NHESS - Figures and Table

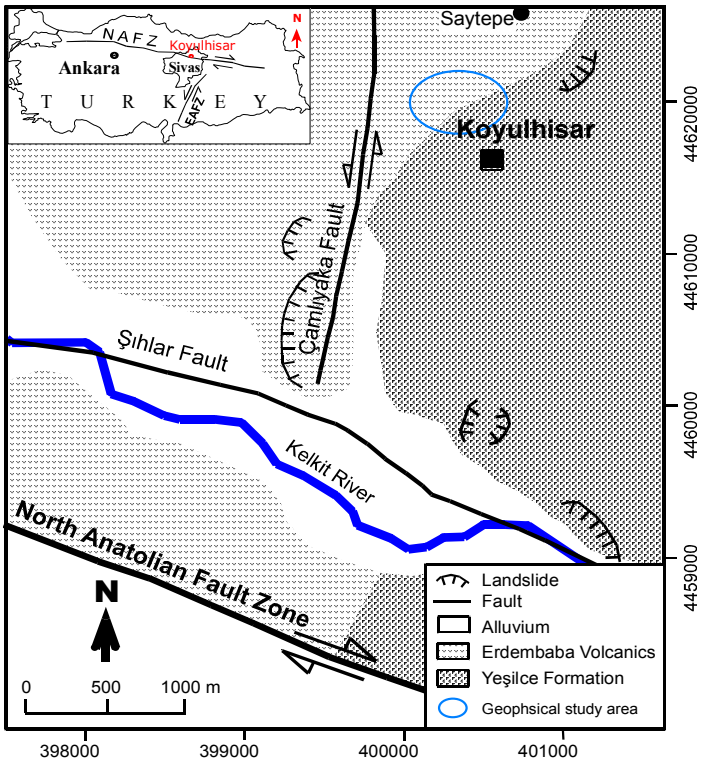

Figure 1. Geological map of study area. Arranged from Sendir and Yılmaz (2002) and Hastaoğlu (2016).

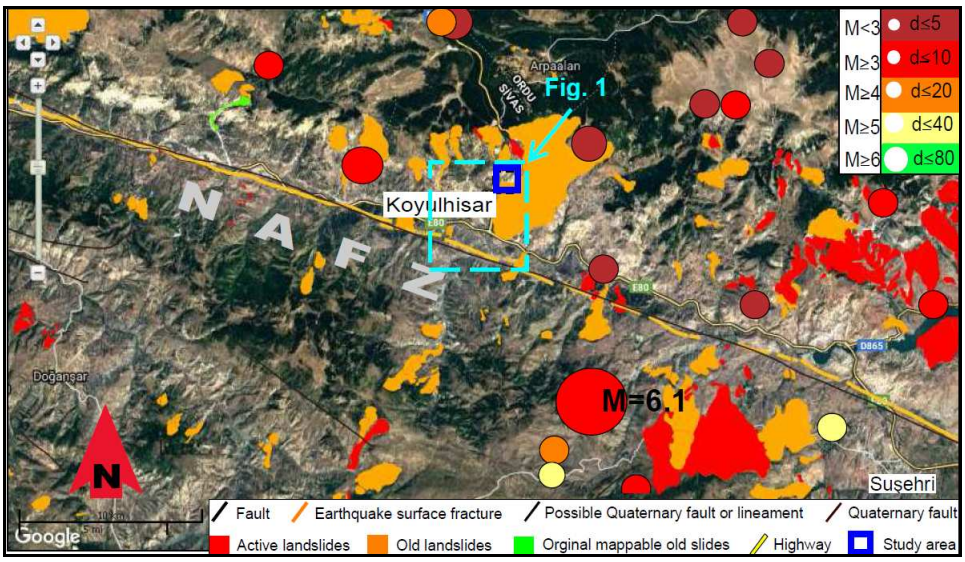

Figure 2. Seismic activity of the study area and its surroundings by the data between 1900-2015 years and the landslide areas (UDIM, 2016; MTA, 2018).

Table

Table 1. The annual average meteorological values of Sivas by years between 1950-2015 (MGM, 2016).

