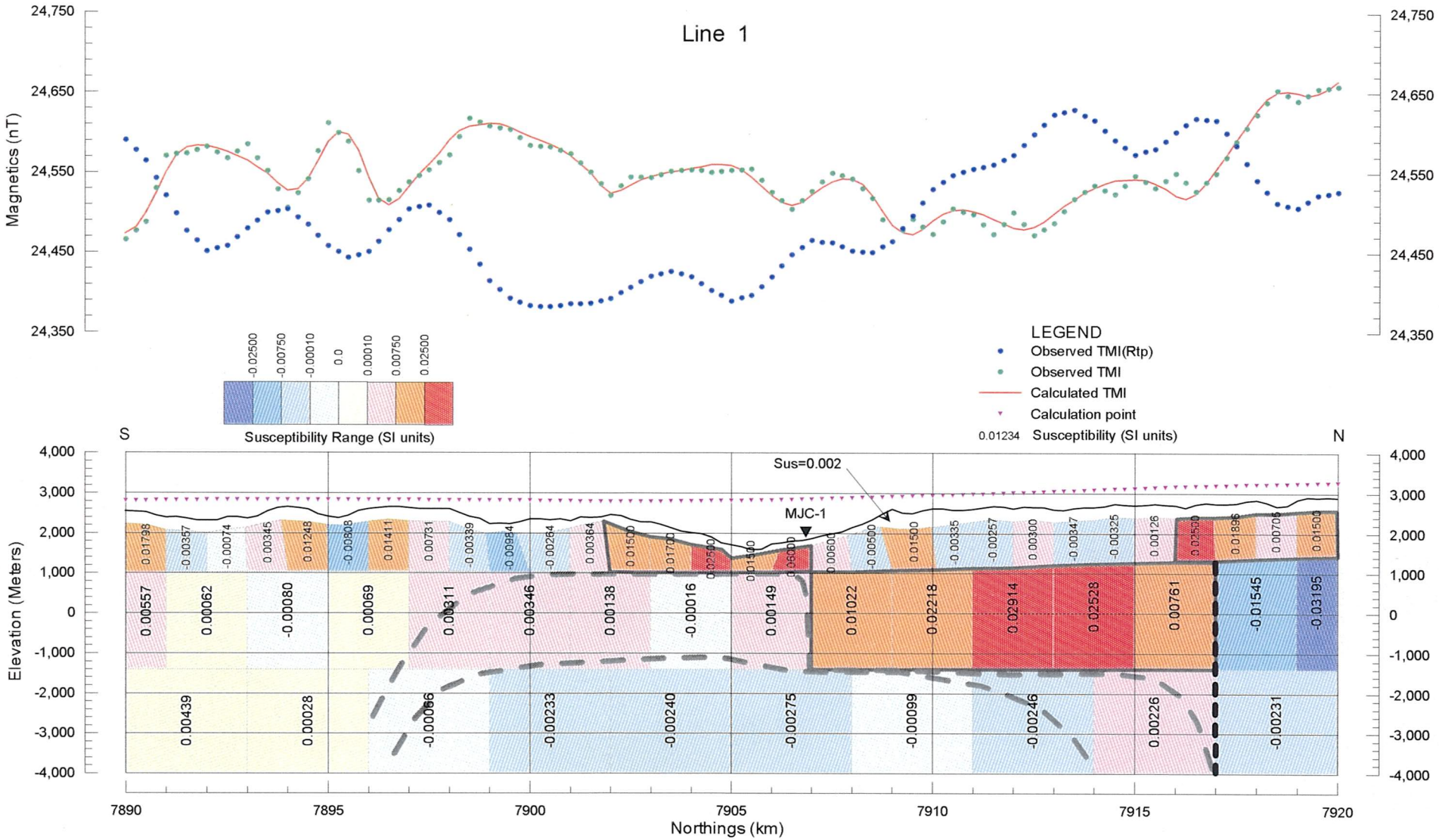

Fig. 2-6-24 Line 1 - 2D Model Profile

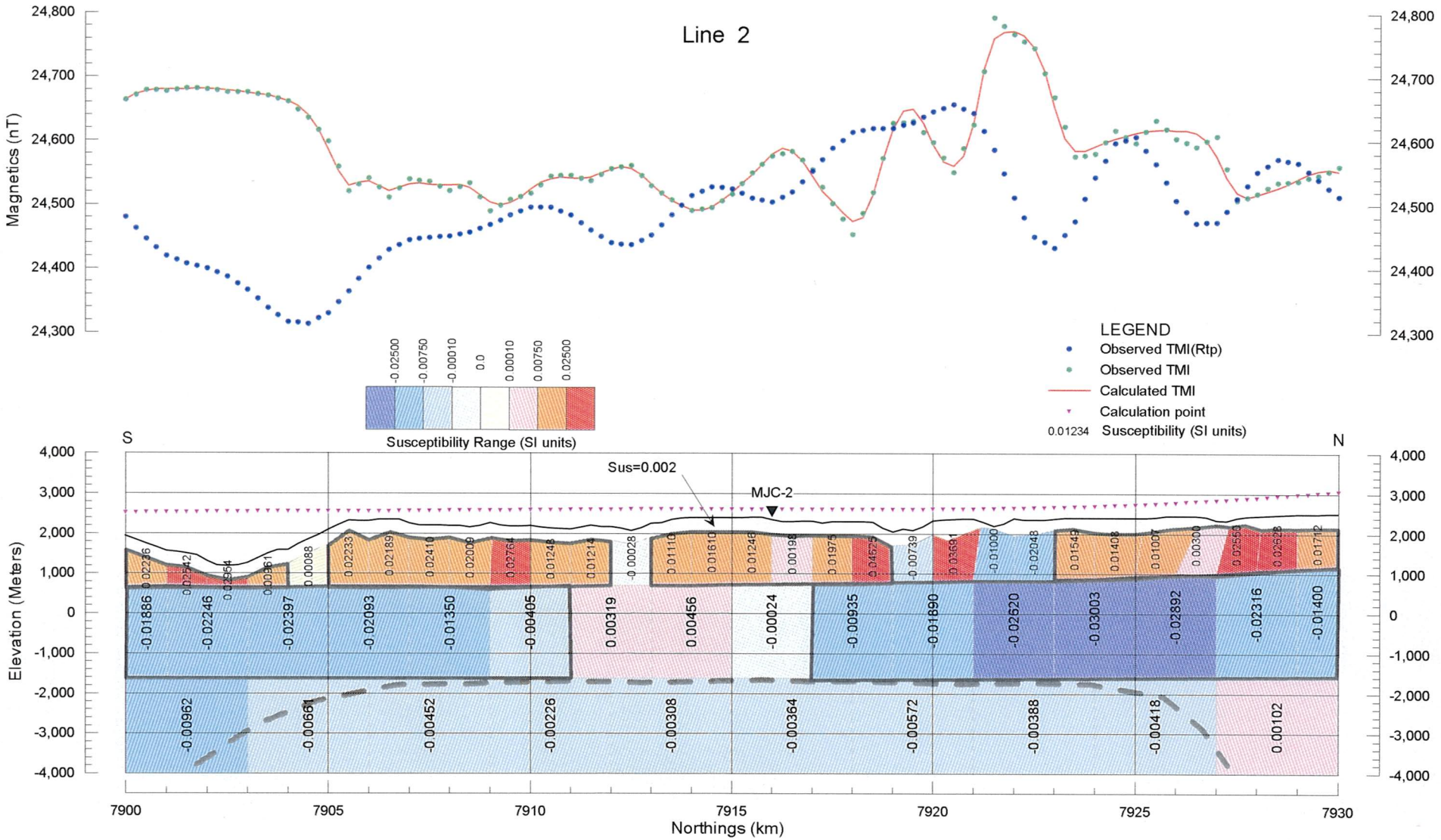

Fig. 2-6-25 Line 2 - 2D Model Profile

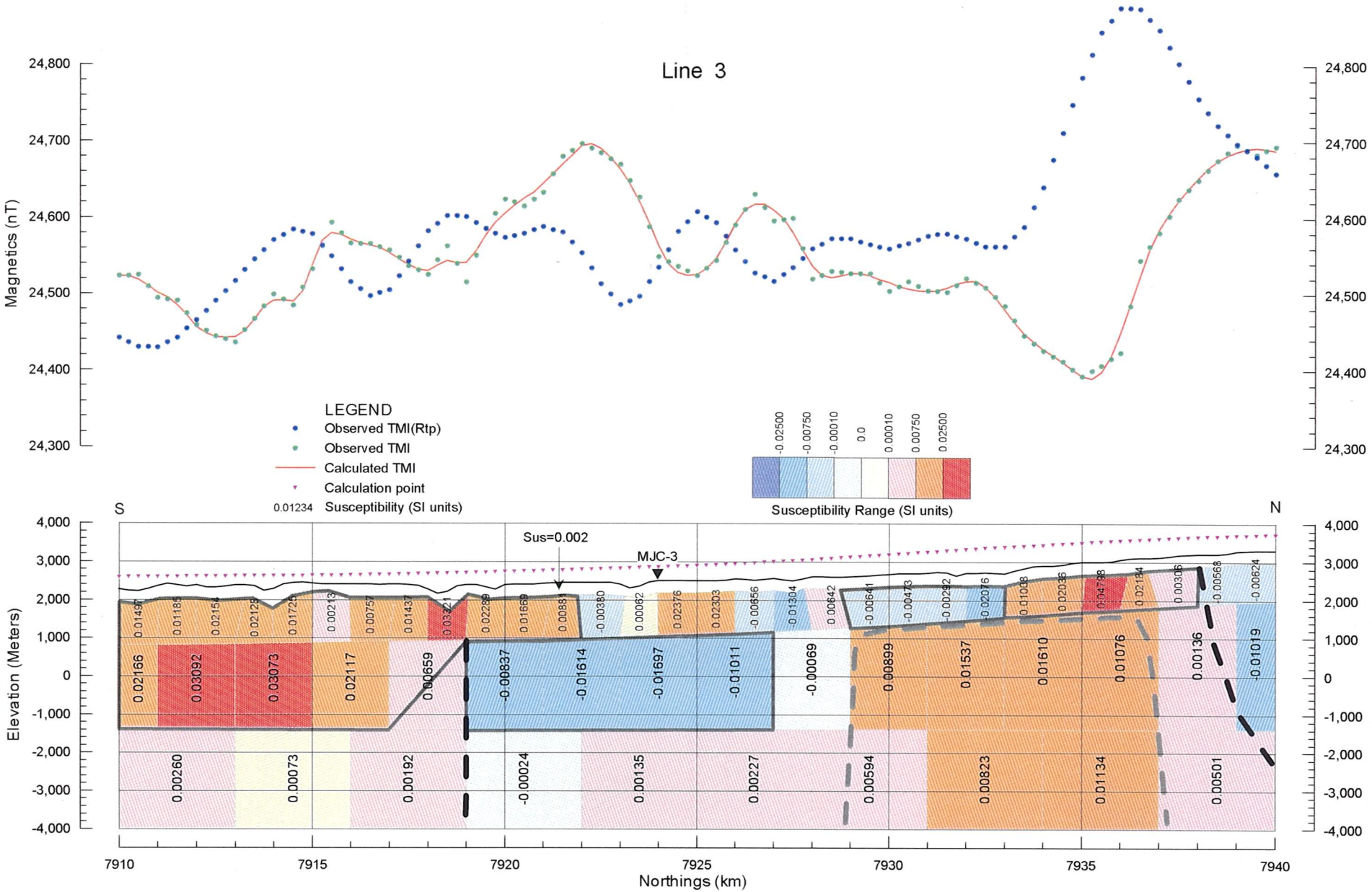

Fig. 2-6-26 Line 3 - 2D Model Profile

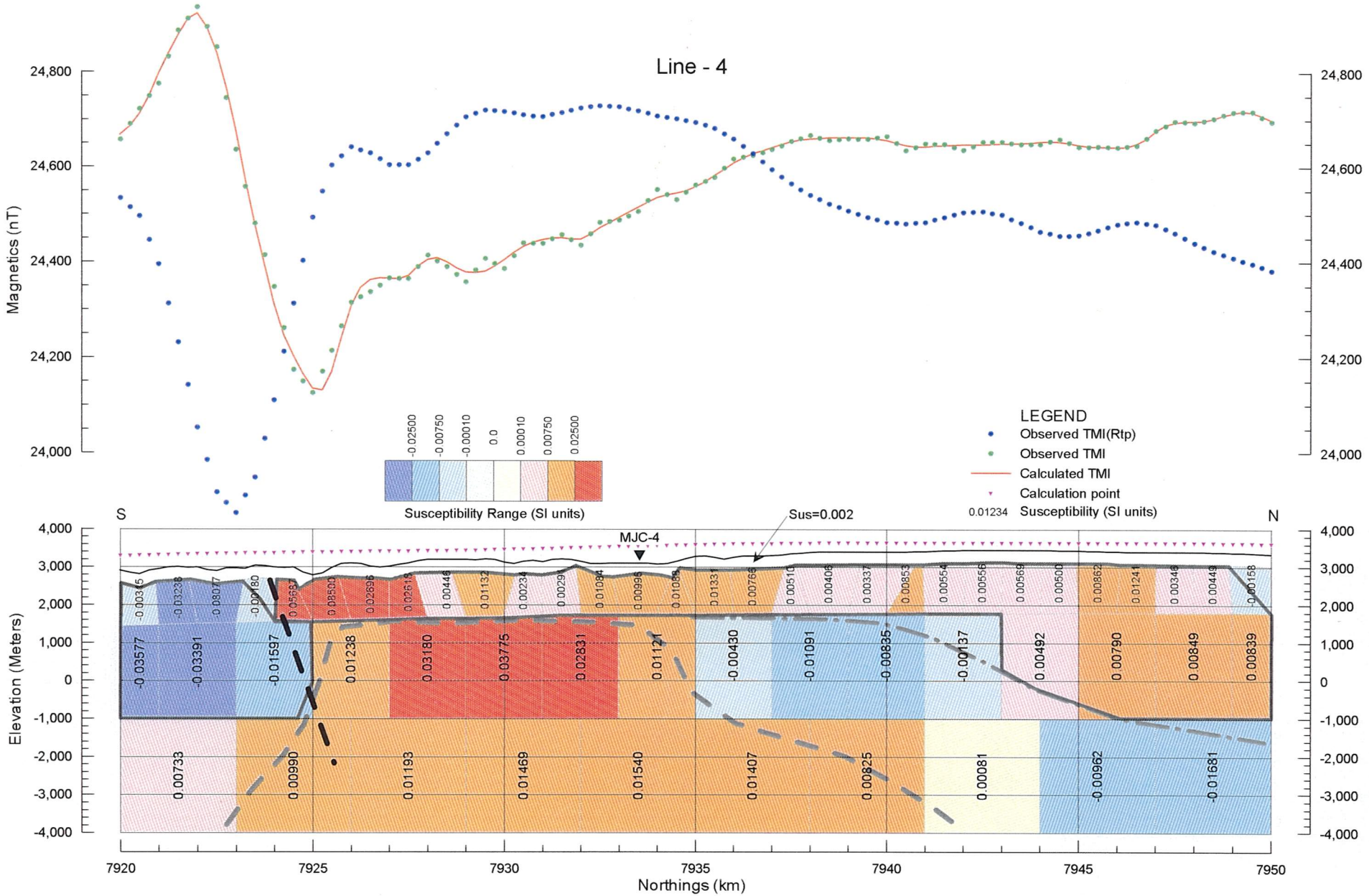

Fig. 2-6-27 Line 4 - 2D Model Profile

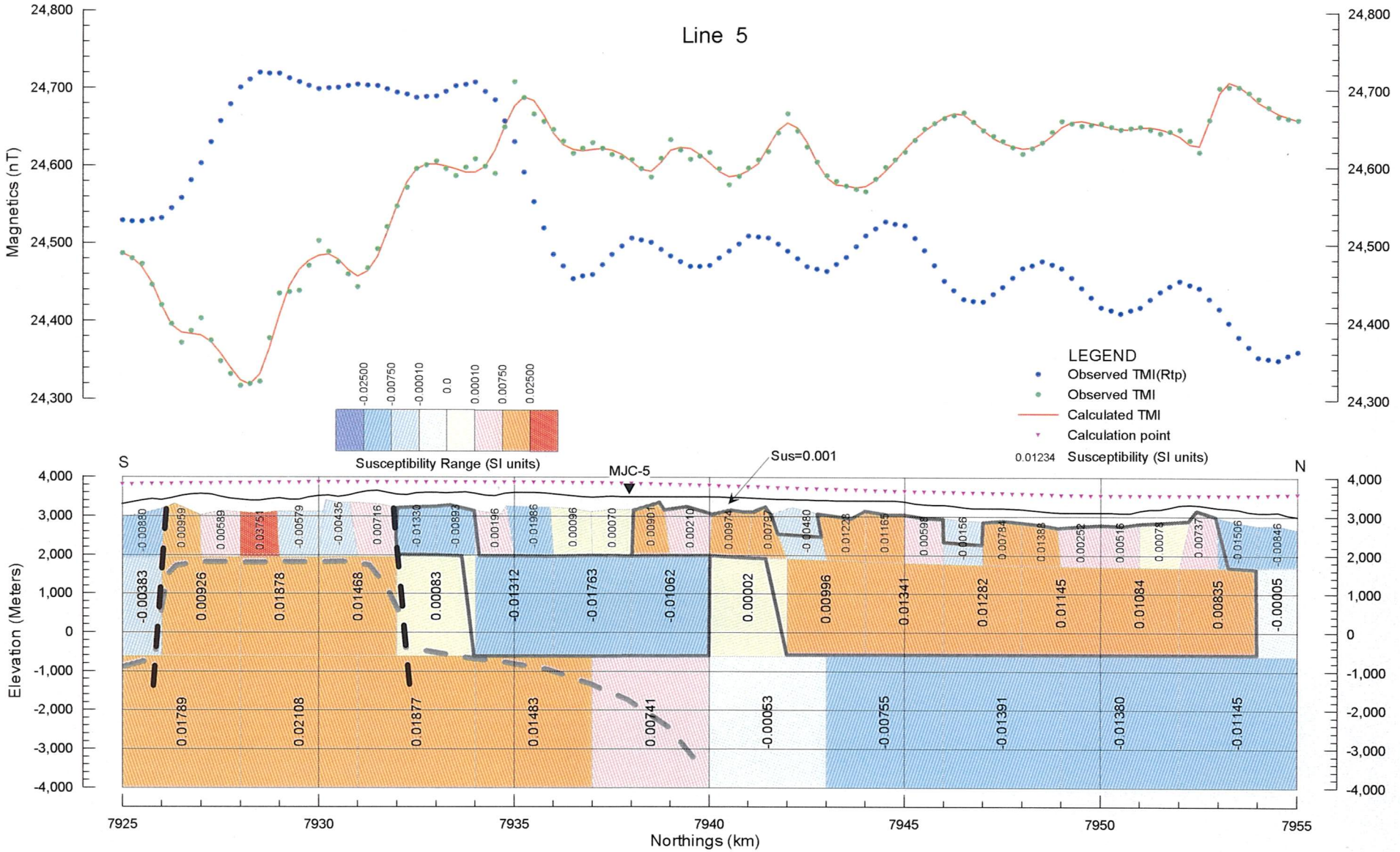

Fig. 2-6-28 Line 5 - 2D Model Profile

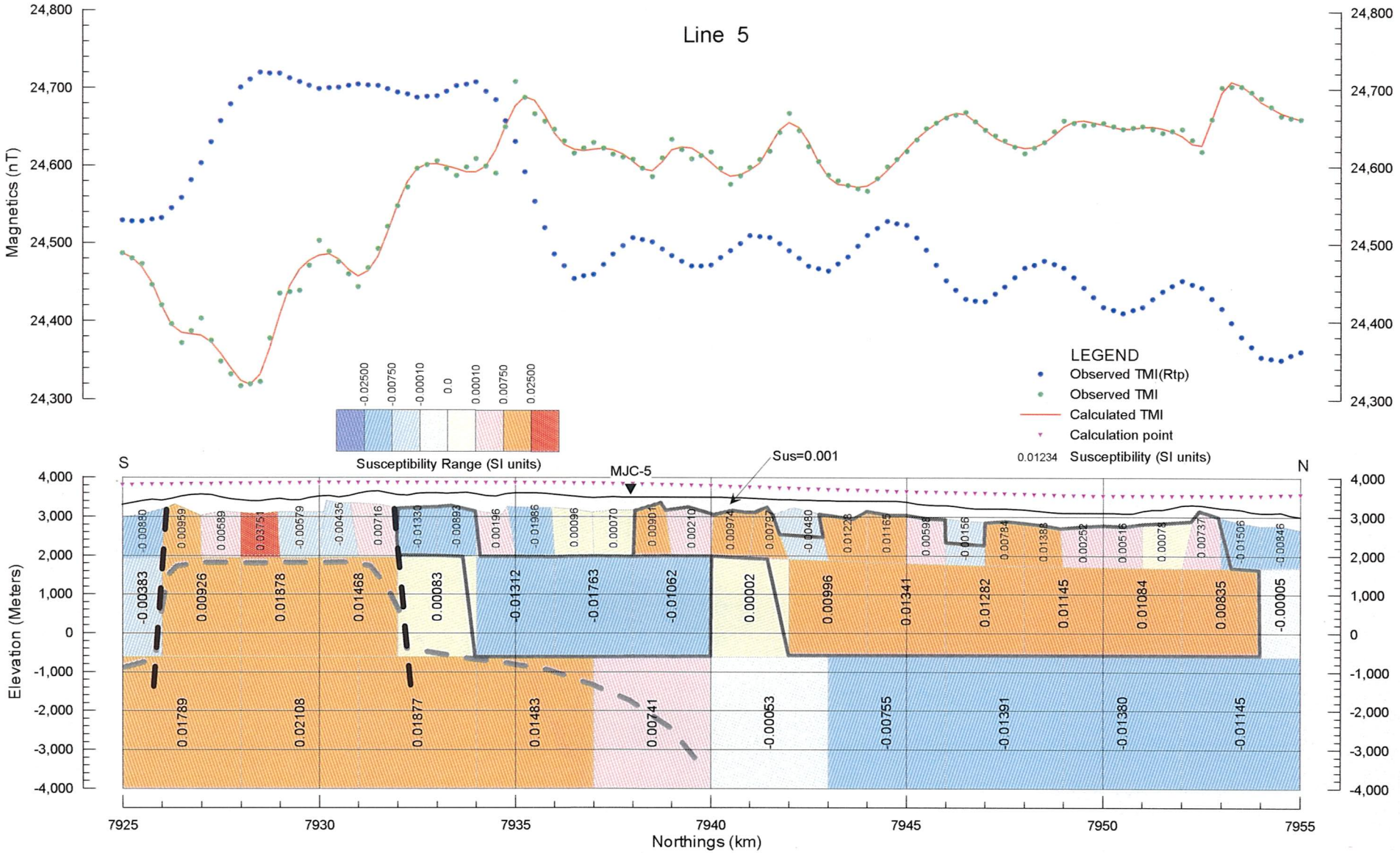

Fig. 2-6-28 Line 5 - 2D Model Profile

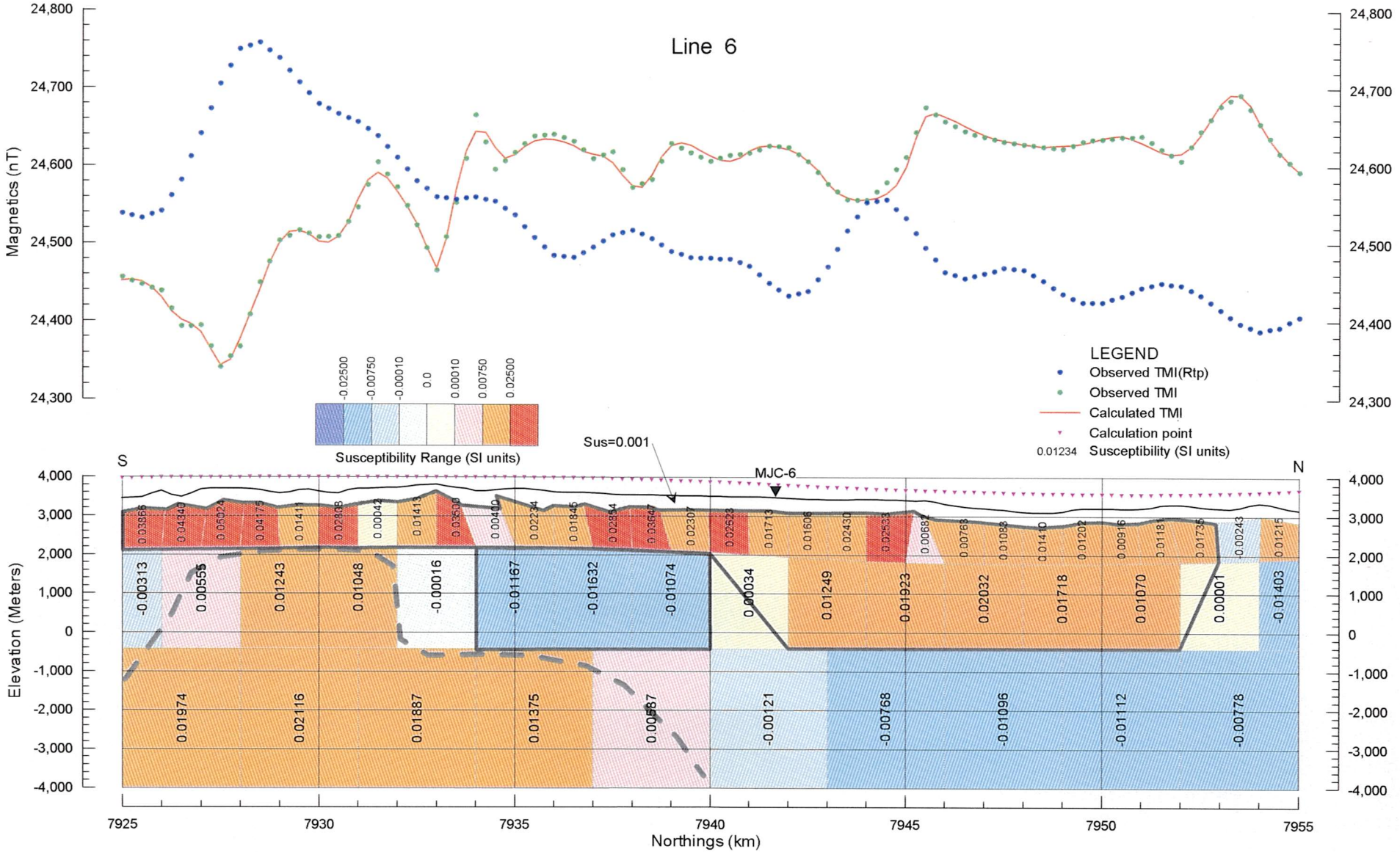

Fig. 2-6-29 Line 6 - 2D Model Profile

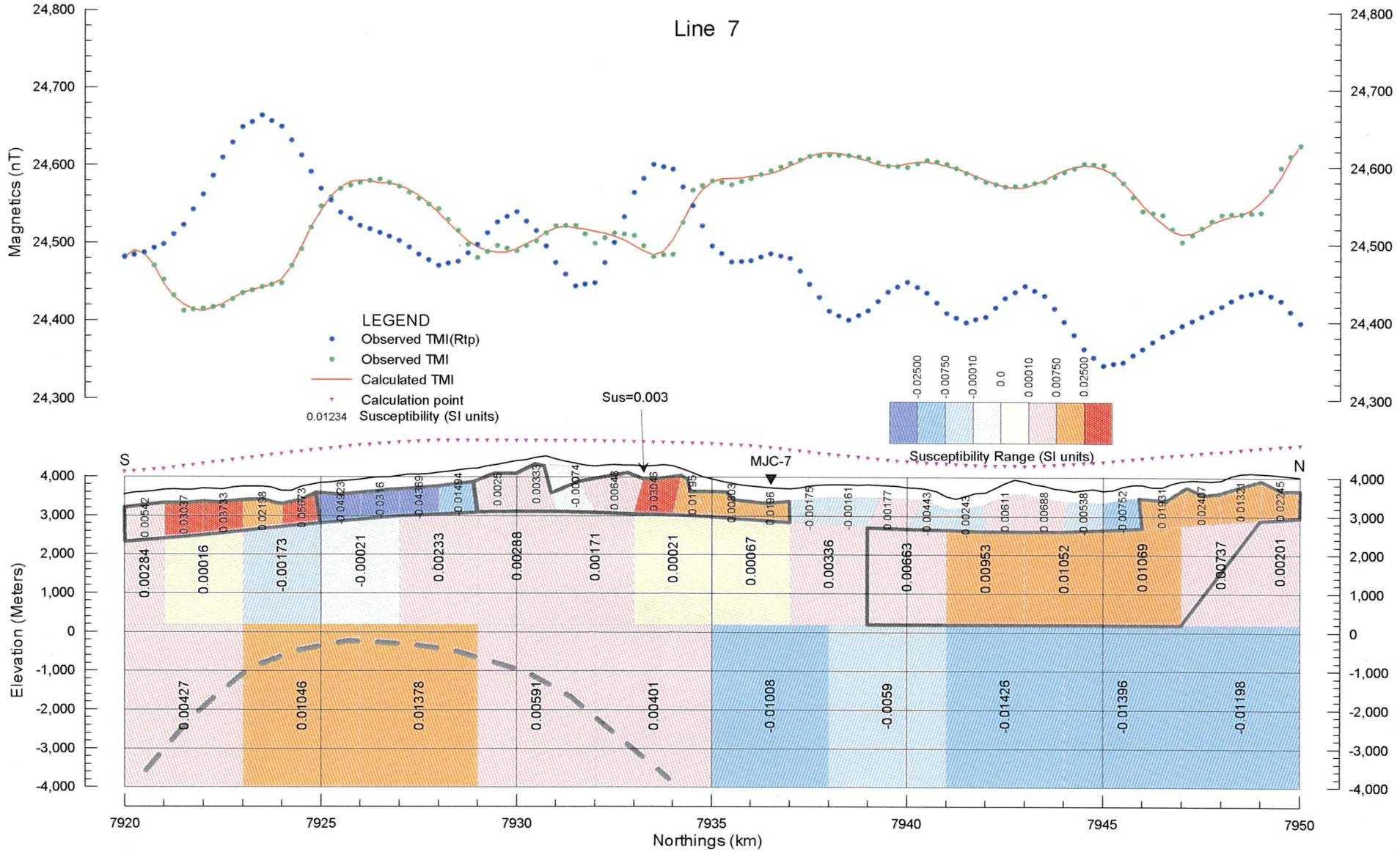

Fig. 2-6-30 Line 7 - 2D Model Profile

