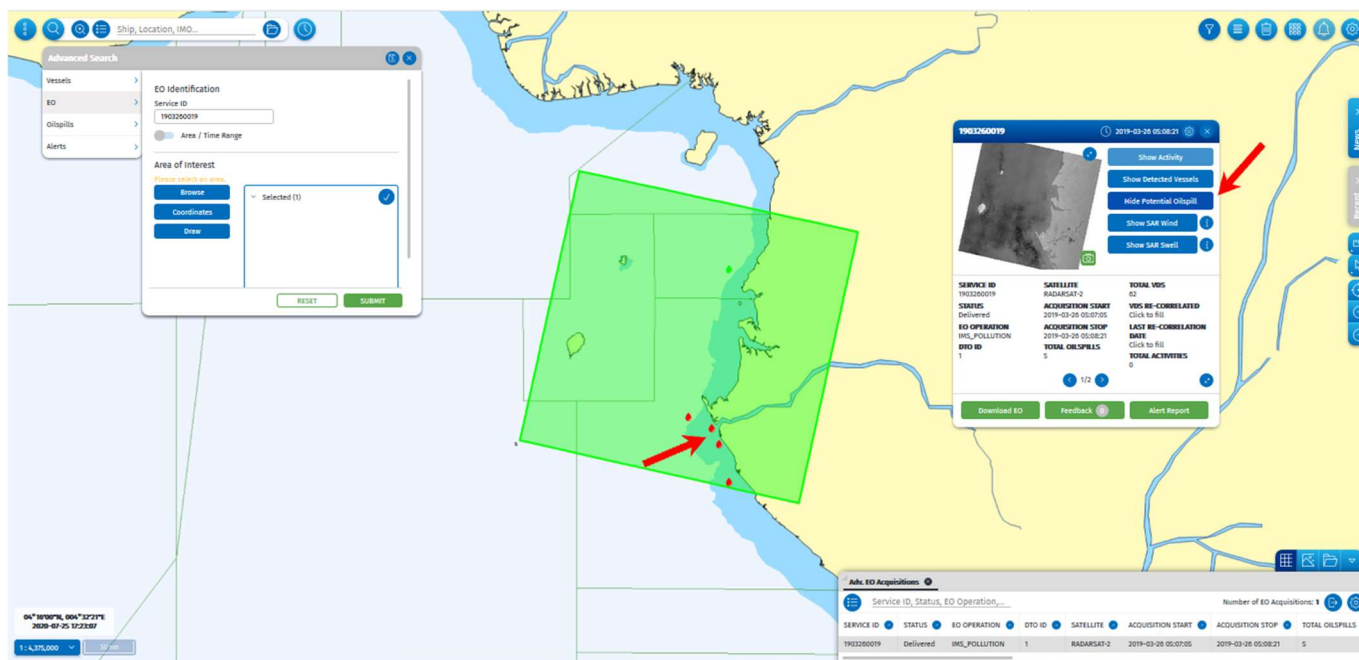
- Ensure the Layer 'EO Data' is active, with all sublayers active.
- Ensure the oil spill symbology is set to 'Class Type'.
- Use the 'Advanced Search' -> EO to search for the Service ID = 1903260019 (1).
- Display the SAR wind for the image you have selected in the map (2).



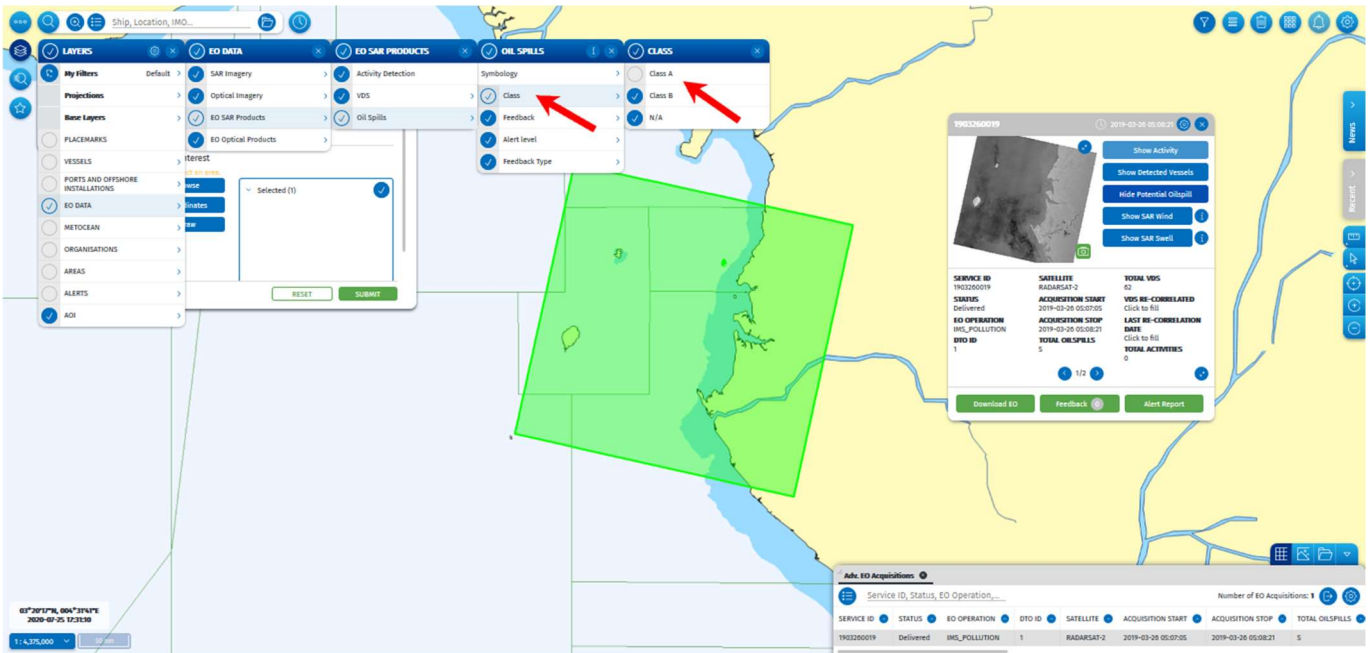
- Visualise the legend of the wind selecting the 'i' icon (1).
- Hide the wind layer again (2).



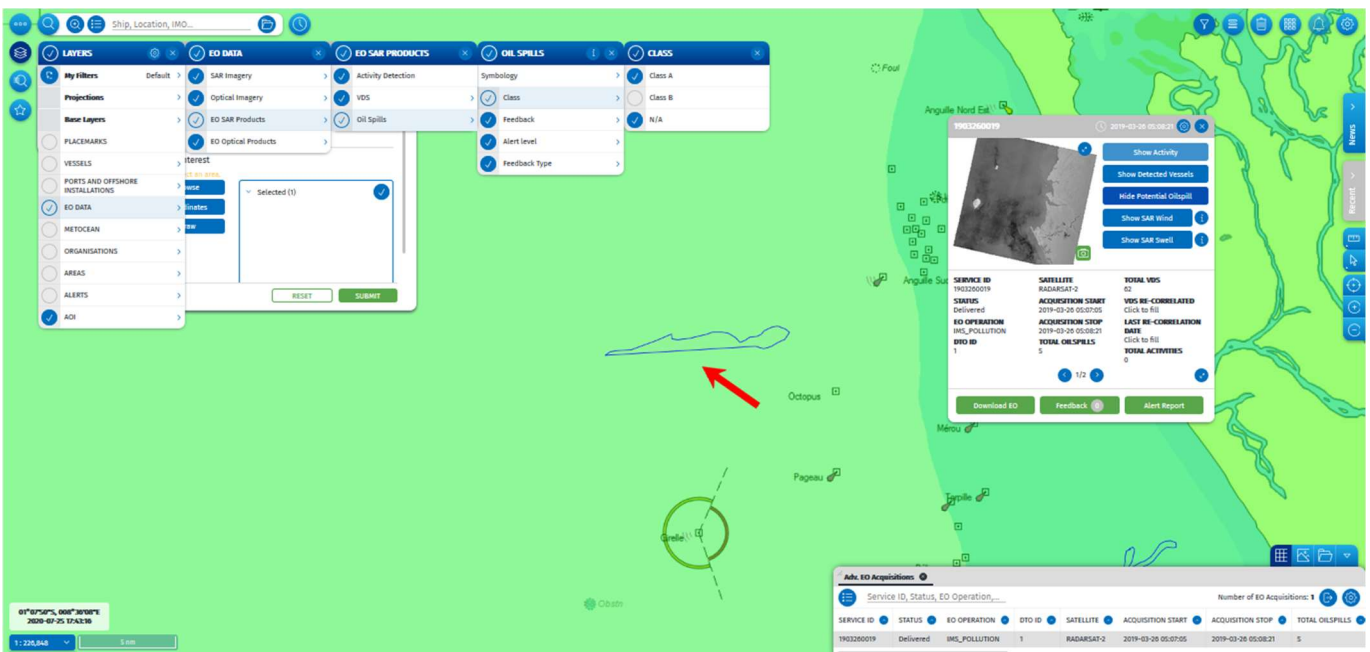
- Display the oil spills.



- Enable/disable the Cass A and Class B layers to see what happens in the map.



- Zoom to them and notice how the icon changes into a polygon.



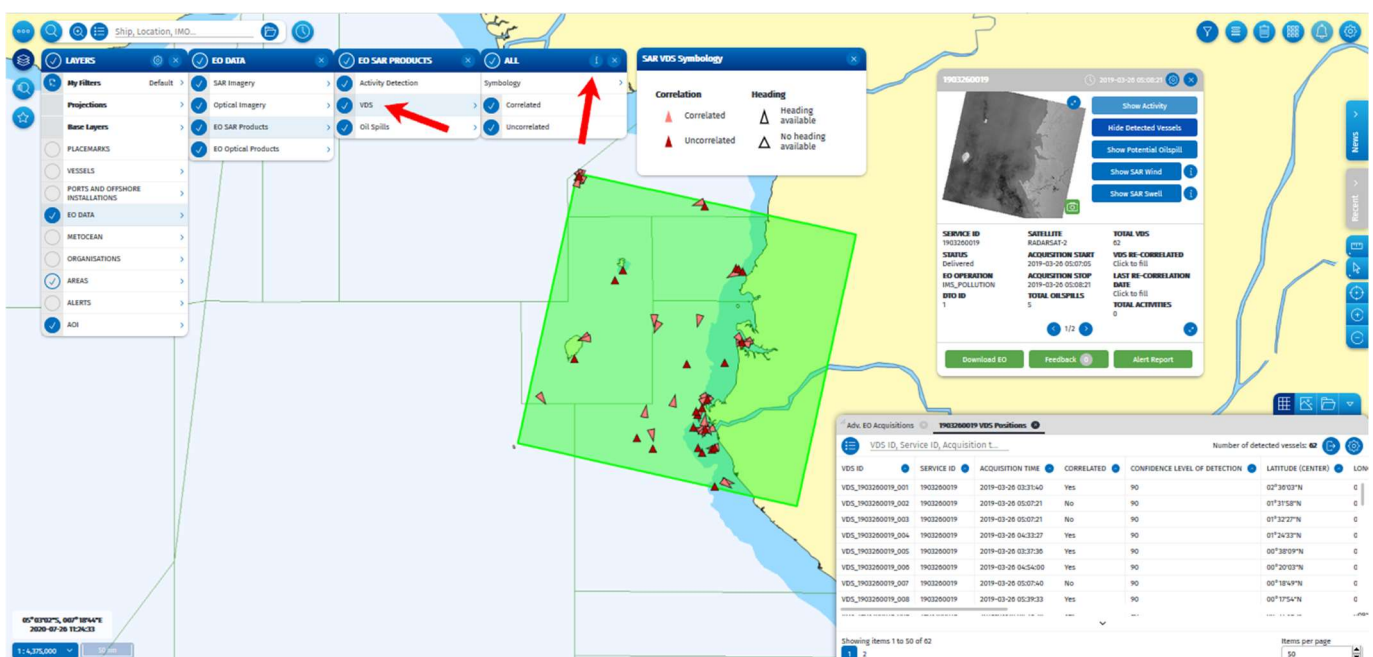
## 10. EO data – SAR VDS

Vessels which are detected in the EO image are reported as correlated or non-correlated. A correlated vessel refers to a target, which has been detected on the EO image, that has been cross-referenced and associated with a reporting position from a vessel (T-AIS, VMS, LRIT, SAT-AIS) for which the user has permission. A non-correlated vessel shows that the service was unable to associate a reporting position.

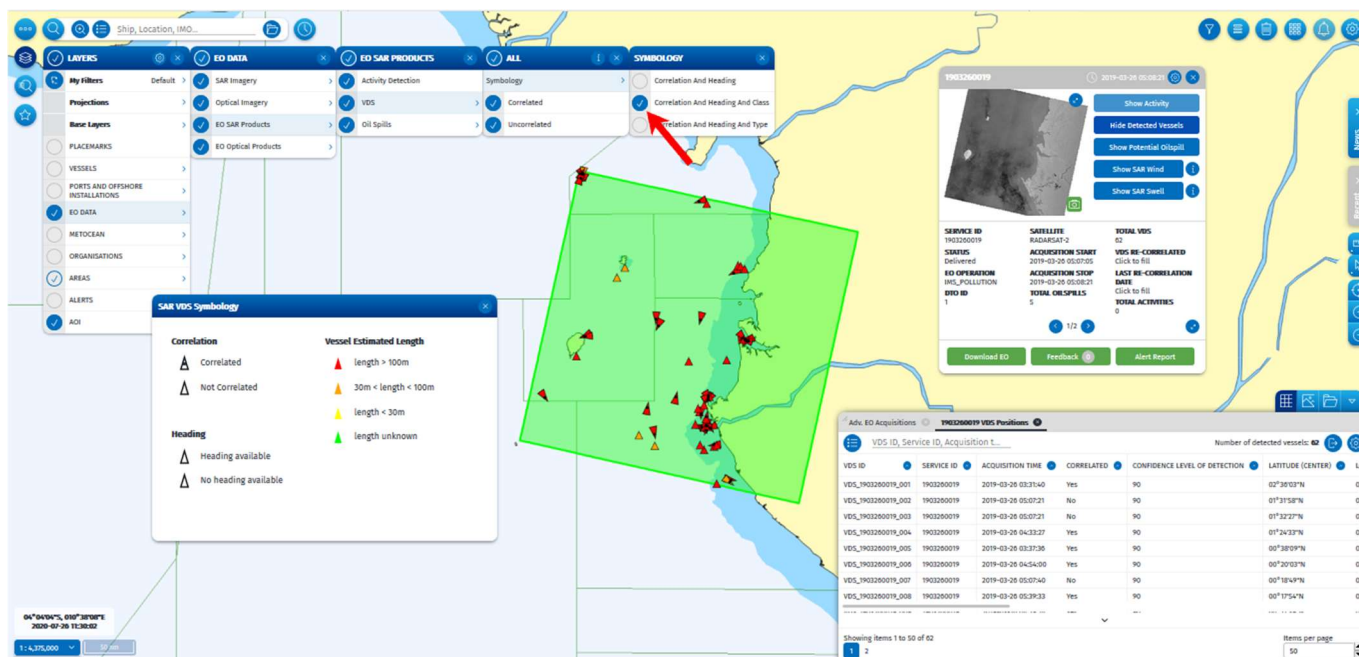
- Click over the SAR image of previous exercises (Service ID = 1903260019) (1).
- Go back to the image C&I window of the image and display the 'Detected Vessels' (2).



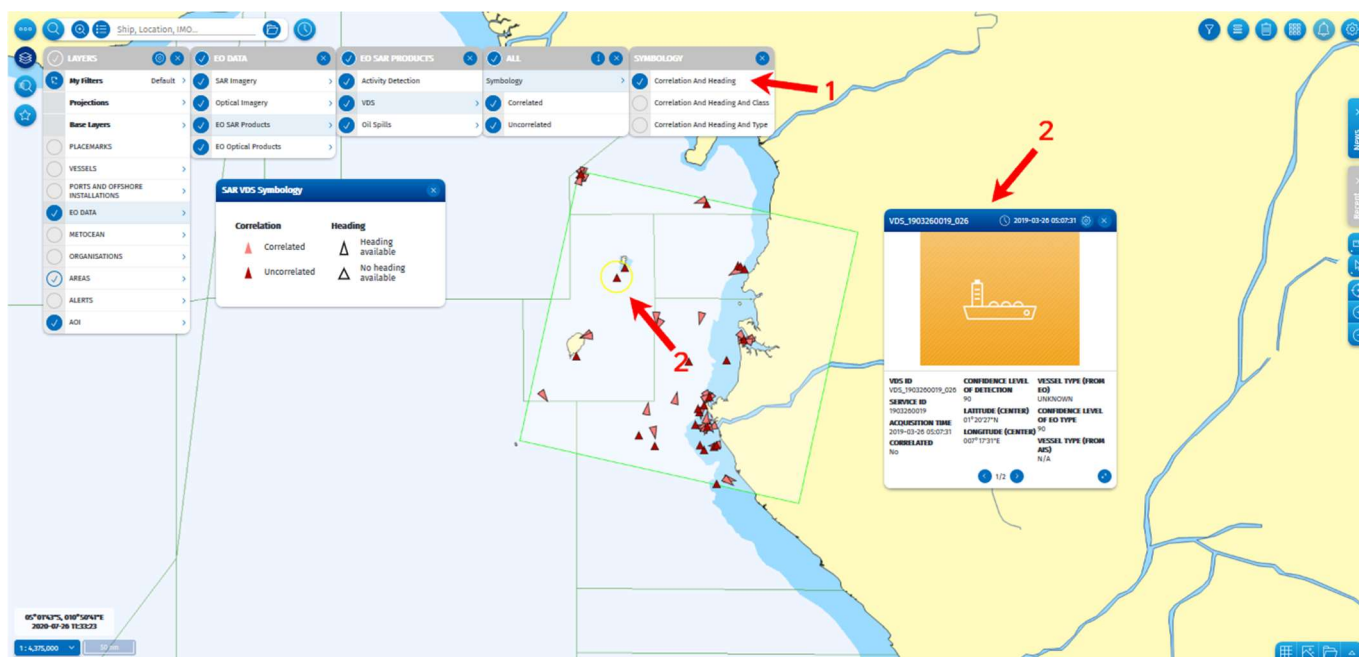
- Examine the 'i' symbolizer information available in the Layer 'EO Data->EO SAR Products->VDS' to get information on the symbols.



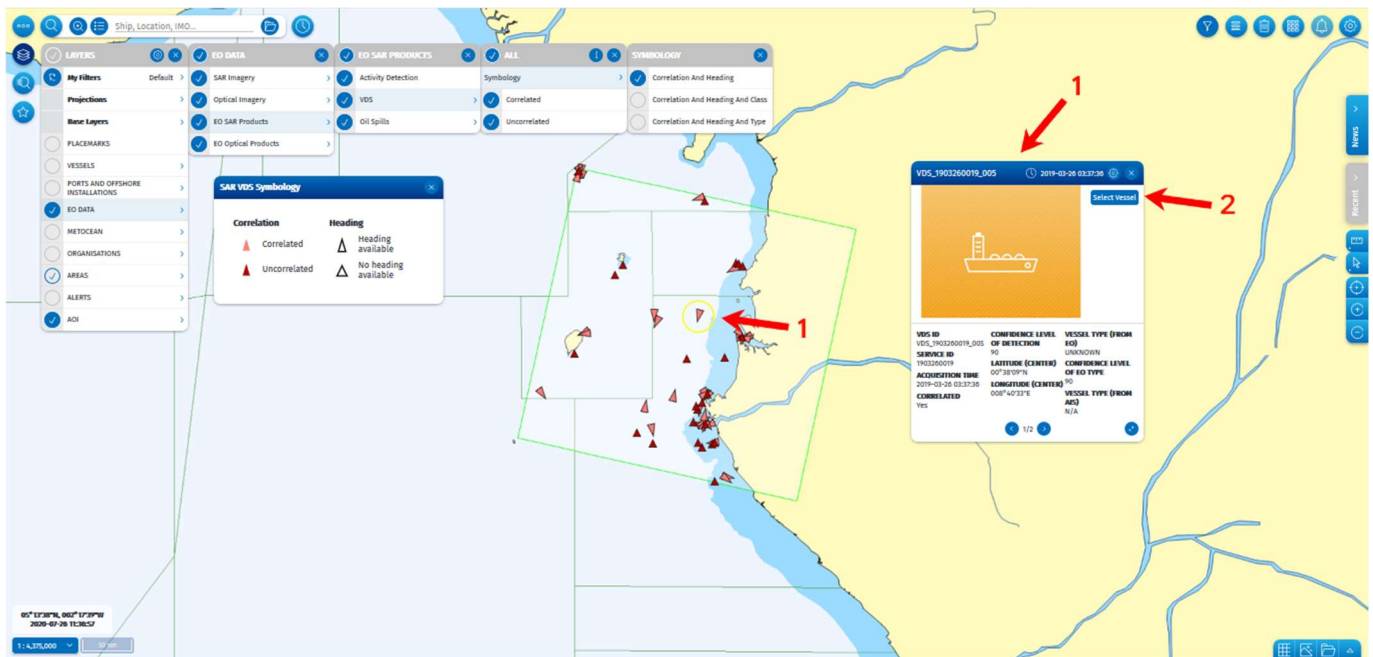
- Change the symbology to 'Correlation and Heading and Class' and examine the icons on the MAP.