SIVAS	January	February	March	April	May	June	July	August	September	October	November	December
The average tempreture (^{0}C)	-3.2	-2.0	2.9	9.1	13.5	17.2	20.2	20.2	16.2	10.8	4.6	-0.6
The average the highest tempreture (^{0}C)	1.0	2.6	8.1	15.3	20.0	24.0	27.9	28.5	24.7	18.4	10.6	3.7
The average the lowest tempreture (^{0}C)	-7.0	-6.2	-1.7	3.4	7.2	9.9	12.0	11.9	8.3	4.4	-0.2	-4.2
The average sunshine duration (hour)	2.3	3.3	4.5	6.2	8.1	10.4	12.1	11.4	9.4	6.3	4.1	2.3
The average number of rainy days	13.0	12.4	13.7	14.0	14.4	8.8	2.5	2.1	4.3	8.0	9.5	12.1
The average monthly total rainfall (kg/m^2)	42.0	40.3	46.0	59.1	60.7	34.8	8.5	5.9	16.9	32.9	41.0	44.2
The highest and the lowest values occurring over many years (1950-2015)												
The highest tempreture (^{0}C)	14.6	18.1	25.2	29.0	32.0	35.5	40.0	39.4	35.7	30.5	22.8	19.4
The lowest tempreture (^{0}C)	**-34.6**	**-34.4**	**-27.6**	**-10.9**	**-4.2**	**-0.3**	**3.4**	**3.2**	**-3.8**	**-8.1**	**-24.4**	**-27.0**
Daily total the highest rainfall	**2 May 1991**	**55.0 kg/m^2**	Daily the fastest wind			**5 Jan. 1996**		**122.8 km/h**	**The highest snow**		**2 Feb. 1950**	**110.0 cm**

