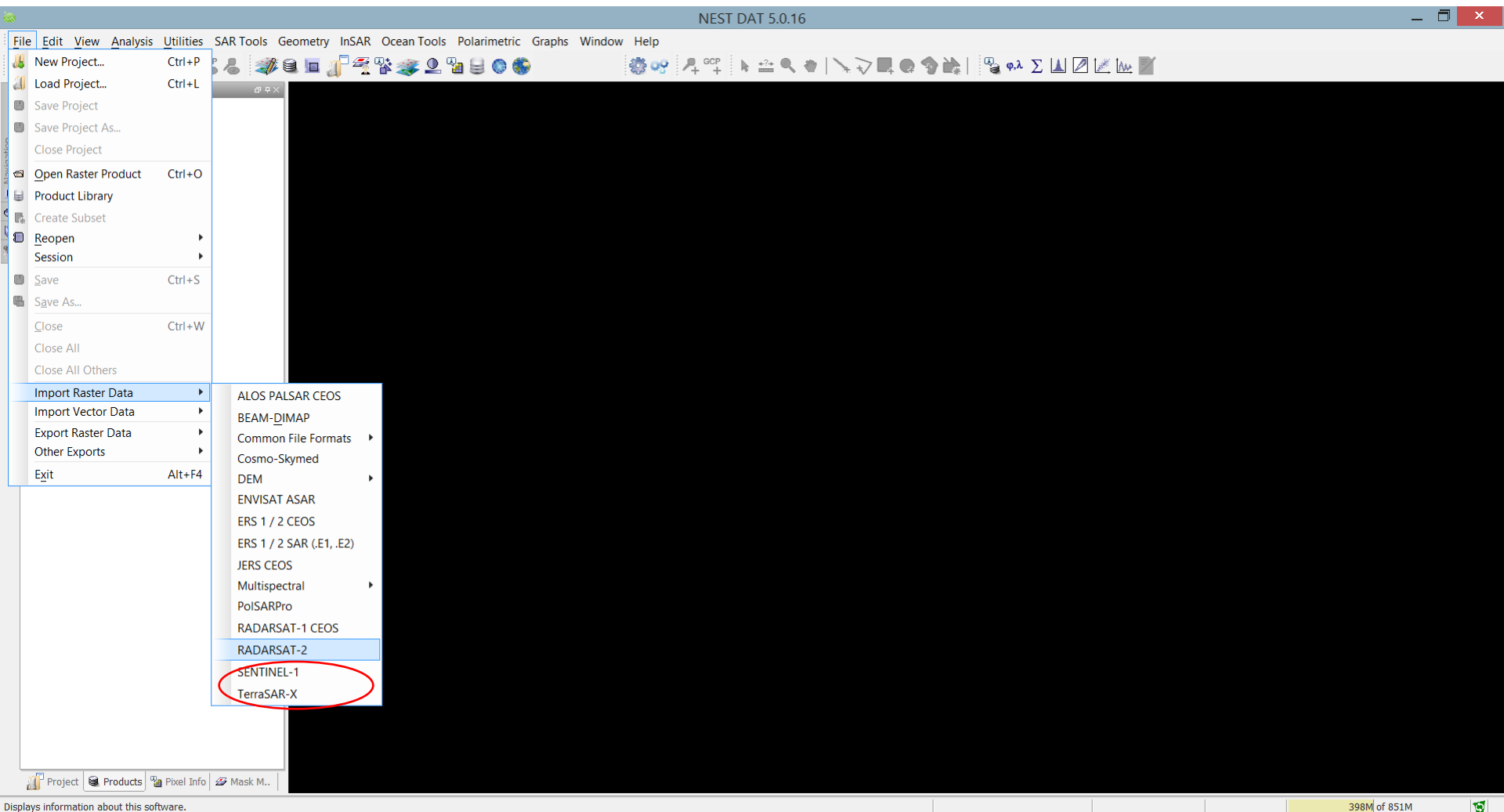
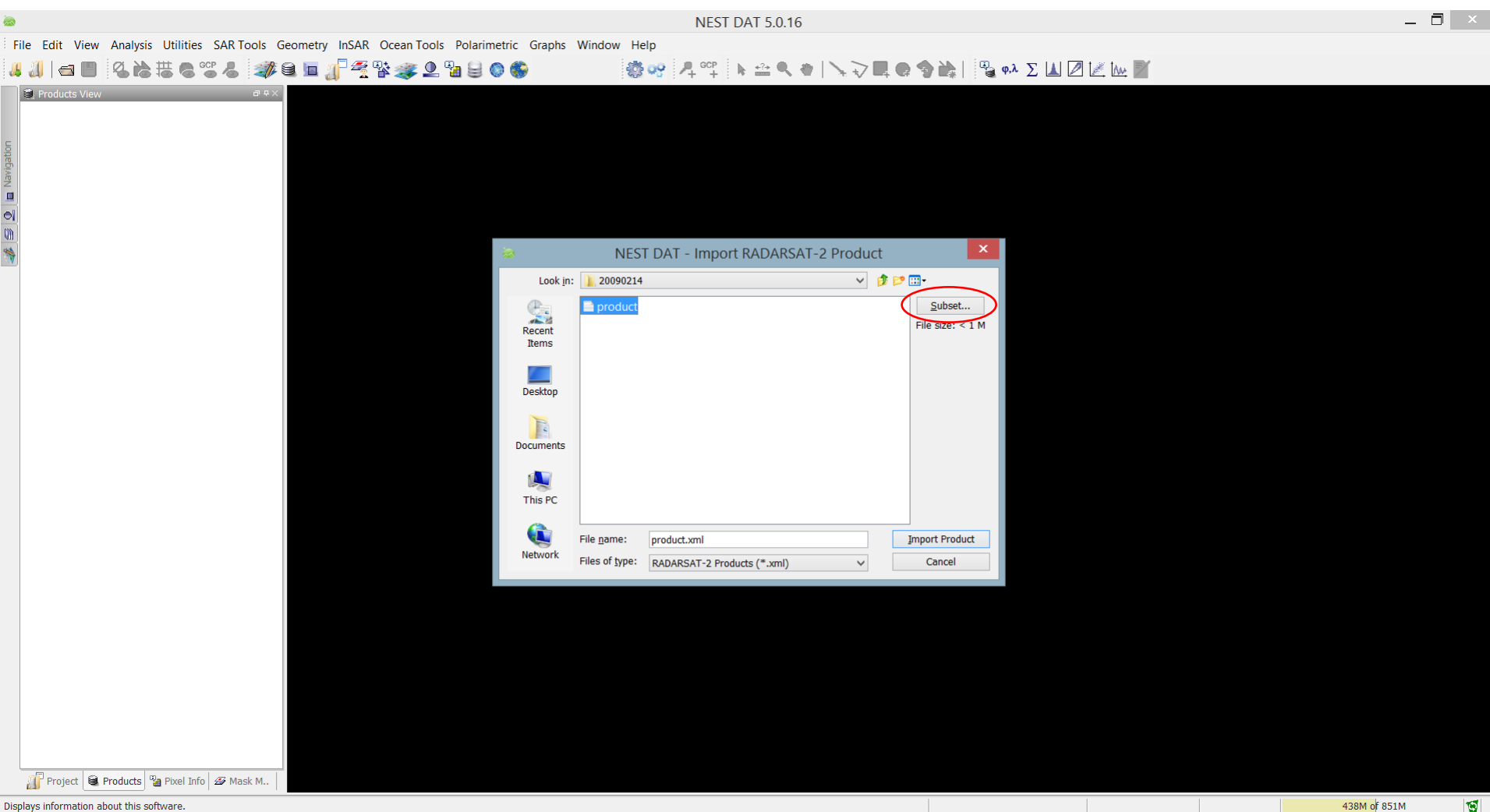