- Select the symbology 'Correlation and Heading' (1).
- Select one of the **uncorrelated** VDS, the C&I window will be displayed (2).
- Review the displayed entries.



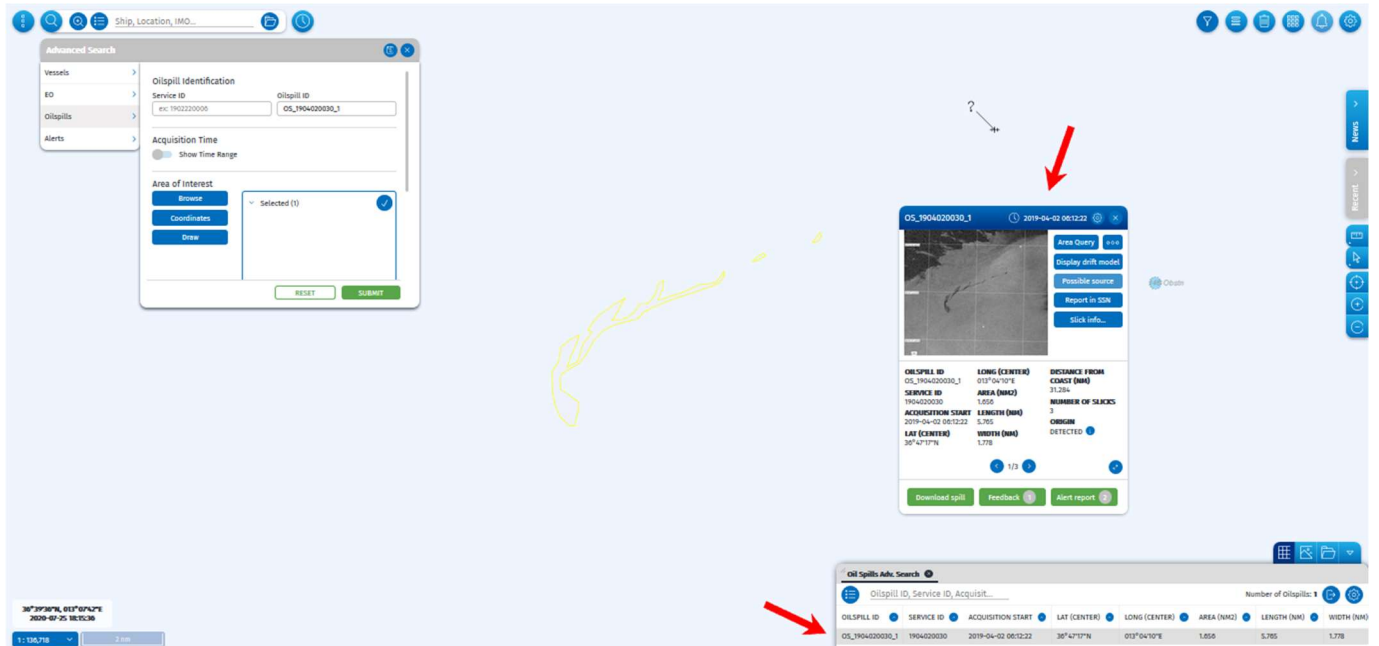
- Select one of the correlated VDS, the C&I window will be displayed (1).
- Review the displayed entries.
- Select the 'Select Vessel' button, the last position of the correlated vessel will be displayed as well as the vessel window (2).



## 11. Oil spill – Retrieve AIS

This exercise aims at exercising the visualisation of vessel traffic information around an oil spill, for identification of potential polluters.

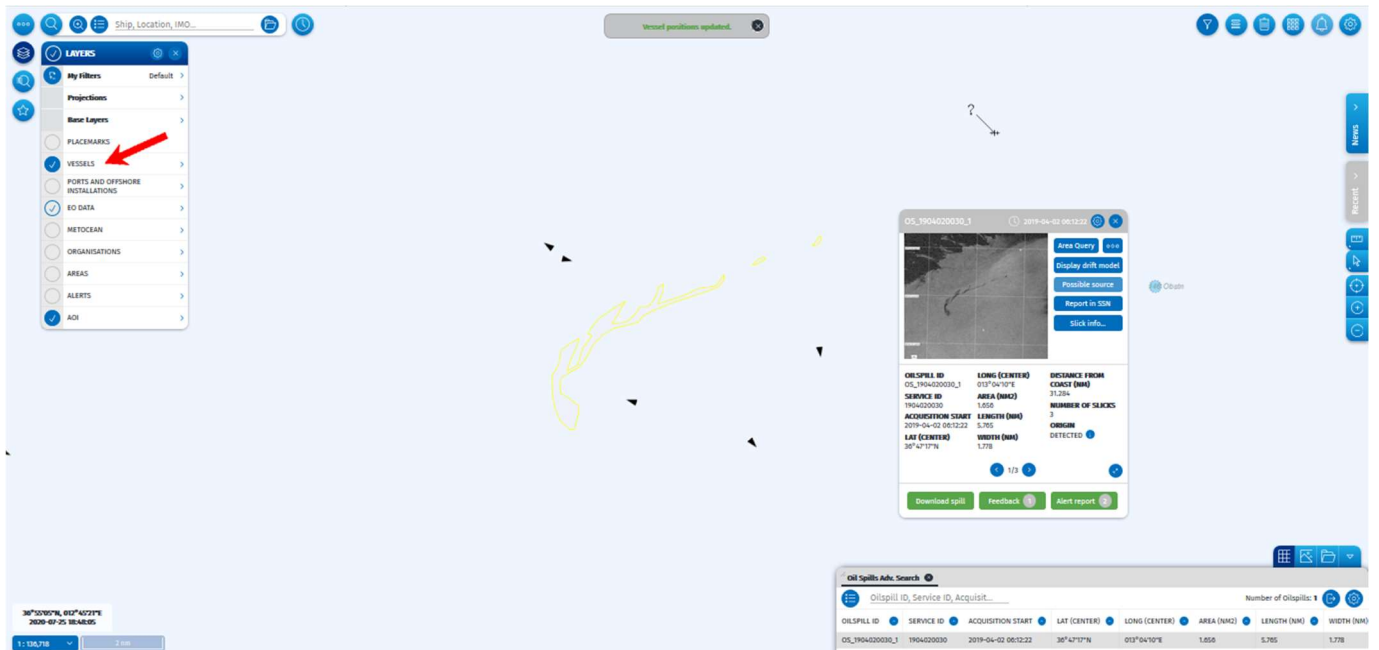
- Select the spill OS\_1904020030\_1 and examine the C&I window content.



The screenshot shows the CleanSeaNet interface. On the left, the 'Advanced Search' window is open, with 'Oilspill ID' set to 'OS\_1904020030\_1'. In the center, a map displays a yellow oil spill area. On the right, the 'OS\_1904020030\_1' window is open, showing a satellite image of the spill area and a table of spill details. A red arrow points to the 'Area Query' button in the 'OS\_1904020030\_1' window. Below the map, a table lists the spill details:

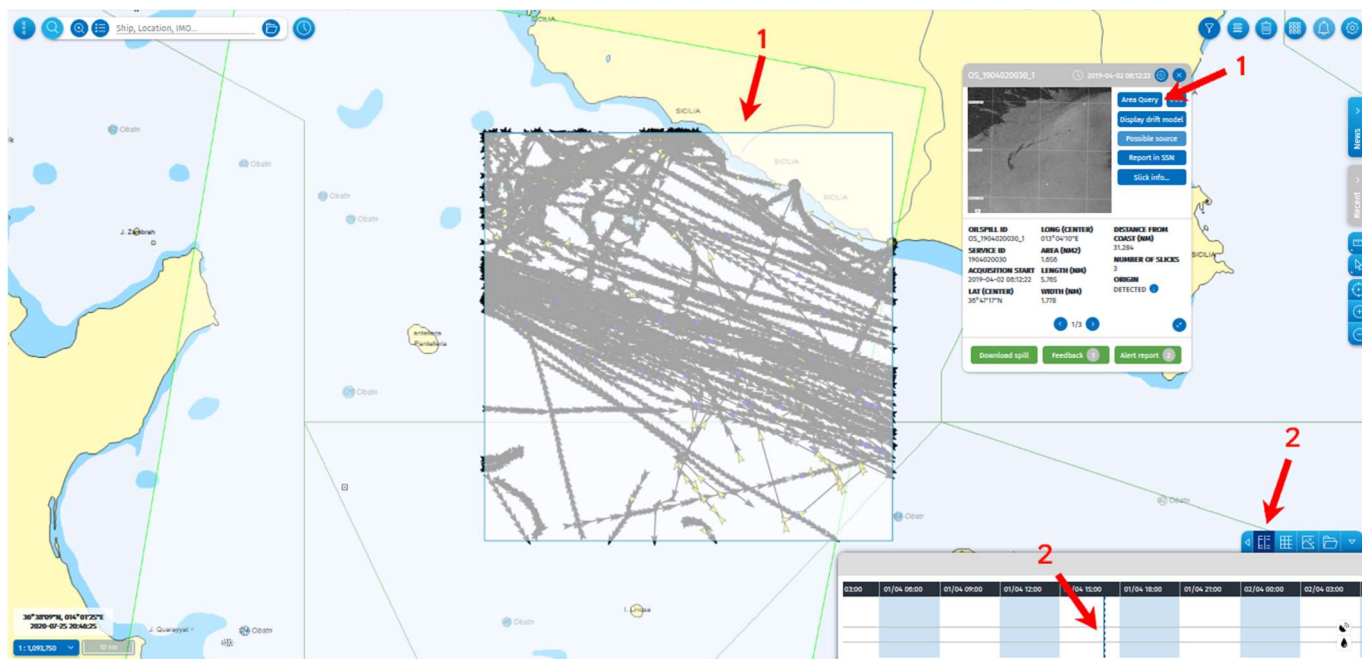
OILSPILL ID	SERVICE ID	ACQUISITION START	LAT (CENTER)	LONG (CENTER)	AREA (NM2)	LENGTH (NM)	WIDTH (NM)
OS_1904020030_1	1904020030	2019-04-02 06:12:22	36°47'17"N	011°04'10"E	1,858	5,785	1,778

- Activate the Layer 'Vessels', with all sublayers active.

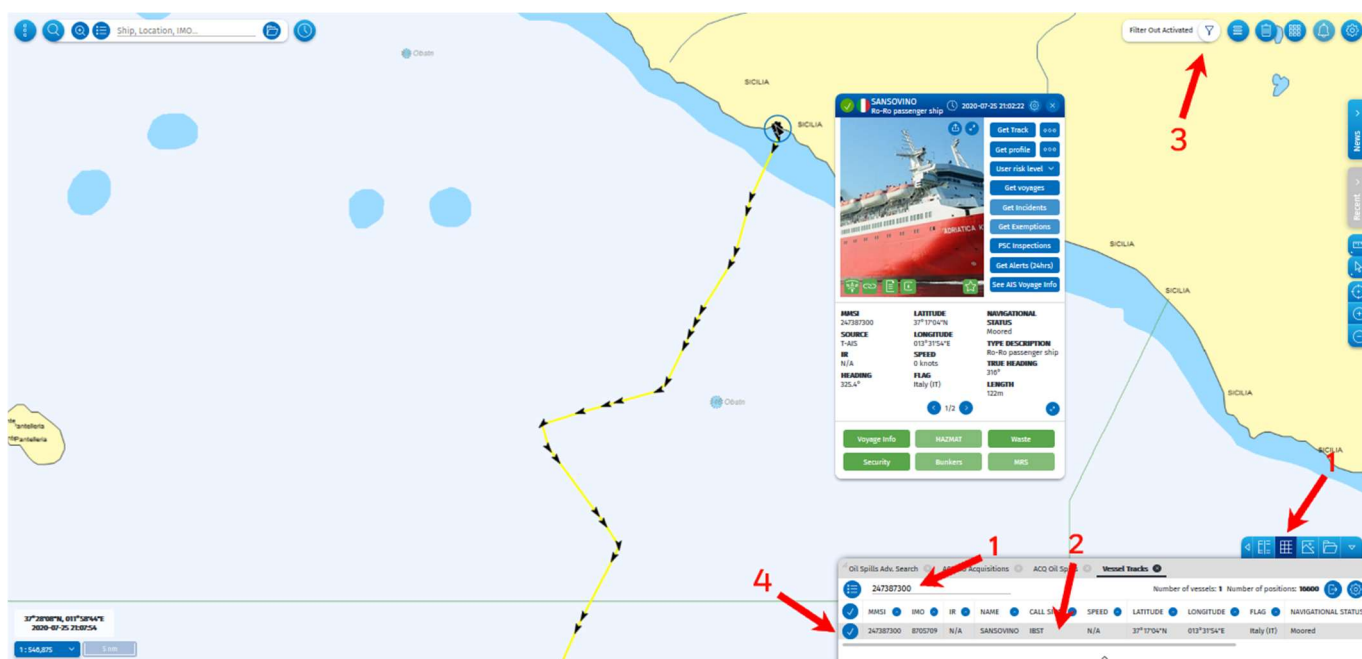


The screenshot shows the CleanSeaNet interface with the 'LAYERS' panel on the left. The 'Vessels' layer is selected and highlighted in blue. The 'OS\_1904020030\_1' window is still open on the right, showing the same spill details. A red arrow points to the 'Vessels' layer in the 'LAYERS' panel.

- Select the option 'Area Query'. This will retrieve the AIS in the last 12 hours, in a rectangle of 70x70 km centred in the spill (1).
- Select the Timeline and move the mouse to display the tracks (2).



- In the 'Vessel Tracks' filter by MMSI= 247387300 to highlight the track (1).
- To be able to display only this track in the timeline, select the track (2) and use the 'Filter Out' function (3).
- Back to the 'Vessel Tracks' tab:
  - If you tick the circle, you will be zoomed to its current position today (4).
  - and the vessel C&I window will be displayed.



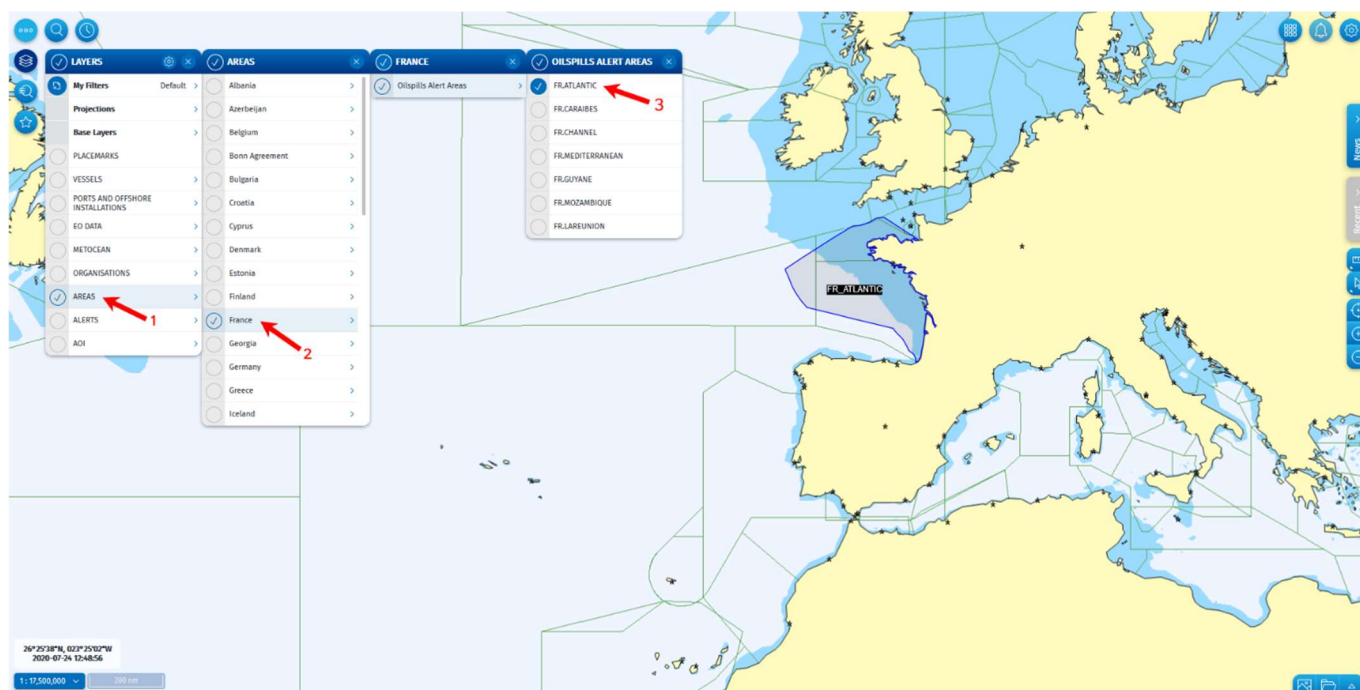
## 12. Query – Oils spills & Feedback symbology

An area on the map may be searched within a defined time range. It is possible to make an Area Centric Query for EO products including Oil spill and/or Vessel Detection Services.

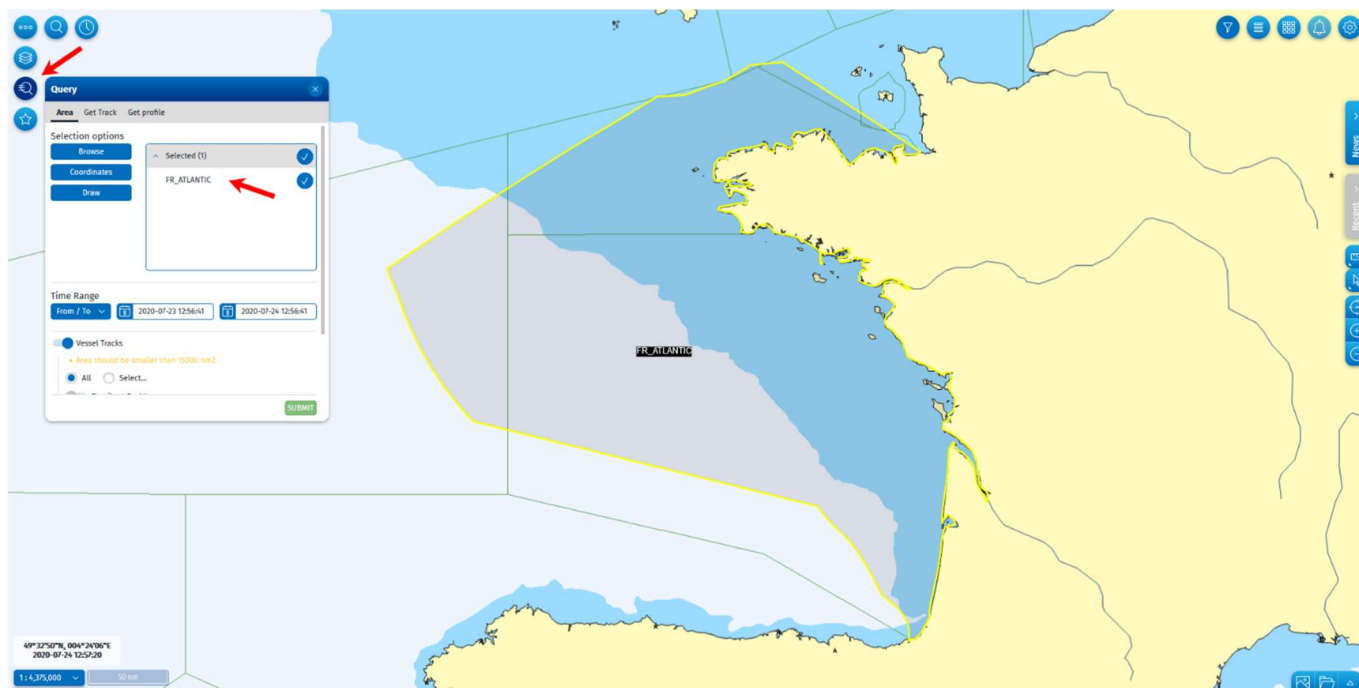
- Open the 'Layers' Menu and select the Layer 'Areas' (1).
- Select "France" alert areas for visualisation (2).
- With the mouse, select only FR\_ATLANTIC area (TIP: should you have footprints overlaying, keep clicking until the alert area turns yellow).