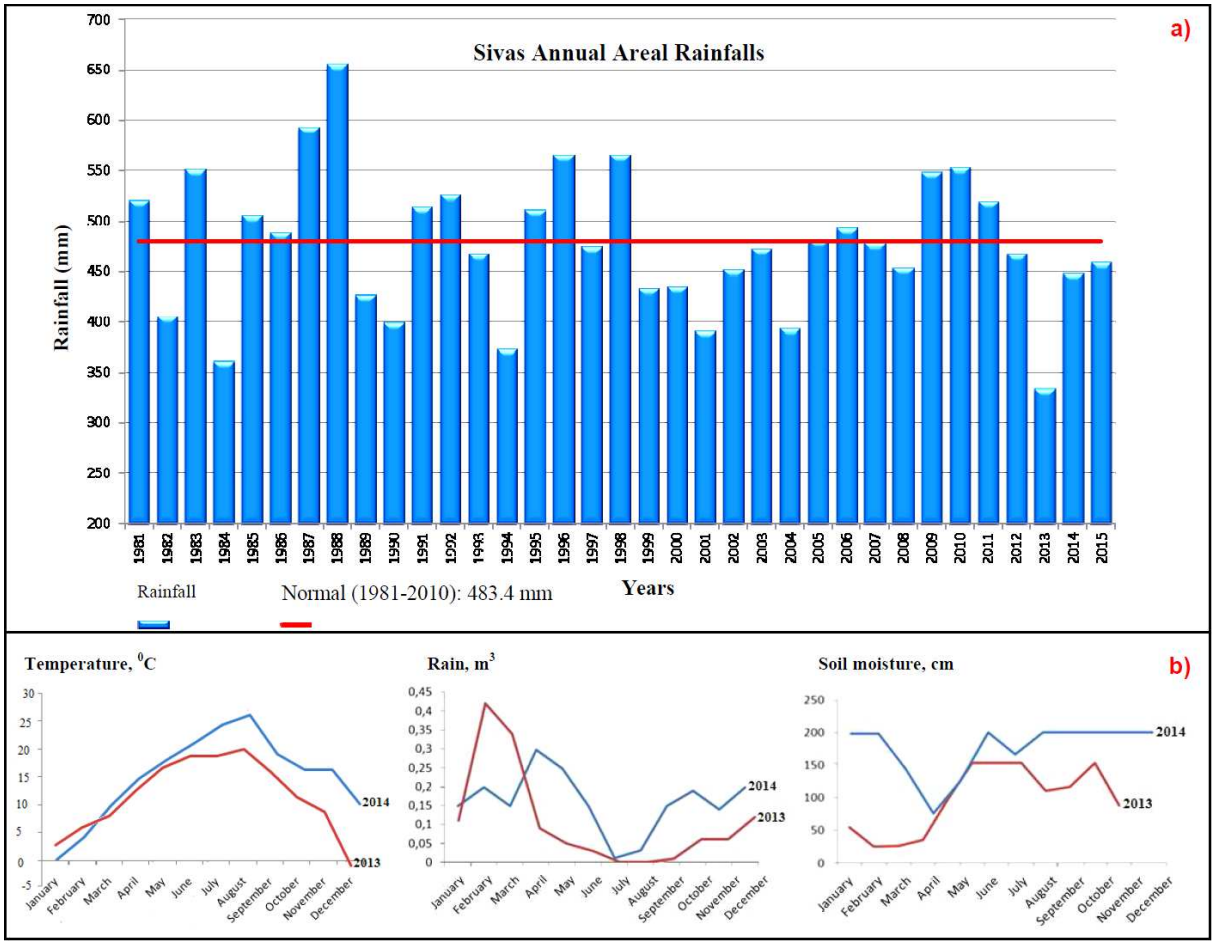

Figure 3. a) Precipitation distribution in between 1981-2015 years of Sivas (MGM, 2016). **b)** Graphics of monthly average temperature (T, ^{0}C), rainfall (m^3) and soil moisture content (cm) of the study area and its surroundings in the years of 2013 and 2014. They were prepared from the project data (Hastaoğlu et al., 2015).

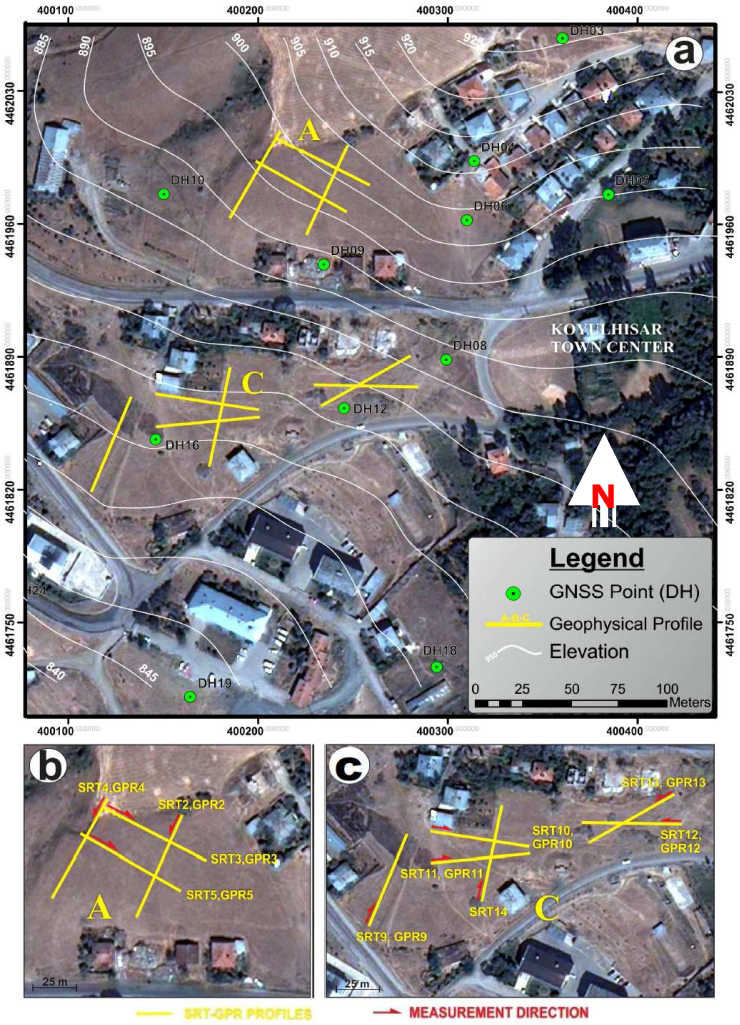

Figure 4. (a) The study area. (b) and (c) The details of geophysics profiles for the A and C areas.