1.1. Reading R-2 data set

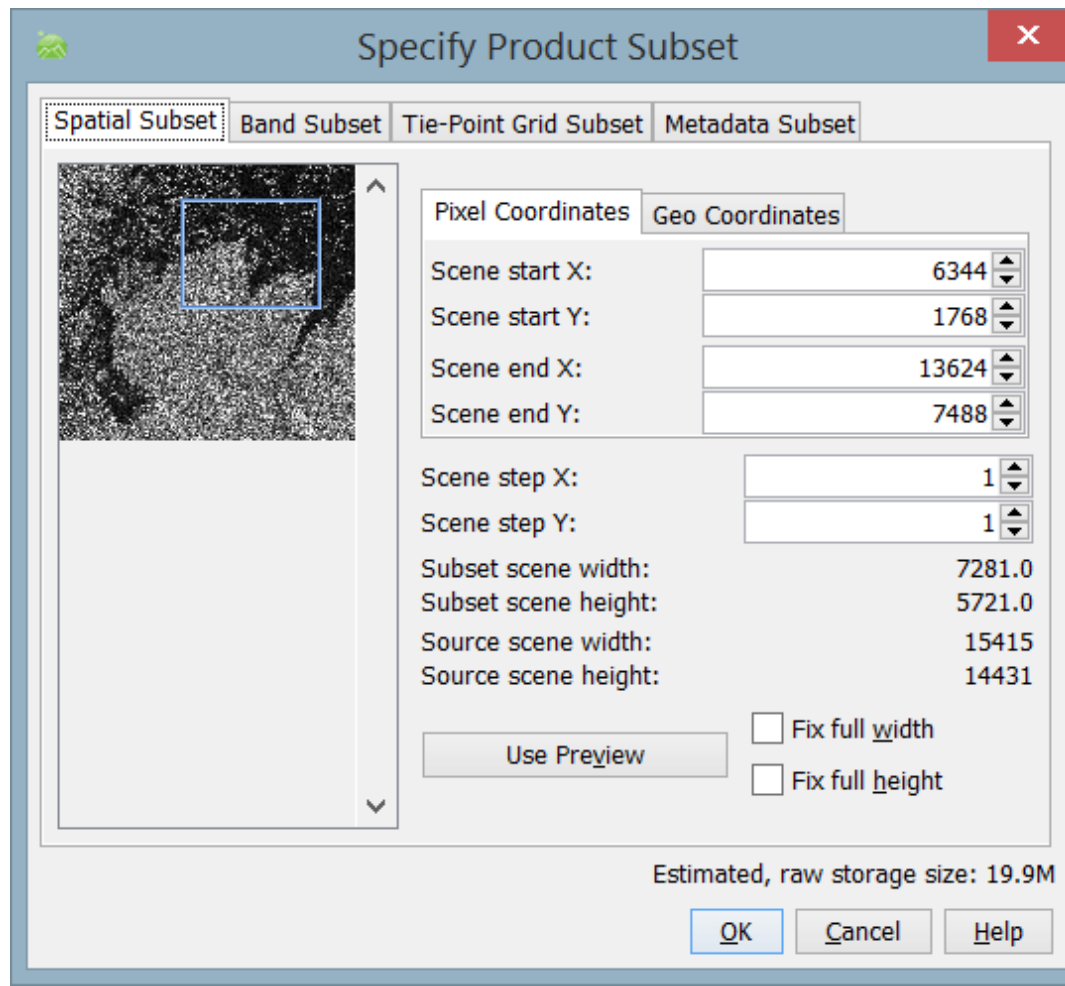


1.2. Reading R-2 data set - cont

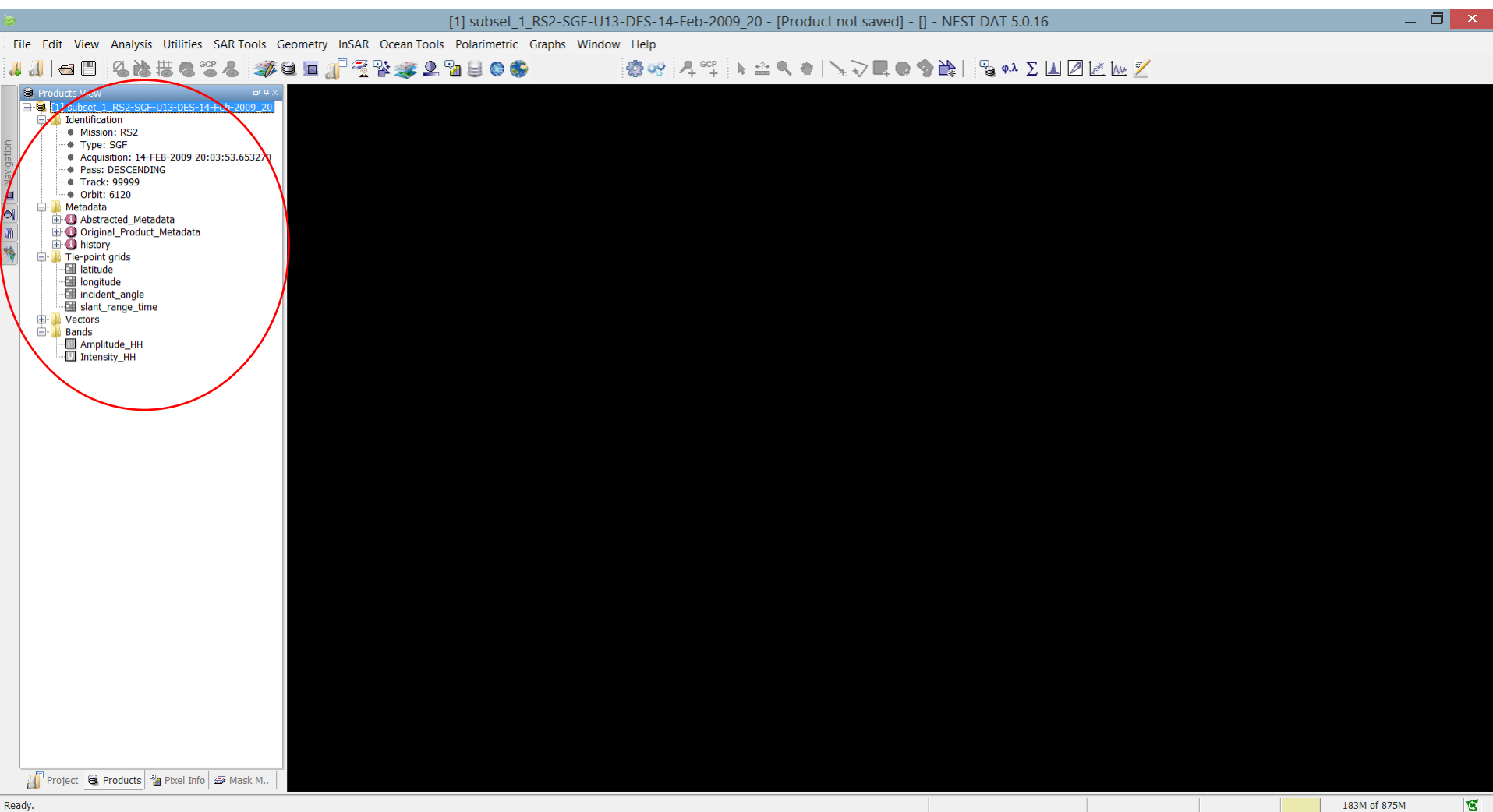


1.3. Reading R-2 data set - cont

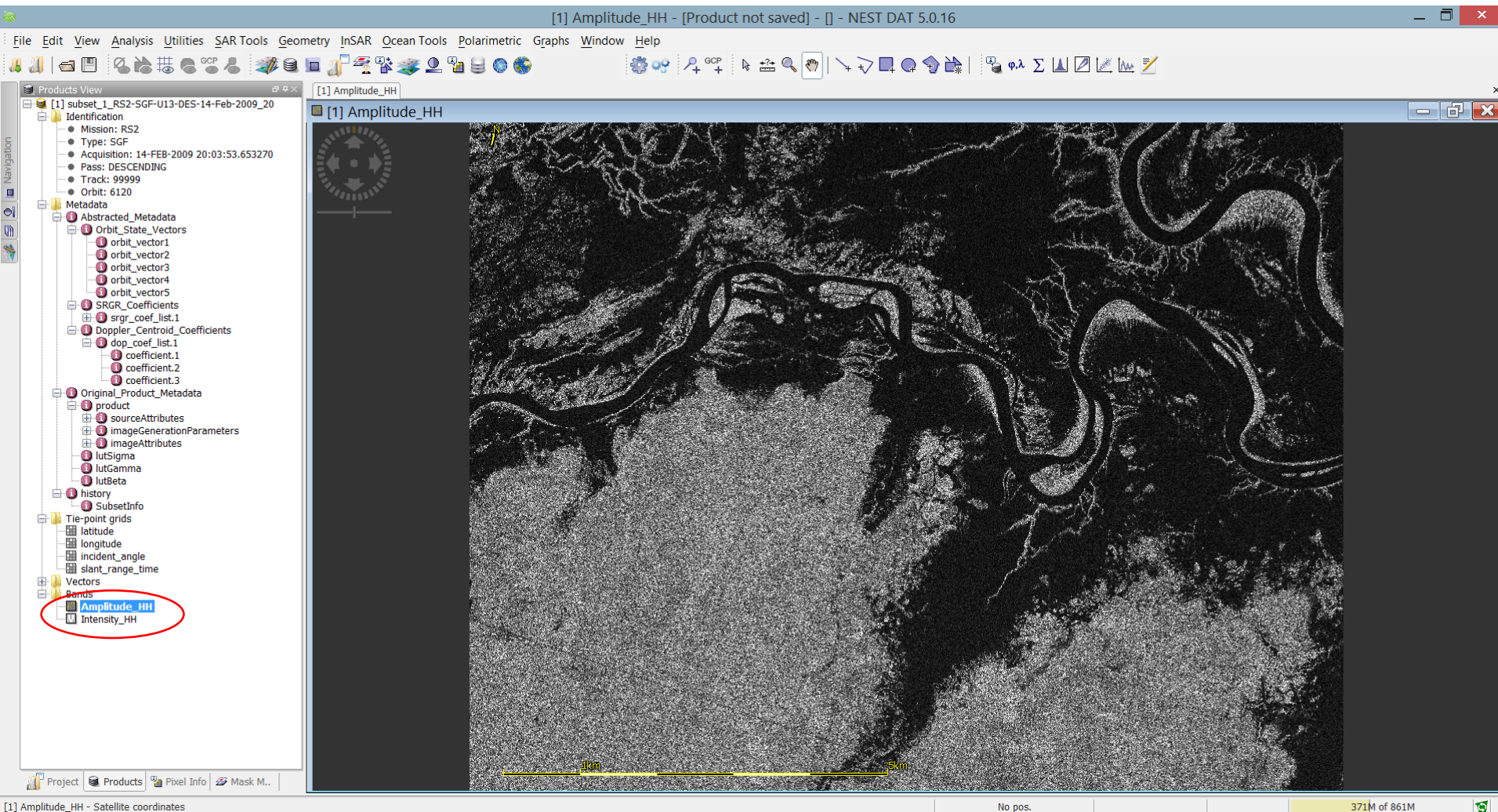
- Subset – specify the region of interest