**NOTE:** In case you would like to select multiple areas, you can use the SHIFT button (3).

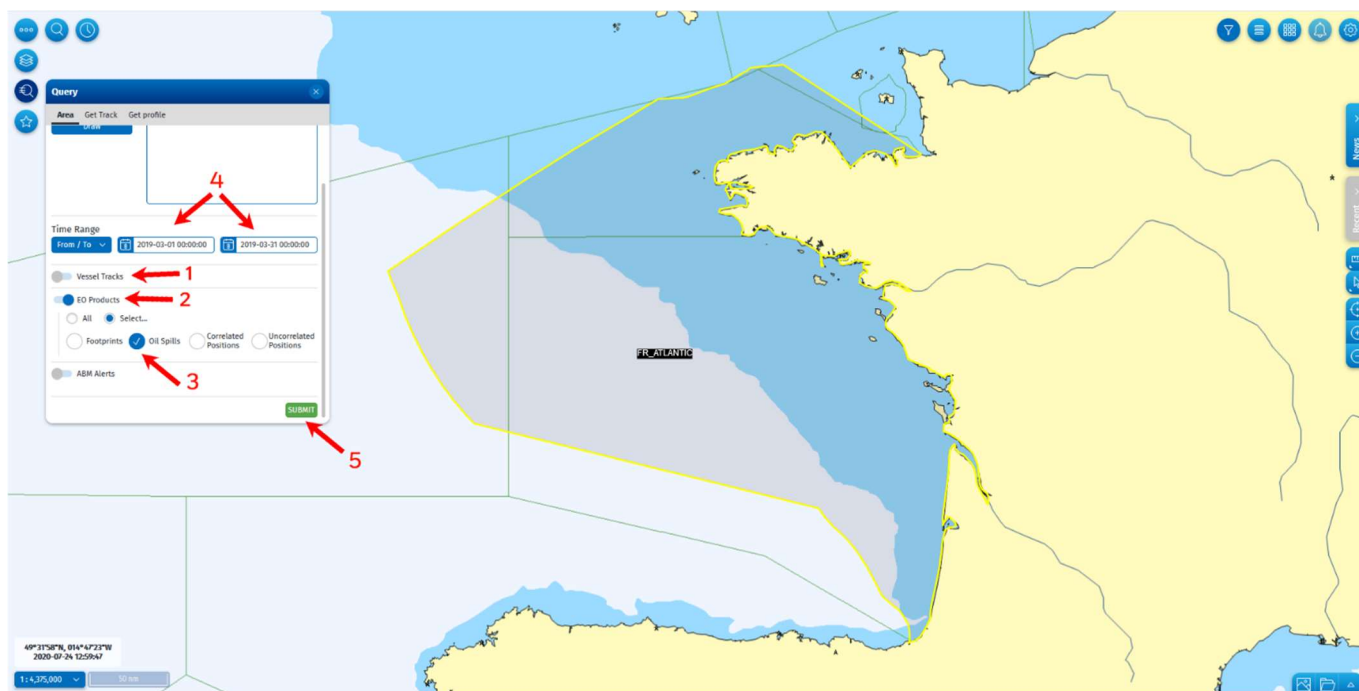
However .the 'query search' will only return the results corresponding to the first selected area – improvement for future SEG releases – see exercise 13. Alternatively, you may repeat the Query search for the different areas of your concern and analyse/export them separately.



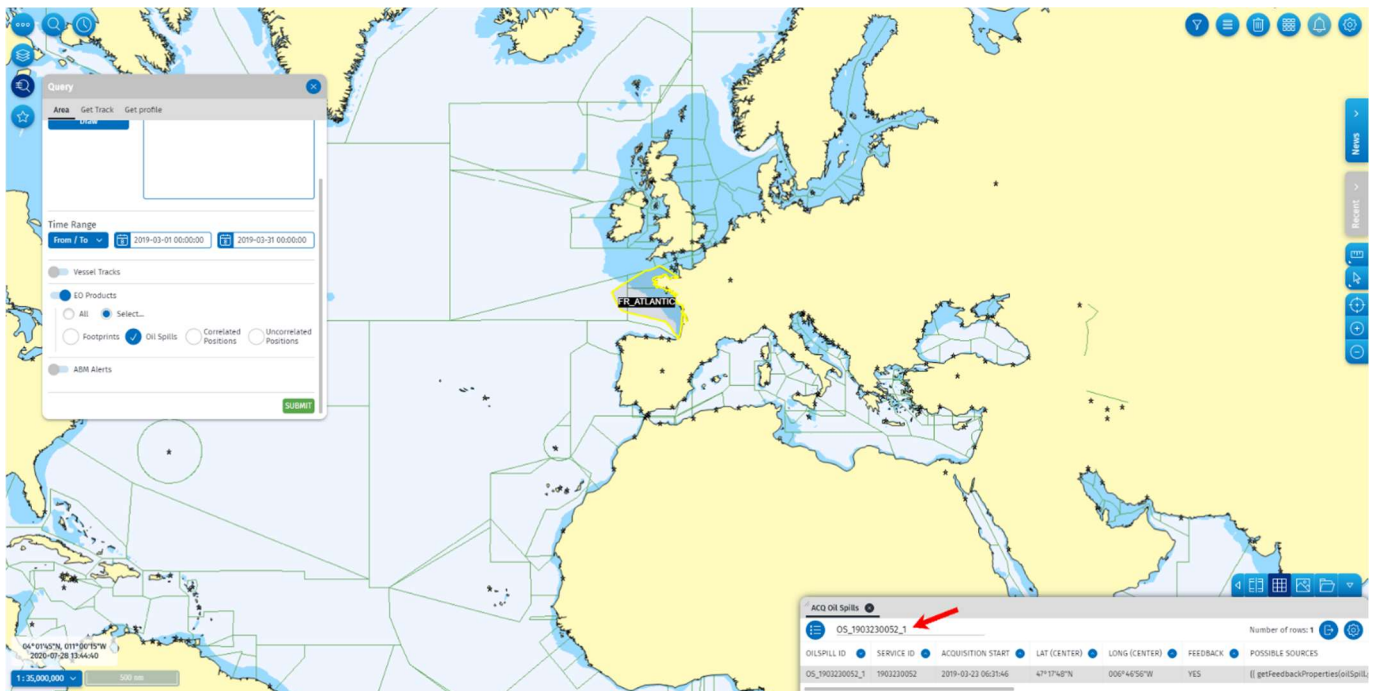
- Open the Query->Area and check that the FR\_ATLANTIC area is selected.



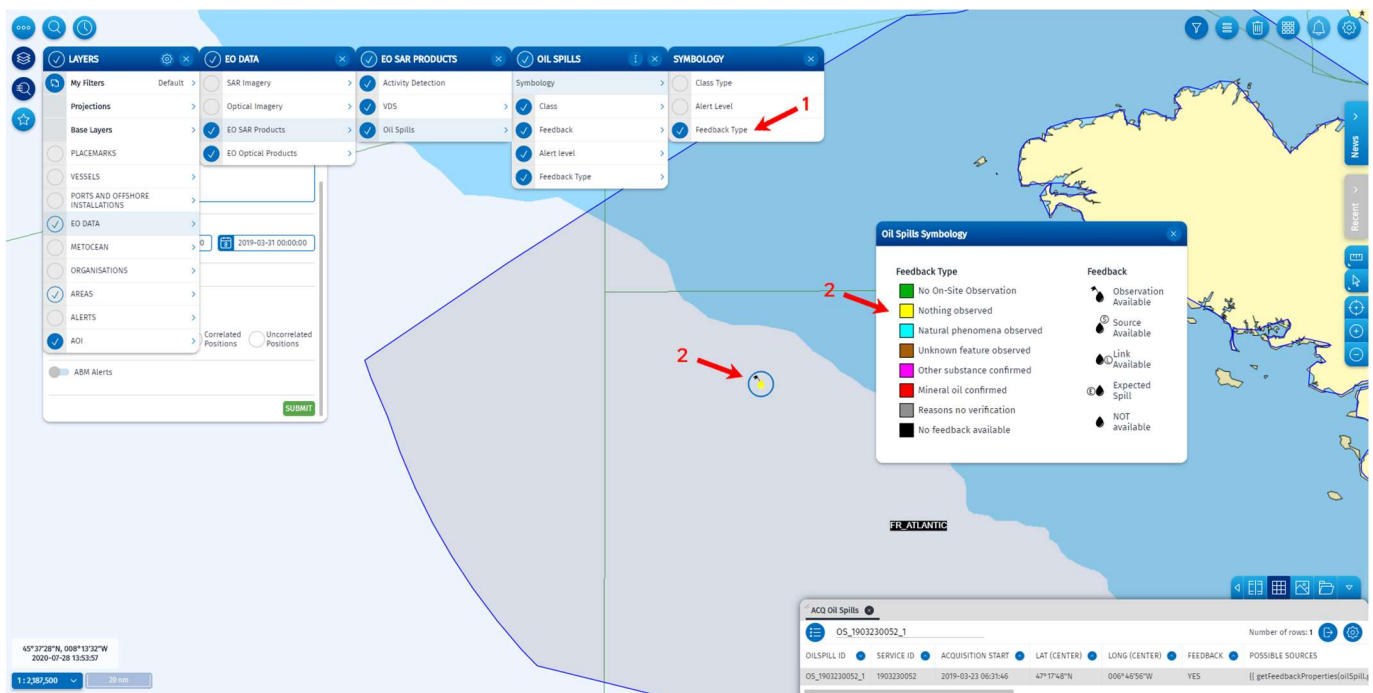
- Then untoggled the 'Vessel Tracks' button (1) and select the 'EO Products' (2).
  - Click the 'Select' and then the option 'Oil Spills' (3).
  - Select the month March 2019 (4) and press 'Submit' (5).



- The result of the query will be open in an additional tab in the TTT.
  - Browse through the results in the TTT to display the spills
  - In the TTT filter for oil spill OS\_1903230052\_1 (1).




- Change the symbology to 'Feedback Type' (1).
- Check in the legend what type of feedback has been inserted into that spill (2).



## 13. Query - Extract EO acquisition and oil spills

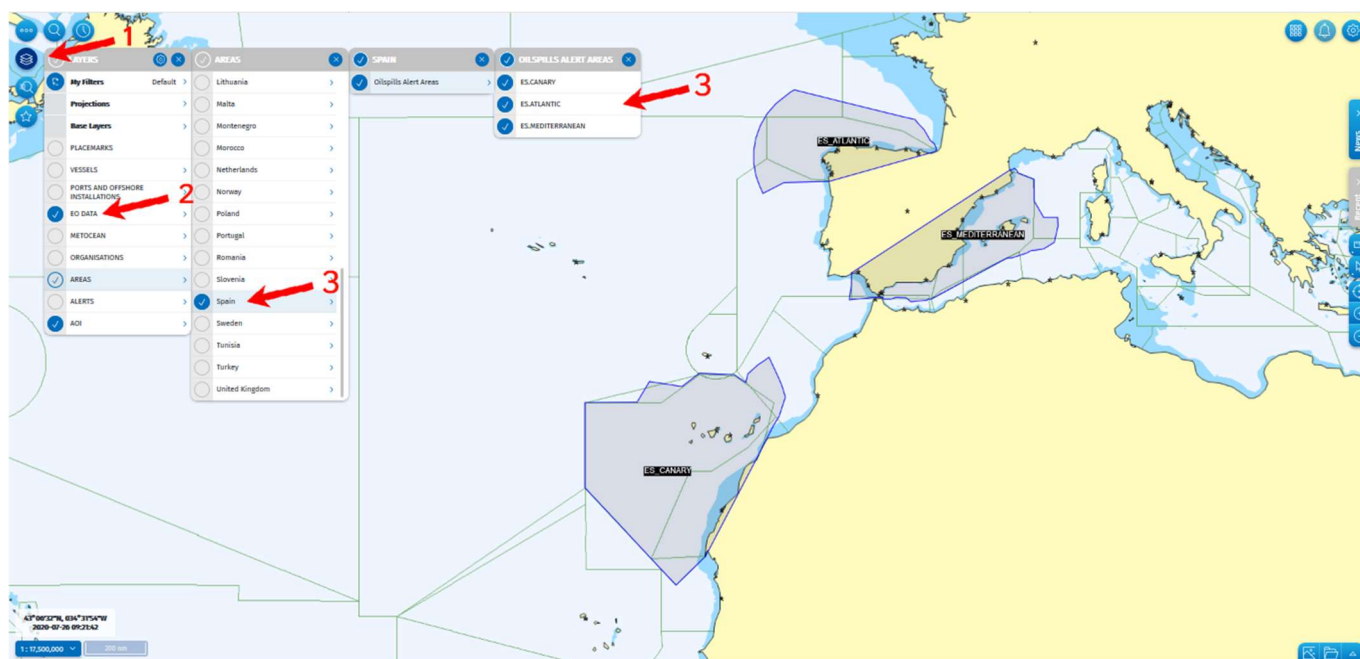
An area on the map may be searched within a defined time range. It is possible to make an Area Centric Query for EO products including Oil spill and/or Vessel Detection Services.

- Select the button 'Layers'  (1).
- Select EO data (shall be dark blue) (2).
- Select areas ->Spain->select the Alert Areas to retrieve the Data (ES.CANARY; ES.ATLANTIC; ES.MEDITERRANEAN) (3).

**Note:** For selection of multiple areas you shall currently use the “advance search” and not “Query” search because this last option will return incomplete results – only the features for the first selected area. Nonetheless the “advance search”, selecting the ‘EO’ and then area option, only returns the EO data for the period: last 3 days and next 3 days.

Alternatively, you may repeat the Query search for the different areas of your concern and analyse/export them separately.

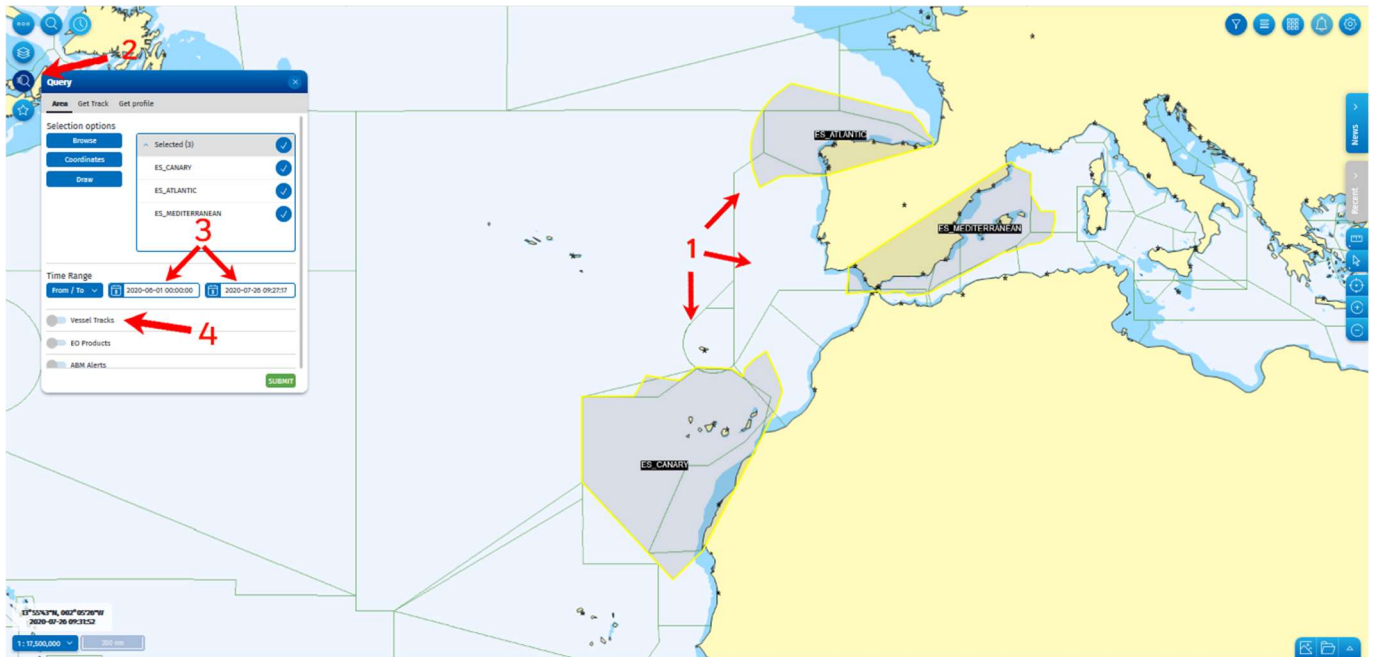
- Close the menu.



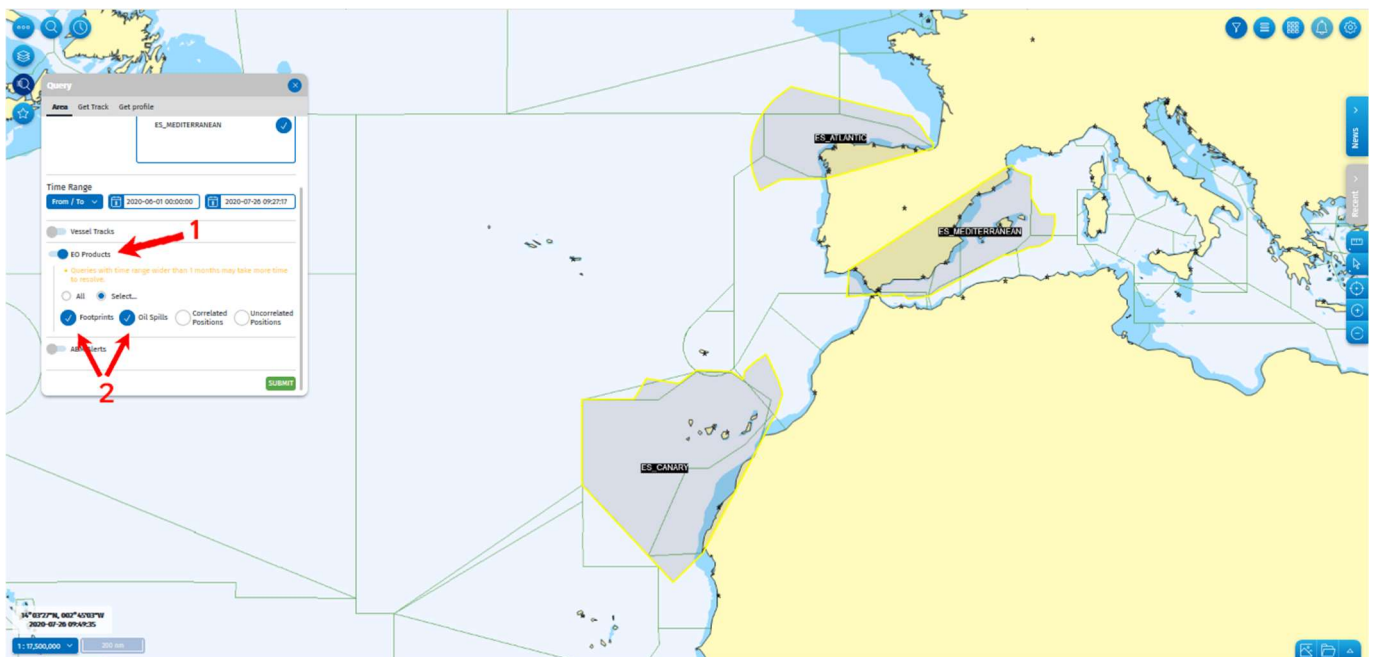
- Select the Areas (1) to extract the data (multiple areas can be selected using the shift button).  
**Tip:** to select in the map the Alert Areas it is useful to unselect the EO data layer due to the footprints overlap. After having the result of the query, this EO data layer shall be selected again to see the results in the map.