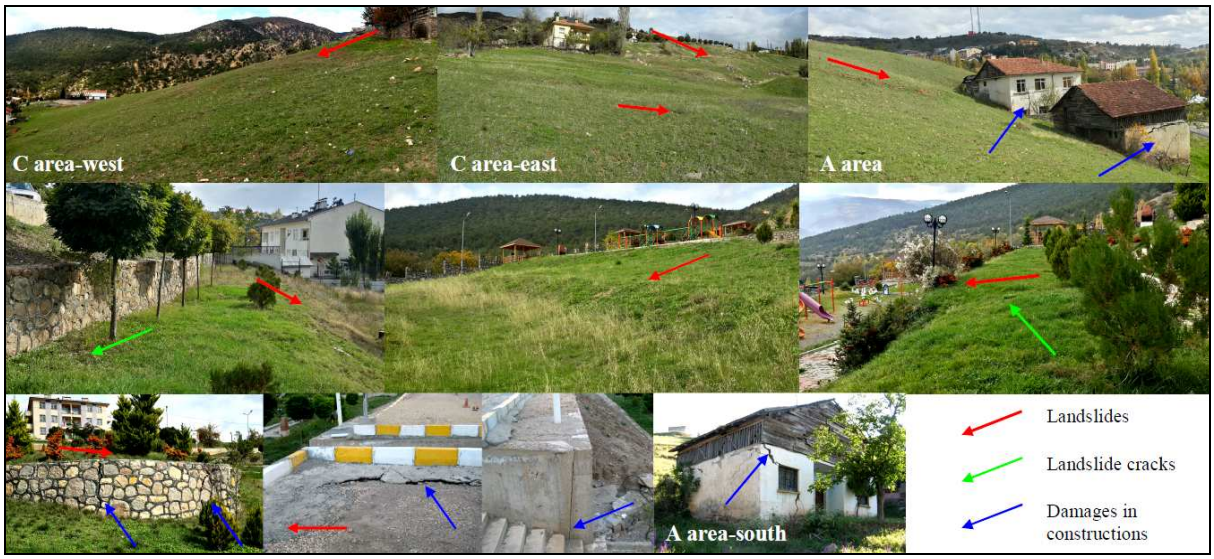

Figure 5. The photos of the study area and its surroundings, in which the landslides, landslide cracks or constructional damages are also observed.