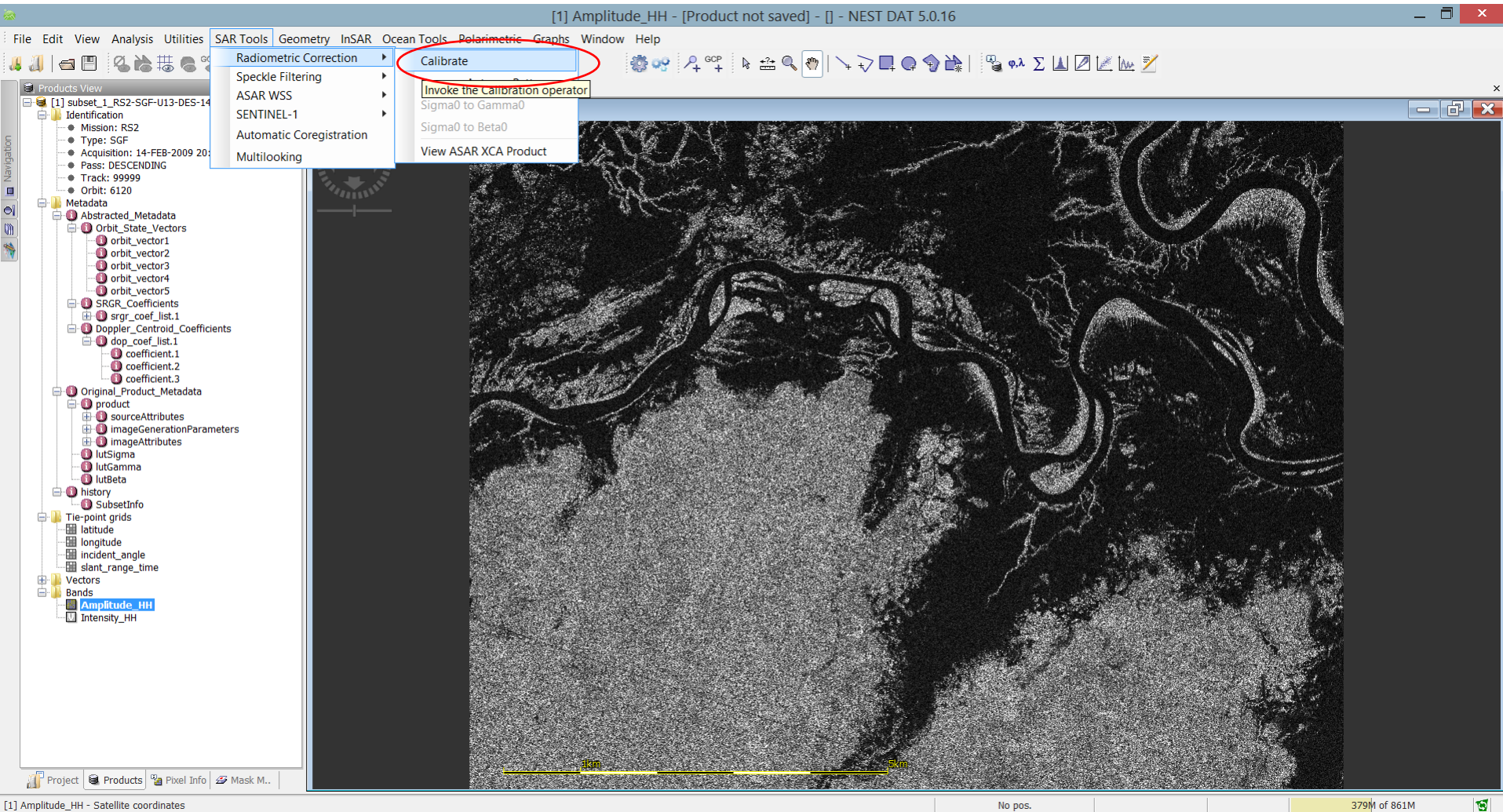
1.4. Product view



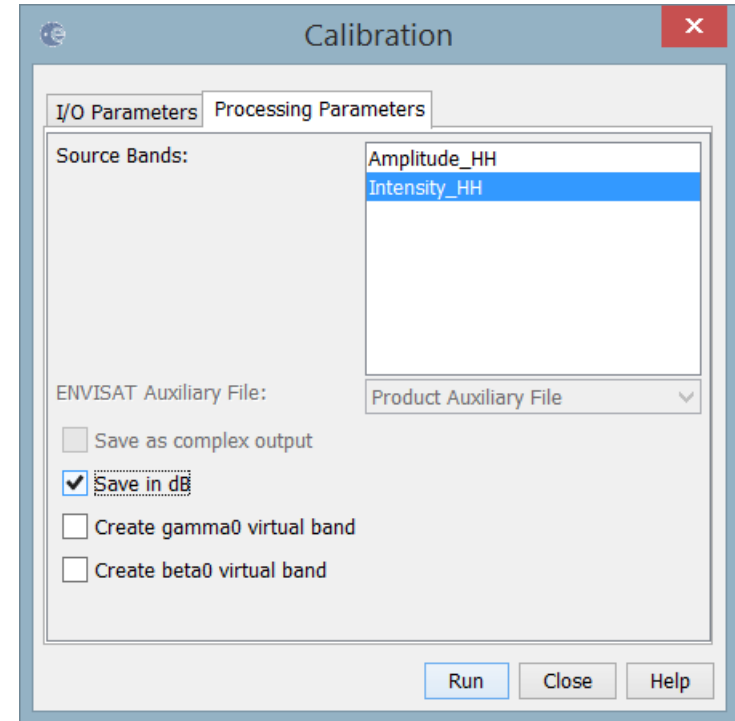
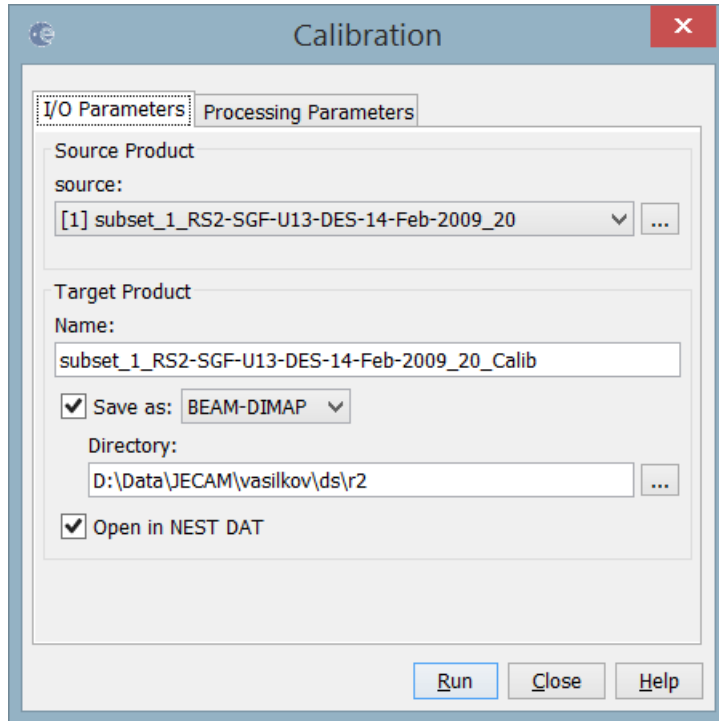
1.5. Viewing the image



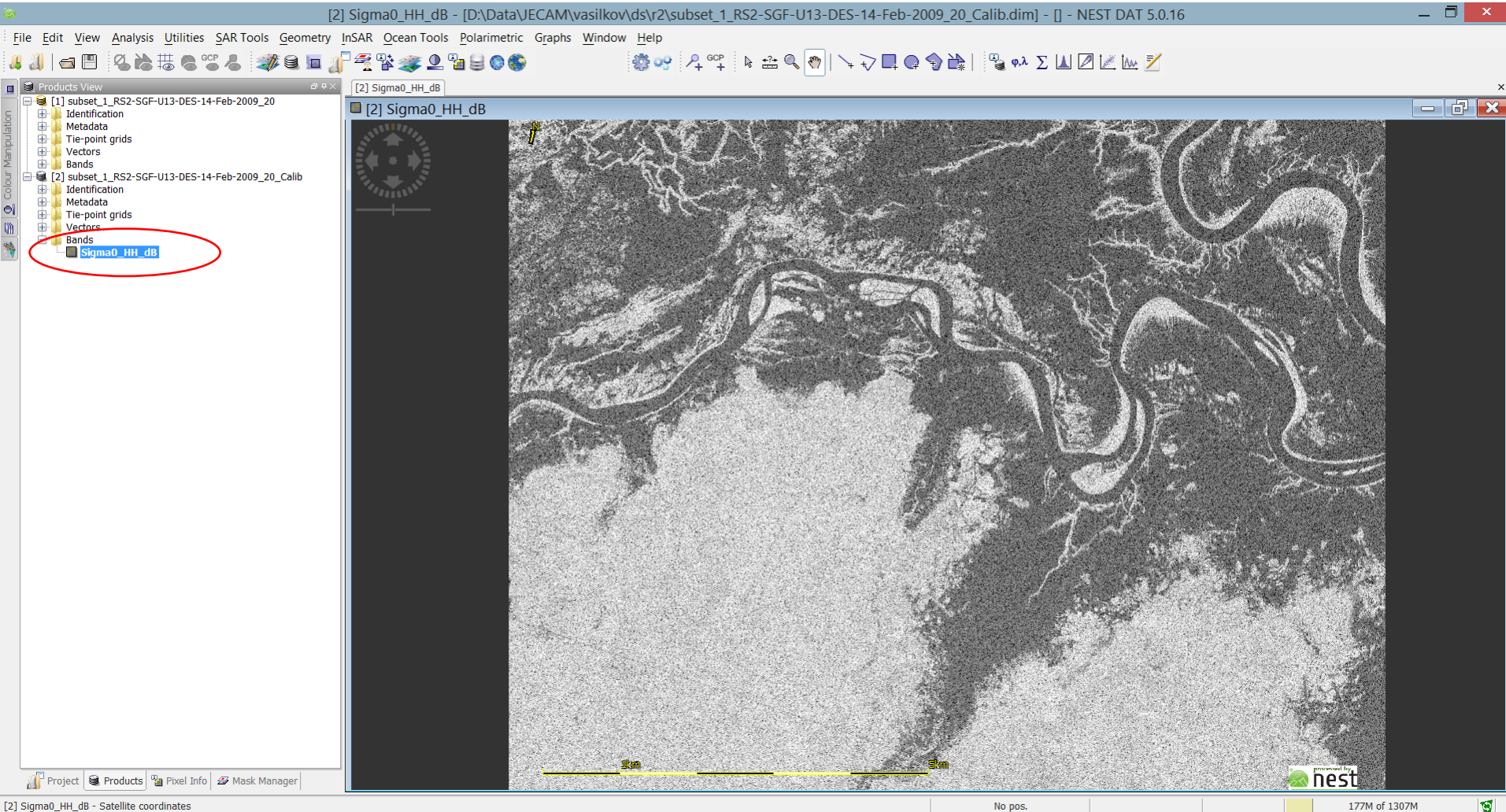
2.1. Calibration



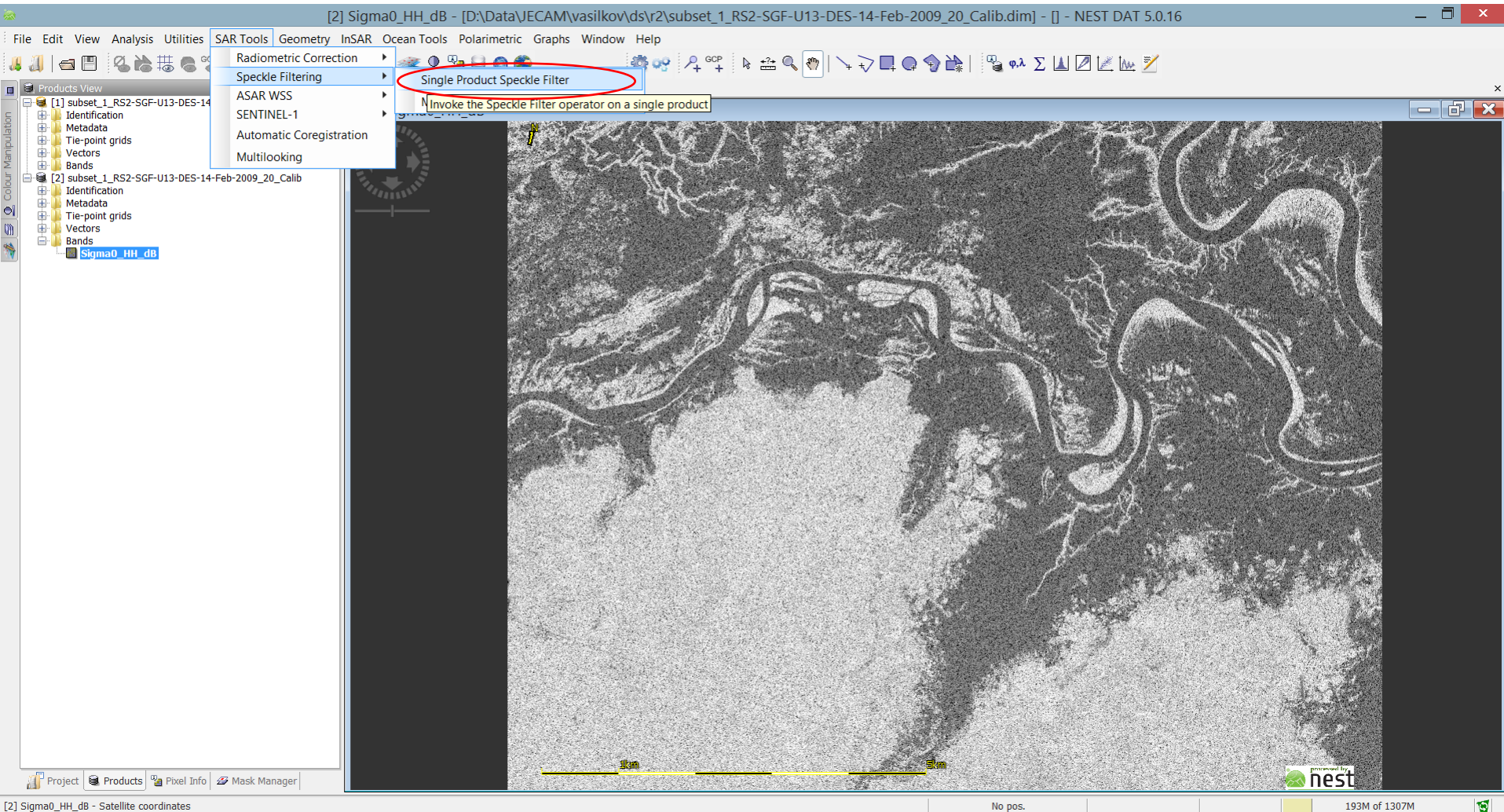
2.2. Calibration



2.2. Calibrated product, backscatter coefficient



2.3. Speckle filtering



2.4. Filter parameters

Speckle filtering

I/O Parameters Processing Parameters

Source Product

source:

