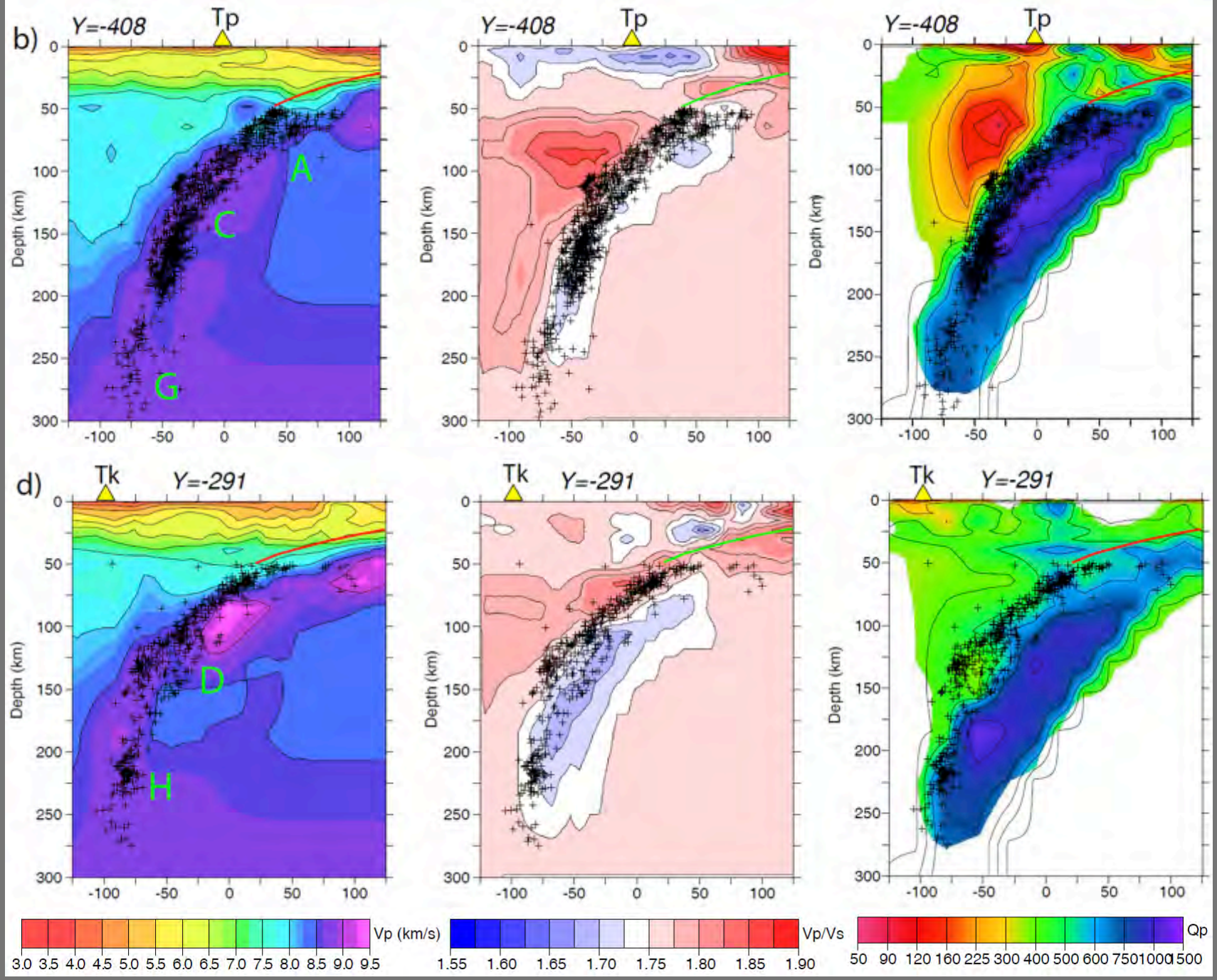
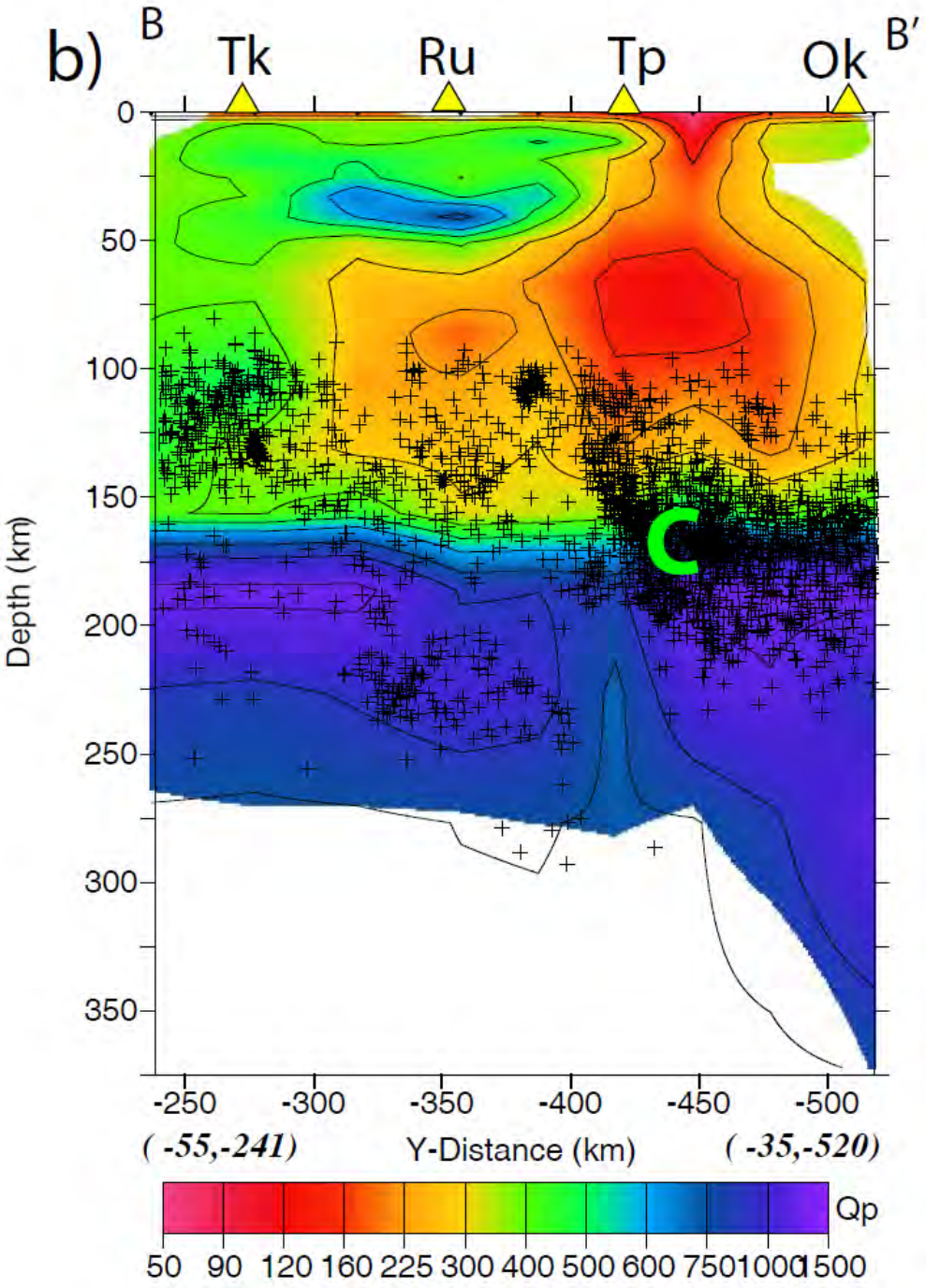

b)
Y=-408
Tp
A
C
G
Depth (km)
d)
Tk
Y=-291
D
H
Vp (km/s)
3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5
Vp/Vs
1.55 1.60 1.65 1.70 1.75 1.80 1.85 1.90
Qp
50 90 120 160 225 300 400 500 600 750 1000 1500



How does along-strike variation in subducting plate seismicity relate to fluid release and attenuation?