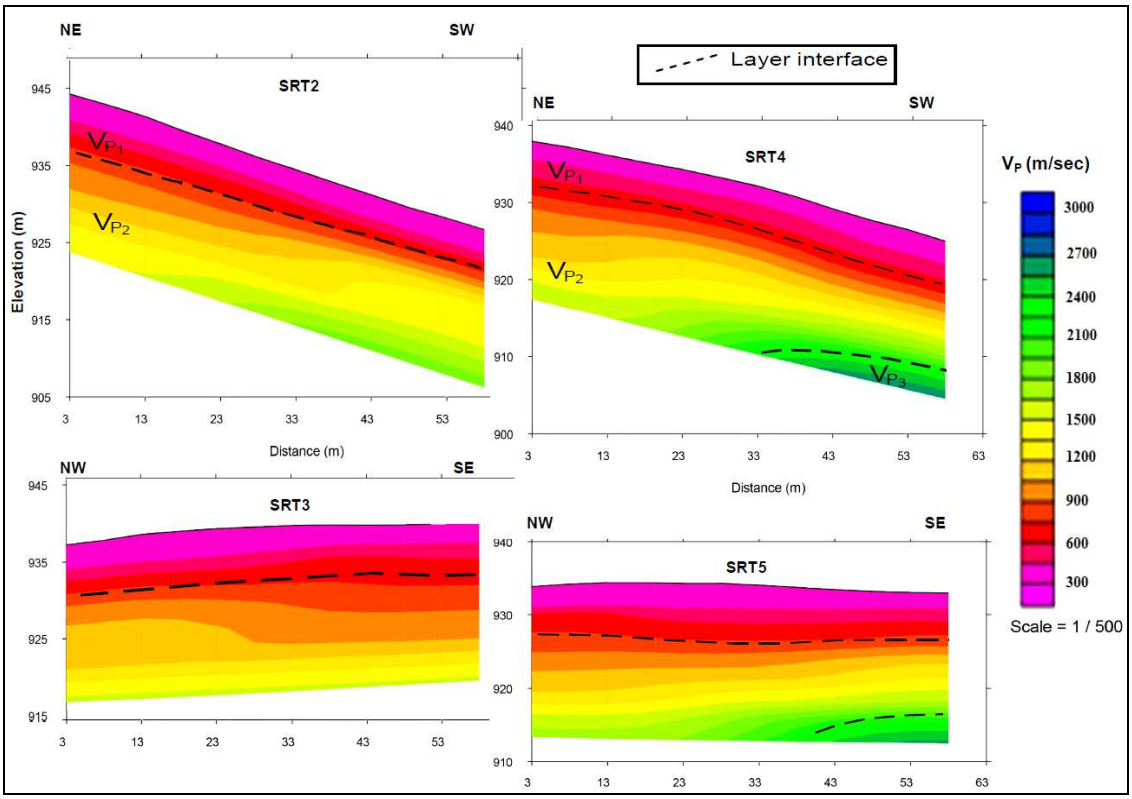

Figure 6. The seismic profiles of the area **A**. The uppermost boundary of the V_{P2} layer is the depth of the sliding surface (This depth changes between ~3-7 m). The lower velocity V_{P1} layer consists of soil and alluviums (the average seismic V_{P1}< 650 m/sec).