[2] subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib

Target Product

Name:

subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk

☒ Save as: BEAM-DIMAP

Directory:

D:\Data\JECAM\vasilkov\ds\r2

☒ Open in NEST DAT

Run Close Help

Speckle filtering

I/O Parameters Processing Parameters

Source Bands:

Sigma0_HH_dB

Filter:

Lee

Filter Size X:

7

Filter Size Y:

7

Estimate Equivalent Number of Looks

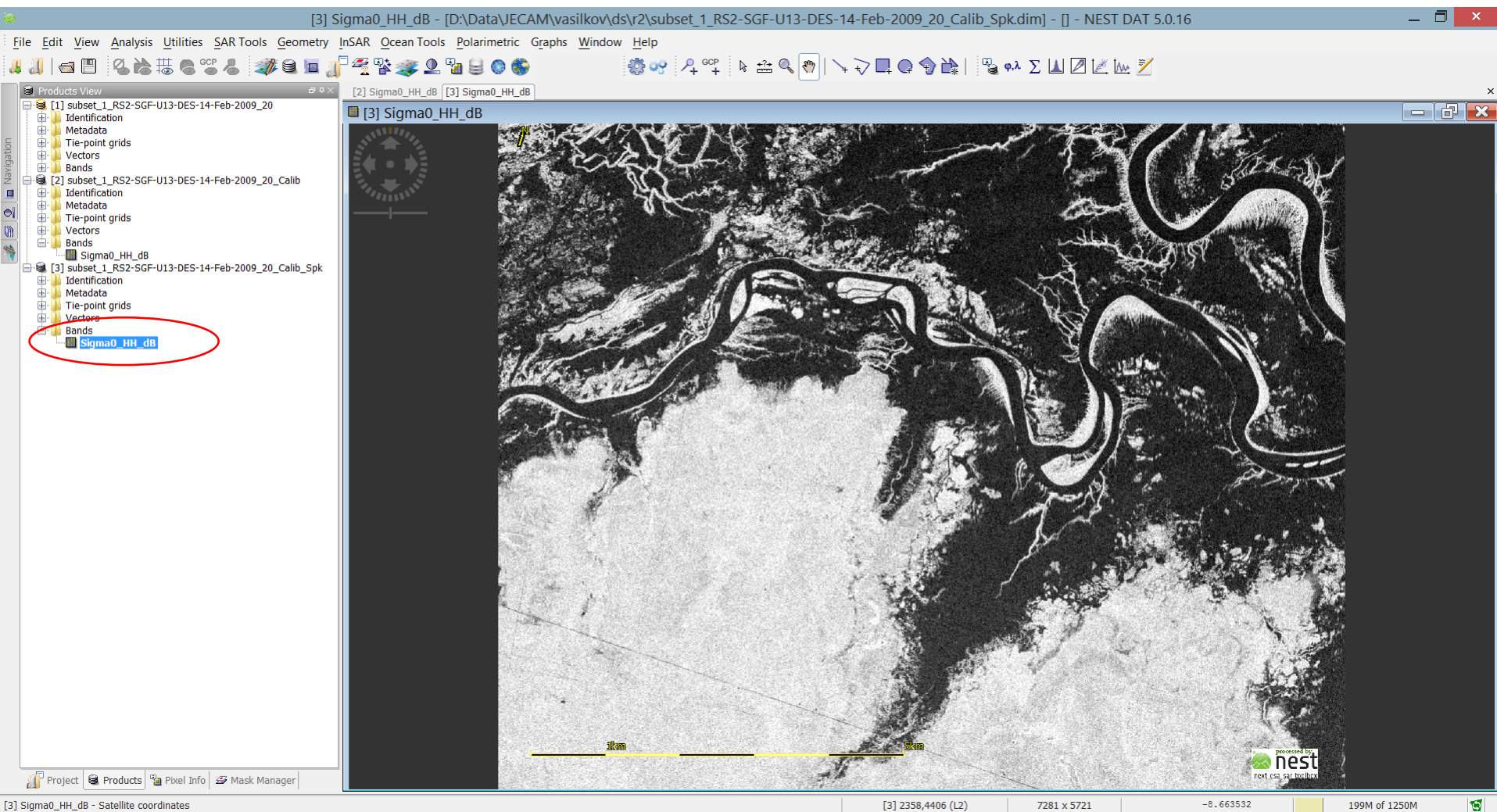
☒

Number of Looks:

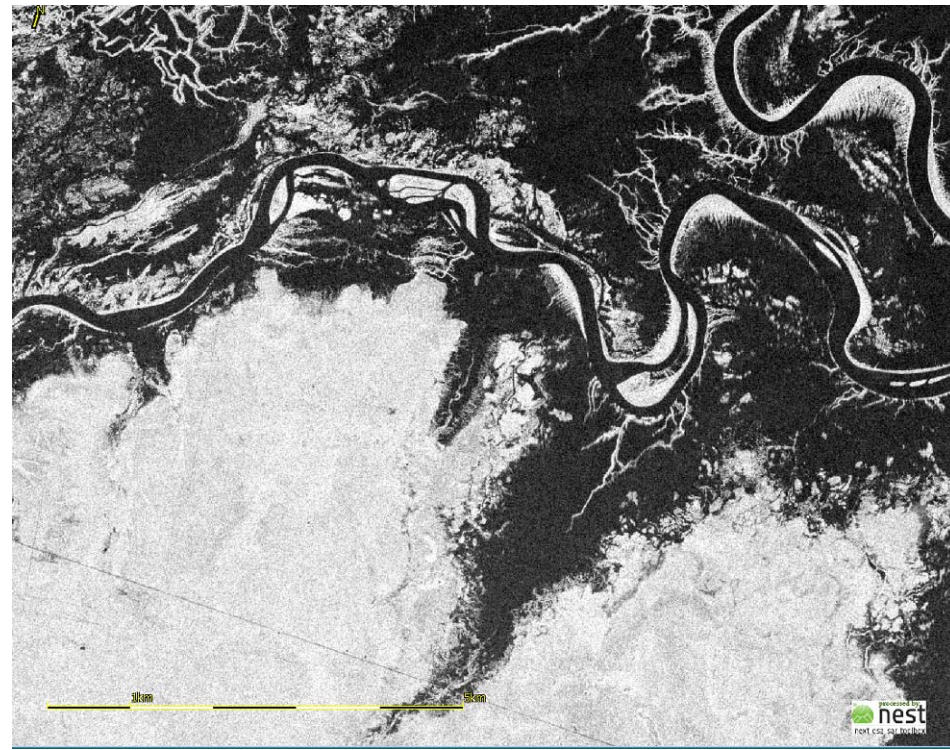
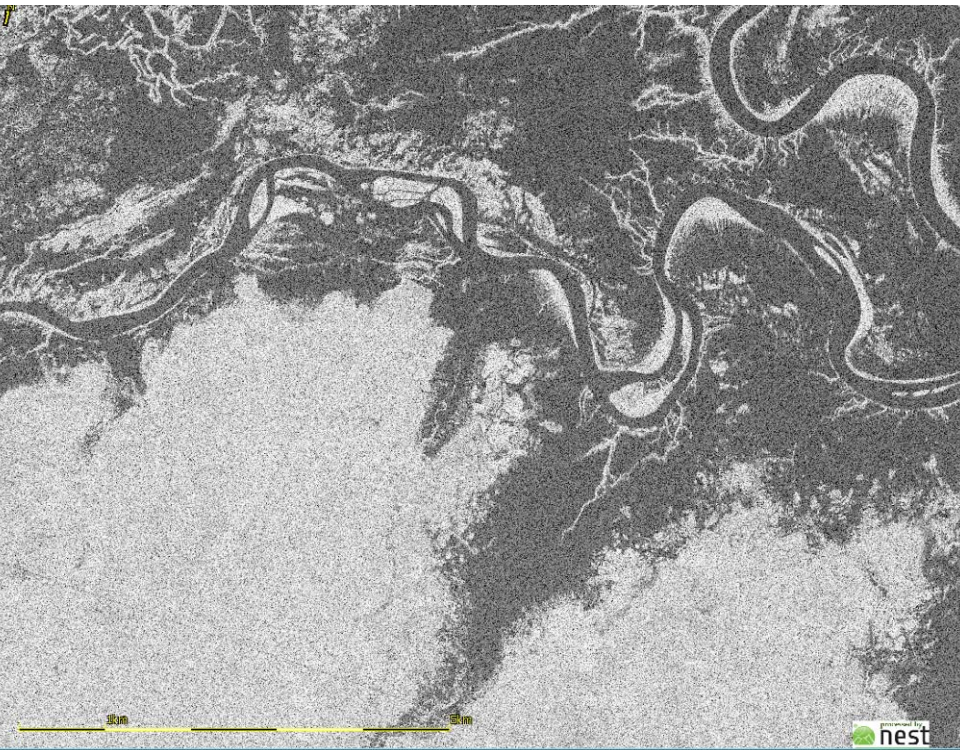
1.0