- Select the Query button (the areas are included)  (2).

- Define the time range (3).
- Unselect the vessel tracks (4).



- Select EO products (1): and then Footprints and Oil Spills (2).
- Press submit



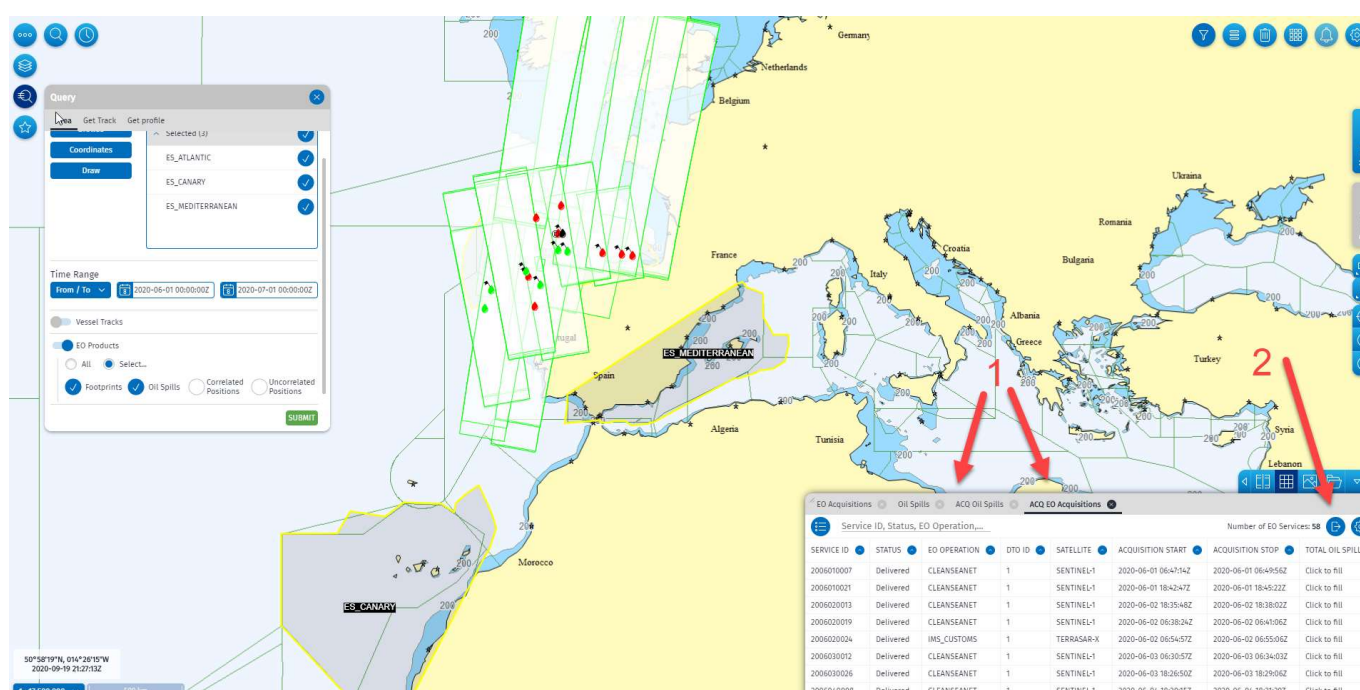
- The TTT lists two additional tabs: ACQ EO Acquisitions and ACQ Oil Spills (1).
- The results of the Query are displayed in the map: footprints and oil spills (and as mentioned before only for the first selected area).
- ACQ EO acquisitions should have listed all images acquired only in the first area selected (as seen in the map – although the three areas were selected), during the selected period.

**Note:** Please be aware that one CSN Alert report is generated for each EO acquisition and delivered automatically to the configured CSN end users. If no possible spill is detected the Alert Report it is sent a CleanSeaReport.

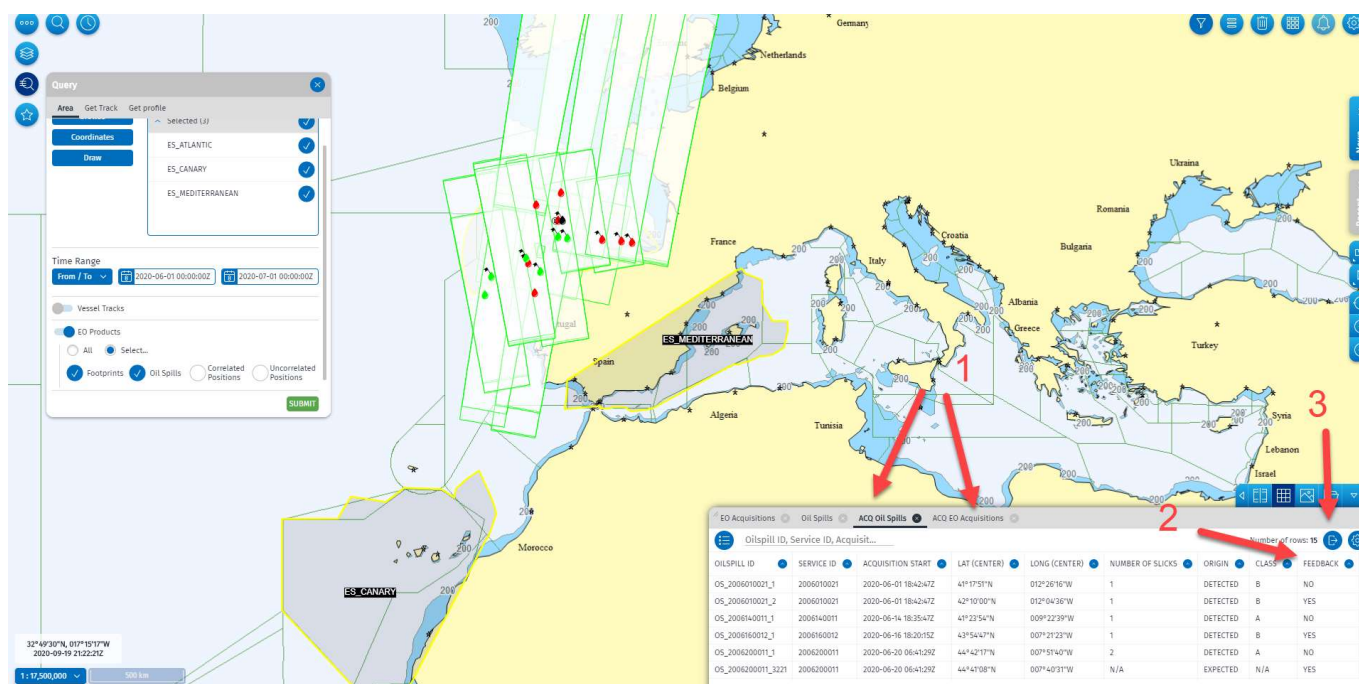
- Total number of possible oil spills detected in each EO service, is displayed on the column Total Oil Spills'.

**Note:** by default, the value is 'click to fill', but when selecting a row/EO service the system will load the total of oil spills, total of VDS.

- This information can be exported from SEG by selecting the Export function on the ACQ EO Acquisitions tab (2).

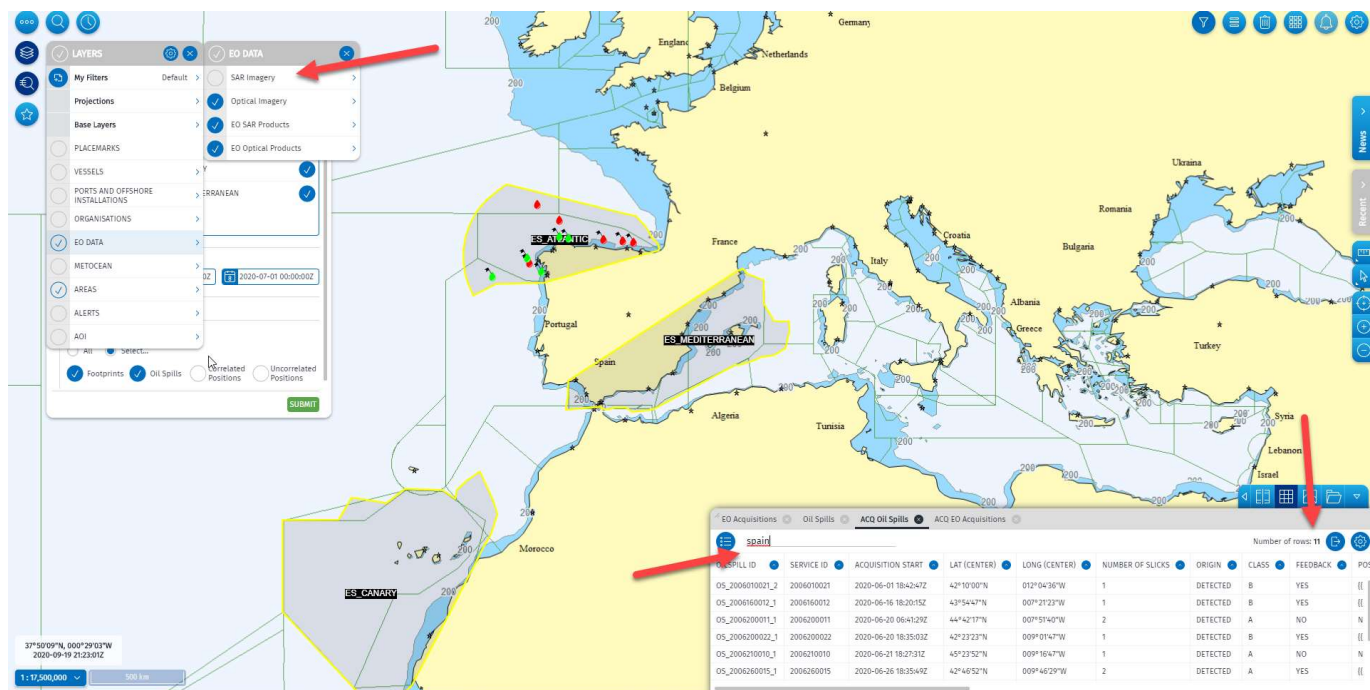


- ACQ Oil Spills (1) should have listed all possible spills detected on the first area selected only (as seen in the map – although the three areas were selected), during the selected period.
- The column Feedback (2) for each oil spill, is displayed YES, if a feedback is associated and NO if no feedback is associated.
- The column Possible polluter displays NO: if no possible polluter was detected or identified.
- This information can be exported from SEG by selecting the Export function on the ACQ Oil Spill tab (3).



- An additional filter can be applied in the TTT to 'ACQ EO Acquisitions' or 'ACQ Oil spills' by typing for instance the country name. This filter will be applied to all the columns available in the TTT, as it is the case of the 'affected areas'.


**Note:** The SEG systems, when querying per areas, is in fact doing a bounding box around the area, and therefore you might get results outside the actual polygon of the selected alert area. SEG extends the polygon to a Bounding Box (like a rectangle) and some of the results might be outside your selected area. Therefore, it shall be done a filter in the TTT, writing the country name in order to apply this filter to the 'affected areas' attribute.

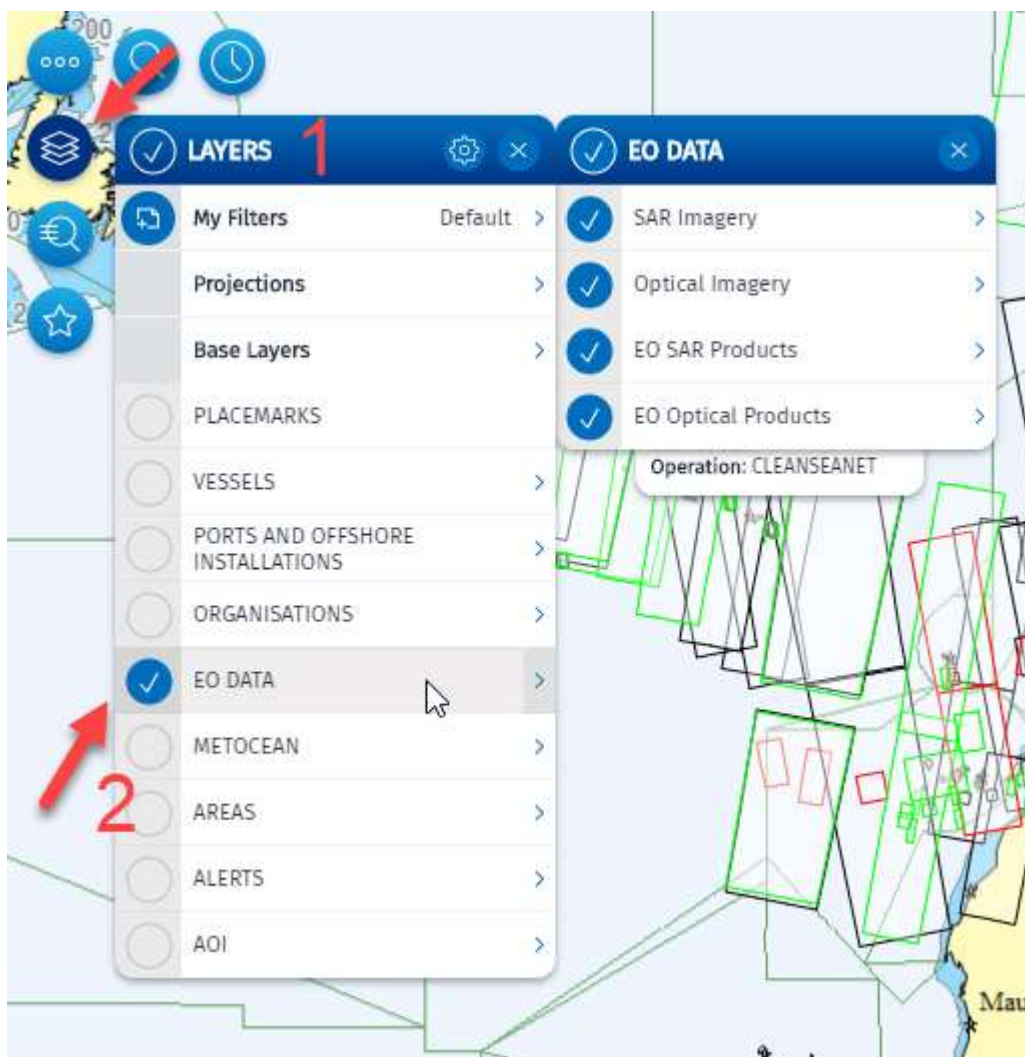



## 14. 'Advance Search' - Extract EO acquisition – Time period

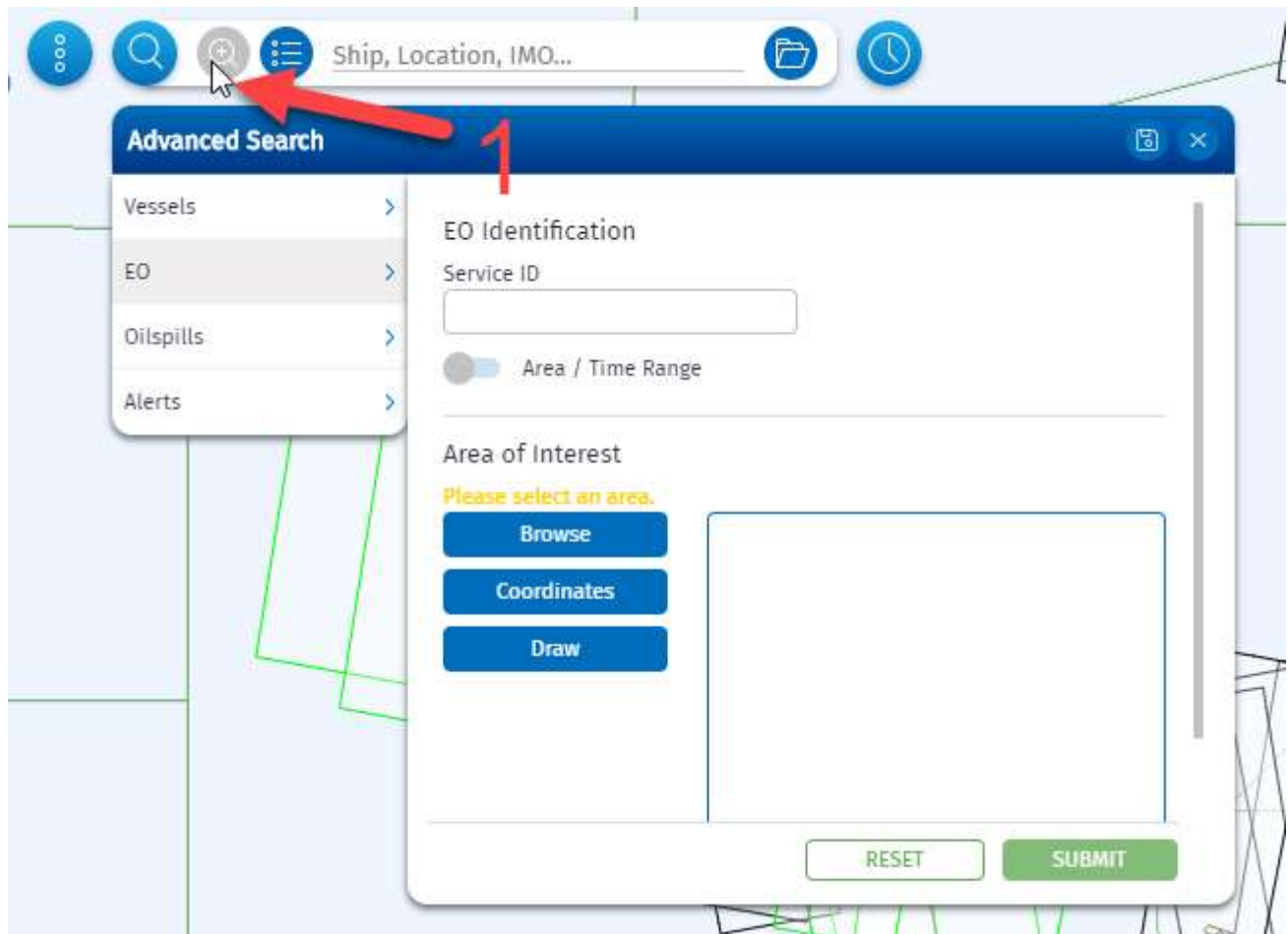
With the 'advance search' there are several parameters that can be used as criteria for extracting the EO data: SAR/Optical images , Feedback (Y/N), Potential Oil spills Detected (Y/N), Status (tasked/delivered), etc . The alternative 'Query' option to extract EO data does not include those options, however it can be used to extract simultaneously the EO acquisitions and the potential detected oil spills.

Use the 'advance search' to extract the SAR EO acquisitions for a period of time having feedback =Yes.

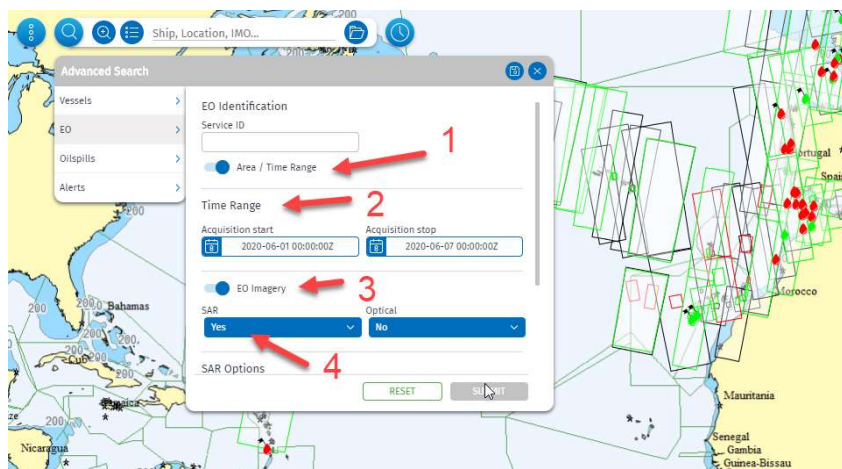
- Select the button 'Layers'  (1).
- Select EO data (shall be dark blue) (2).
- Close the menu.



