

# Microwave and Radar Sensing

## Oil Spill detection using Snap

# 1. Study Area

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- Trinidad and Tobago

Oil Spill Date :7th of February  
2024



## 2. Data Downloading

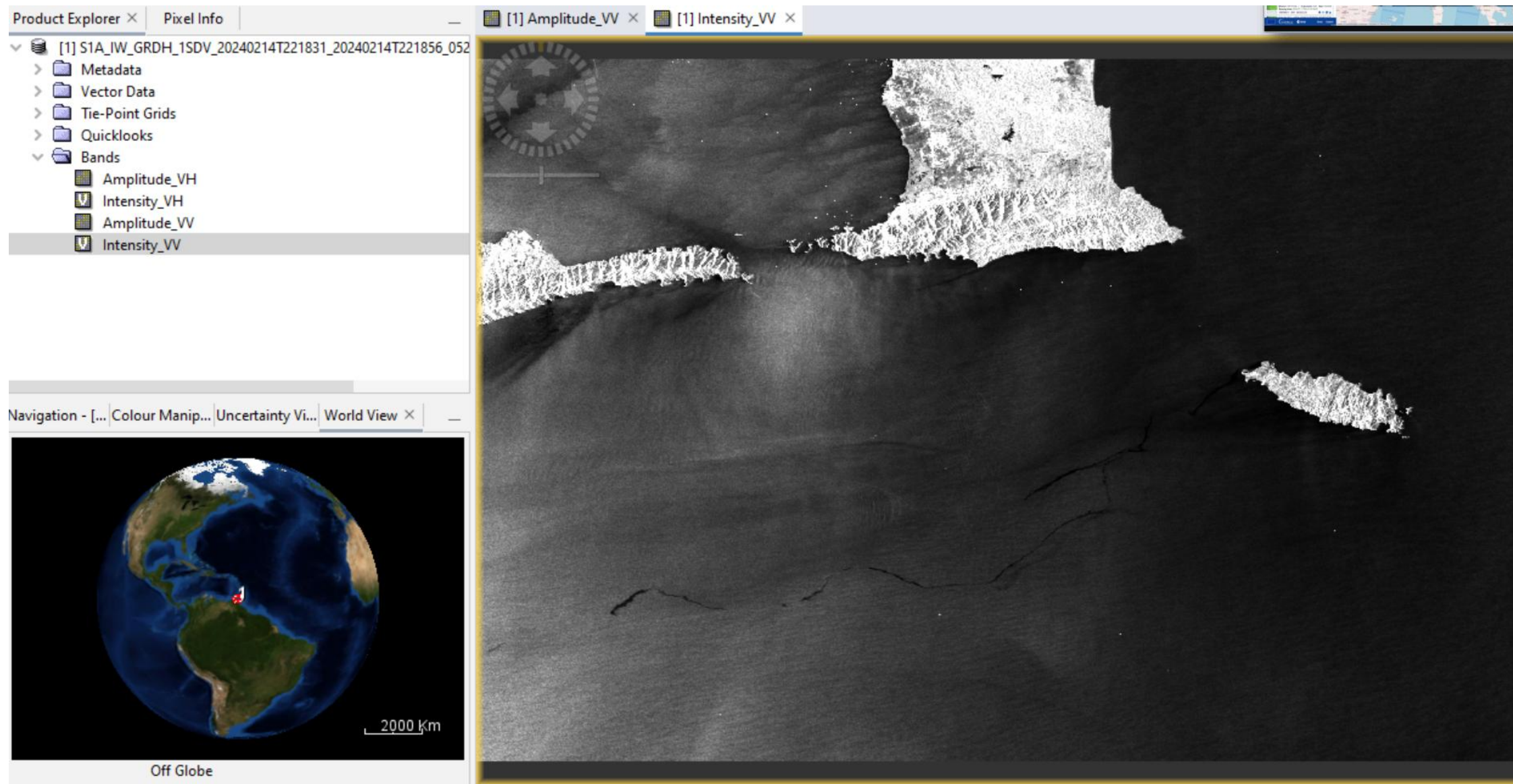
The screenshot displays the Copernicus Browser interface. The top navigation bar includes the Copernicus logo, language settings (EN), user profile (Fyeqa Akram), and tabs for VISUALIZE and SEARCH. A search bar on the right contains the text "Go to Place".

