Sentinel Vision
SED-670
03 June 2020

3D Layerstack

20000 tons fuel leak near Norilsk mines in arctic Russia

Sentinel-2 MSI acquired on **14 May 2020** at 06:16:29 UTC
Sentinel-2 MSI acquired on **18 May 2020** at 05:56:39 UTC
Sentinel-2 MSI acquired on **21 May 2020** at 06:06:29 UTC
Sentinel-2 MSI acquired on **31 May 2020** at 06:06:39 UTC

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Fig. 1 - S2 (21.05.2020) - State of emergency has been declared in Norilsk after 20 000 tons of diesel leaked into Arctic river system. 2D view 3D view

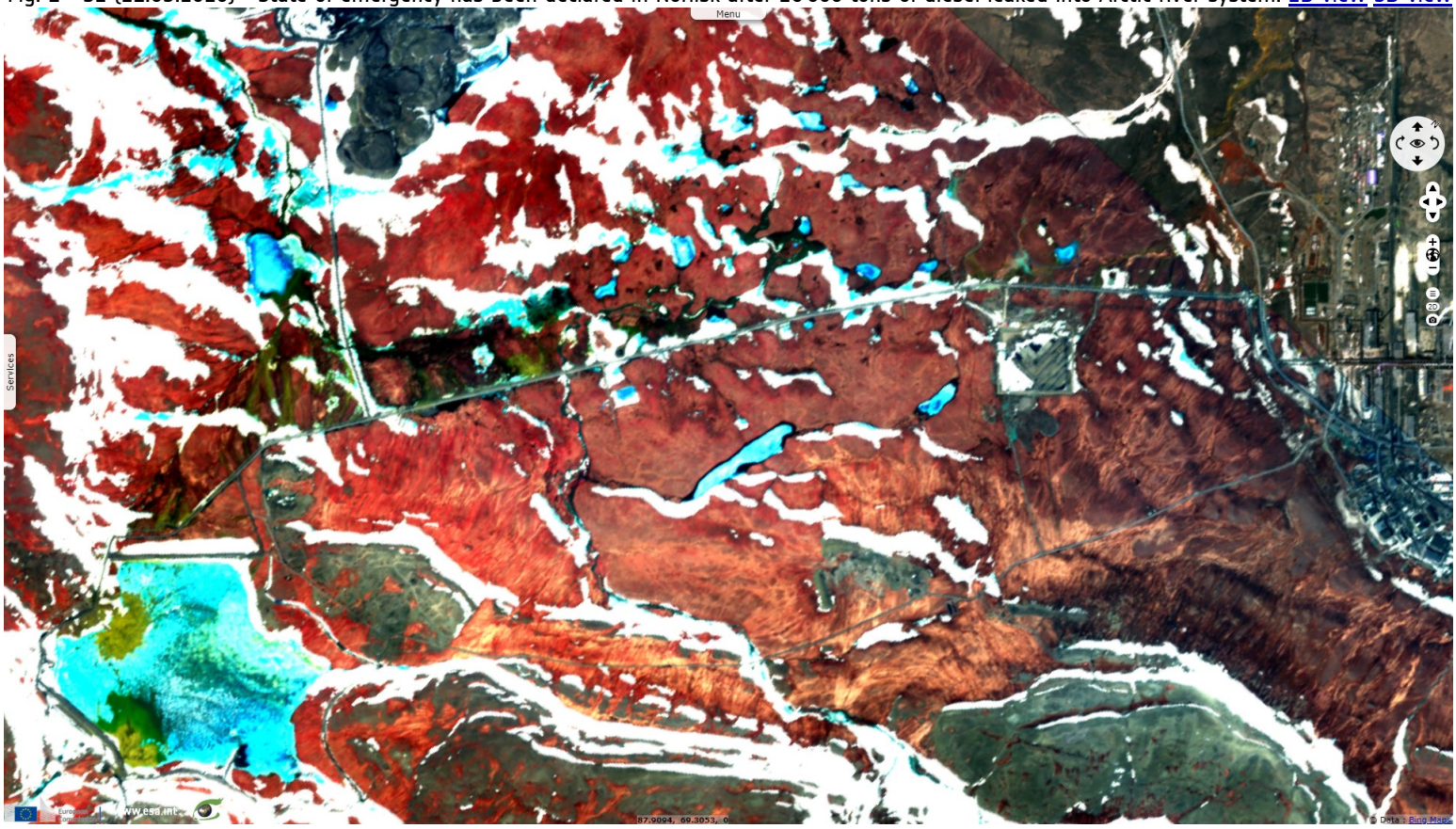


Fig. 2 - S2 (31.05.2020) - A diesel reservoir collapsed at a nickel power station outside the northern Siberian city of Norilsk. 3D view 3D animation