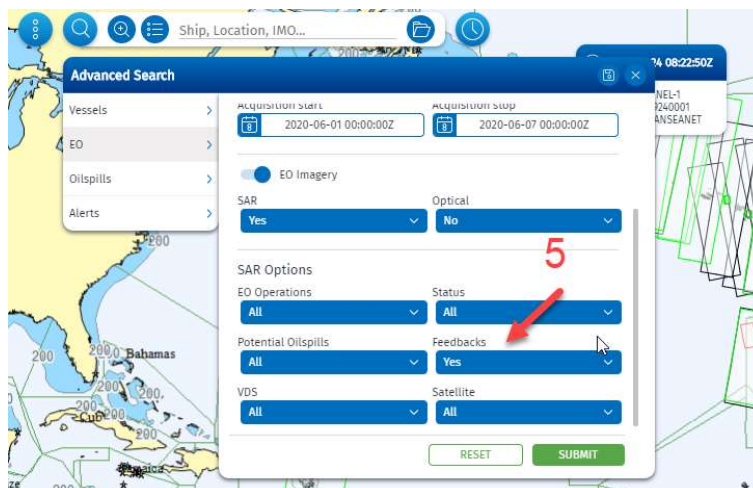
- Select the 'Advance Search'  (1).
- Select EO



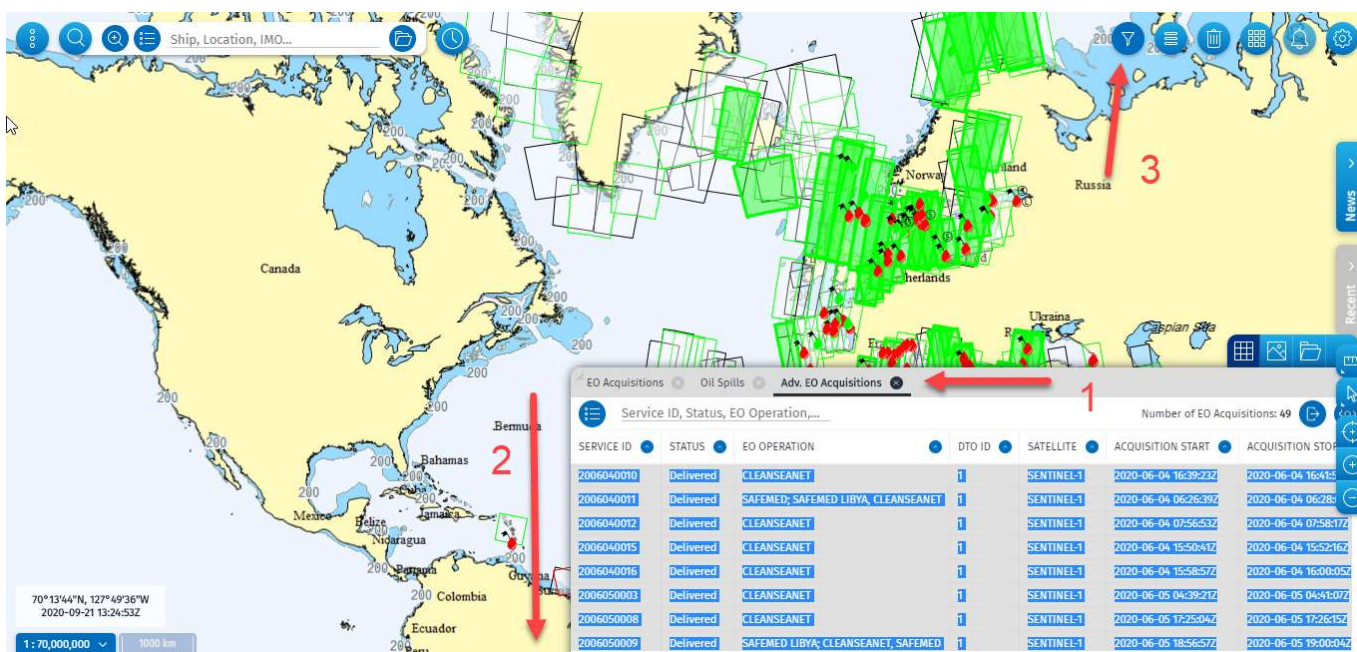
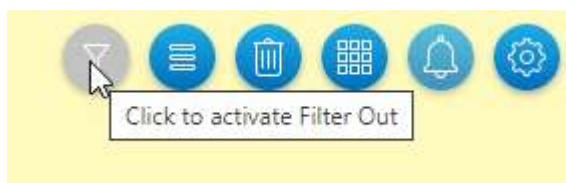
- Select 'Area/Time Range' (1)
- Define the time range (2).
- Select 'EO imagery' (3)
- Set SAR = 'YES' (4)



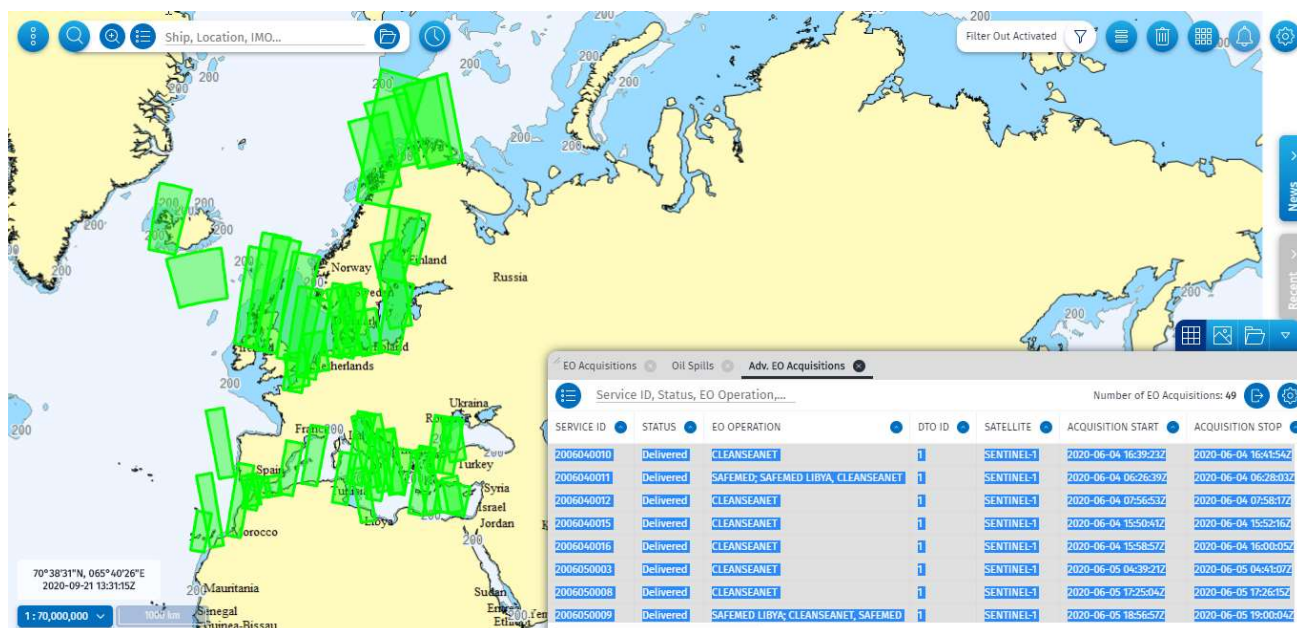
- Set Feedbacks = 'YES' (5)
- Press Submit



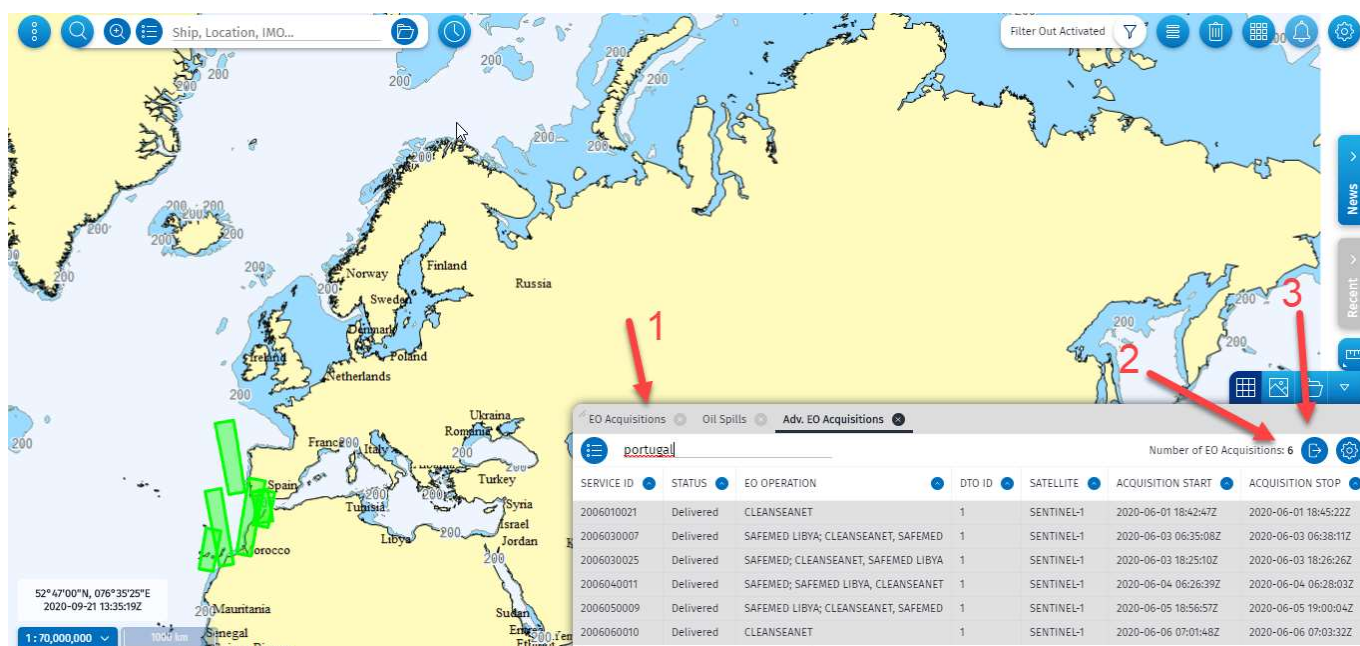
- The TTT lists an additional tab 'Adv.EO Acquisitions' (1).
- The results of the search are displayed in the map but simultaneously with the previous load of EO footprints and oil spills.
- In order to filter out and just see in the map the results of your search, select manually in the TTT all the EO services with the mouse and pressing the button 'SHIFT' (2) and then
- Press the button 'Click to activate Filter Out' (3)



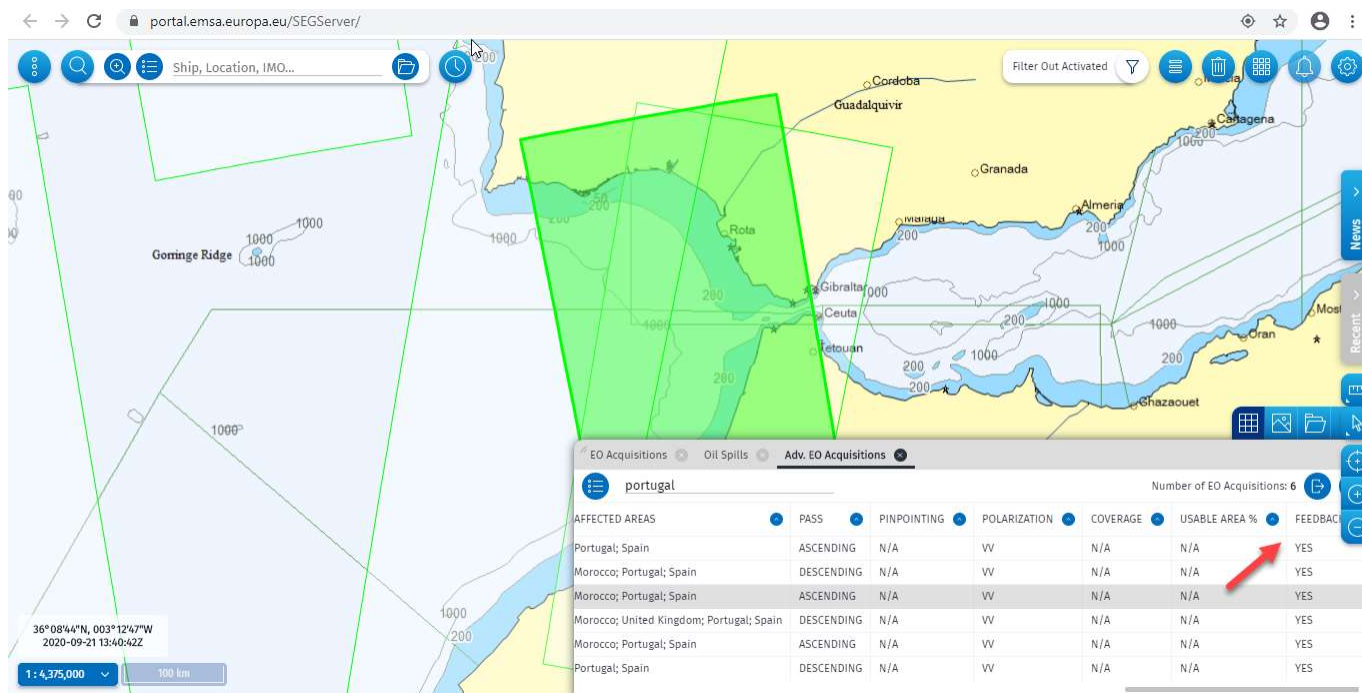
- Only the results of the 'Adv.EO Acquisitions' will be displayed in the map.



- Typing the country name in the TTT (1), this filter will be applied to the 'affected areas' attribute—the number of EO acquisitions reduces from 49 to 6 in total (2).
- You will be able to see in the map and export the EO footprints of the relevant country (3).





- Check all the service IDs are having Feedback = YES.

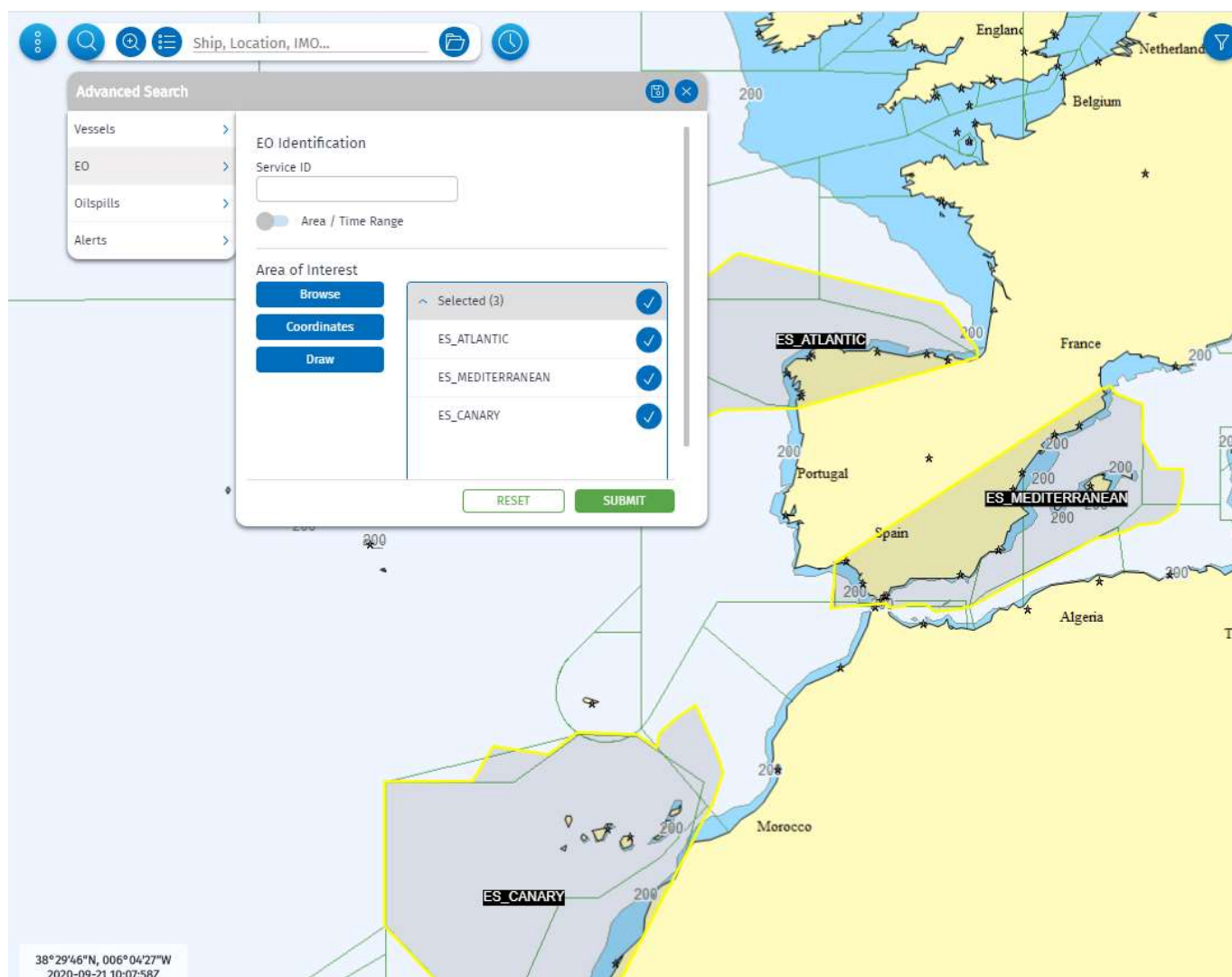


## 15. 'Advance Search' - Extract EO acquisition – Area

With the 'advance search' there are several parameters that can be used as criteria for extracting the EO data: SAR/Optical images , Feedback (Y/N), Potential Oil spills Detected (Y/N), Status (tasked/delivered), etc . The alternative 'Query' option to extract EO data does not include those options, however it can be used to extract simultaneously the EO acquisitions and the potential detected oil spills.

Use the 'advance search' to extract the SAR EO acquisitions intersecting alert areas and with feedback =Yes. In this case the time period considered by SEG is the last 3 days and the next 3 days.

- Select the button 'Layers' .
- Unselect EO data (to be able to select in the map the Alert Areas it is useful to unselect the EO data layer due to the footprints overlap).
- Select areas ->Spain->select the Alert Areas to retrieve the Data (ES.CANARY; ES.ATLANTIC; ES.MEDITERRANIAN).
- Close the menu.
- Select the 3 Areas to extract the data (multiple areas can be selected using the shift button).
- Select the 'Advance Search' (the areas are included) .



- You may include other criteria in your search by selecting 'EO imagery'

**Advanced Search**

Vessels >  
EO >  
Oilspills >  
Alerts >

☒ EO Imagery

SAR: Yes  
Optical: No

**SAR Options**

EO Operations: All  
Status: All

Potential Oilspills: All  
Feedbacks: All

VDS: All  
Satellite: All

Sensor Mode: All

RESET SUBMIT

- Press submit.
- After having the result of the query, please select back the EO data layer in order to see EO data results in the map.
- The TTT lists an additional tab 'Adv.EO Acquisitions'.
- The results of the search are displayed in the map but simultaneously with the previous load of EO footprints and oil spills.

**Advanced Search**

EO Identification

Service ID

Area / Time Range

Area of Interest

Browse

Coordinates

Draw

Selected (3)

- ES\_ATLANTIC
- ES\_MEDITERRANEAN
- ES\_CANARY

RESET SUBMIT

**Adv. EO Acquisitions**

Service ID, Status, EO Operation,...