The main content area shows a list of search results under the heading "Go to search" and "Showing 3 results". Each result includes a thumbnail image, a file identifier, mission details, instrument type, size, and sensing time. Below each result is a "Visualize" button and a set of icons for sharing and downloading.

Thumbnail	File Identifier	Mission	Instrument	Size	Sensing time
	S1A_IW_GRDH_1SDV_20240202T221856_20240202T221921_052386_0655B8_C5EE.SAFE	SENTINEL-1	SAR	1619MB	2024-02-02T22:18:56.961Z
	S1A_IW_GRDH_1SDV_20240202T221831_20240202T221856_052386_0655B8_EF81.SAFE	SENTINEL-1	SAR	1619MB	2024-02-02T22:18:31.961Z
	S1A_IW_GRDH_1SDV_20240202T221802_20240202T221831_052386_0655B8_B532.SAFE	SENTINEL-1	SAR	1879MB	2024-02-02T22:18:02.952Z

The right side of the interface shows a map of the Caribbean region with a blue rectangular area of interest. The map includes labels for various locations such as Port-au-Prince, Castries, Saint Vincent and the Grenadines, Kingstown, Grenada, St. George's, Barbados, Bridgetown, Port of Spain, Trinidad and Tobago, and others. The bottom of the interface features logos for the European Union, Copernicus, and ESA, along with links for "About" and "Support". The bottom right corner displays the map's coordinates (Lat: 13.771, Lng: -64.069) and a scale bar (100 km).