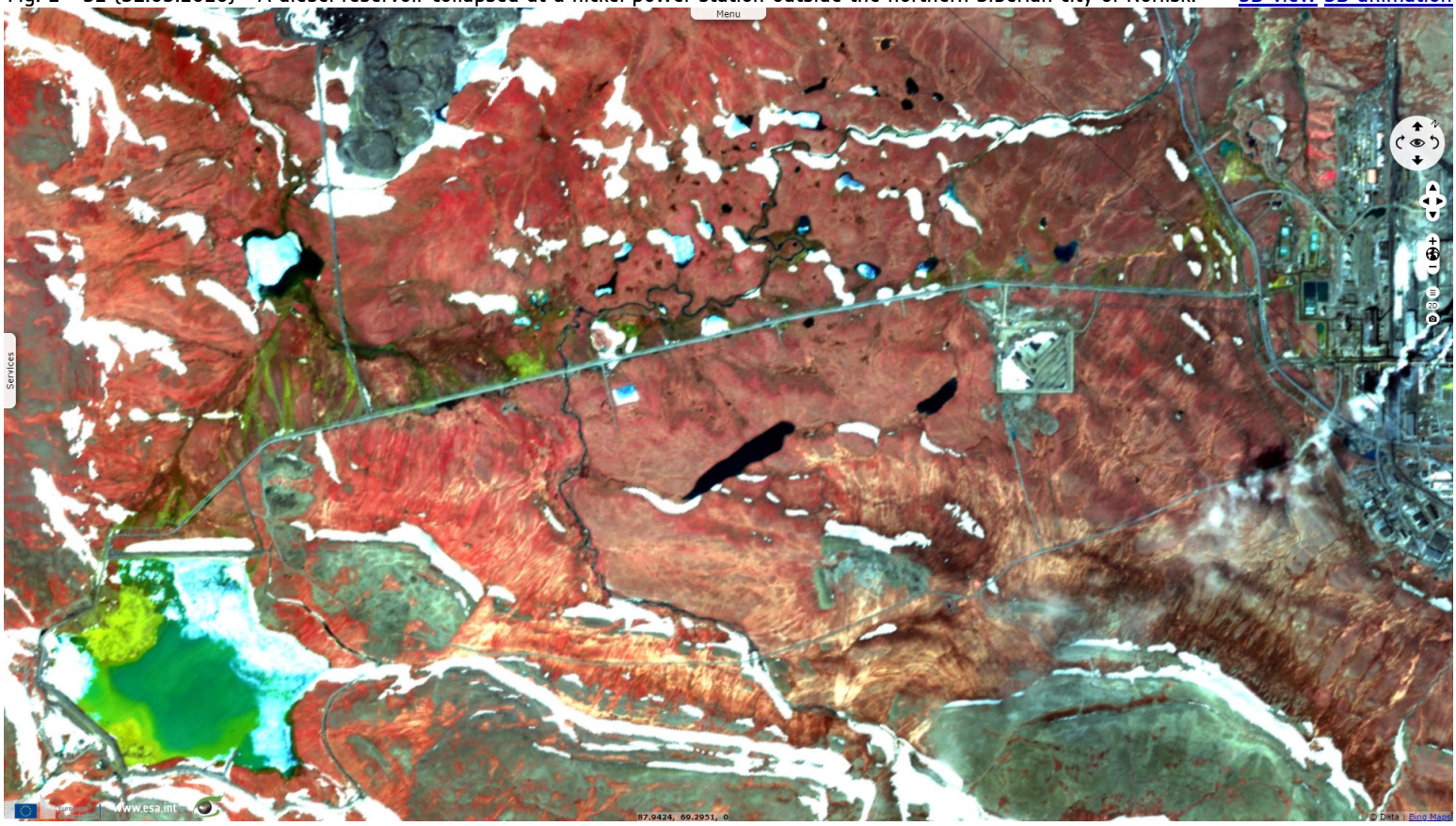