Number of EO Acquisitions: 89

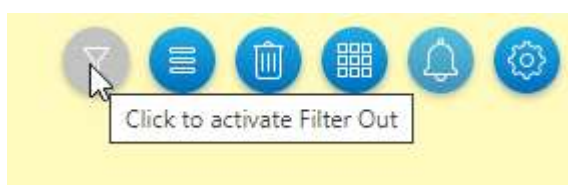
SERVICE ID	STATUS	EO OPERATION	DTO ID	SATELLITE	ACQUISITION START	ACQUISITION STOP
2009240039	Tasked	IMS_SAFETY	1	RADARSAT-2	2020-09-24 06:58:29Z	2020-09-24 06:58:36Z
2009240038	Tasked	IMS_CUSTOMS	1	RADARSAT-2	2020-09-24 18:10:39Z	2020-09-24 18:10:58Z
2009240022	Tasked	CLEANSEANET	1	SENTINEL-1	2020-09-24 18:35:10Z	2020-09-24 18:37:14Z
2009240019	Tasked	CLEANSEANET	1	SENTINEL-1	2020-09-24 05:52:02Z	2020-09-24 05:54:09Z
2009240014	Tasked	SAFEMED; SAFEMED LIBYA, CLEANSEANET	1	SENTINEL-1	2020-09-24 18:33:06Z	2020-09-24 18:35:10Z
2009240013	Tasked	CLEANSEANET	1	SENTINEL-1	2020-09-24 07:34:24Z	2020-09-24 07:36:23Z
2009240012	Tasked	CLEANSEANET	1	SENTINEL-1	2020-09-24 07:31:29Z	2020-09-24 07:34:03Z
2009240009	Tasked	SAFEMED; SAFEMED LIBYA, CLEANSEANET	1	SENTINEL-1	2020-09-24 06:44:11Z	2020-09-24 06:46:46Z

- In order to filter out and just see in the map the results of your search, select manually in the TTT all the EO services with the mouse and pressing the button 'SHIFT' and then

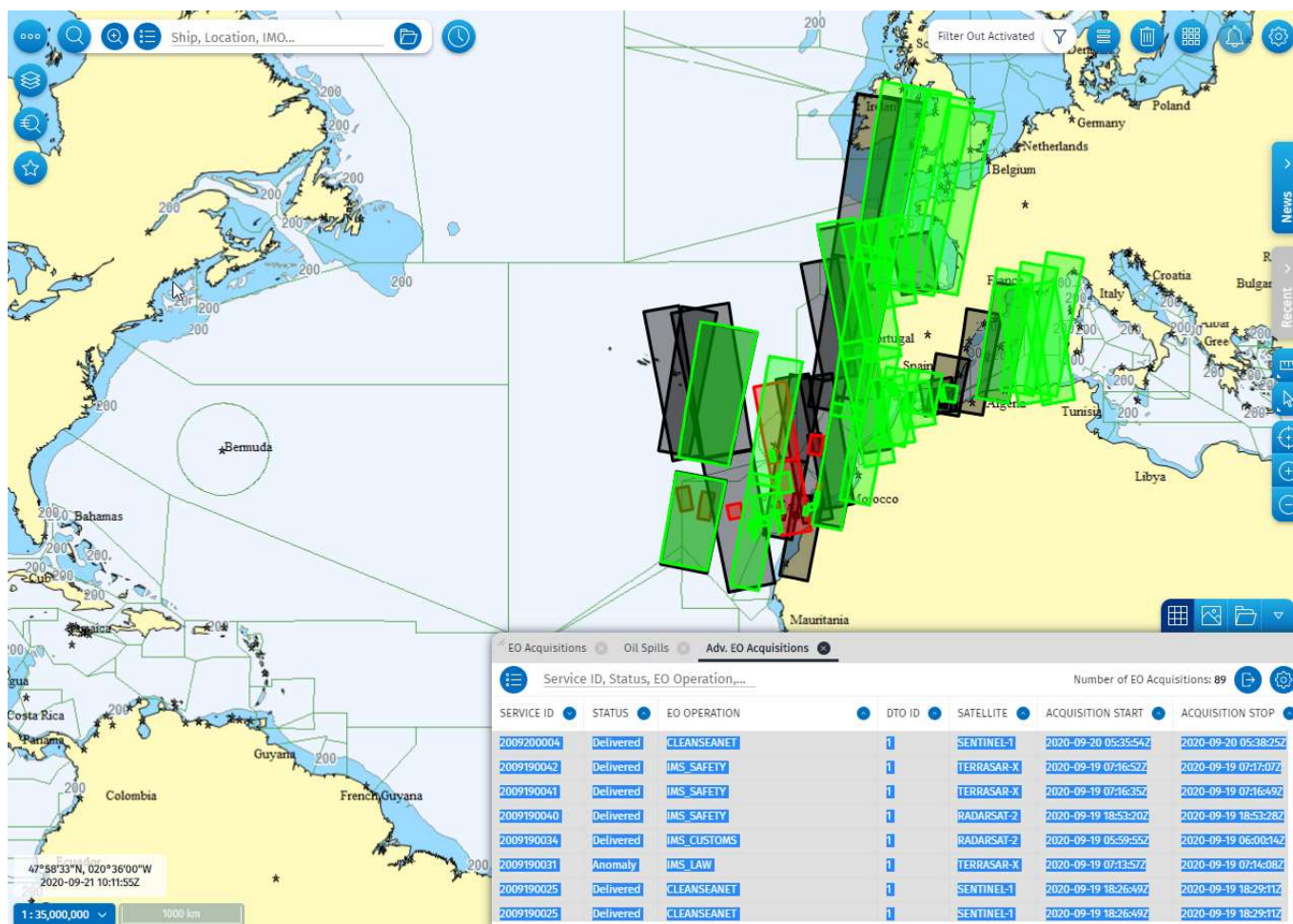
The screenshot displays the CleanSeaNet interface. On the left, there is a sidebar with navigation icons and a search bar. The main map area shows a satellite view of the Mediterranean Sea, with various overlays including a green grid, red dots, and a blue area. A pop-up window titled 'Advanced Search' is open, showing 'EO Identification' and 'Area of Interest' sections. The 'Area of Interest' section lists several 'Selected' items with checkboxes. Below the map, there is a table titled 'EO Acquisitions' with columns for 'SERVICE ID', 'STATUS', 'EO OPERATION', 'DTO ID', 'SATELLITE', 'ACQUISITION START', and 'ACQUISITION STOP'. The table contains 10 rows of data.

SERVICE ID	STATUS	EO OPERATION	DTO ID	SATELLITE	ACQUISITION START	ACQUISITION STOP
2009200004	Delivered	CLEANSEANET	1	SENTINEL-1	2020-09-20 05:35:54Z	2020-09-20 05:38:25Z
2009190042	Delivered	IMS_SAFETY	1	TERRASAR-X	2020-09-19 07:16:52Z	2020-09-19 07:17:07Z
2009190041	Delivered	IMS_SAFETY	1	TERRASAR-X	2020-09-19 07:16:35Z	2020-09-19 07:16:49Z
2009190040	Delivered	IMS_SAFETY	1	RADARSAT-2	2020-09-19 18:53:20Z	2020-09-19 18:53:28Z
2009190034	Delivered	IMS_CUSTOMS	1	RADARSAT-2	2020-09-19 05:59:55Z	2020-09-19 06:00:14Z
2009190031	Anomaly	IMS_LAW	1	TERRASAR-X	2020-09-19 07:13:57Z	2020-09-19 07:14:08Z
2009190025	Delivered	CLEANSEANET	1	SENTINEL-1	2020-09-19 18:26:49Z	2020-09-19 18:29:11Z
2009190025	Delivered	CLEANSEANET	1	SENTINEL-1	2020-09-19 18:26:49Z	2020-09-19 18:29:11Z

- Press the button 'Click to activate Filter Out'



- Only the results of the 'Adv.EO Acquisitions' will be displayed in the map.



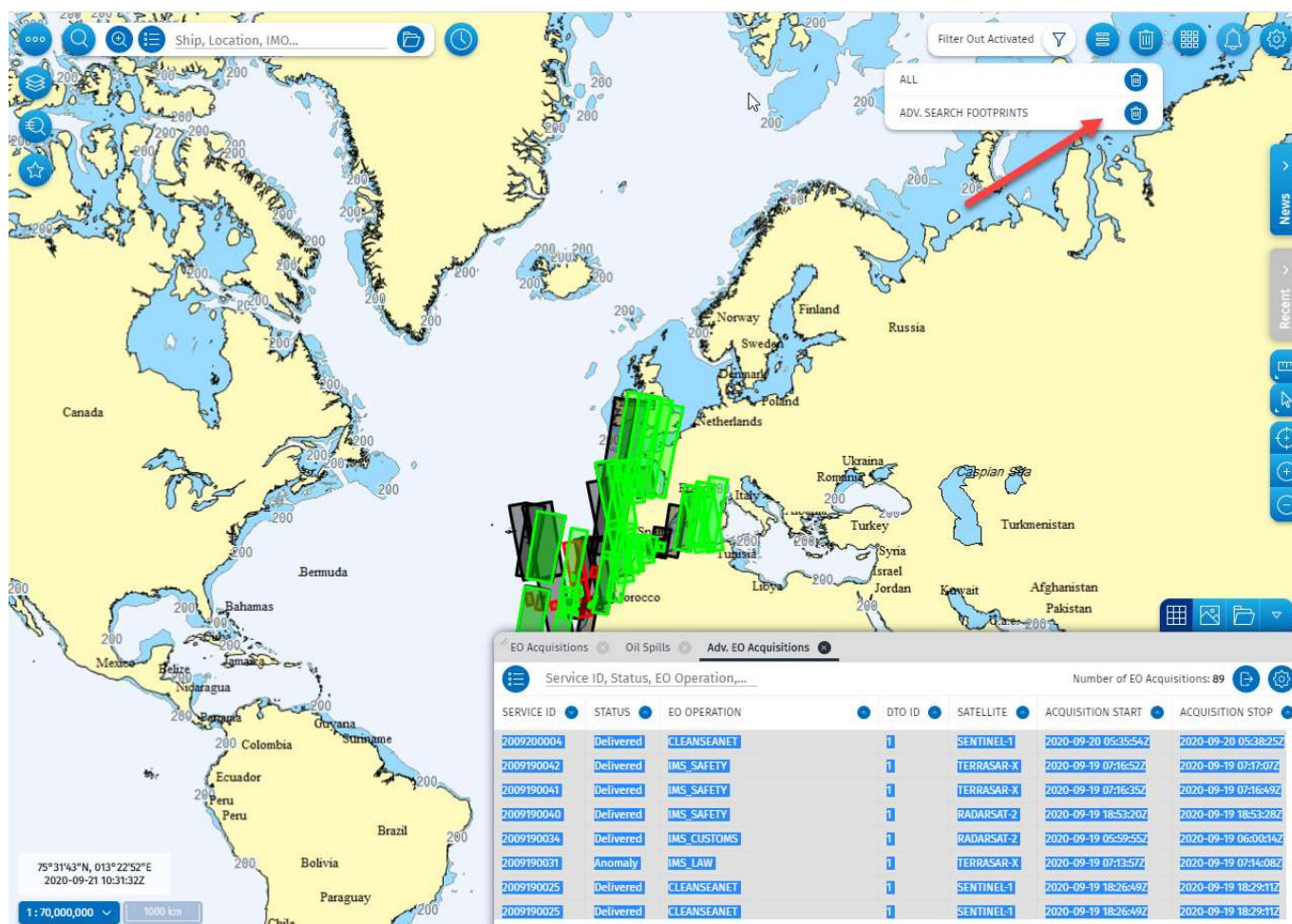
**Note:** The SEG systems, when querying per areas, is in fact doing a bounding box around the area, and therefore you might get results outside the actual polygon of the selected alert area. SEG extends the polygon to a Bounding Box (like a rectangle) and some of the results might be outside your selected area.

Therefore, it shall be done a filter in the TTT, writing the country name in order to apply this filter to the 'affected areas' attribute.

- To see again all the information in the map, press 'Filter Out activated'



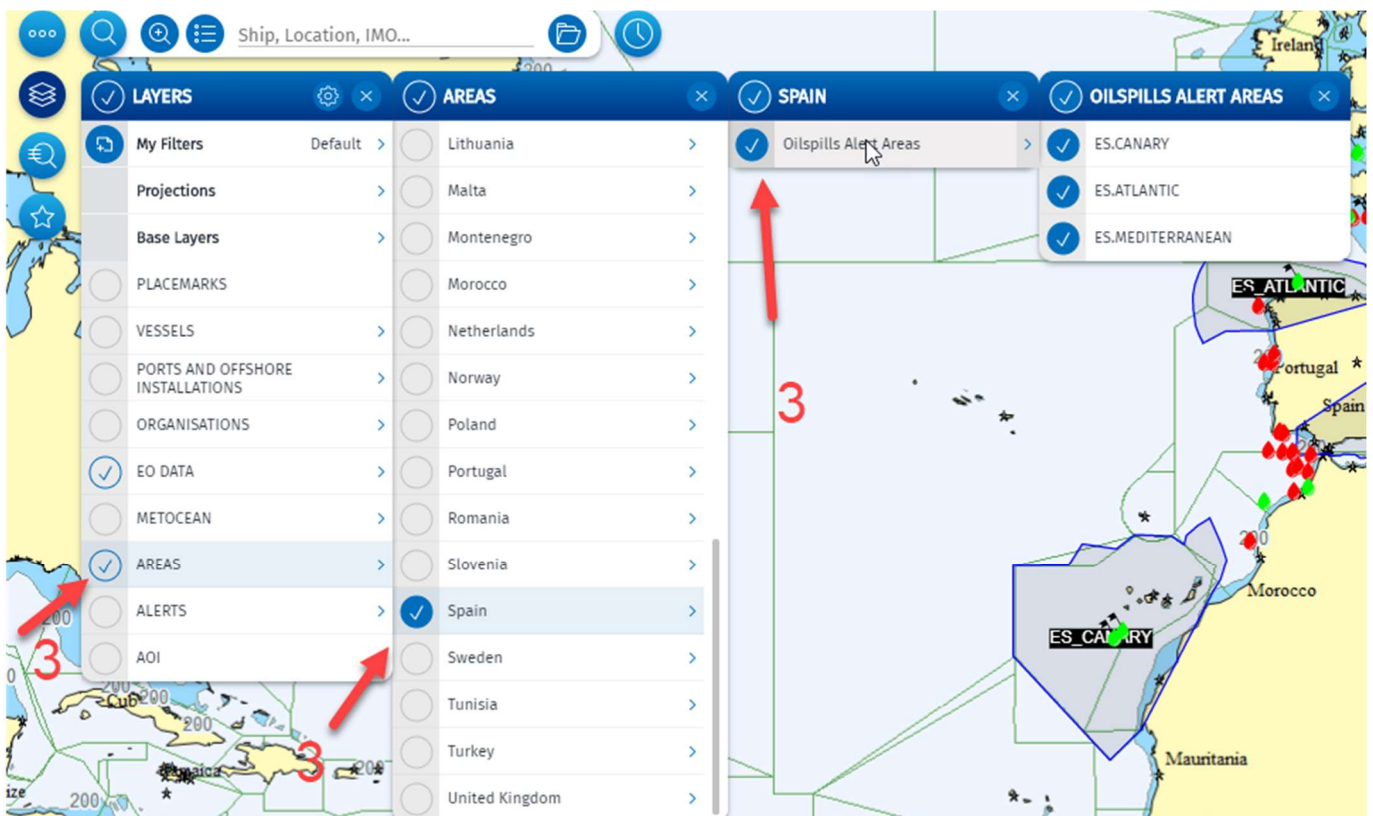
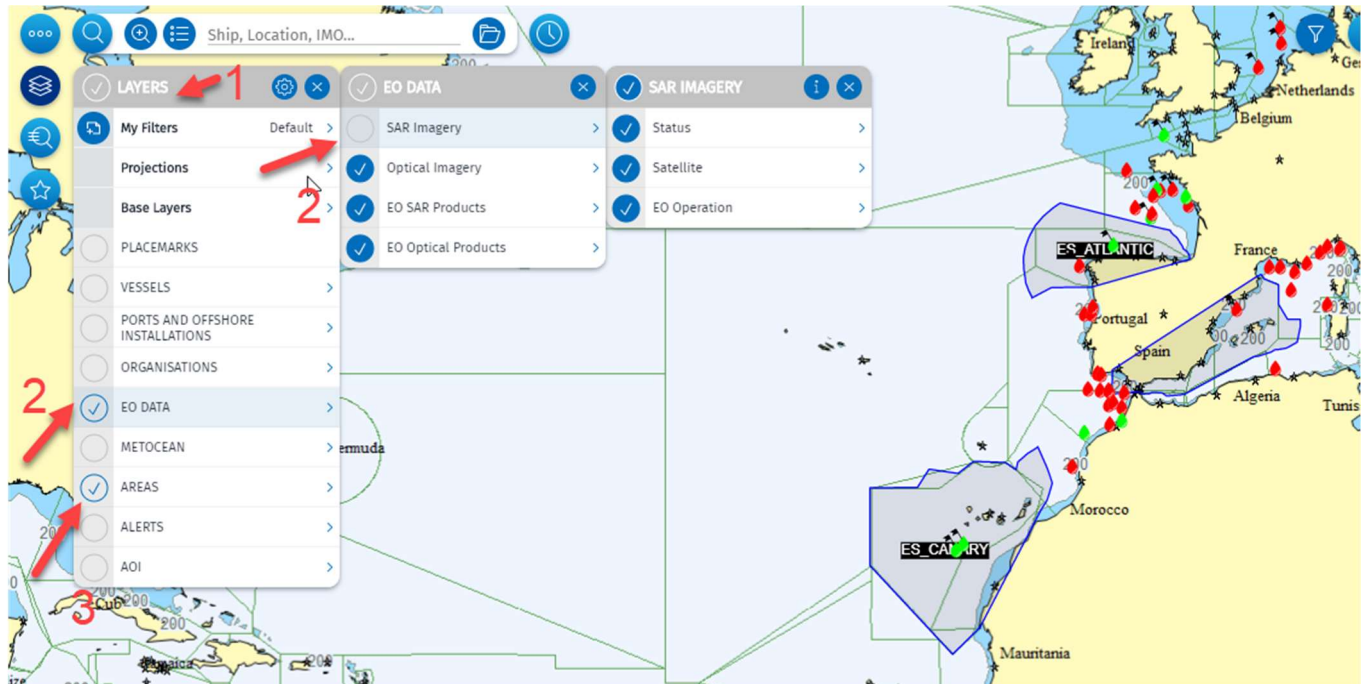
- You may also delete the results of the 'Adv.EO Acquisitions' by pressing the trash bin, and then the 'Adv Search Footprints'




## 16. 'Advance Search' - Extract Oil Spill – Time and Area criteria

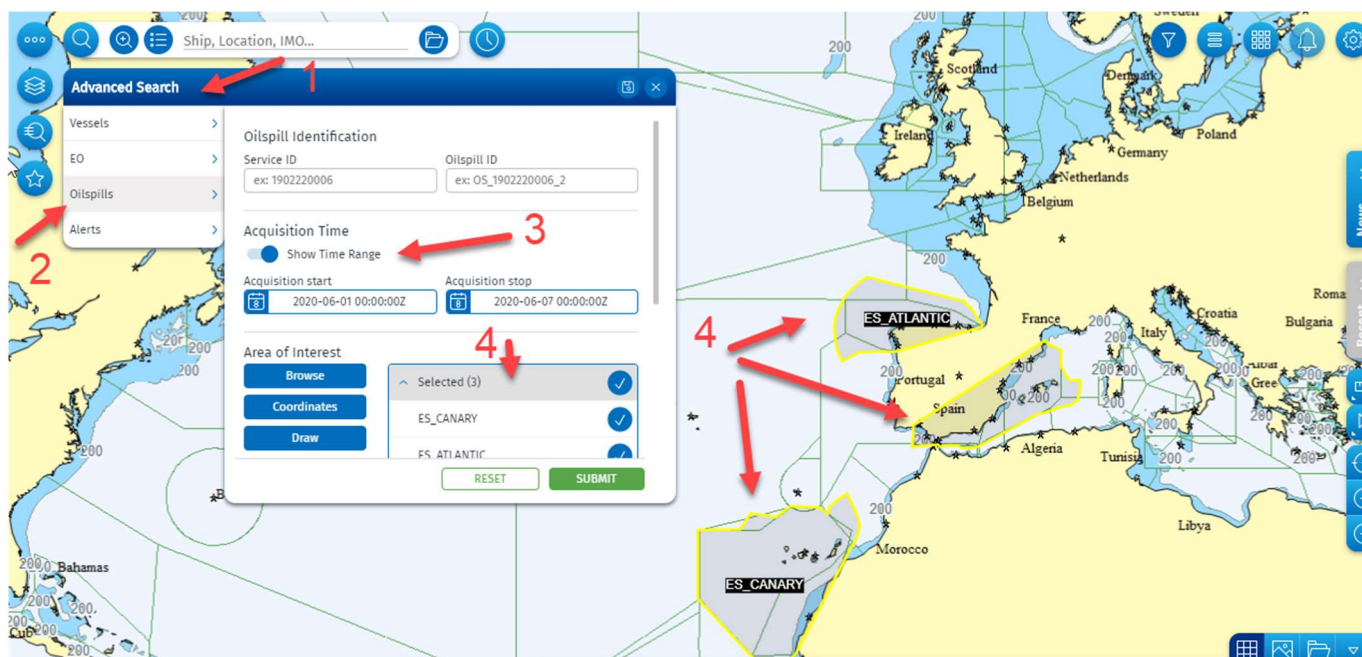
Using the 'advance search' to extract the SAR oil spills for a period, intersecting an alert area and having feedback =Yes.