Run Close Help

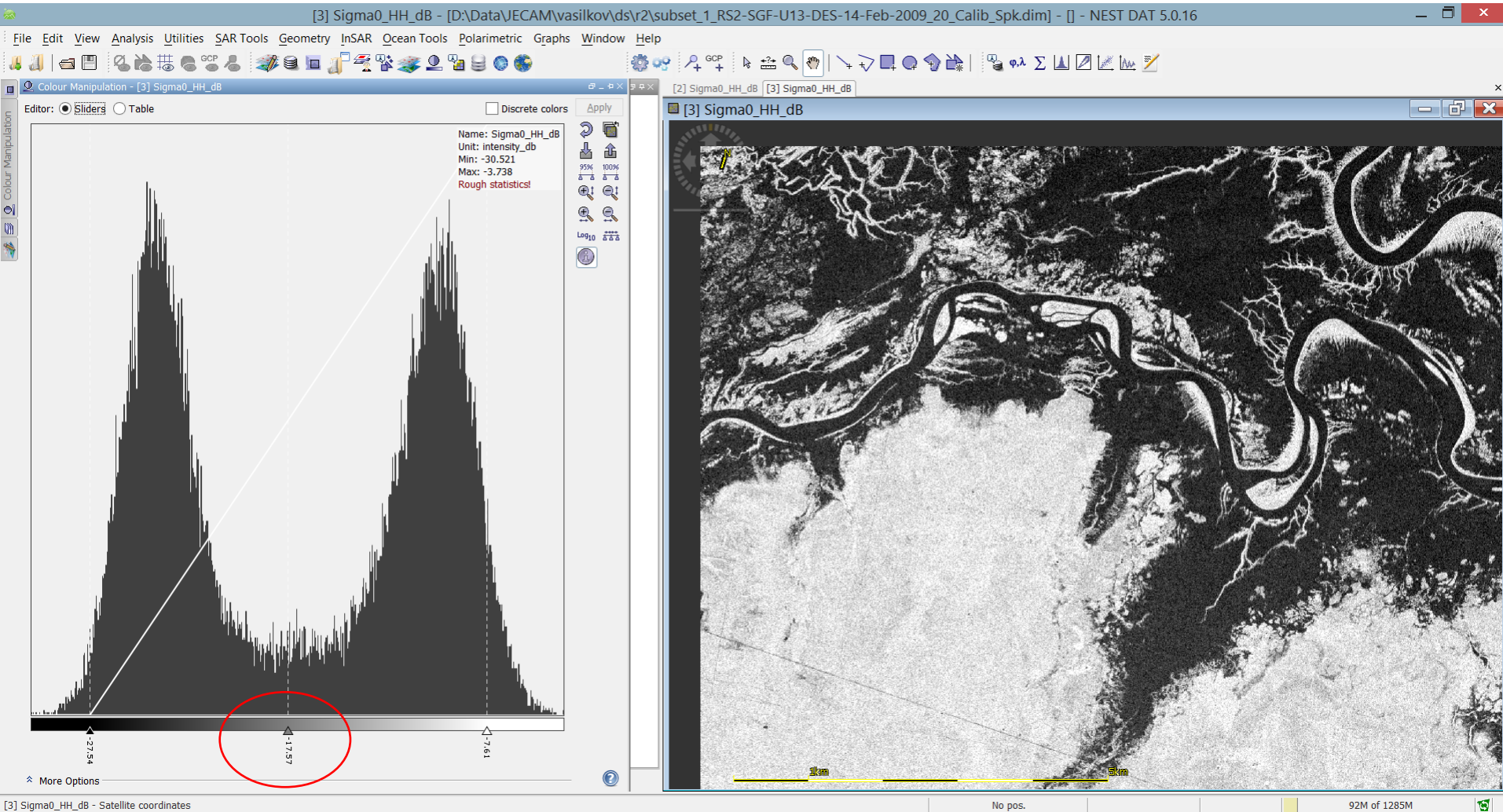
2.5. Filtered product



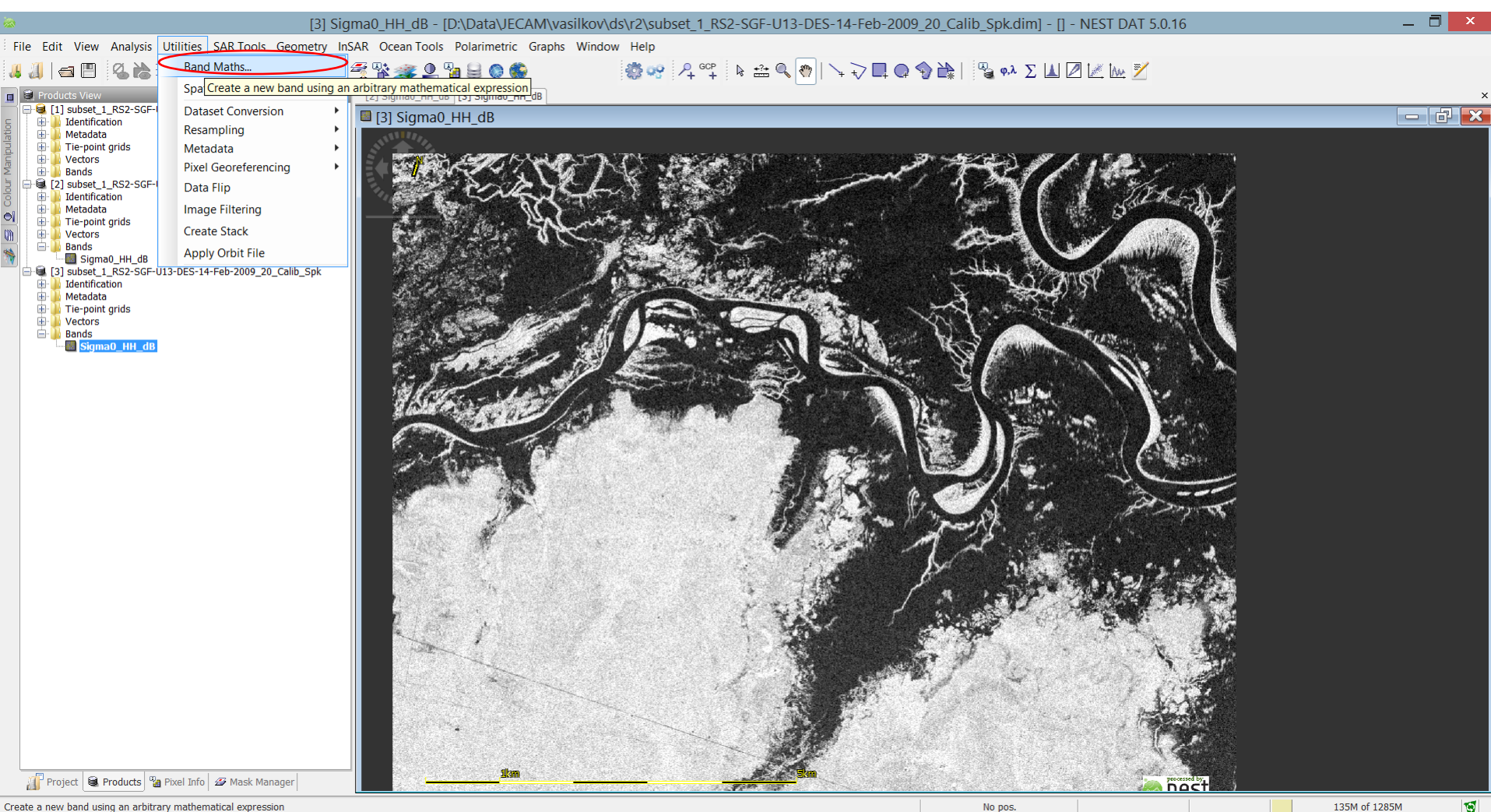
2.6. Comparison of filtered and non-filtered images



3.1. Threshold segmentation. Histogram



3.2. Threshold segmentation. Band arithmetic



3.3. Threshold segmentation. Band arithmetic

Band Maths

Target product:
[3] subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk

Name: water

Description:

Unit:

Spectral wavelength: 0.0

☐ Virtual (save expression only, don't write data)

☒ Replace NaN and infinity results by NaN

Band maths expression:

Edit Expression...

OK Cancel Help

Band Maths Expression Editor

Product: [3] subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk

Data sources:
Sigma0_HH_dB

Expression:
255*(Sigma0_HH_dB<-17.5)

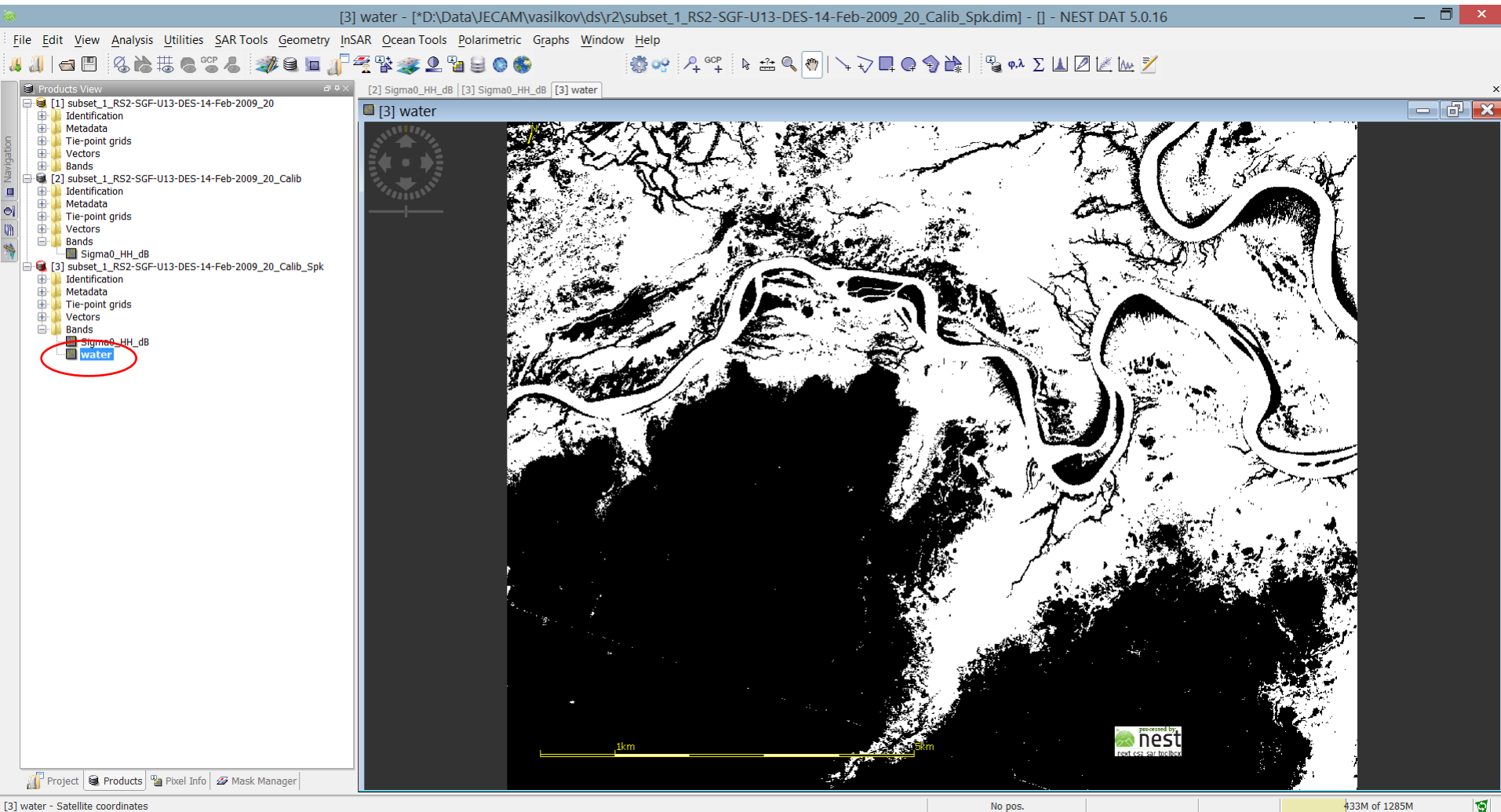
Operators:
@ + @
@ - @
@ * @
@ / @
(@)
Constants...
Operators...
Functions...