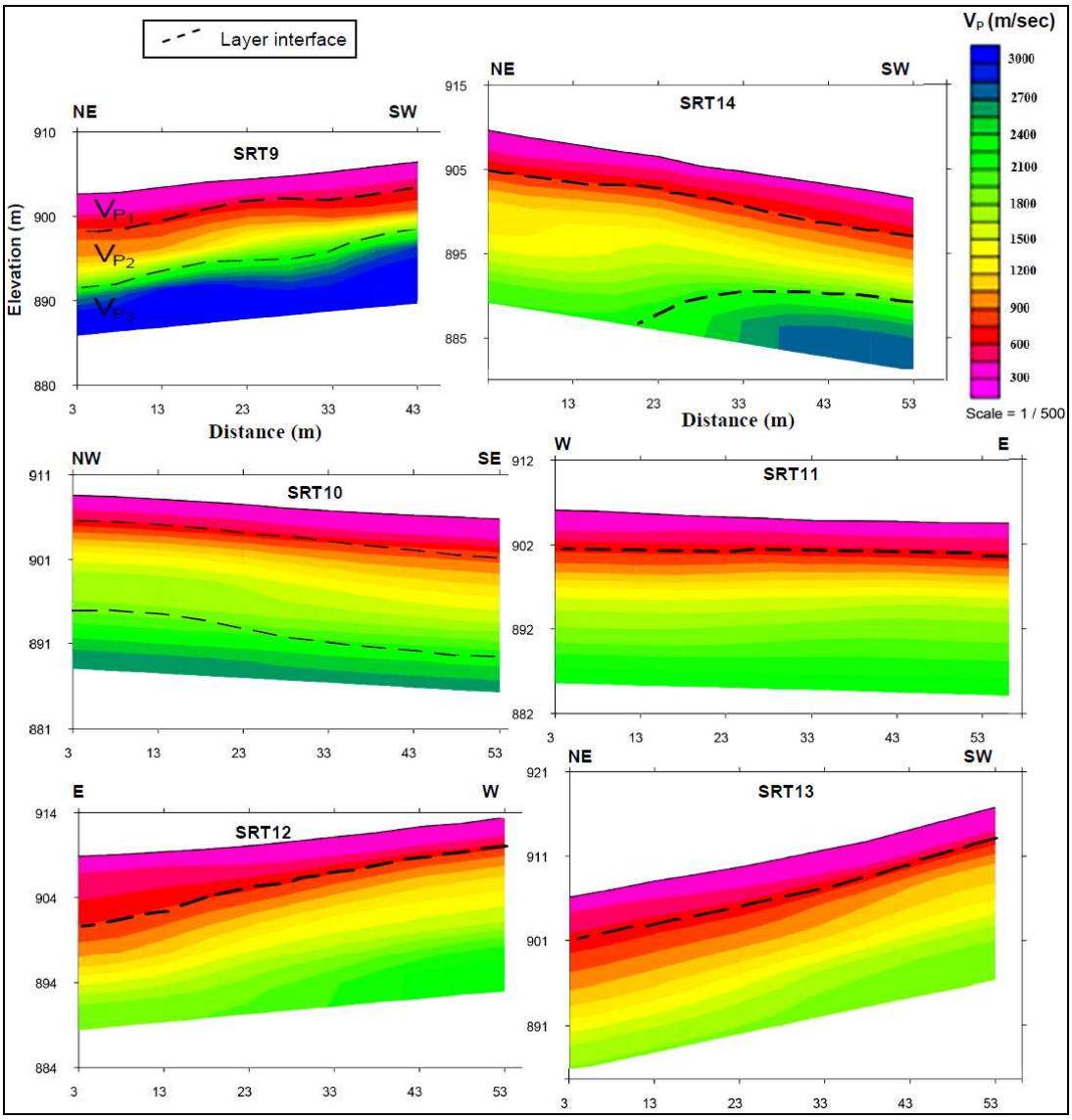

Figure 7. The seismic profiles of the area **C**. The uppermost boundary of the V_{P2} layer is the depth of the sliding surface (This depth changes between ~3-7 m). The lower velocity V_{P1} layer consists of soil and alluviums (the average seismic V_{P1}< 650 m/sec).