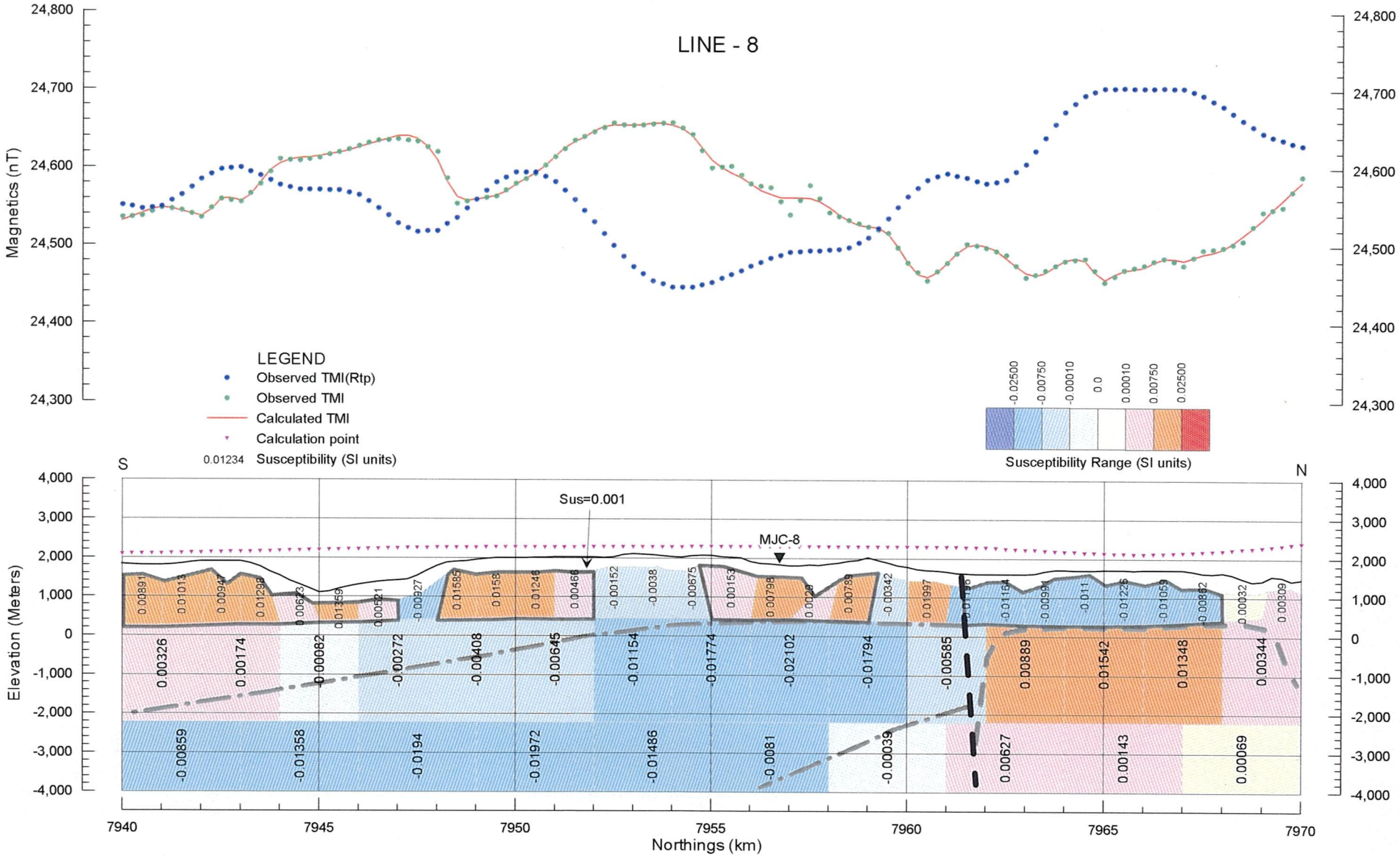

Fig. 2-6-31 Line 8 - 2D Model Profile

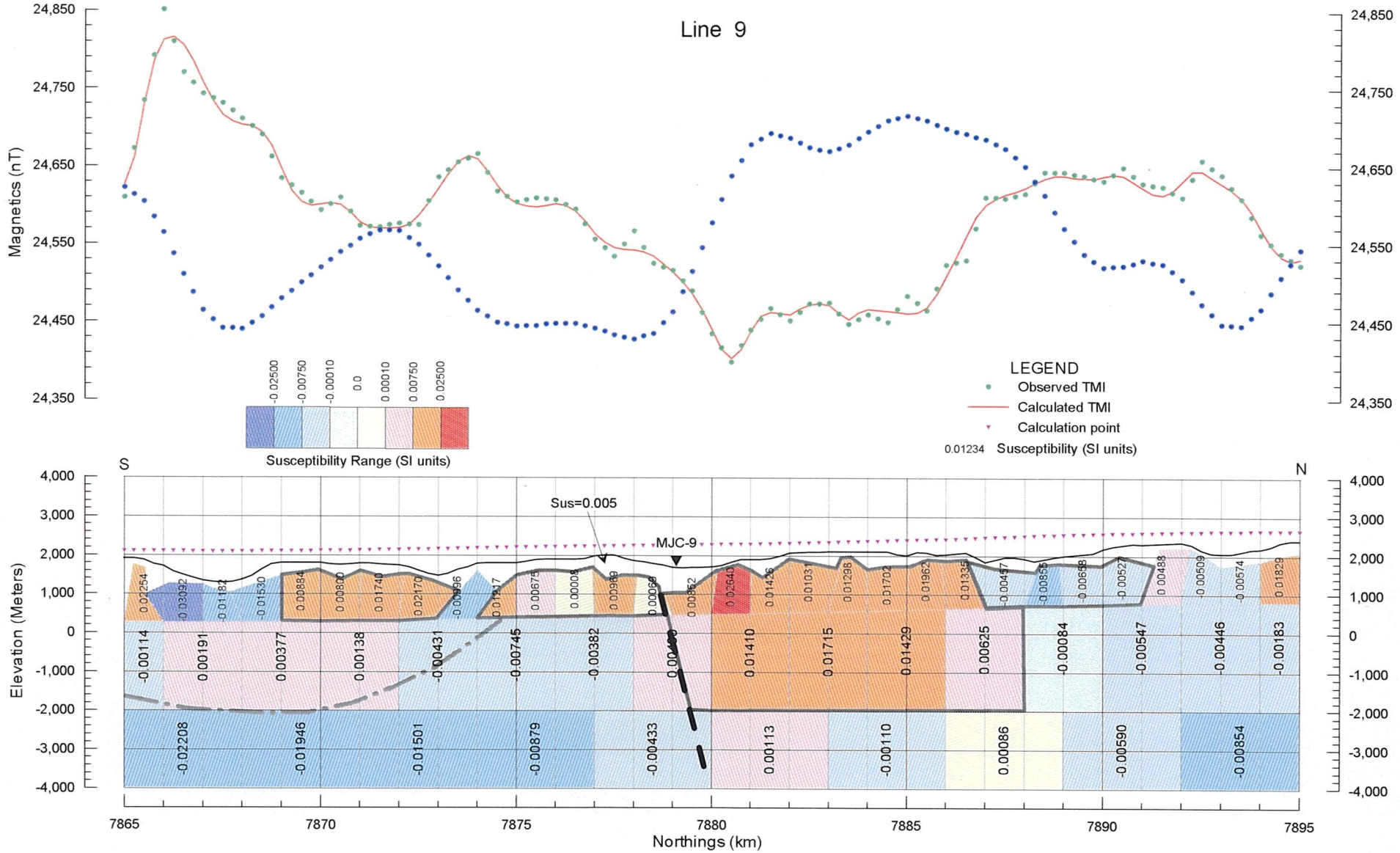

Fig. 2-6-32 Line 9 - 2D Model Profile

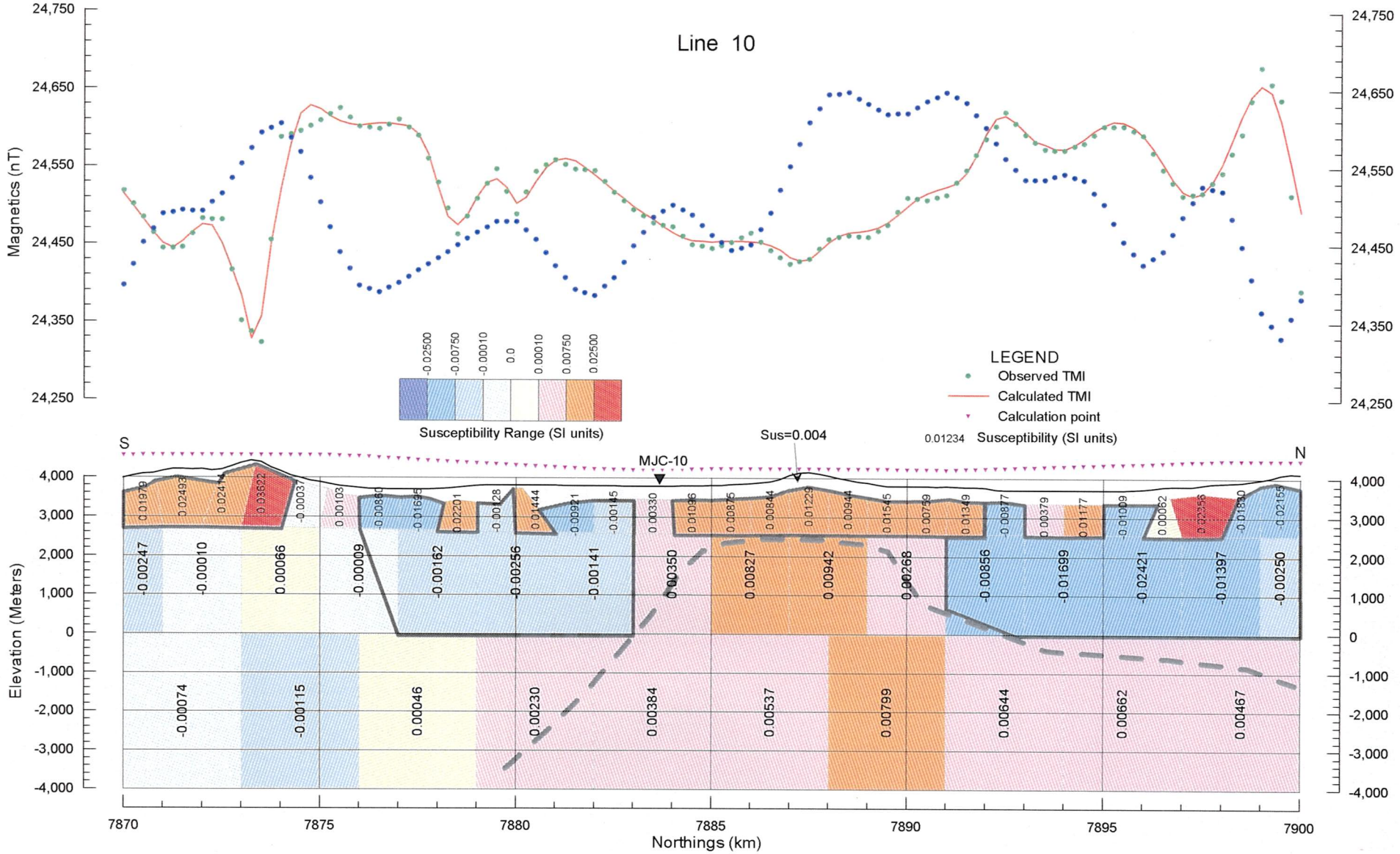

Fig. 2-6-33 Line 10 - 2D Model Profile

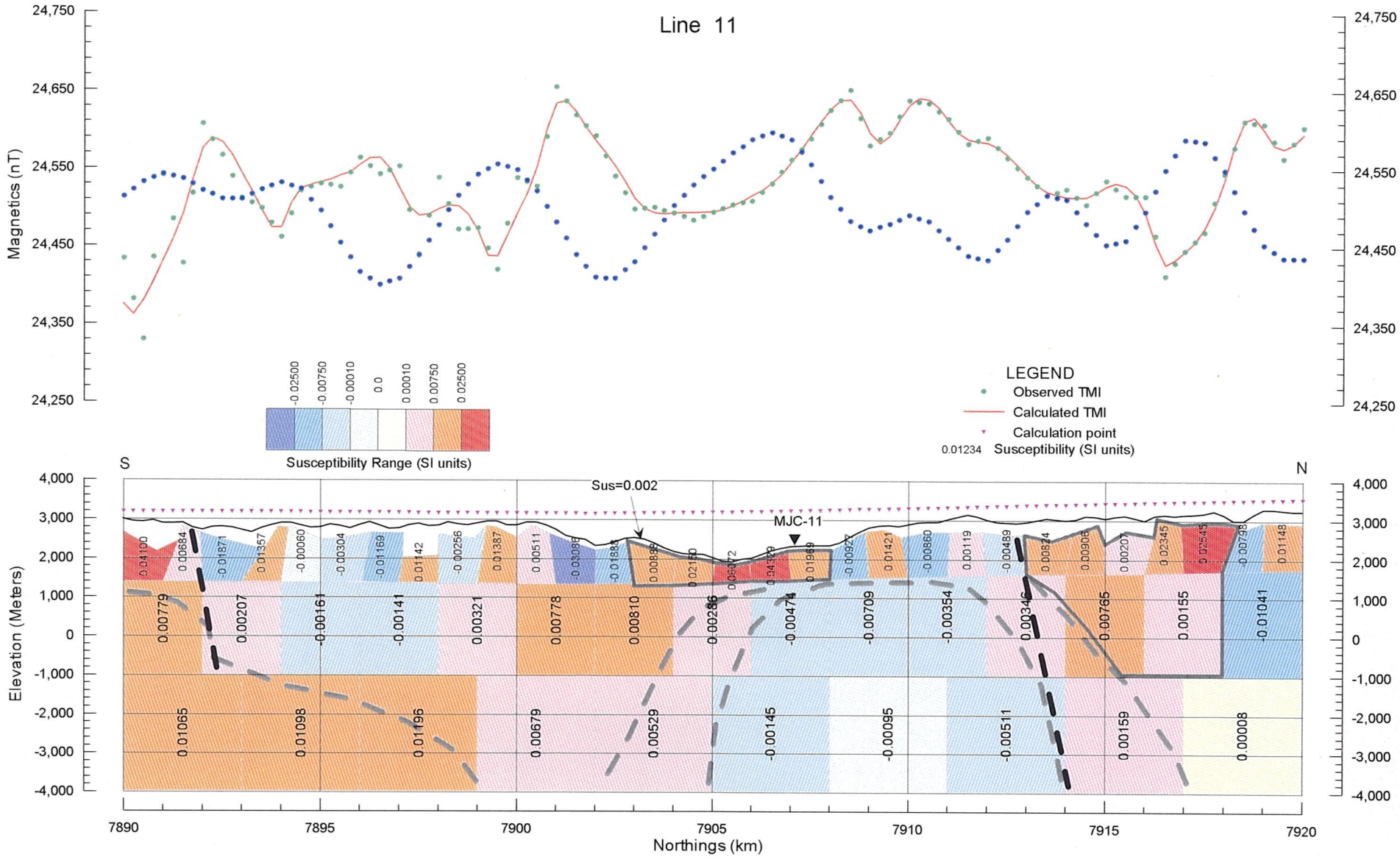

Fig. 2-6-34 Line 11 - 2D Model Profile

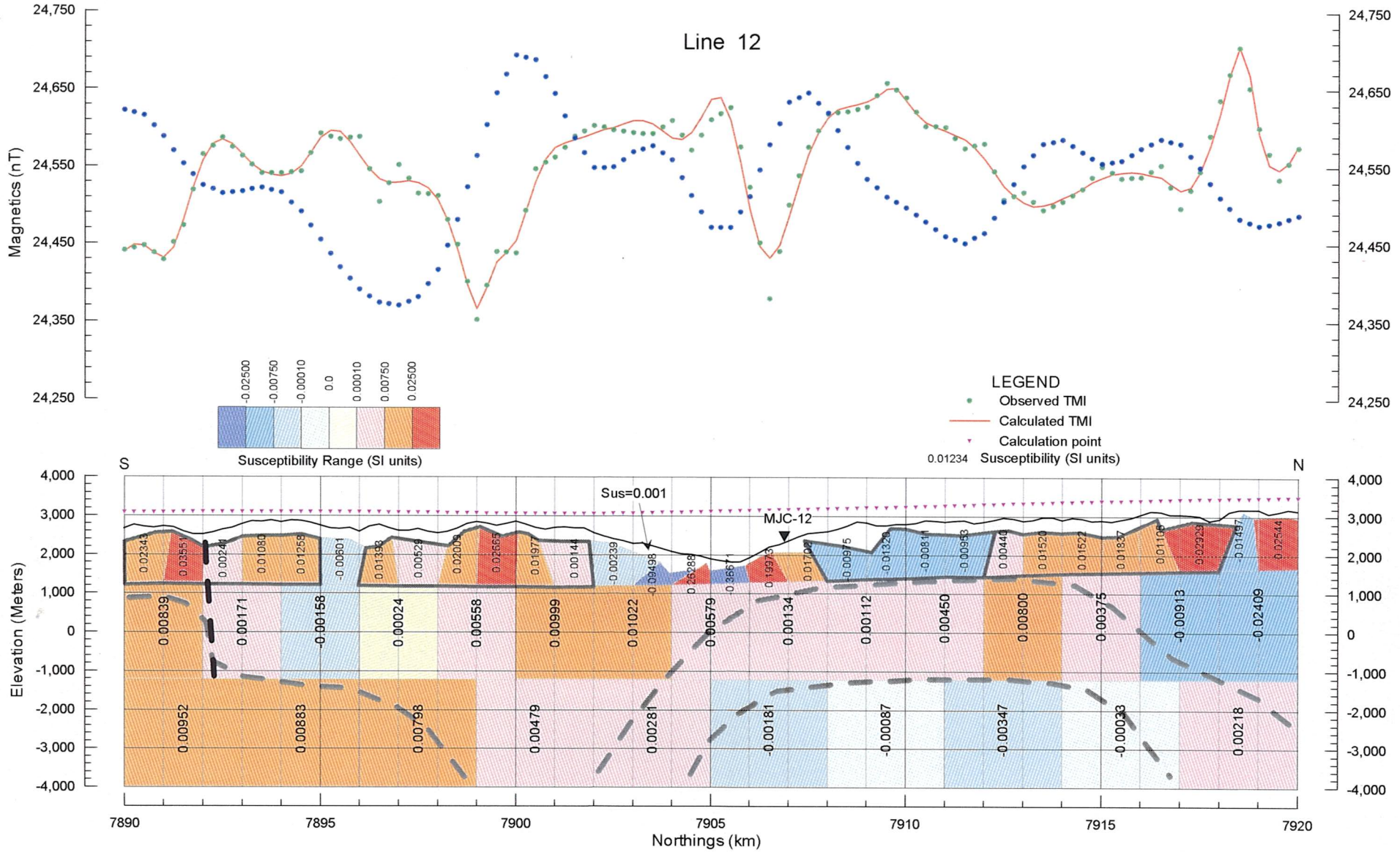

Fig. 2-6-35 Line 12 - 2D Model Profile

2-6-5 Known porphyry copper type mineralized zones and magnetic anomalies

It was mentioned earlier that most of the porphyry copper type mineralized zones occur in the periphery of medium wavelength magnetic anomalies. It was also found that the