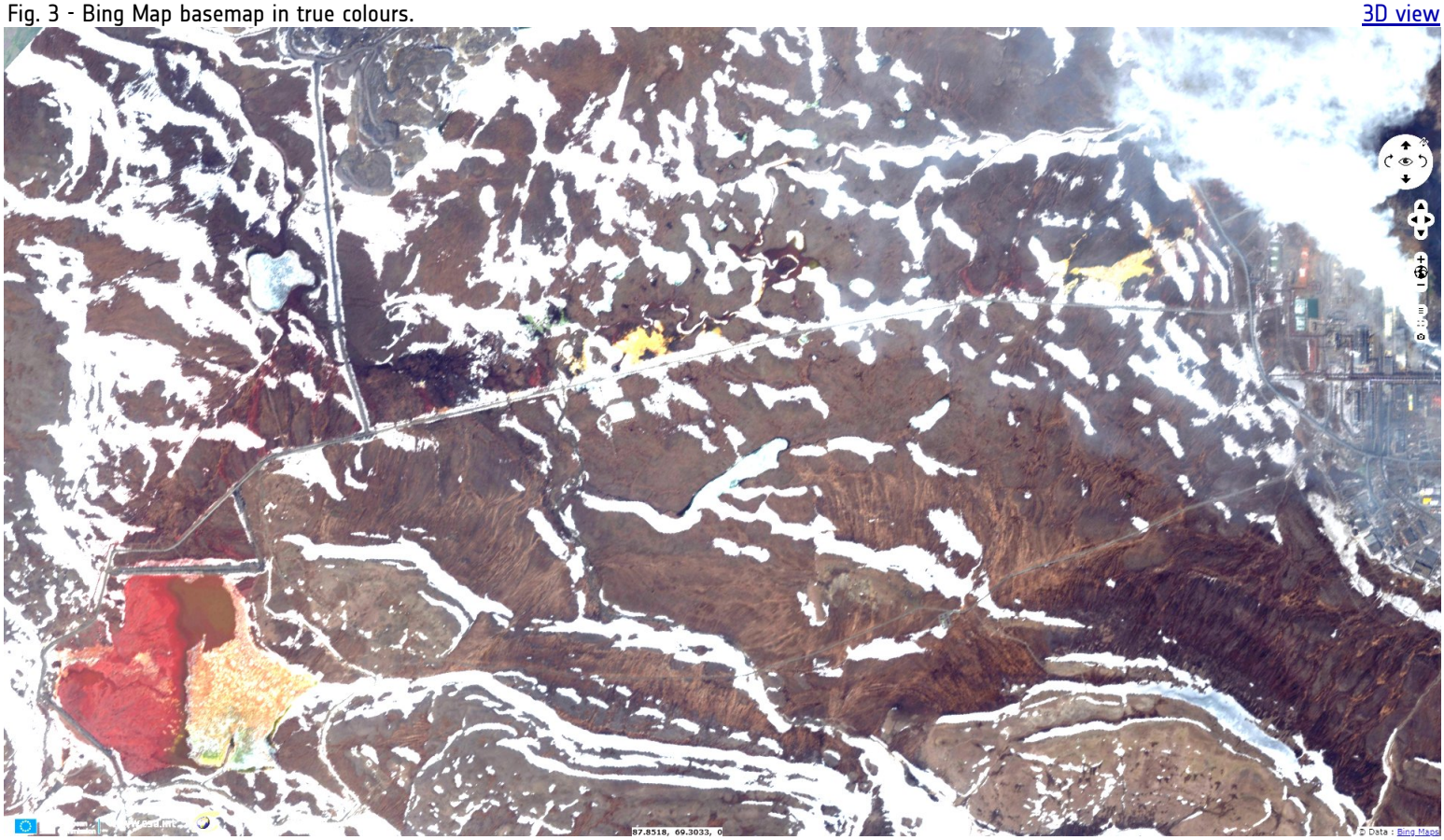