# Result

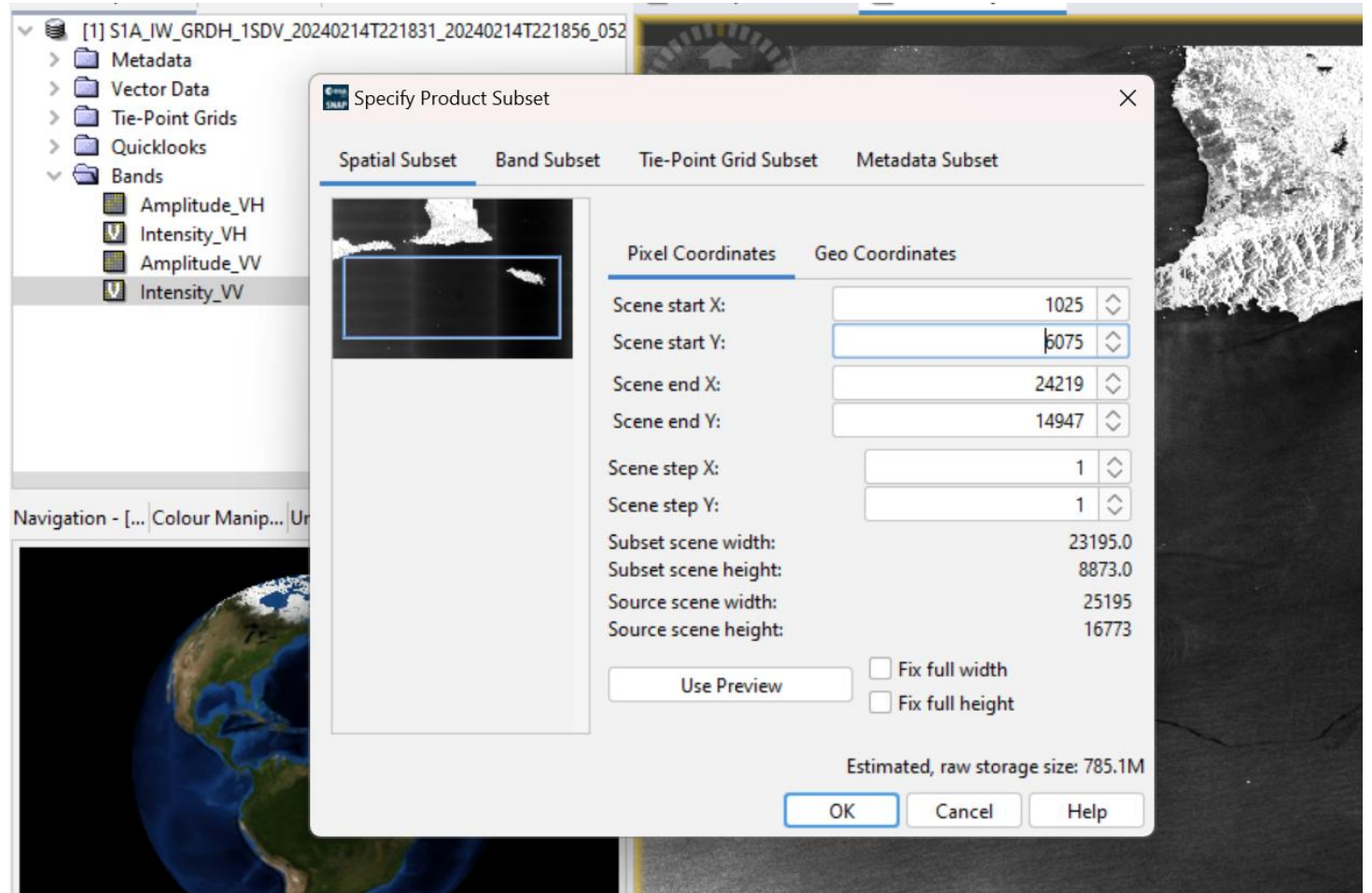




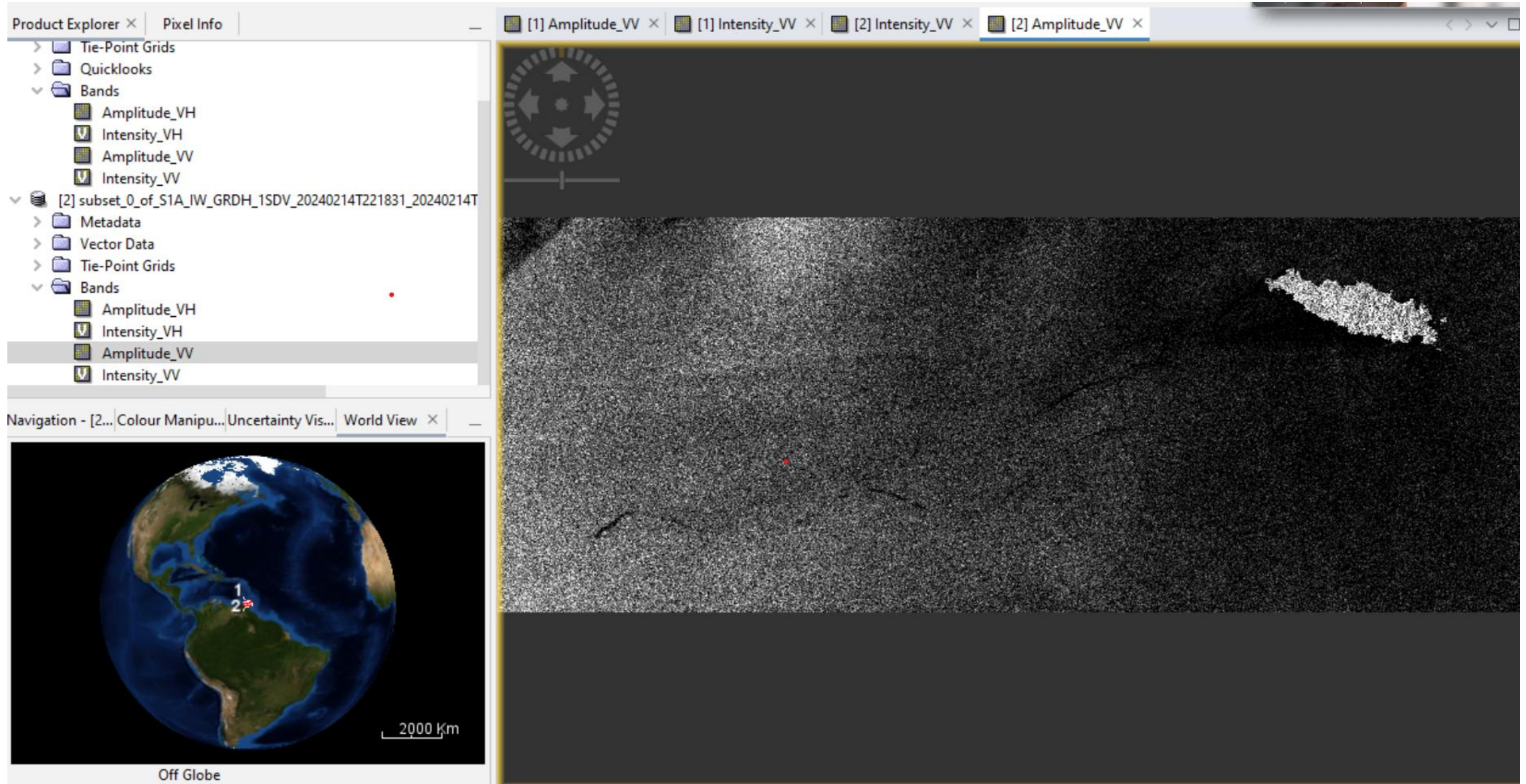
### 3. Subset the study area

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- Geometric correction was used to make sure that concern area is sea surface