- Select the button 'Layers' (1).
- Unselect EO data (2) -> 'SAR imagery' (to select in the map the Alert Areas it is useful to unselect the EO imagery data layer due to the footprints overlap).
- Select areas (3) -> Spain -> select the Alert Areas to retrieve the data (ES.CANARY; ES.ATLANTIC; ES.MEDITERRANIAN).
- Close the menu.

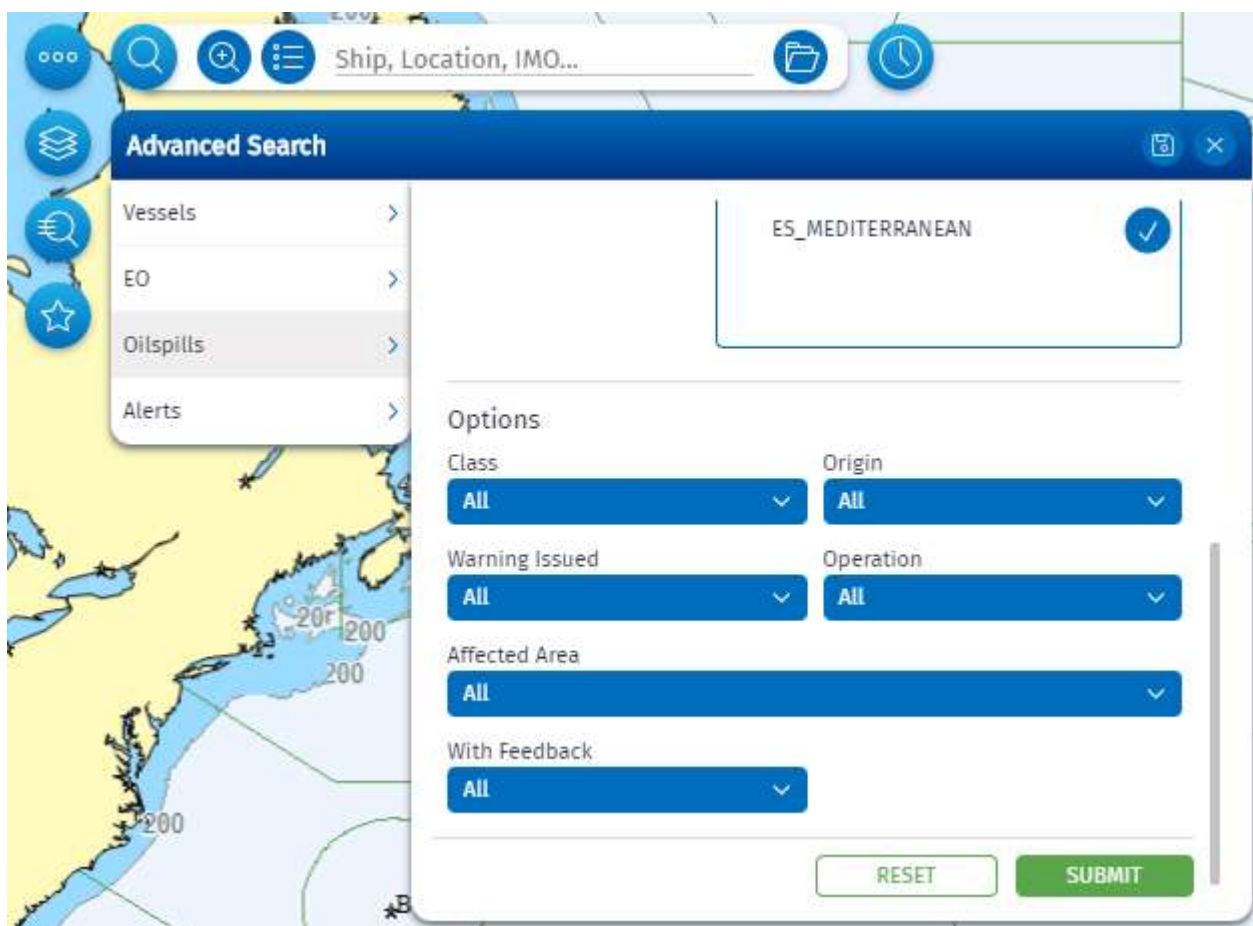


- Select the 'Advance Search'  (1)
- Select the Oilspills (2)
- Select 'Show Time Range' (3)
- Define the time range (3).

- Select the three Areas (4) to extract the data (multiple areas can be selected using the shift button).

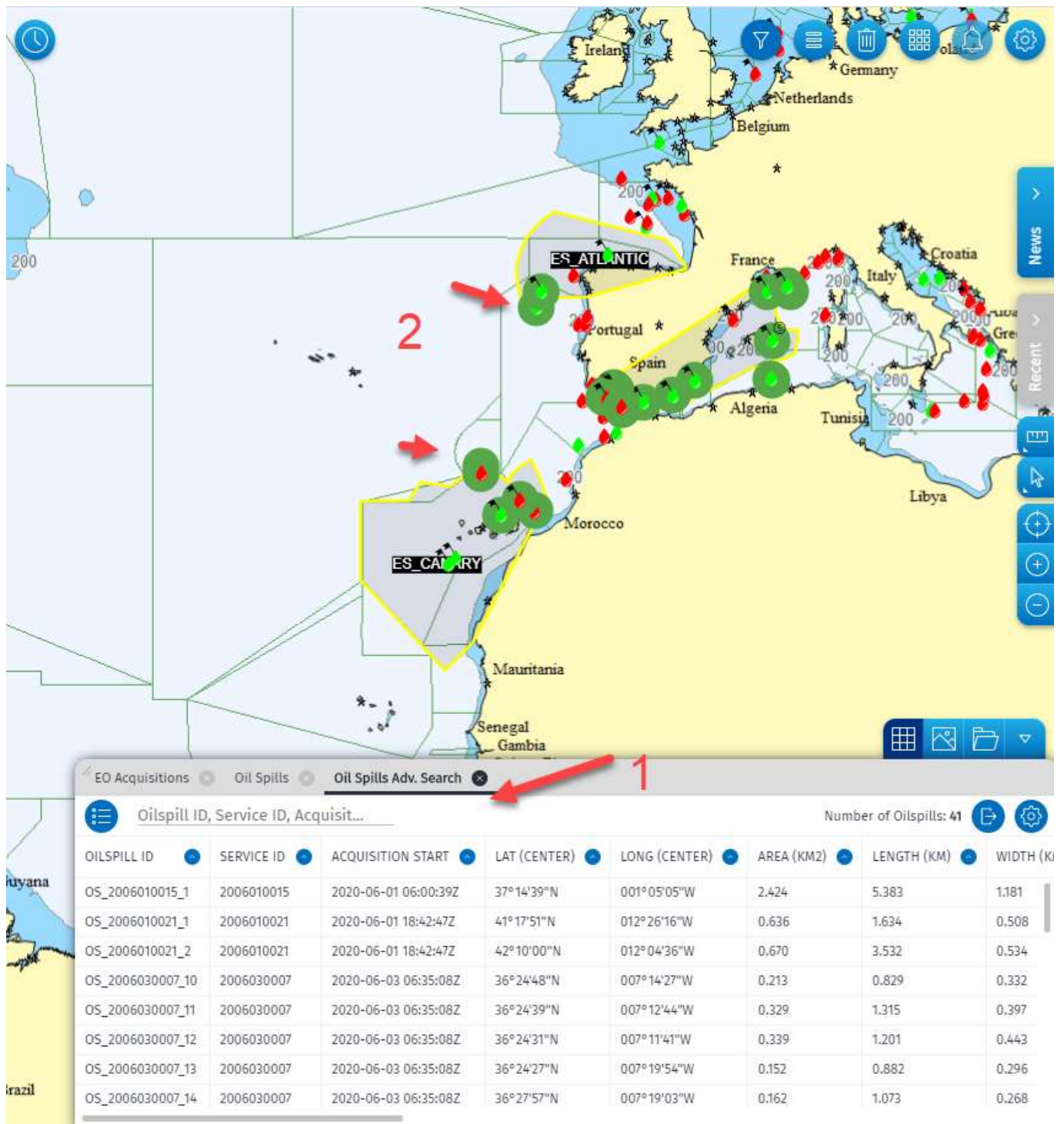


- Check the Options available for the oil spills

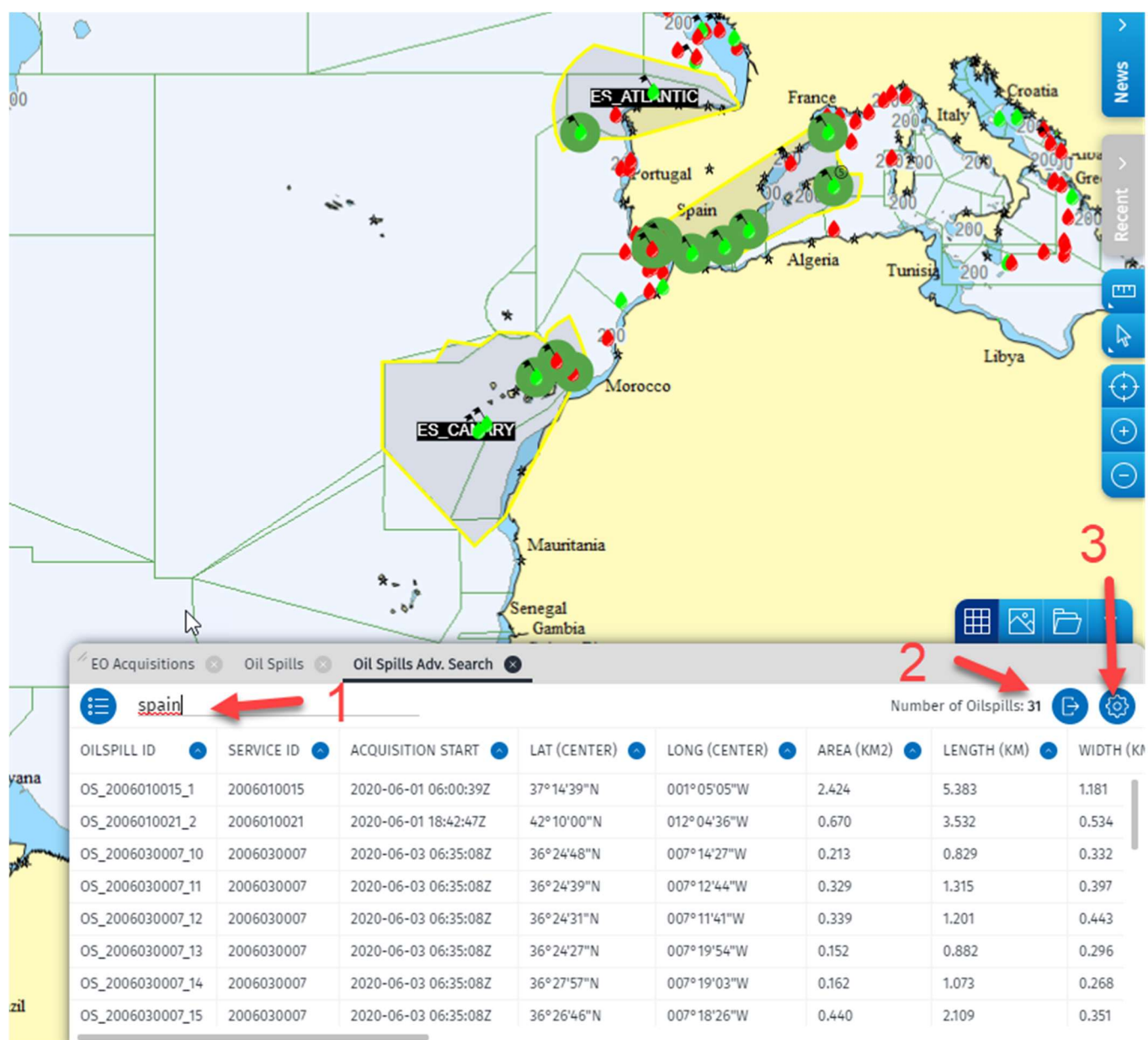


- Press Submit

- The TTT lists an additional tab 'Oil Spills Adv. Search' (1).
- The results of the search are displayed in the map but simultaneously with the previous load of EO footprints and oil spills. However, the results of the search have a green circle in the map (2).



- Typing the country name in the TTT (1), this filter will be applied to the 'affected areas' attribute—the number of Oil Spills reduces from 41 to 31 in total (2).
- You will be able to see in the map and export only the EO footprints of that country (3).






**Note:** The SEG systems, when querying per areas, is in fact doing a bounding box around the area, and therefore you might get results outside the actual polygon of the selected alert area. SEG extends the polygon to a Bounding Box (like a rectangle) and some of the results might be outside your selected area. Therefore, it shall be done a filter in the TTT, writing the country name in order to apply this filter to the 'affected areas' attribute.

## 17. Feedback visualisation

Feedback provision is a very important mechanism in the CleanSeaNet service, enabling the end user to submit in-situ verification data to an oil spill detection or to an EO Acquisition. This mechanism also provides the functionality to report possible sources of the spills, and to link spills detected in different images.

With regards to the Feedback priority and permissions to edit, delete and view please refer to the table below.

			Raise Priority	Edit Feedback 	View Feedback 	Delete Feedback 
EMSA users	CSNDC	UP21	Can raise priority of all feedbacks	Can edit all feedbacks	Can visualise all feedbacks	Can delete all feedbacks
All other users (EMSA CSNDC UP06, 07, 08 and 09 users)			Cannot raise priority	Can edit only feedbacks created by himself/herself	Can visualise all feedbacks	Cannot delete any feedback

The objective of this exercise is merely to see an already introduced feedback for a potential oil spill detected in a SAR EO image.

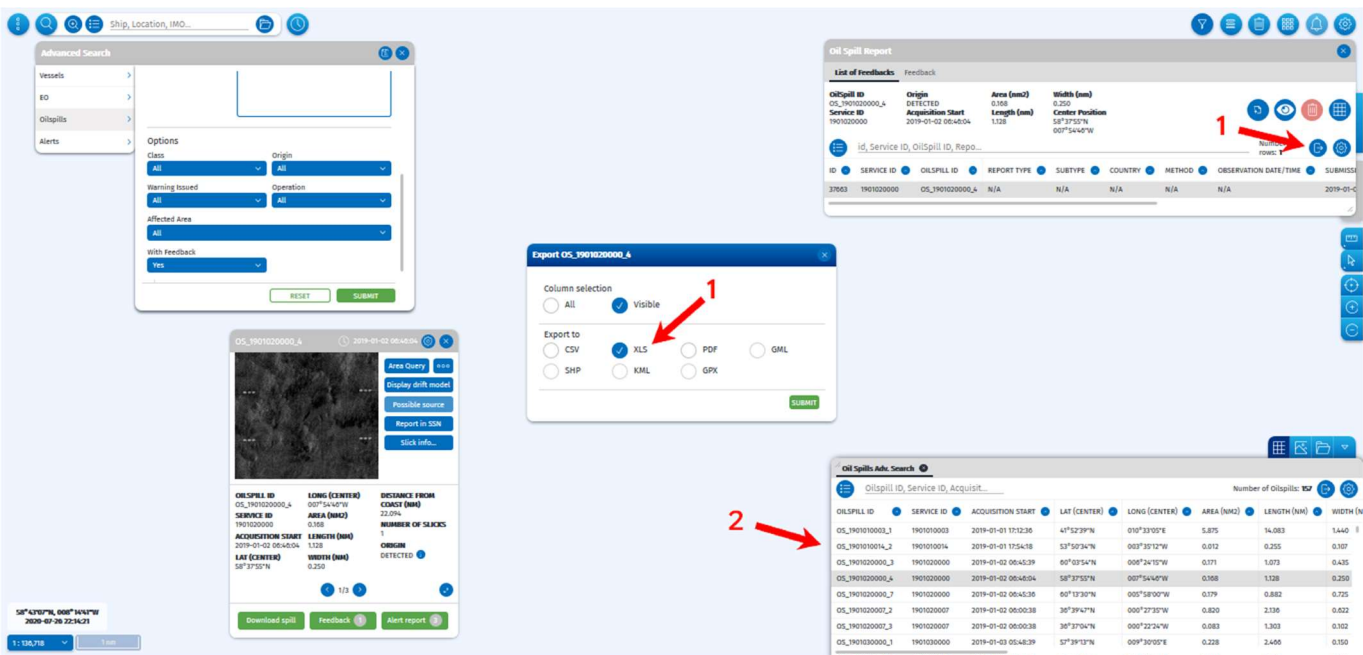
- Use the 'Advanced Search' to retrieve the oil spills with feedback in January 2019 (1).
- Scroll the TTT to identify the oil spills with provided feedback.
- Select Oil spill ID OS\_1901020000\_4 (2) and press the 'Feedback' button (3) to open the feedback Report.

The screenshot shows the CleanSeaNet interface. On the left, the 'Advanced Search' window is open, with the 'With feedback' option selected under 'Options'. A red arrow labeled '1' points to this option. In the center, a yellow outline of a ship is visible on the map. On the right, the 'Oil Spill Feedback Report' window is open, showing a table of feedback data. A red arrow labeled '2' points to the 'See' icon in the feedback report. Below this, the 'Oil Spill Details' window is open, showing details for a specific oil spill. A red arrow labeled '3' points to the 'Feedback' button in this window.

- Select the feedbacks in the 'List of Feedbacks' one by one (1) and select the 'See' icon (2) to visualise the complete information of the feedback.

The screenshot shows the CleanSeaNet interface. On the left, the 'Advanced Search' window is open, with the 'With feedback' option selected under 'Options'. A red arrow labeled '1' points to this option. In the center, a yellow outline of a ship is visible on the map. On the right, the 'Oil Spill Feedback Report' window is open, showing a table of feedback data. A red arrow labeled '2' points to the 'See' icon in the feedback report. Below this, the 'Oil Spill Details' window is open, showing details for a specific oil spill. A red arrow labeled '3' points to the 'Feedback' button in this window.

- From the Oil Spill Feedback Report window, use the export function and export the feedback in excel format (1).
- Going back to the 'TTT', select now the OS\_1901220001\_2 (2) to visualise a different type of feedback.




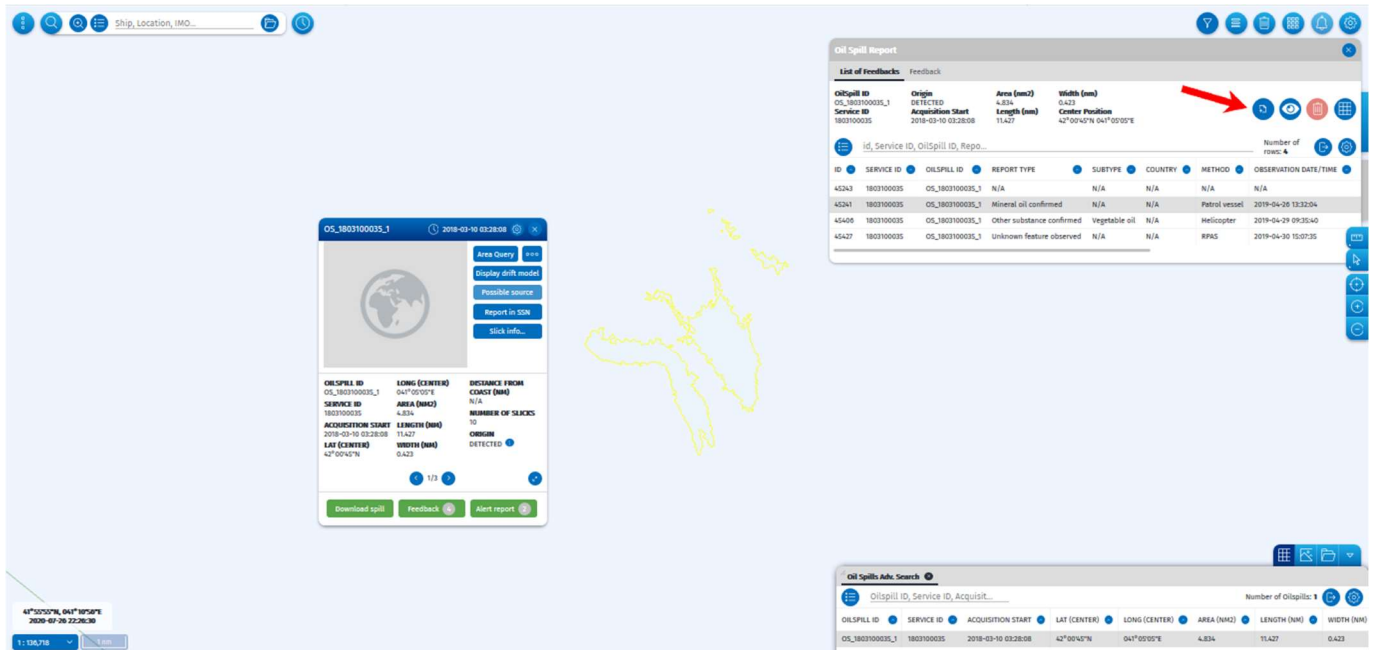
The screenshot displays the CleanSeaNet Basic Training interface, which includes several key components:

- Advanced Search:** A sidebar on the left with filters for Vessels, EO, Oilspills, and Alerts. The main area contains search criteria for Class, Origin, Warning based, affected Area, and With feedback, along with RESET and Submit buttons.
- Oil Spill Report:** A panel on the top right showing a list of feedbacks with columns for Oilspill ID, Origin, Service ID, Acquisition Start, Area (nm2), Length (nm), Width (nm), and Center Position. A red arrow labeled '1' points to the 'New row' button.
- Export OS\_1901020000\_A:** A central panel for exporting data. It includes a 'Column selection' section with 'All' and 'Visible' options, and an 'Export to' section with options for CSV, XLS, PDF, GML, SHP, KML, and GPX. A red arrow labeled '1' points to the 'XLS' option.
- Oil Spill Details:** A panel on the bottom left showing a satellite image of an oil spill and a table of data for OS\_1901020000\_A, including fields like OILSPILL ID, LONG (CENTER), DISTANCE FROM COAST, AREA (NM2), LENGTH (NM), WIDTH (NM), and CENTER POSITION.
- Oil Spills Data Search:** A panel on the bottom right showing a table of oil spill data with columns for OILSPILL ID, SERVICE ID, ACQUISITION START, LAT (CENTER), LONG (CENTER), AREA (NM2), LENGTH (NM), and WIDTH (NM). A red arrow labeled '2' points to the table.