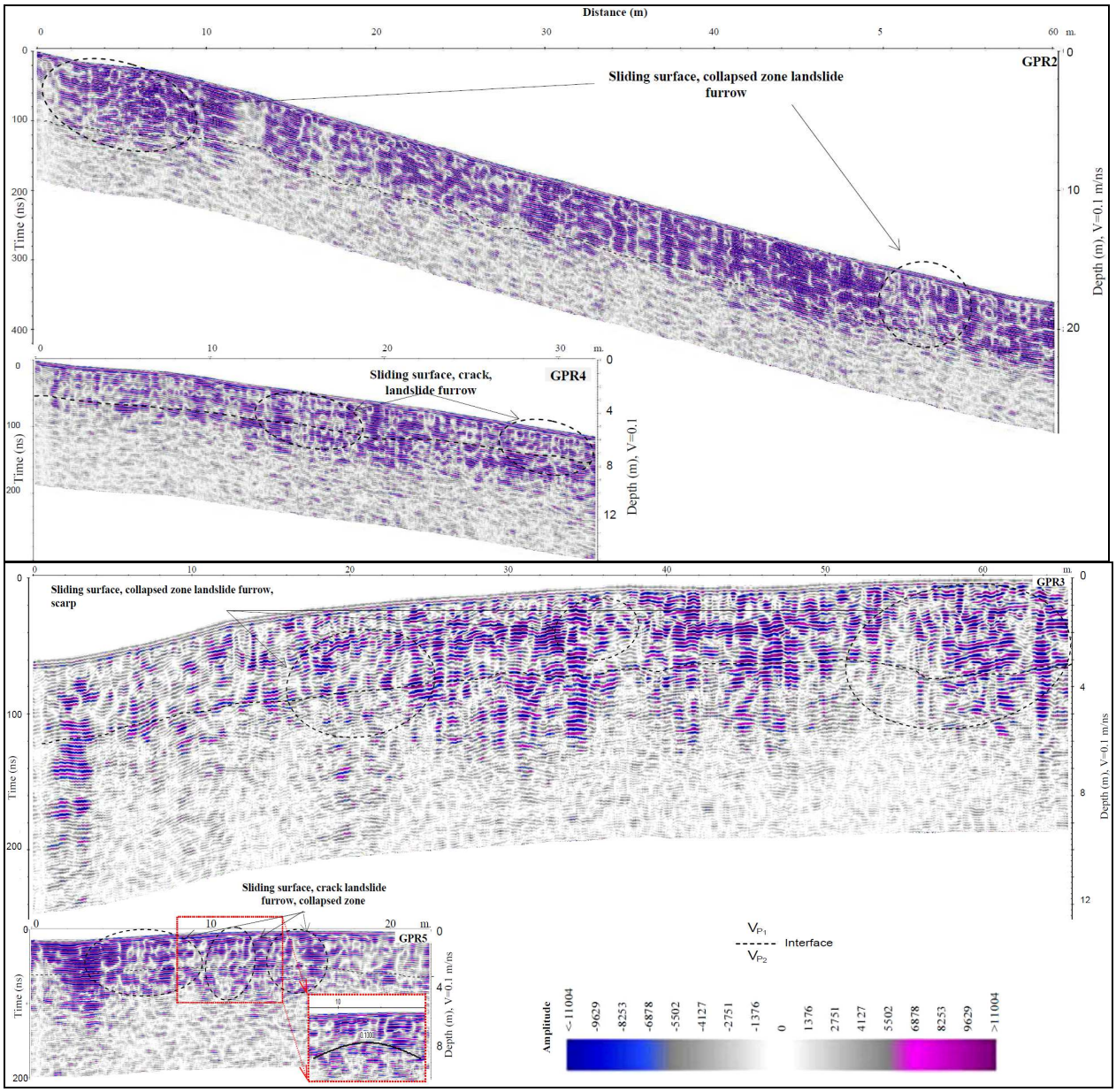

Figure 8. GPR profiles in A area and the deformations in the loose layers (the seismic V_{P1} layer).