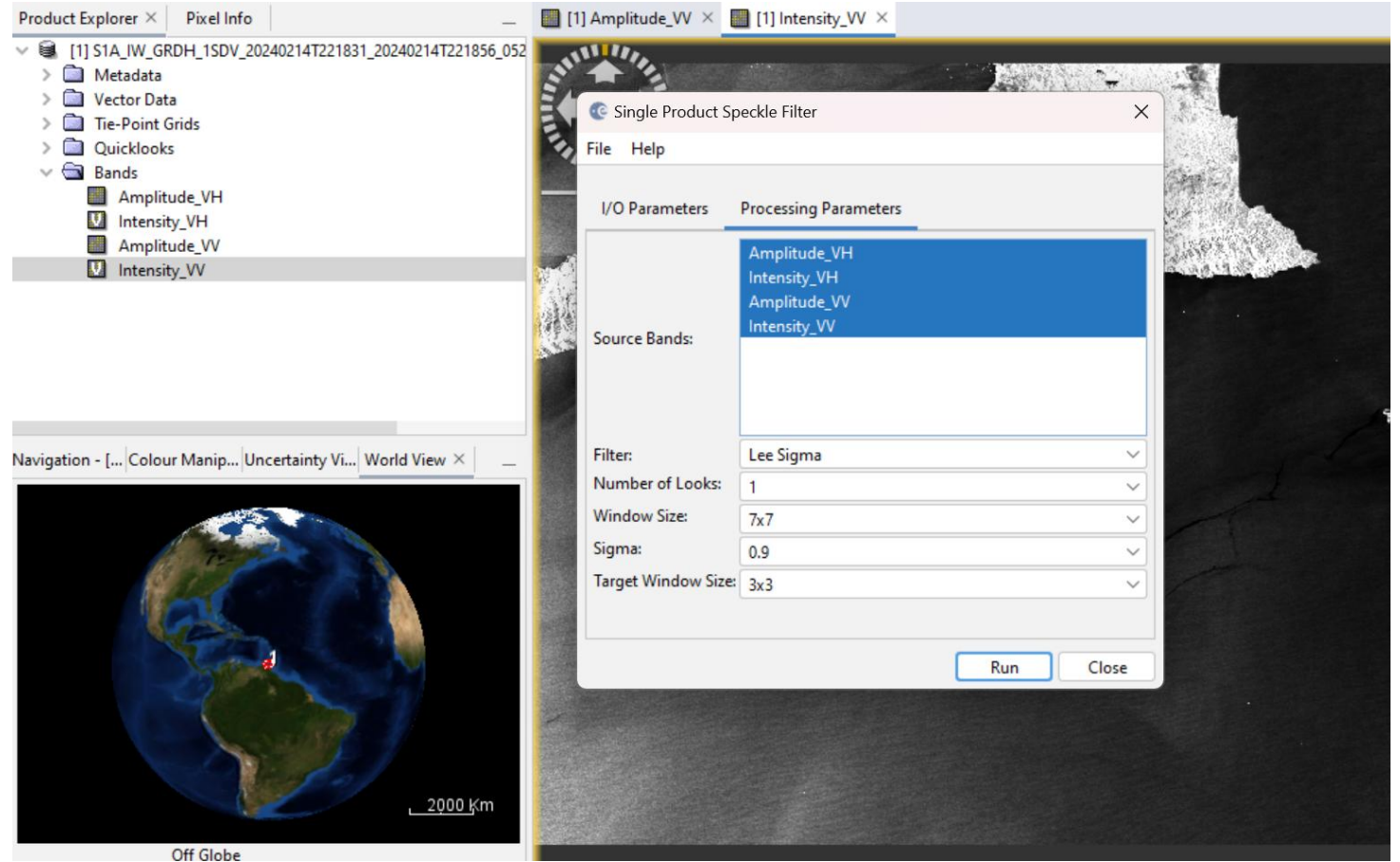
# Result



# 4. Proprocessing

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- Radiometrie Correction  
i.e. Speckle Filtering