☒ Show bands
☐ Show masks
☐ Show tie-point grids
☐ Show single flags

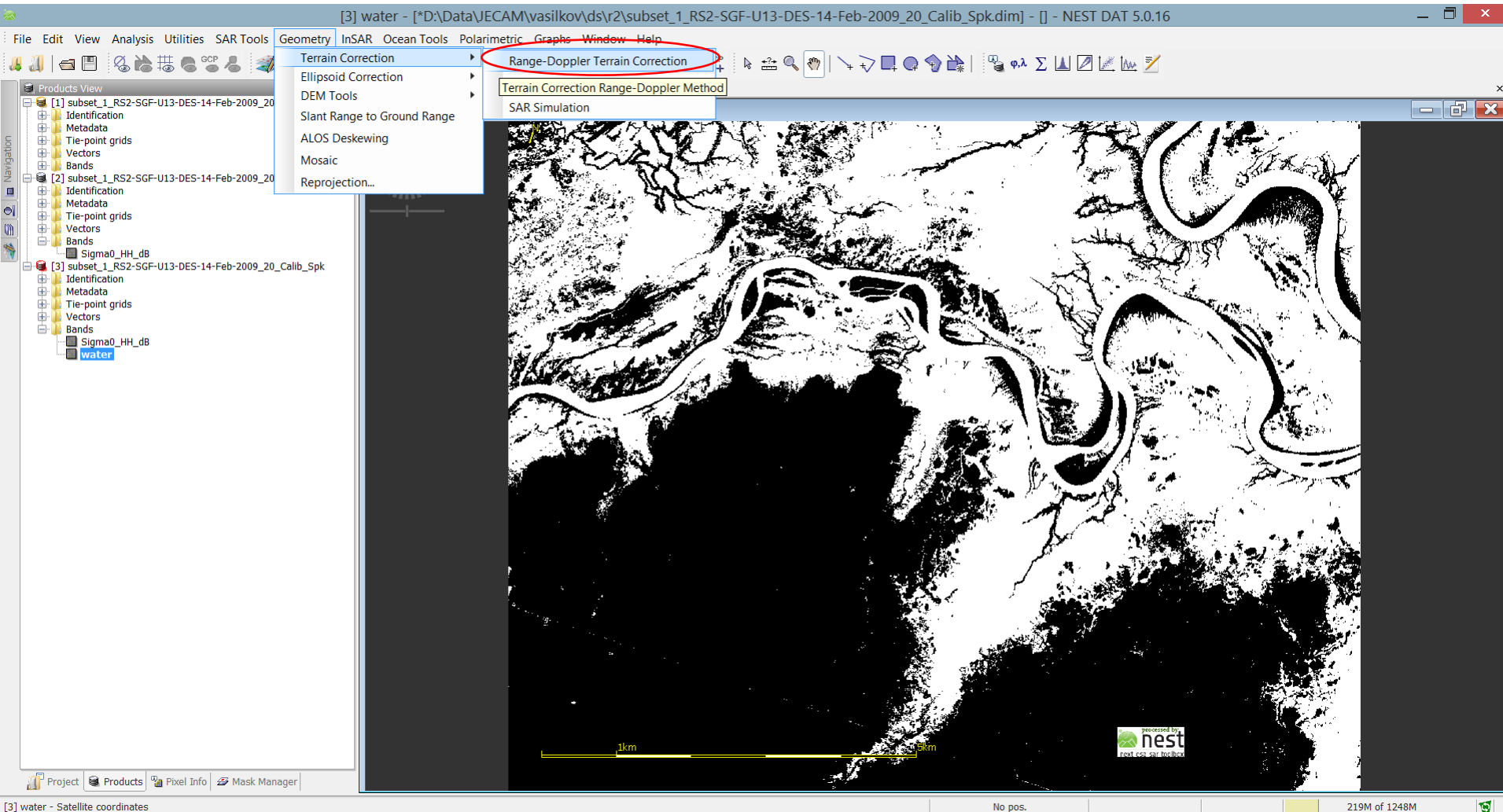
Ok, no errors.

OK Cancel Help

3.4. Threshold segmentation. Band arithmetic



4.1. Geometric correction



4.2. Geometric correction parameters

Range Doppler Terrain Correction

I/O Parameters Processing Parameters

Source Product

source:

[3] subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk

Target Product

Name:

subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk_TC

☒ Save as: BEAM-DIMAP

Directory:

D:\Data\JECAM\vasilkov\ds\r2

☒ Open in NEST DAT

Run Close Help

Range Doppler Terrain Correction

I/O Parameters Processing Parameters

Source Bands:

Sigma0_HH_dB
water

Digital Elevation Model:

SRTM 3Sec (Auto Download)

DEM Resampling Method:

BILINEAR_INTERPOLATION

Image Resampling Method:

NEAREST_NEIGHBOUR

Source GR Pixel Spacings (az x rg):

1.56(m) x 1.56(m)

Pixel Spacing (m):

2.989941568005758

Pixel Spacing (deg):

2.694945852358564E-5

Map Projection:

UTM Zone 54, South / World Geodetic System 1984

☒ Mask out areas without elevation

☒ Save selected source band

☐ Save local incidence angle band

☐ Apply radiometric normalization

☐ Save Sigma0 band

☐ Save Gamma0 band

☐ Save Beta0 band

☐ Save DEM band

☐ Save projected local incidence angle band

Use projected local incidence angle from DEM

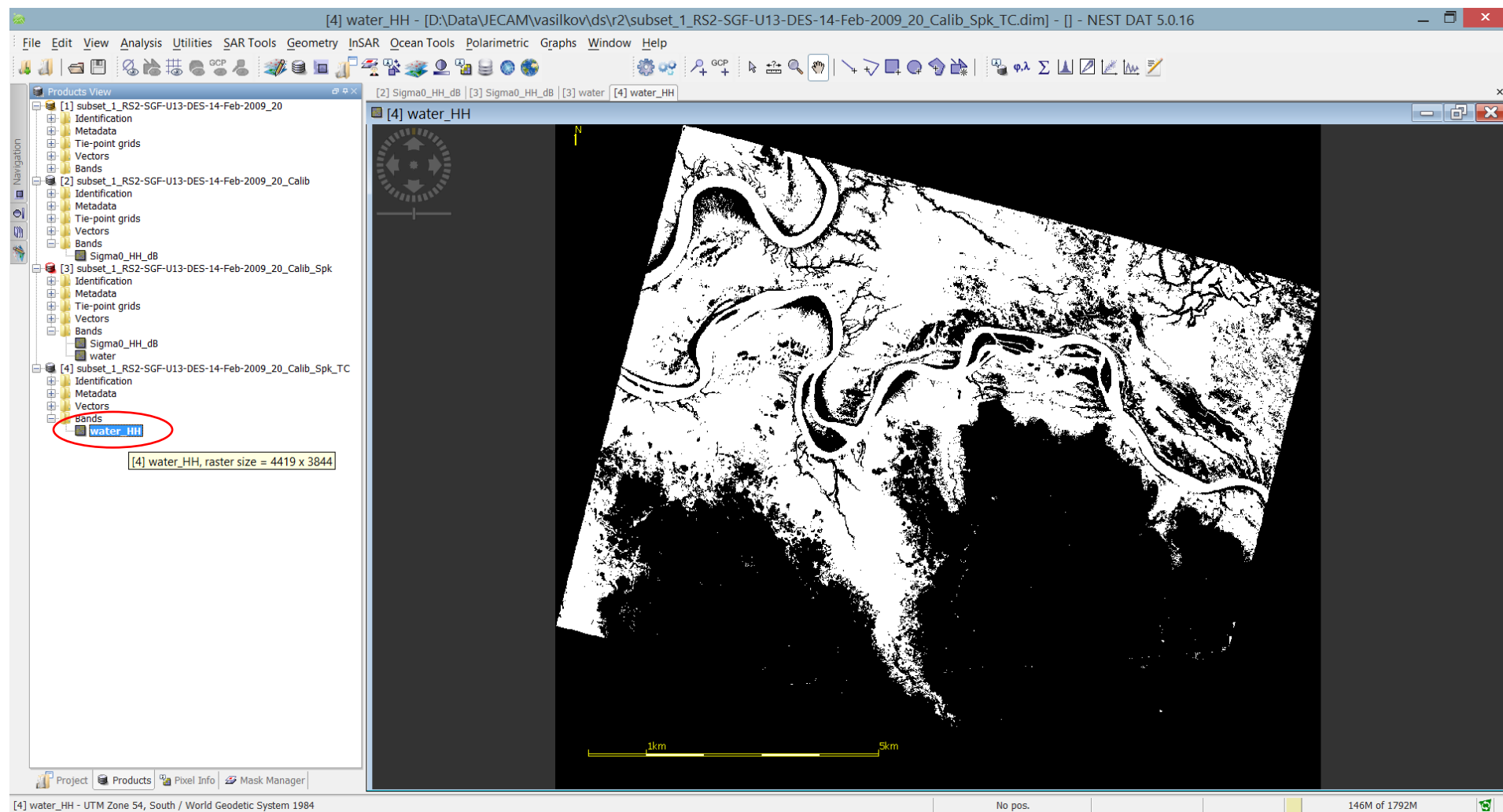
Use projected local incidence angle from DEM

Auxiliary File (ASAR only):

Latest Auxiliary File

Run Close Help

4.3. Results of geometric correction



5.1. Map creation – Data structure

The screenshot displays a multi-pane file explorer window. The top pane shows the directory structure: 'D:\Data\JECAM\vasilkou\ds\r2'. The middle pane shows a list of files and folders. The bottom pane shows a detailed view of the selected file, 'subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk_TC.data', including its size (2,035,677 bytes) and the number of files (4 files).