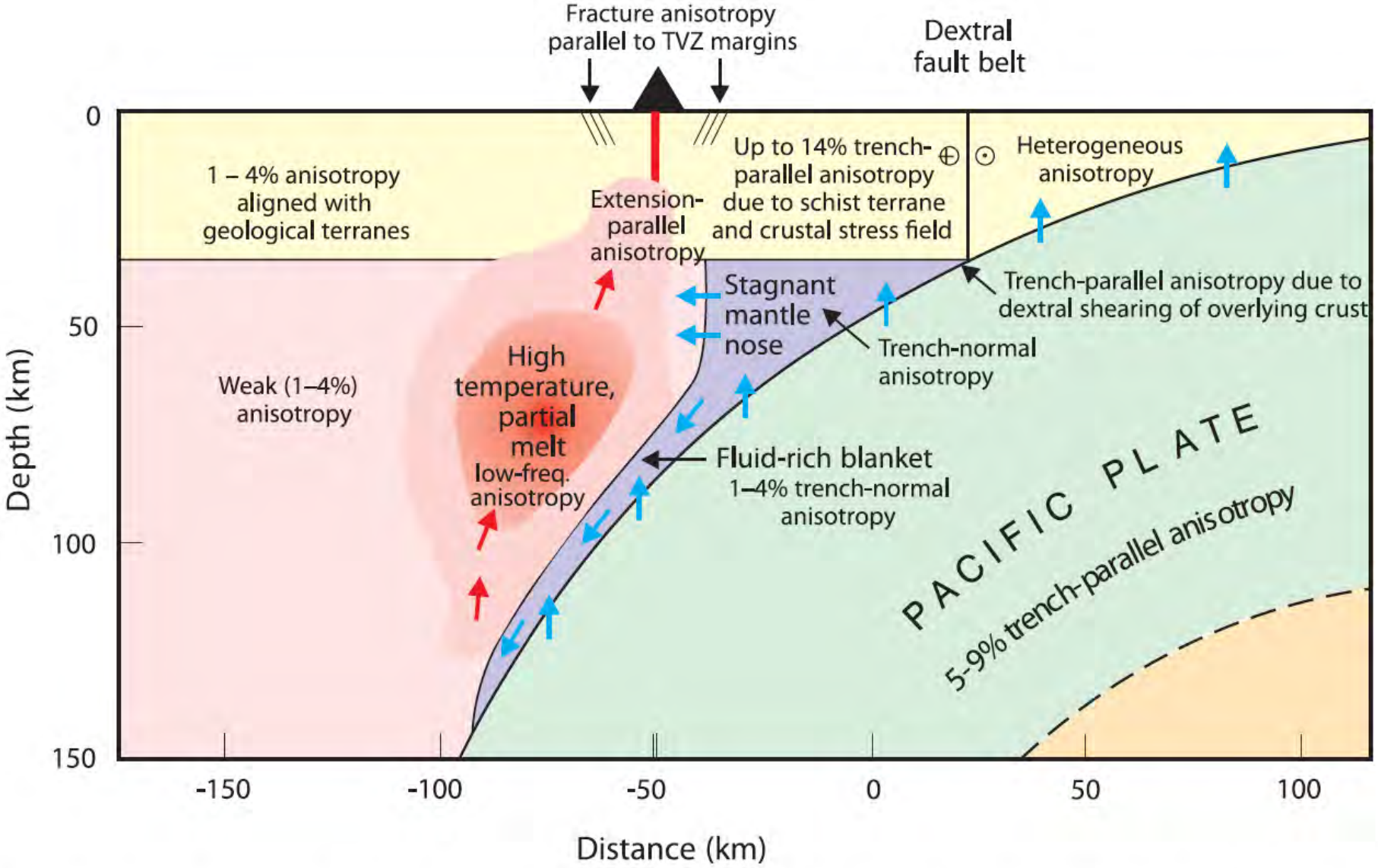
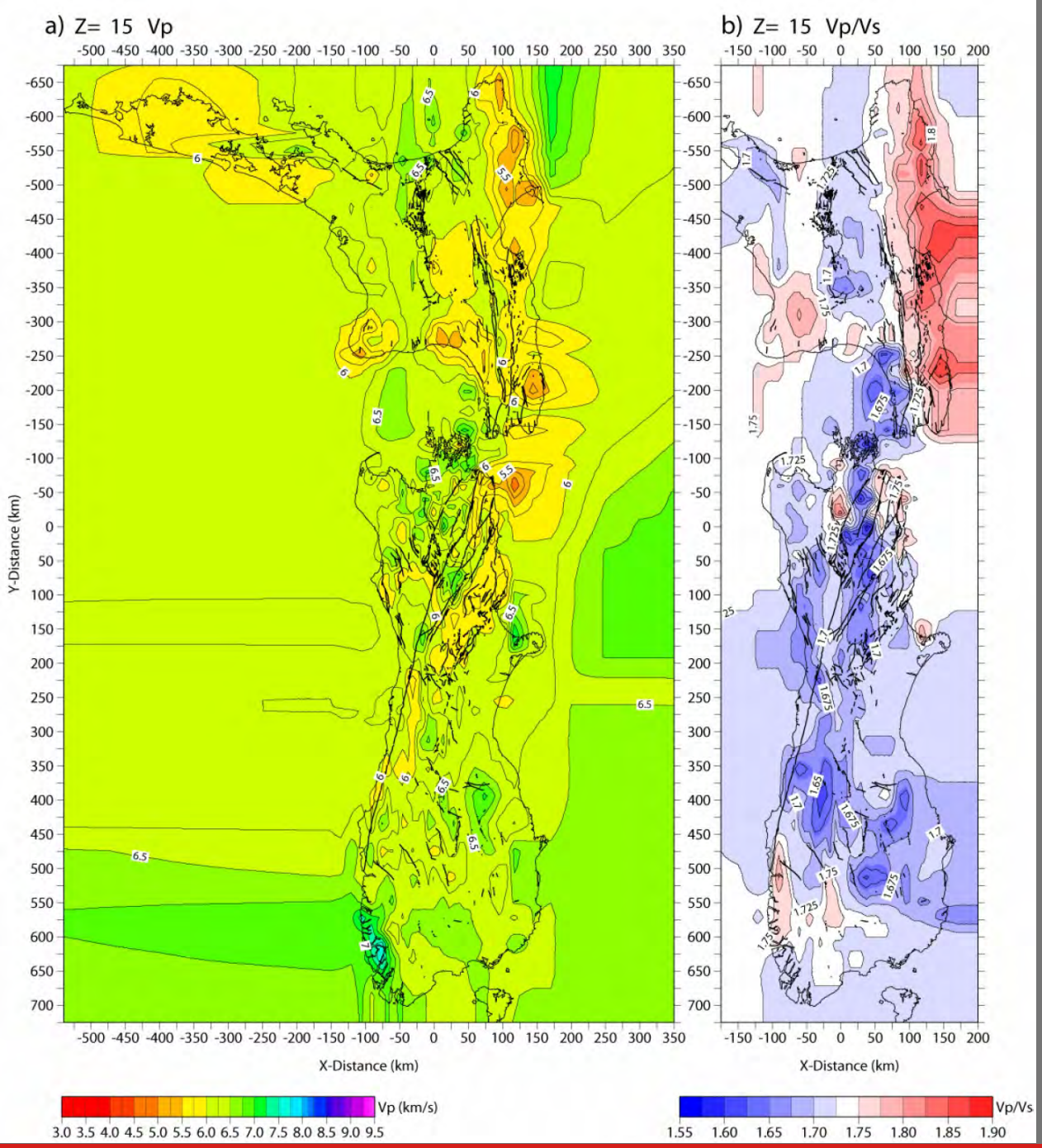
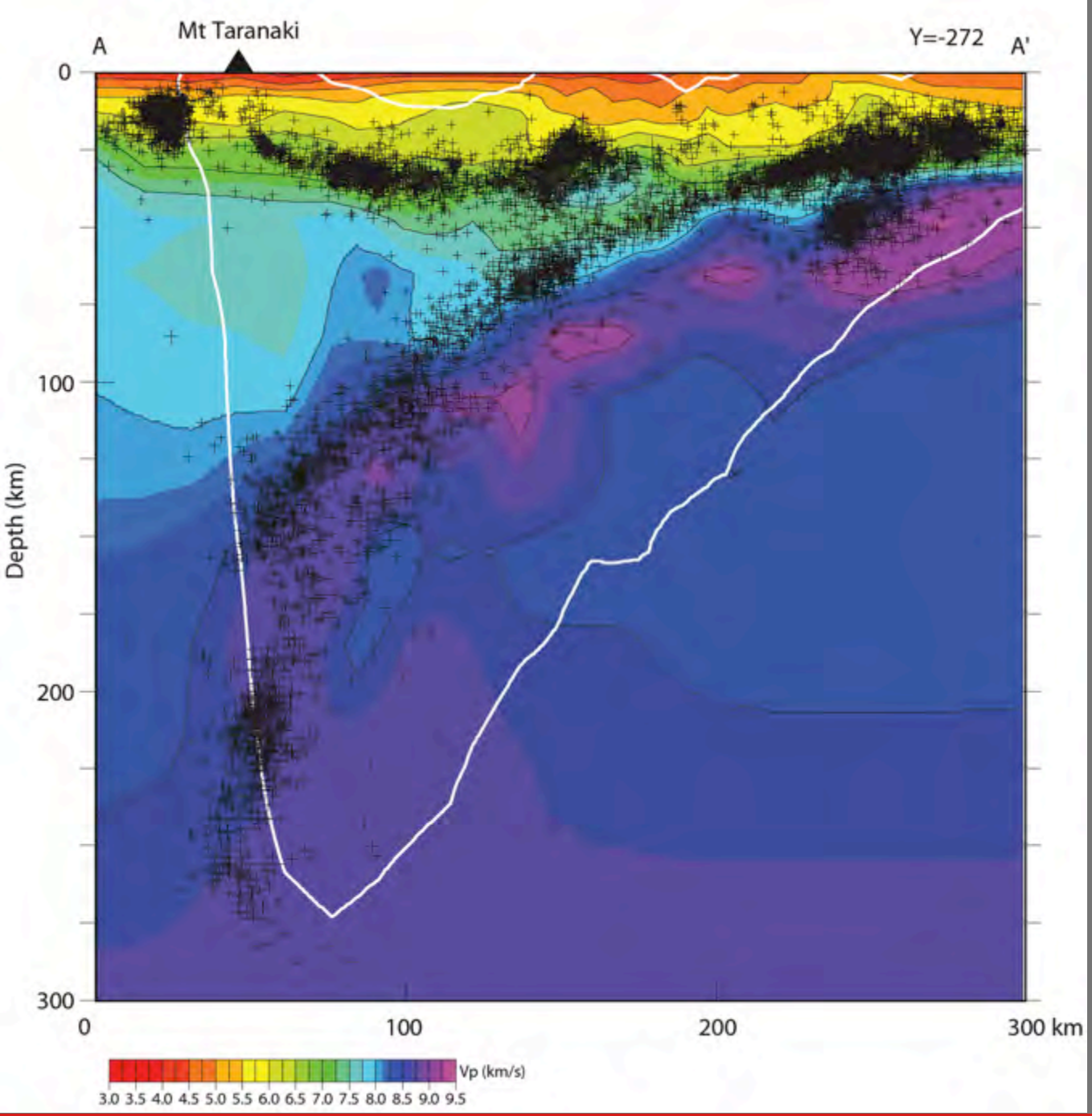


Figure 10. A summary of our anisotropy model on a depth section through the Taupo Volcanic Zone (equivalent to y = 0). The underlying structural model is from *Eberhart-Phillips et al.* [2008], with blue arrows denoting fluid movement, and red arrows denoting movement of melt. The large volume of partial melt has nil short-period anisotropy but does have long-period trench-parallel anisotropy.