distribution of these mineralized zones coincide with narrow zone of reduced to the pole magnetic value ("intermediate magnetic intensity zone" later) extracted by specific width (24,475~24,525nT in RTP). In order to demonstrate the above clearly, an enlarged map of the porphyry copper deposit area was prepared and it is shown in Figure 2-6-36. It can be confirmed from this map that of the 26 known porphyry copper deposits, 22 occur in the "intermediate magnetic intensity zone". The four exceptions are; Santa Rosa (10), Cerro Colorado (12), Sagasca(14), Ujiha (Collahuasi) (23).

The "intermediate magnetic intensity zone" , short, medium, and long wavelength magnetic anomalies were, individually, overlaid with satellite(Landsat) lineaments and known porphyry copper deposits , and they are shown in Figures 2-6-37 to 2-6-40.

The results of examining the relation between the medium wavelength magnetic anomalies accompanied by porphyry copper deposit and short wavelength anomalies related to these medium wavelength anomalies are shown in Table 2-6-5. The positional relations of medium and short wavelength anomalies can be grouped into 7 types as shown in Figure 2-6-41.

Other than the 4 localities with no medium wavelength anomaly in the vicinity at west of Putre, the porphyry copper deposits at 22 localities can be classified as; 1 C-type (Ujina(Collahuasi)), 1 (Olga) type without short wavelength anomaly, and 20 localities with M-type. There are somewhat more low anomalies than high ones for medium wavelength magnetic anomalies associated with known porphyry copper deposits.

2-6-6 Evaluation of magnetic anomalies

As mentioned in the preceding sections, overwhelmingly large number of known porphyry copper deposits satisfy the following conditions; "medium wavelength magnetic anomalies located harmoniously with "intermediate magnetic intensity zone" with short wavelength magnetic anomalies in the periphery of the zone". Therefore, the relation of medium wavelength magnetic anomalies with short wavelength magnetic anomalies and "intermediate magnetic intensity zones" was examined.

Also the following work was done to express the locations which satisfy these conditions on map.

① Extraction of M-type medium wavelength magnetic anomalies with short wavelength anomalies within or near anomaly area. However, those associated with short wavelength anomalies caused by Quaternary volcanics alone were removed.

② Of the extracted medium wavelength anomalies, those at some distances from "intermediate magnetic intensity zones" were removed.
③ For the remaining medium wavelength anomalies, zones extending 2.5km outside of the anomalies were established.
④ Similar outer zones were established for "intermediate magnetic intensity zones".
⑤ For short wavelength anomalies at the periphery of the medium wavelength anomalies., outer zones extending 4km were established.

The areas which overlap the above ③, ④, and⑤zones are shown in Figure 2-6-42 as promising areas for porphyry copper exploration. The promising areas shown on the map were extracted from airborne magnetic survey results only, and as they are widely distributed, it will be necessary to delineate target areas by considering geological condition.