Name	Size	Up
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20.data		Folder
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib.data		Folder
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk.data		Folder
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk_TC.data		Folder
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20.dim	883893	
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib.dim	377724	
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk.dim	386936	
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk_TC.dim	387124	

Folder 11/22/13 18:23

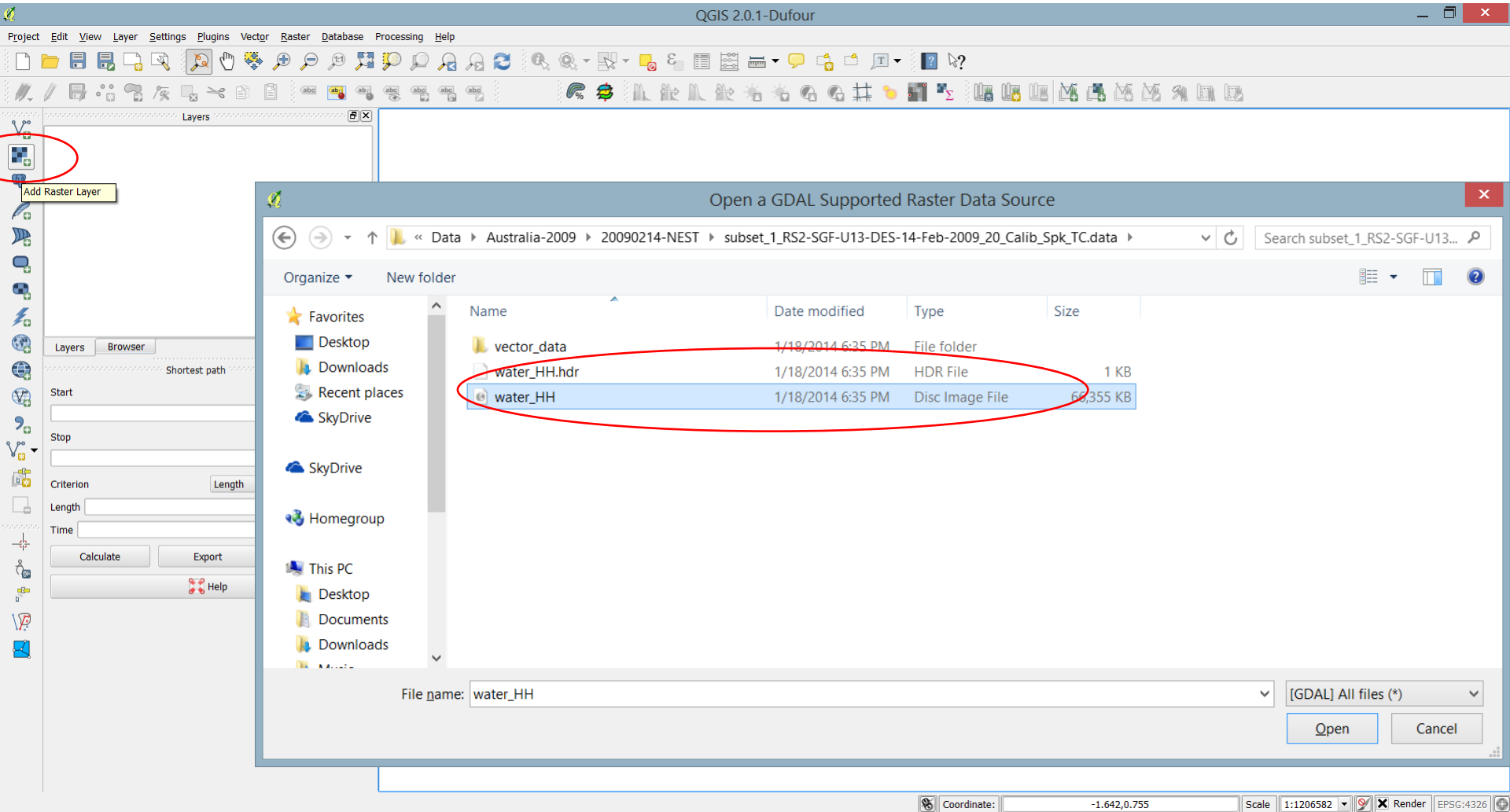
subset_1_RS2-SGF-U13-DES-14-Feb-2009_20_Calib_Spk_TC.data

Folder 01/18/14 18:35

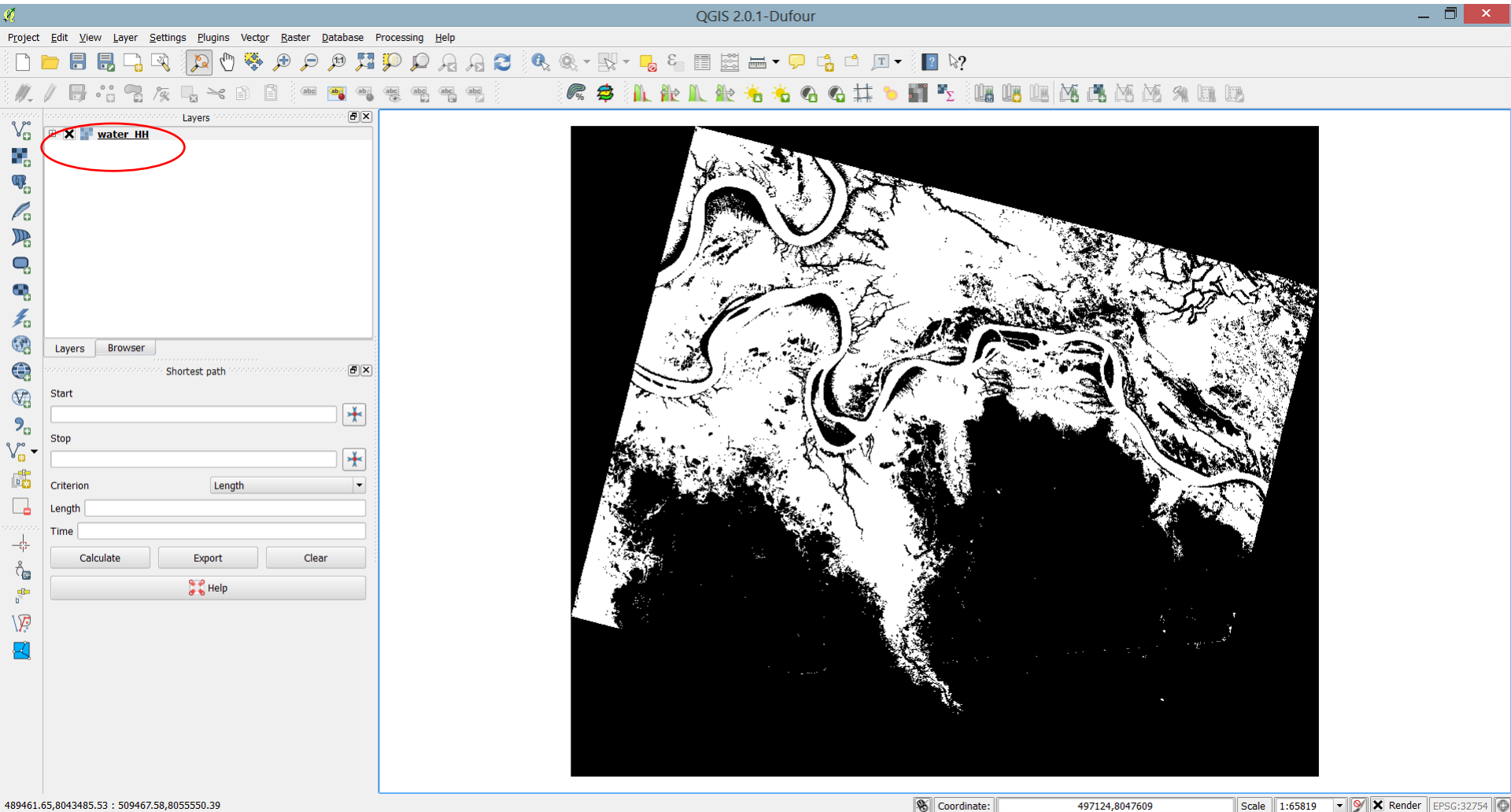
2,035,677 bytes in 4 files

1Left 2Right 3View... 4Edit... 5Print 6MkLink 7Find 8History 9Video 10Tree 11ViewHs 12FoldHs