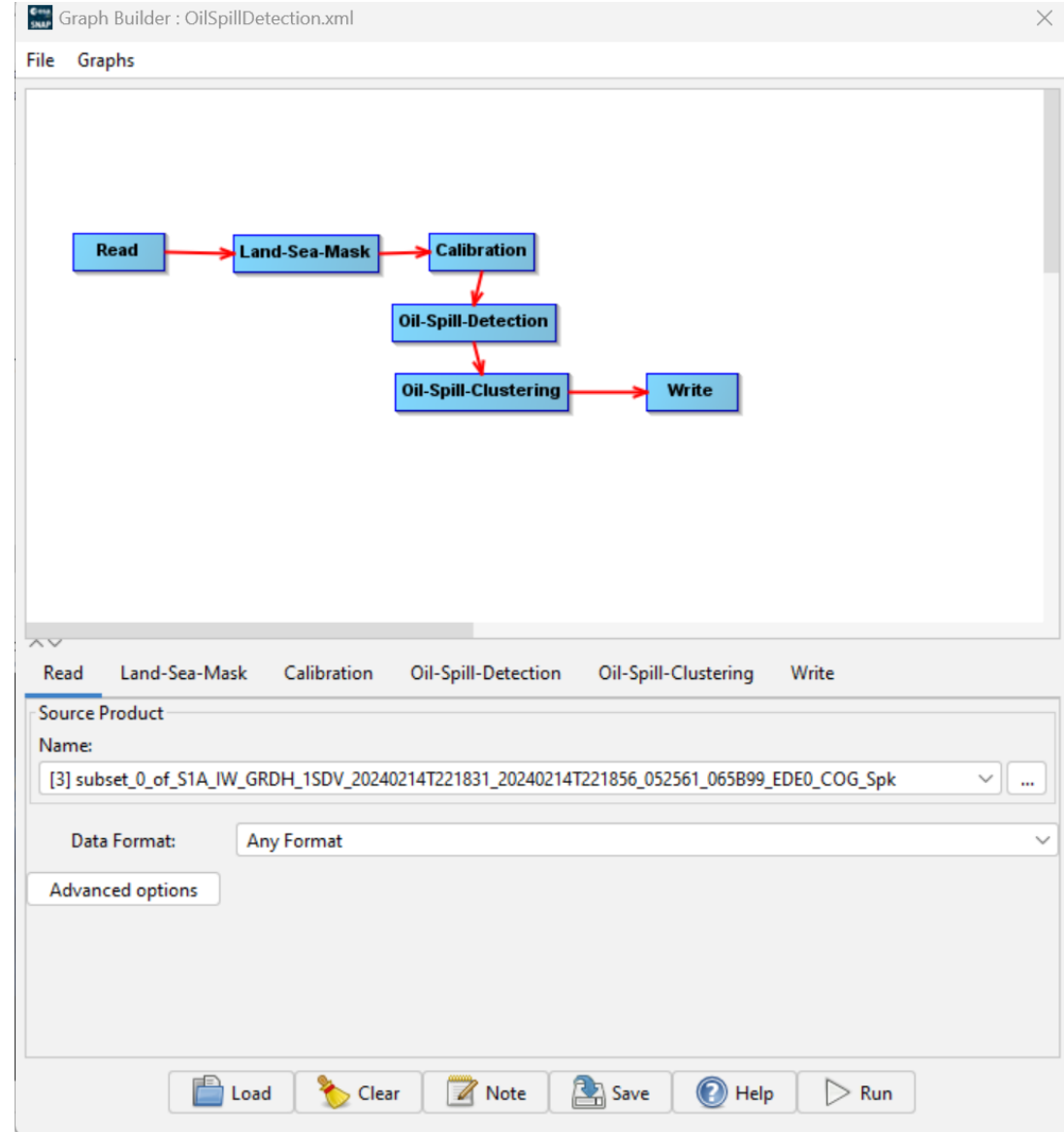
# Result



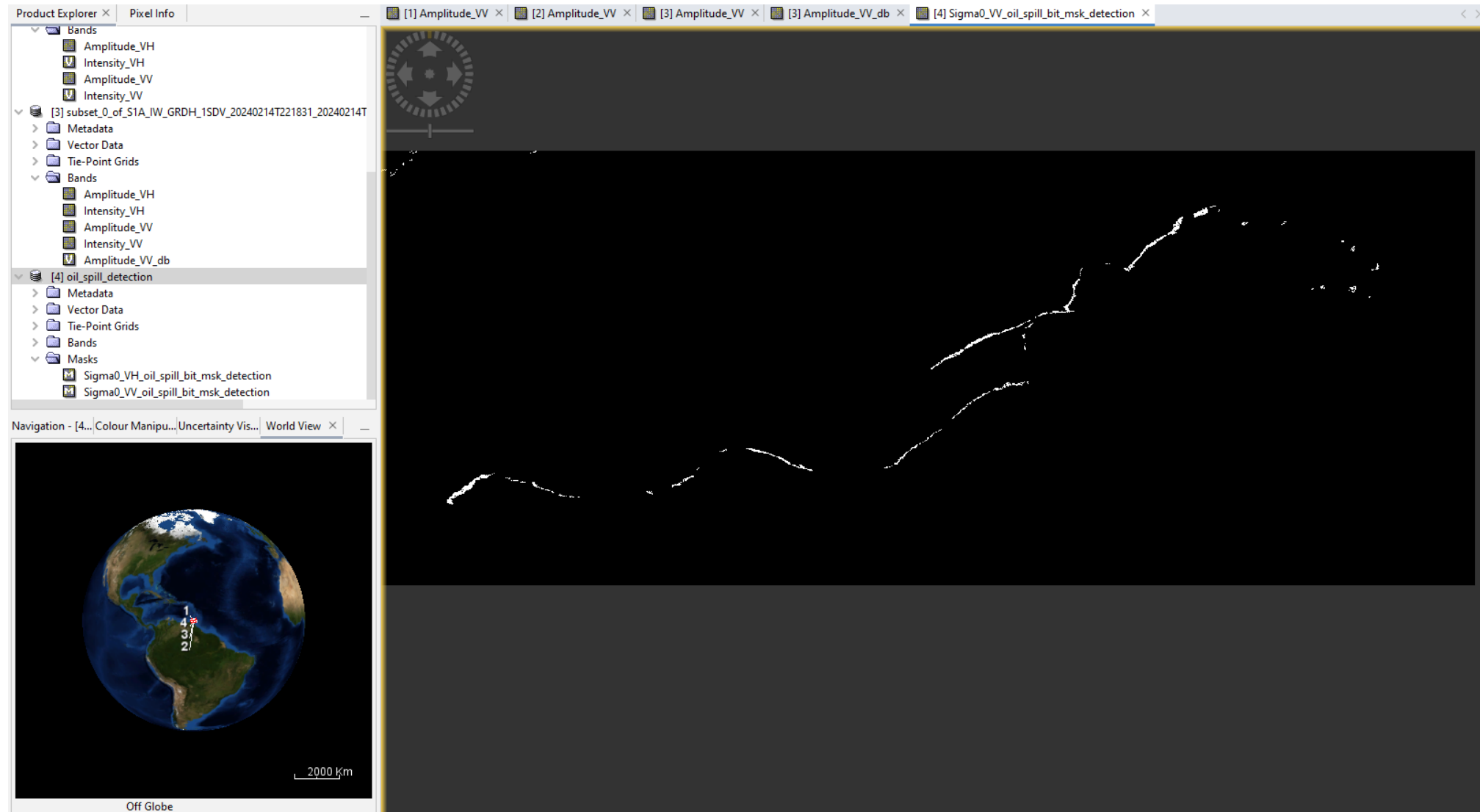


# 5. Oil Spill Detection Tool

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# Result



# Masking