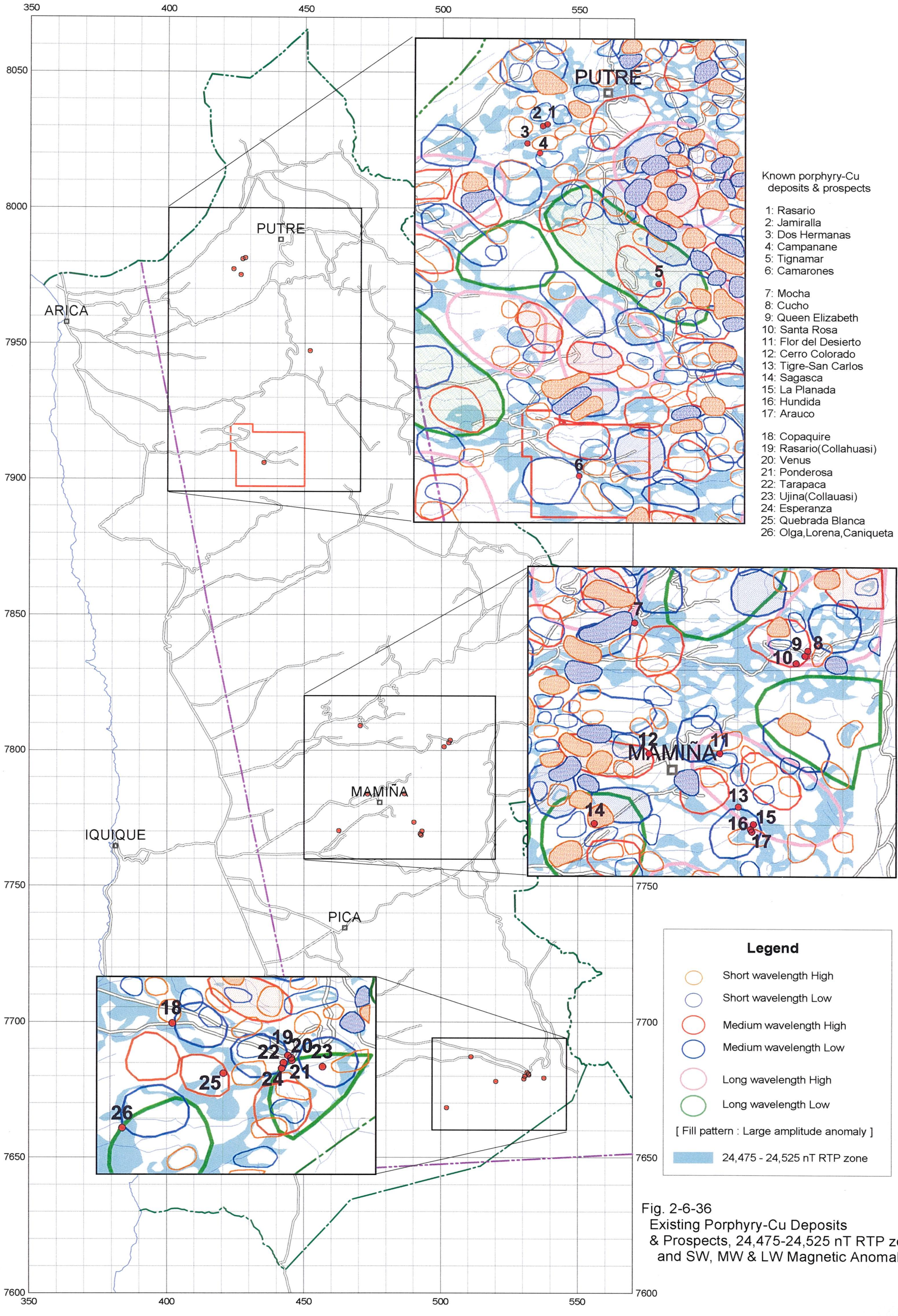

Fig. 2-6-36
Existing Porphyry-Cu Deposits
& Prospects, 24,475-24,525 nT RTP zone
and SW, MW & LW Magnetic Anomalies

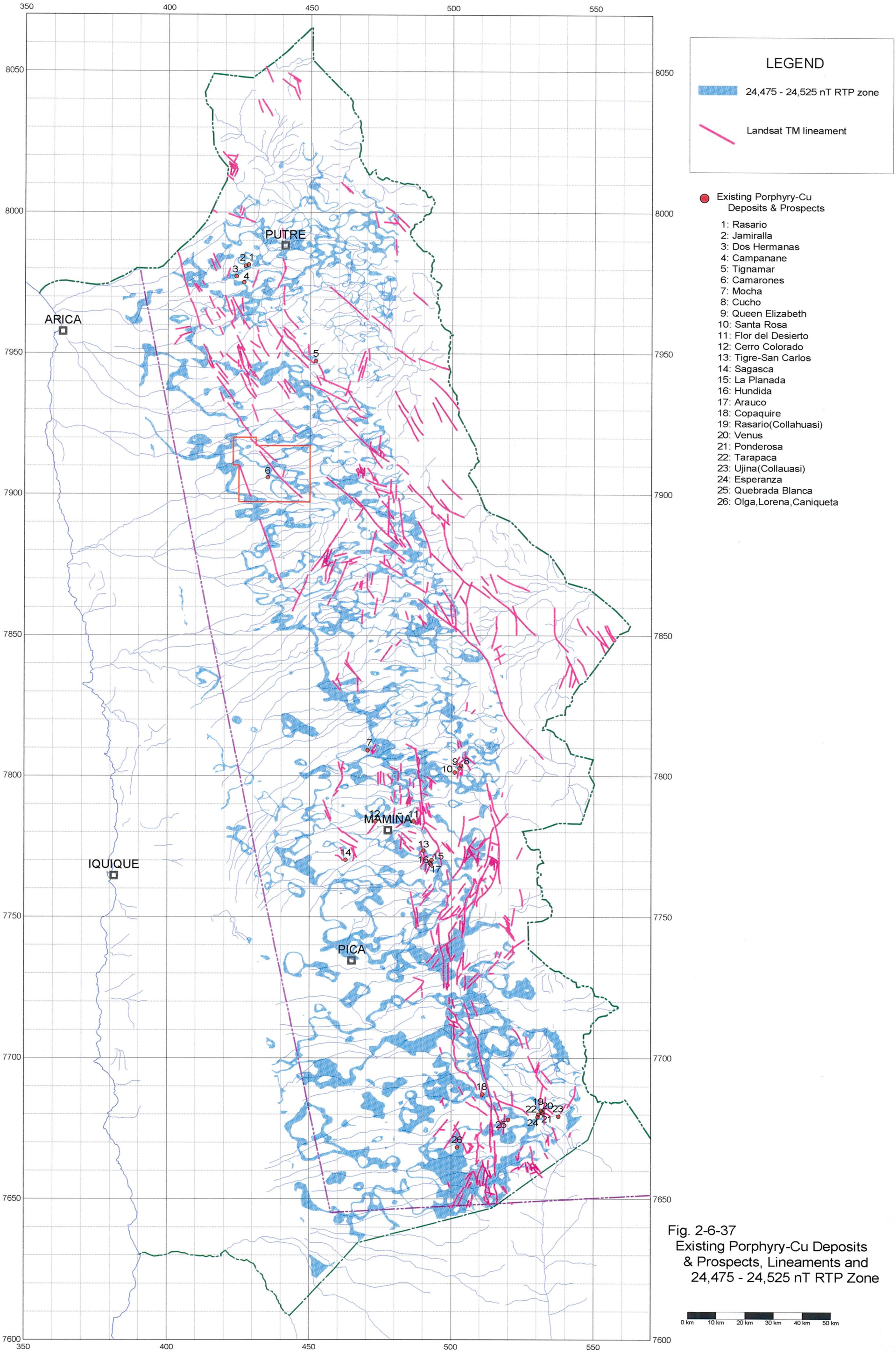

Fig. 2-6-37
Existing Porphyry-Cu Deposits & Prospects, Lineaments and 24,475 - 24,525 nT RTP Zone