Fig. 3 - Bing Map basemap in true colours. 3D view

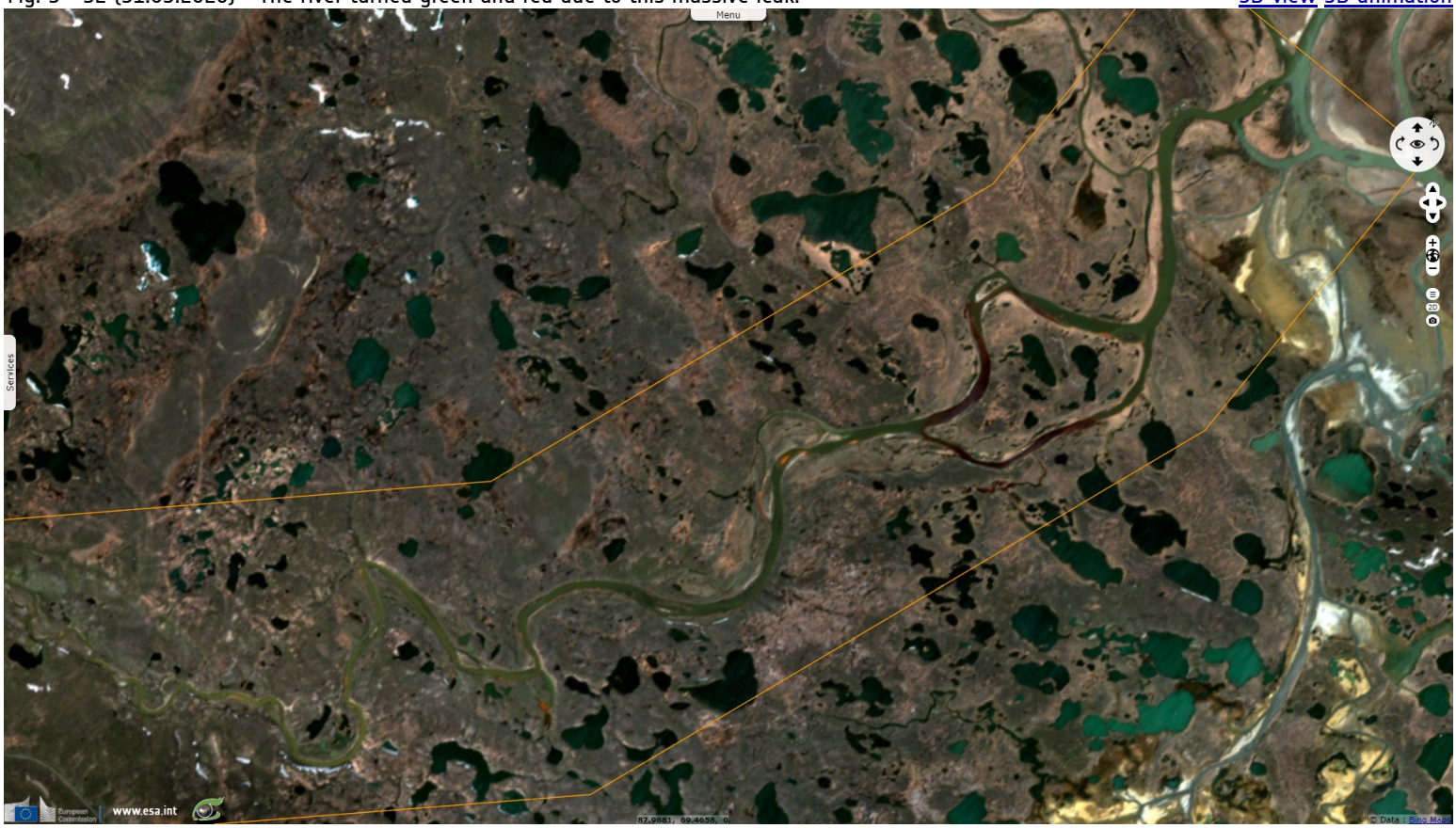


For 18 years, possibly longer, areas downstream of the fuel tank (leading to the Kayerkan district of Norilsk at north-east and to its coal mine at north-west) show in red, contrasting with the surrounding landscape.

Fig. 4 - S2 (21.05.2020) - View of Ambarnaya river before the leak. 3D view

Norilsk was founded at the end of the 1920s, it is the world's northernmost city with more than 100 000 inhabitants. With temporary inhabitants included, its population reaches 220 000. The nickel deposits of Norilsk-Talnakh are the largest-known nickel-copper-palladium deposits in the world. The smelting of the nickel ore is directly responsible for severe pollution, which generally comes in the form of acid rain and smog. By some estimates, one percent of global sulfur dioxide emission comes from Norilsk's nickel mines.

Fig. 5 - S2 (31.05.2020) - The river turned green and red due to this massive leak. 3D view 3D animation



15 000 tons of fuel have been released into Ambarnaya river and 6 000 tons into the soil. It will take decades for the river to recover - Source: Siberian Times.

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