## 18. Feedback provision: CASE 1 – DETECTED Oil Spill

Regular oil spills, reported by the service providers when analysing an EO SAR image, are called as 'Detected' oil spills and the field ORIGIN will be set to 'Detected'.

- Use the 'Advanced Search' to retrieve the oil spill id OS\_1803100035\_1.
- Press the button 'New' 
- Simulate the insertion of a new feedback with the following information (please refer to 17 for Feedback visualisation).



The screenshot displays the CleanSeaNet Basic Training interface. On the left, a map shows the location of the oil spill. A sidebar on the left contains a search bar and buttons for 'Area Query', 'Display drift model', 'Possible source', 'Report to SSM', and 'Link info...'. The main panel shows the 'Oil Spill Report' for OS\_1803100035\_1. A red arrow points to the 'New' button in the top right corner of the report panel. Below the report, there is a table of feedback data.

OilSpill ID	Origin	Area (nm2)	Width (nm)
OS_1803100035_1	DETECTED	4.834	0.423
Service ID	Acquisition Start	Length (nm)	Center Position
1803100035	2018-03-10 03:28:08	11.427	42°00'45"N 04°1°00'00"E

Below the table, there is a search bar and a table of feedback data.

ID	SERVICE ID	OILSPILL ID	REPORT TYPE	SUBTYPE	COUNTRY	METHOD	OBSERVATION DATE/TIME
45243	1803100035	OS_1803100035_1	N/A	N/A	N/A	N/A	N/A
45241	1803100035	OS_1803100035_1	Mineral oil confirmed	N/A	N/A	Petrol vessel	2019-04-26 13:22:04
45406	1803100035	OS_1803100035_1	Other substance confirmed	Vegetable oil	N/A	Helicopter	2019-04-29 09:35:40
45427	1803100035	OS_1803100035_1	Unknown feature observed	N/A	N/A	RPA5	2019-04-30 15:07:35


At the bottom, there is a search bar and a table of feedback data.

OilSpill ID	SERVICE ID	ACQUISITION START	LAT (CENTER)	LONG (CENTER)	AREA (NM2)	LENGTH (NM)	WIDTH (NM)
OS_1803100035_1	1803100035	2018-03-10 03:28:08	42°00'45"N	04°1°00'00"E	4.834	11.427	0.423

- Reason for no verification = 'No assets available'. **ATTENTION! This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.**

The screenshot displays the CleanSeaNet Basic Training interface. On the left, a map shows the Canary Islands. In the center, a 'Oil Spill Report' form is visible, containing fields for 'Oilspill ID', 'Service ID', 'Acquisition Start', 'Long (center)', 'Lat (center)', 'Area (nm2)', 'Length (nm)', 'Width (nm)', and 'Center Position'. Below these fields are buttons for 'Download spill', 'Feedback', and 'Alert report'. On the right, a 'Feedback' section is shown, with a red arrow pointing to it. The feedback section includes a 'List of Feedbacks' table and a 'Feedback' form with fields for 'Compiler', 'First Name', 'Last Name', 'User ID', and 'Country'. A red text box with the following message is overlaid on the feedback section:

**ATTENTION! This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.**

- Now simulate another situation, on behalf of a colleague from another 'Organisation' (1):
  - Organisation = ORG\_TEST
  - Observer = OBS\_TEST
  - Country = OBS\_TEST
- With the following elements:
  - Method = 'Helicopter' (2)
  - Report Type= Mineral oil (3) spill with Parameters = 3,4,5,6, method= TEST
  - Use the  to select the verified centre position (4).

**ATTENTION! This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.**

- You can press the button 'Back' to return back and stop the feedback provision

**Oil Spill Report**

List of Feedbacks

OilSpill ID	Origin	Area (nm2)	Width (nm)
OS_1803100035_1	DETECTED	4.834	0.423
Service ID	Acquisition Start	Length (nm)	Center Position
1803100035	2018-03-10 03:28:08	11.427	42°00'45"N 04°10'05"E

On-Site Observation

Observation Date/Time: 2018-03-10 03:28:08 Method: Helicopter

Verified Position

Center Lat: 42 0 45 Lon: 41 5 5

Observer (if other than the user logged in)

Organisation: ORG\_TEST Observer: OBS\_TEST Country: ORG\_<PORTUGAL>

Report type: Mineral oil confirmed

Parameters

Verified Width (nm): 3 Verified Length (nm): 4 Verified Area (nm2): 5

Verified Thickness (nm): 6 Thickness Estimation Method: TEST

Verified Volume (m3): 3 BAOAC: 1

BACK SUBMIT

**Oil Spill Adv. Search**

OilSpill ID, Service ID, Acquisit...

Number of Oilspills: 1

OILSPILL ID	SERVICE ID	ACQUISITION START	LAT (CENTER)	LONG (CENTER)	AREA (NM2)	LENGTH (NM)	WIDTH (NM)
OS_1803100035_1	1803100035	2018-03-10 03:28:08	42°00'45"N	04°10'05"E	4.834	11.427	0.423

**Oil Spill Details**

OILSPILL ID: OS\_1803100035\_1

LONG (CENTER): 04°10'05"E

DISTANCE FROM COAST (NM): N/A

SERVICE ID: 1803100035

AREA (NM2): 4.834

NUMBER OF SLICKS: 10

ACQUISITION START: 2018-03-10 03:28:08

LENGTH (NM): 11.427

ORIGIN: DETECTED

LAT (CENTER): 42°00'45"N

WIDTH (NM): 0.423

CLASS: 8

Download spill Feedback Alert report

42°07'56"N, 04°07'47"E  
2020-07-29 10:50:20

1:156,718

**ATTENTION!** This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.

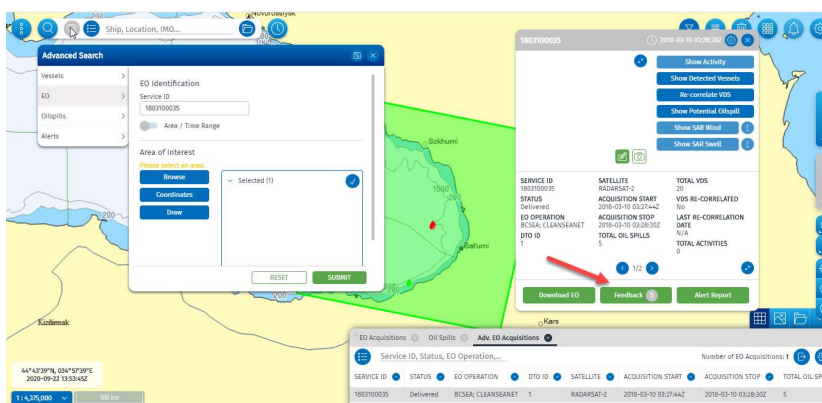
## 19. Feedback provision: CASE 2 – EXPECTED Oil Spill

Feedback is submitted to an EO Acquisition whenever a user wants to report a spill that was not detected in the acquisition service, but that is visible in the image and was verified positively. Such a feedback generates a spill that is tagged by the field 'Origin' set to 'Expected'.

'Expected spills' have reduced information, missing for example the area and the length. Also, the spill identifier (the 'OILSPILL ID') follows a specific syntax, different from the 'Detected' spills. The numbering of these spills starts at '101' and continues sequentially.

Despite the differences between the two types of oil spills, once created, 'Expected' spills shall be handled by SEG like any other spill.

- Use the 'Advanced Search' to retrieve the service id 1803100035.
- In the C&I of the EO acquisition 1803100035, press Feedback.



- Verify the existing feedbacks provided and associated to the detected oil spill id OS\_1803100035\_1
- Verify the existing feedback associated to the (1) expected oil spill id OS\_1803100035\_1642 (they are just dummy data introduced for this purpose)

- Press the droplet 'New' 

EO Acquisition Report

List of FeedbacksFeedback

Service ID  
1803100035

Operation(s)  
BCSEA, CLEANSEA

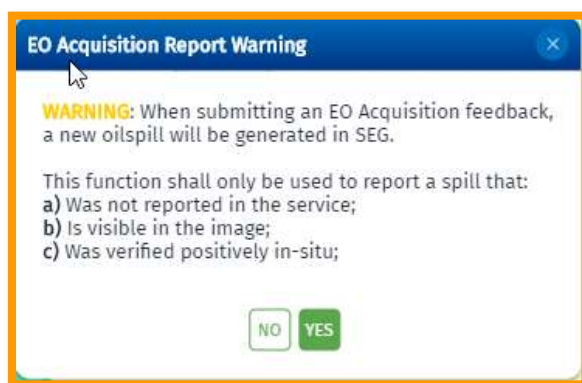
Acquisition Start  
2018-03-10 03:28:32Z

2

Number of rows: 6

ID	SERVICE ID	OILSPILL ID	ORIGIN	REPORT TYPE	SUBTYPE	COUNTRY	METHOD	OBSERVATION
45243	1803100035	OS_1803100035_1	DETECTED	N/A	N/A	N/A	N/A	N/A
45241	1803100035	OS_1803100035_1	DETECTED	Mineral oil confirmed	N/A	N/A	Patrol vessel	2019-04-2
45406	1803100035	OS_1803100035_1	DETECTED	Other substance confirmed	Vegetable oil	N/A	Helicopter	2019-04-2
45427	1803100035	OS_1803100035_1	DETECTED	Unknown feature observed	N/A	N/A	RPAS	2019-04-3
77189	1803100035	OS_1803100035_1	DETECTED	Mineral oil confirmed	N/A	OBS_<PORTUGAL>	Helicopter	2018-03-1
81886	1803100035	OS_1803100035_1642	EXPECTED	Mineral oil confirmed	N/A	EMSA	Helicopter	2018-03-1

- The following warning message will appear confirming the new EXPECTED Oil Spill: press YES



- Verify the information to be introduced in the EO Acquisition Report Simulate the insertion of a new feedback.

**ATTENTION!** This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.

EO Acquisition Report				
List of Feedbacks		Feedback		
Service ID 1803100035		Operation(s) BCSEA, CLEANSEA		
Acquisition Start 2018-03-10 03:28:32Z				
General data <span style="float: right;">(*) fields are mandatory</span>				
Compiler				
First Name	Last Name	User ID	Country	
Sandra	SA	SASANDR	EMSA	
<input type="radio"/> On-Site Observation (*)				
<input type="radio"/> Attachments				
<a href="#">← BACK</a>		<a href="#">SUBMIT</a>		

## 20. Feedback provision: upload verification files

- Use the 'Advanced Search' to retrieve the oil spill with identifier OS\_1803100035\_1 (1).
- Open the feedback tab, select the 'Mineral oil' entry (2) and click the 'See' icon (3).

The screenshot displays the CleanSeaNet interface. On the left, the 'Advanced Search' panel shows the 'Oilspill Identification' section with the 'Oilspill ID' field containing 'OS\_1803100035\_1' (indicated by red arrow 1). Below this, the 'Area of Interest' section shows a map with a selected area. On the right, the 'Oil Spill Report' panel shows a table of feedback entries. The first entry, with ID 45243, is for 'Mineral oil confirmed' (indicated by red arrow 2). The 'See' icon (eye) for this entry is highlighted with a red arrow (3). Below the table, the 'Oil Spills Adv. Search' panel shows the search criteria.

- Press the 'Enable Edit' button and now press the 'Upload a new file...' button below 'Attachments'.

The screenshot shows the 'Oil Spill Report' panel with the 'Attachments' section expanded. The 'Upload a new file...' button is highlighted with a red arrow. The 'Attachments' section also includes fields for 'Verified Width (nm)', 'Verified Length (nm)', 'Verified Area (nm2)', 'Verified Thickness (mm)', 'Thickness Estimation Method', 'Verified Volume (m3)', and 'BAGAC'.

- Upload a file (it can be a jpg with a picture from the patrol vessel)

**ATTENTION!** This is merely a training exercise, in this case please do not submit the feedback, as you will not be able to delete it.

The screenshot displays the CleanSeaNet interface with a map of the Mediterranean Sea. On the left, the 'Advanced Search' panel shows filters for Vessels, EO, Oilspills, and Alerts. The 'Oilspill Identification' section includes fields for Service ID (ex: 1902220006) and Oilspill ID (OS\_1803100035\_1). The 'Acquisition Time' is set to 2018-03-10 03:28:08. The 'Area of Interest' is defined by coordinates. The 'Oil Spill Report' form on the right contains fields for Origin (DETECTED), Area (nm2), Width (nm), Length (nm), and Center Position. The 'Attachments' section shows a file named 'SLAR\_000.jpg' with a red arrow pointing to it. The 'List of Feedbacks' table at the bottom right shows the following data:

Oilspill ID	Service ID	Acquisition Start	Area (nm2)	Width (nm)	Length (nm)	Center Position
OS_1803100035_1	1803100035	2018-03-10 03:28:08	4.834	0.423	11.427	42°00'45"N 04°10'05"E

- Now go back to the 'List of Feedbacks' and examine the feedback:

- Download the uploaded SLAR file.

This screenshot is identical to the one above, showing the CleanSeaNet interface with the 'Oil Spill Report' form and the 'List of Feedbacks' table. A red arrow points to the 'SLAR\_000.jpg' file in the 'Attachments' section. The 'List of Feedbacks' table contains the same data as in the previous screenshot.

## 21. Optical Image – Activity

- Use the 'Advanced Search' to retrieve the EO service 1903130038 (1).
- Display the optical image (2).
- Use the 'Show Activity' button to retrieve the detected activities (3).

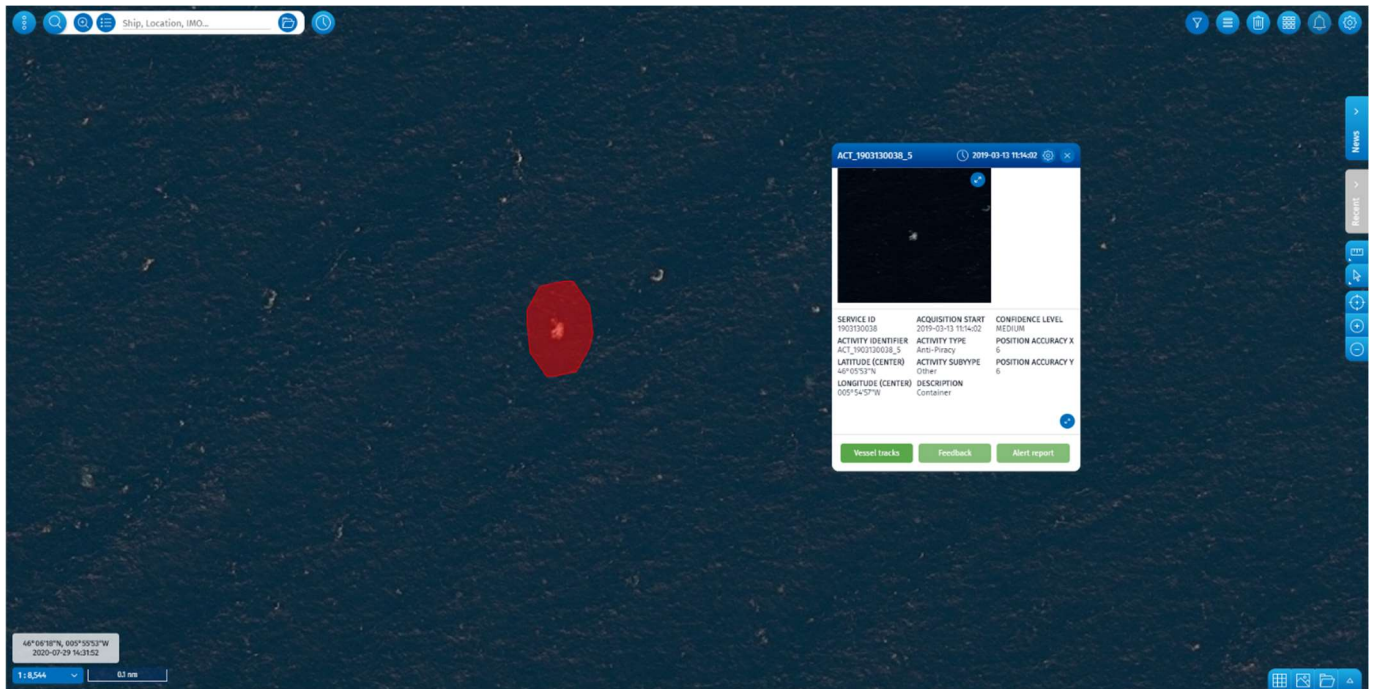
The screenshot shows the CleanSeaNet interface. On the left, the 'Advanced Search' panel is open, with 'EO Identification' selected. The 'Service ID' field contains '1903130038'. A red arrow points to this field. In the center, a map displays a green dashed rectangular area. On the right, a detailed view of the selected EO service is shown. It includes a thumbnail of the optical image, a 'Show Activity' button (indicated by a red arrow), and a table of service details. The table includes fields for SERVICE ID, SATELLITE, STATUS, EO OPERATION, DFO ID, ACQUISITION START, ACQUISITION STOP, TOTAL OILSPILLS, and TOTAL ACTIVITIES.

- Browse through the TTT 'EO Detected Activity' tab.

This screenshot shows the same interface as the previous one, but with the 'EO Detected Activity' tab selected. The map now displays several red polygons indicating detected activities. The 'EO Detected Activity' tab is highlighted at the bottom, and a table of detected activities is visible. The table has columns for SERVICE ID, ACTIVITY IDENTIFIER, LATITUDE (CENTER), LONGITUDE (CENTER), ACQUISITION START, ACTIVITY TYPE, and ACTIVITY. The table contains four rows of data.

SERVICE ID	ACTIVITY IDENTIFIER	LATITUDE (CENTER)	LONGITUDE (CENTER)	ACQUISITION START	ACTIVITY TYPE	ACTIVITY
1903130038	ACT_1903130038_1	44°09'42"N	005°42'58"W	2019-03-13 11:14:02	Anti-Piracy	Other
1903130038	ACT_1903130038_2	44°07'44"N	005°49'35"W	2019-03-13 11:14:02	Anti-Piracy	Other
1903130038	ACT_1903130038_3	44°00'52"N	005°45'18"W	2019-03-13 11:14:02	Anti-Piracy	Other
1903130038	ACT_1903130038_4	44°05'15"N	005°43'14"W	2019-03-13 11:14:02	Anti-Piracy	Other

- Zoom to the polygons indicating the activities.



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