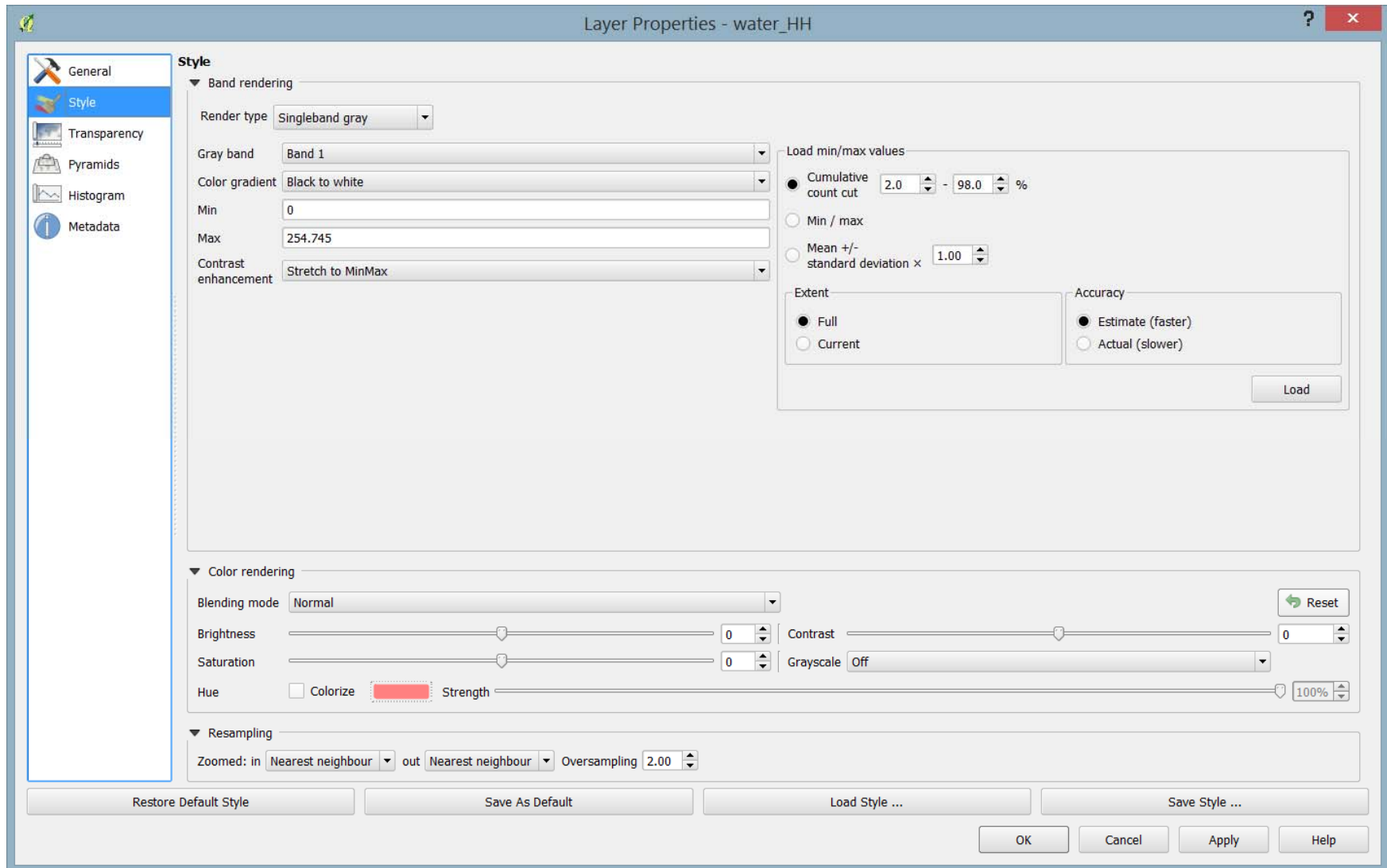
5.2. Opening in QGIS



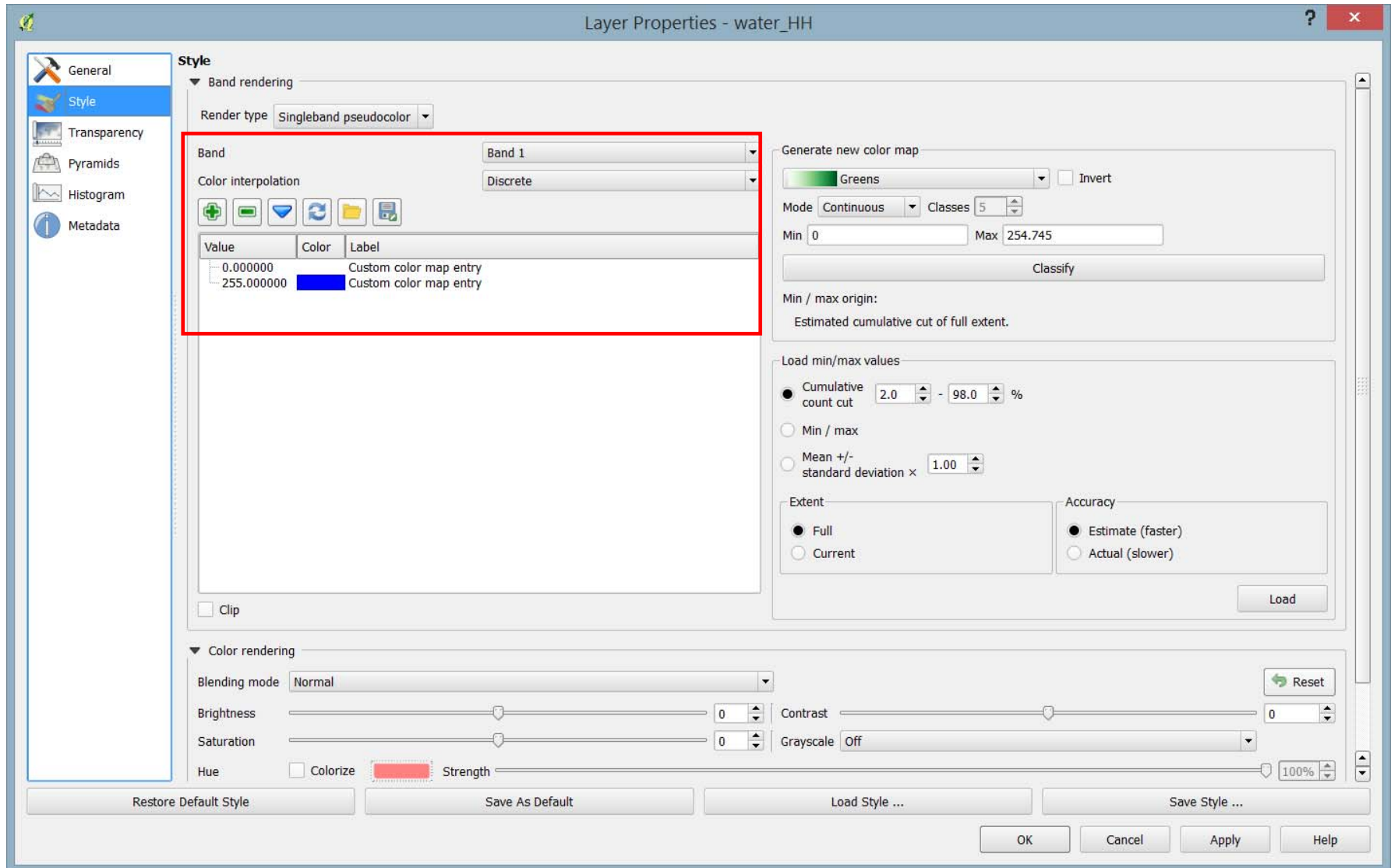
5.3. Opening in QGIS



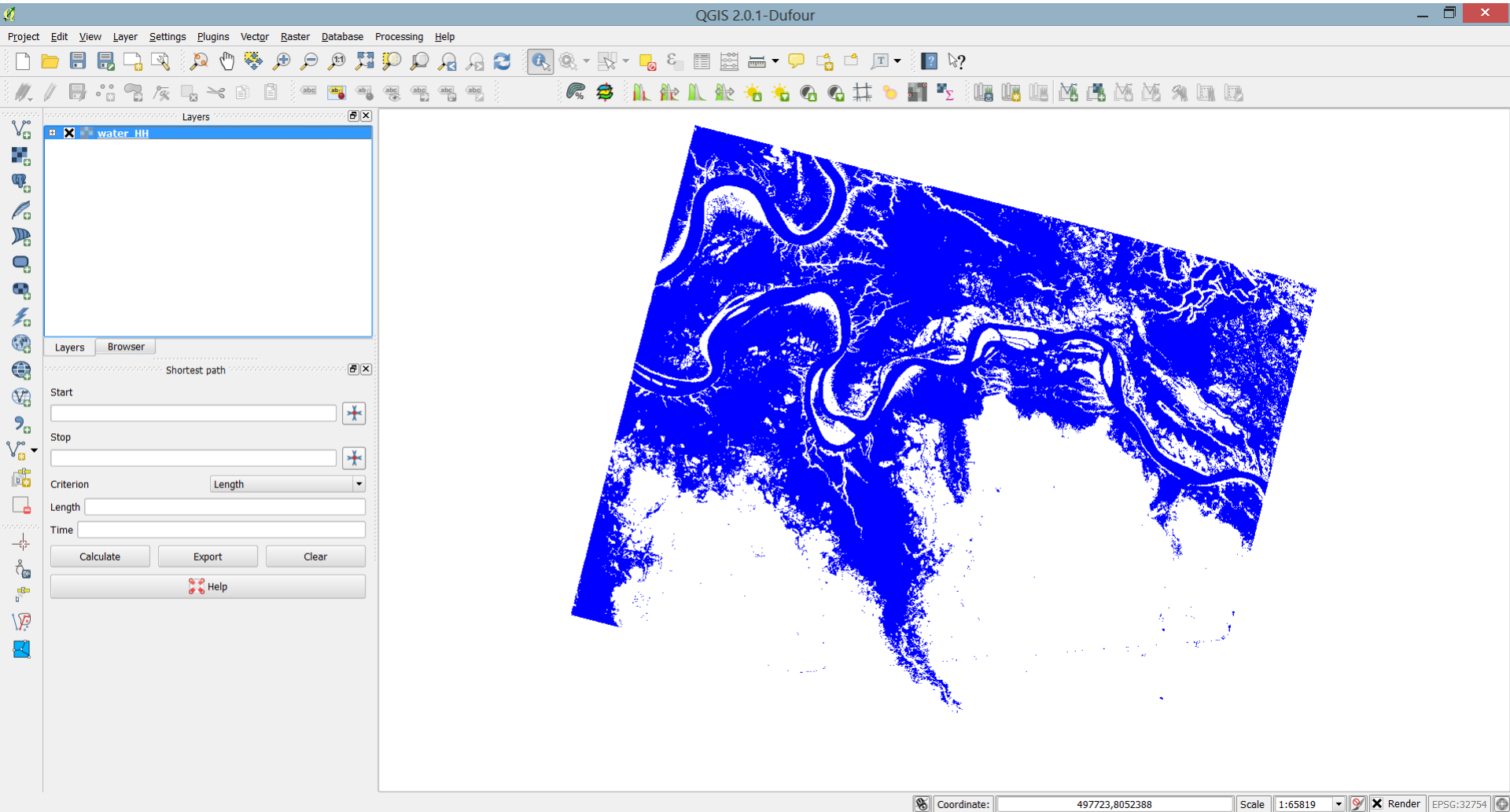
5.4. Setting Layer properties in QGIS



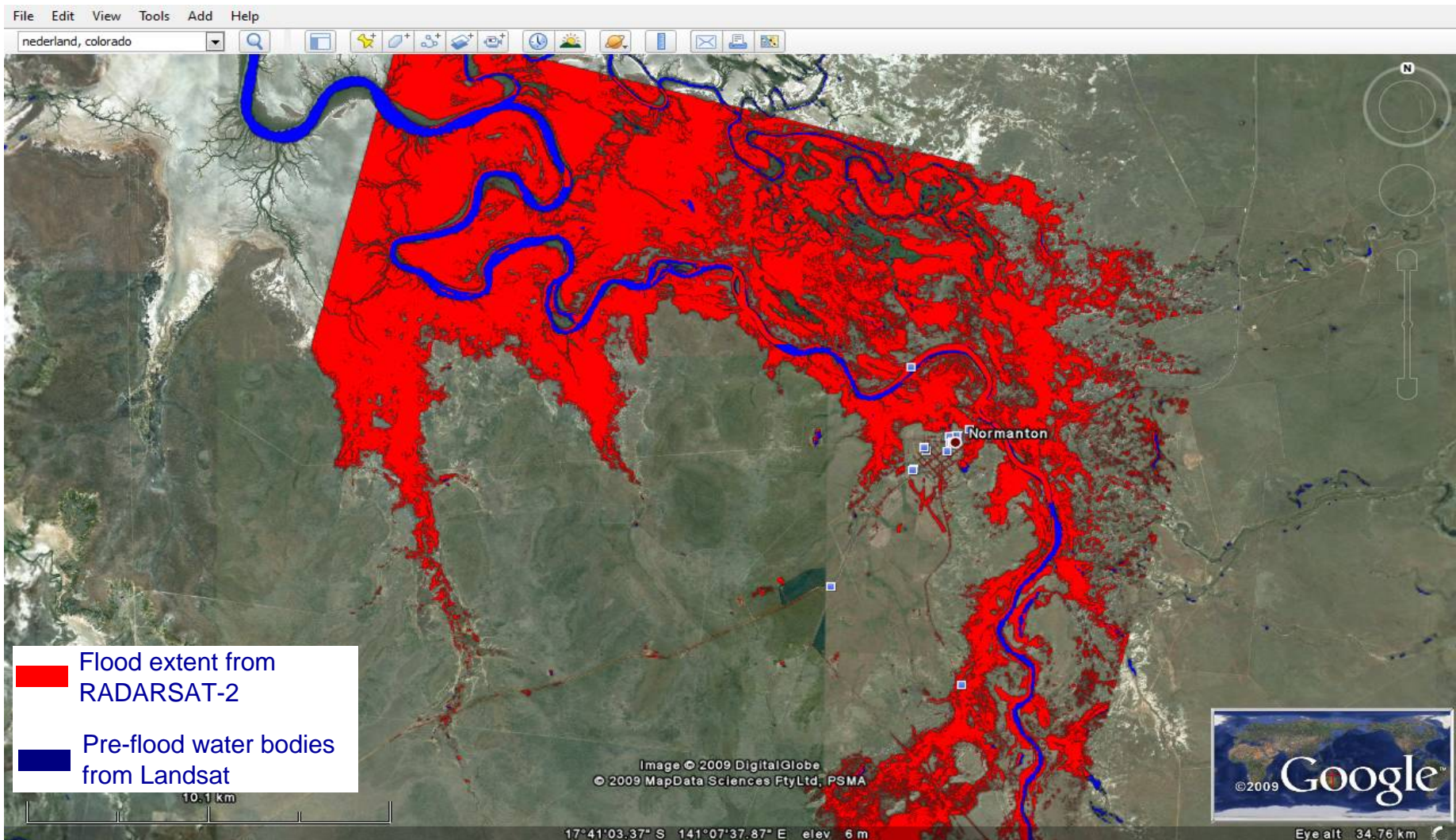
5.5. Setting Layer properties in QGIS



5.6. Map creation



6. Example of the resulting product



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