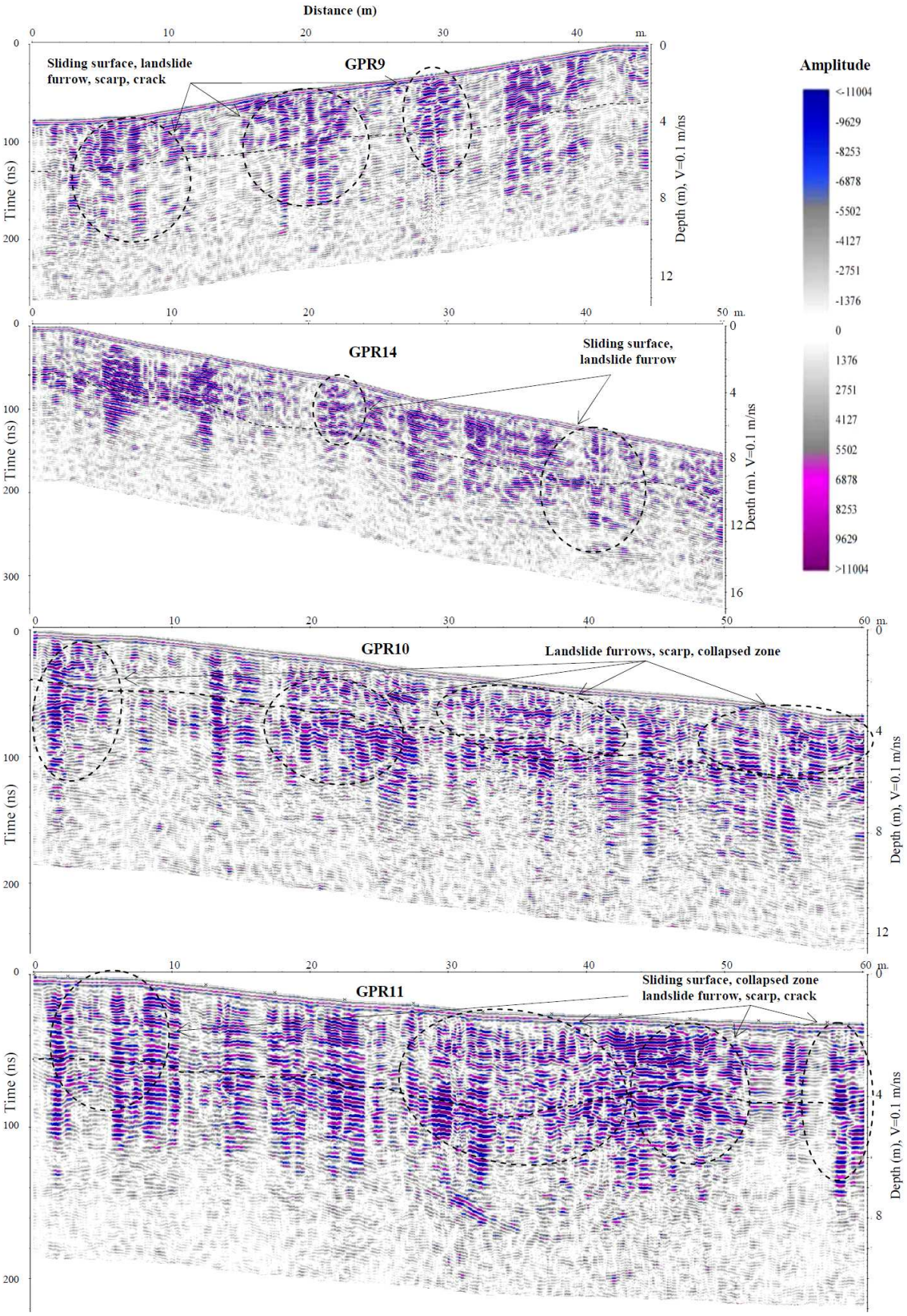

Figure 9. GPR profiles in the C-west area and the deformations in the loose layer (the seismic V_{P1} layer).

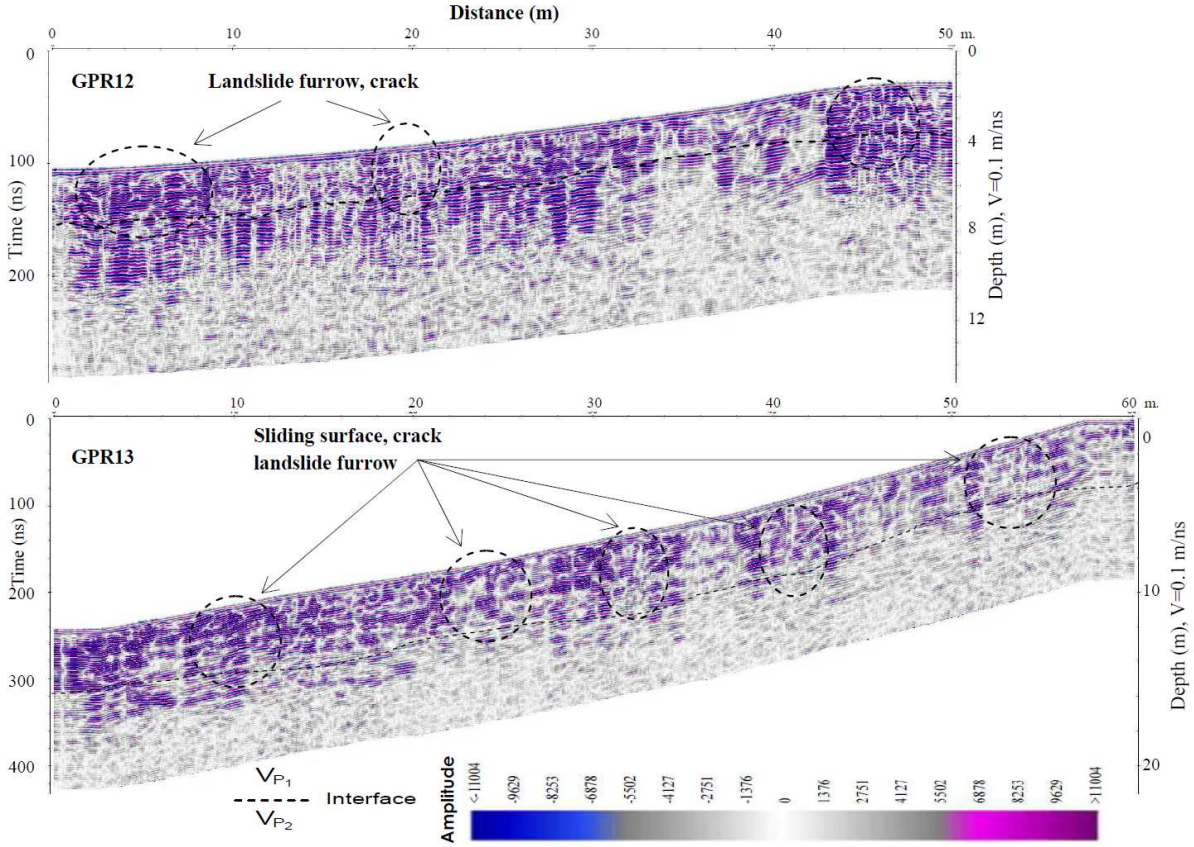

Figure 9. (…contiune) C-east area.