The nationwide 3-D seismic velocity model

Eberhart-Phillips et al., *Seismological Research Letters*, 2010

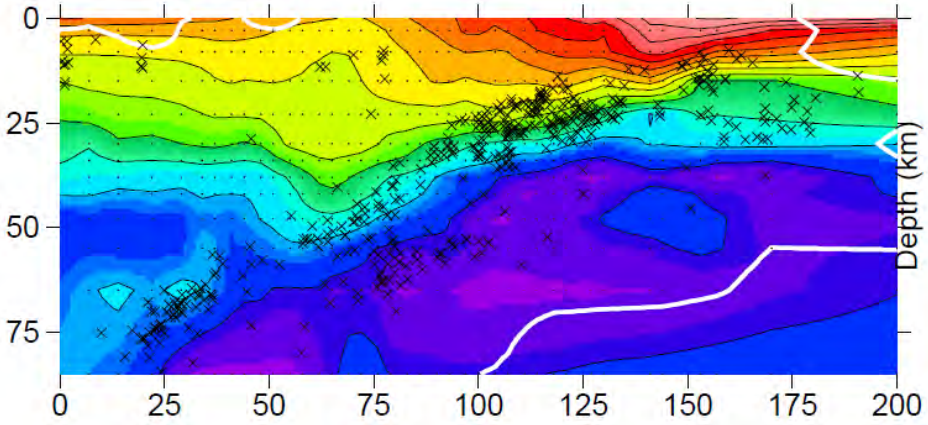


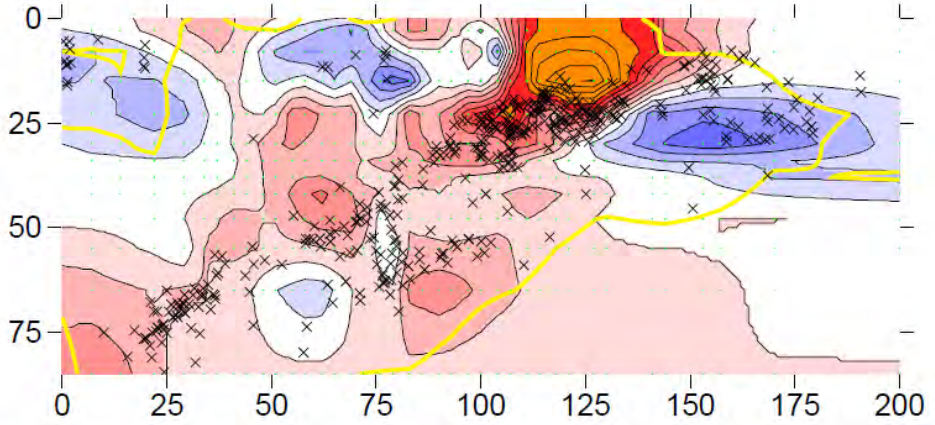
Seismicity for the period 2001-2009 inclusive within 50 km of the section, relocated with the 3D nationwide seismic velocity model

Eberhart-Phillips et al., *Seismological Research Letters*, 2010

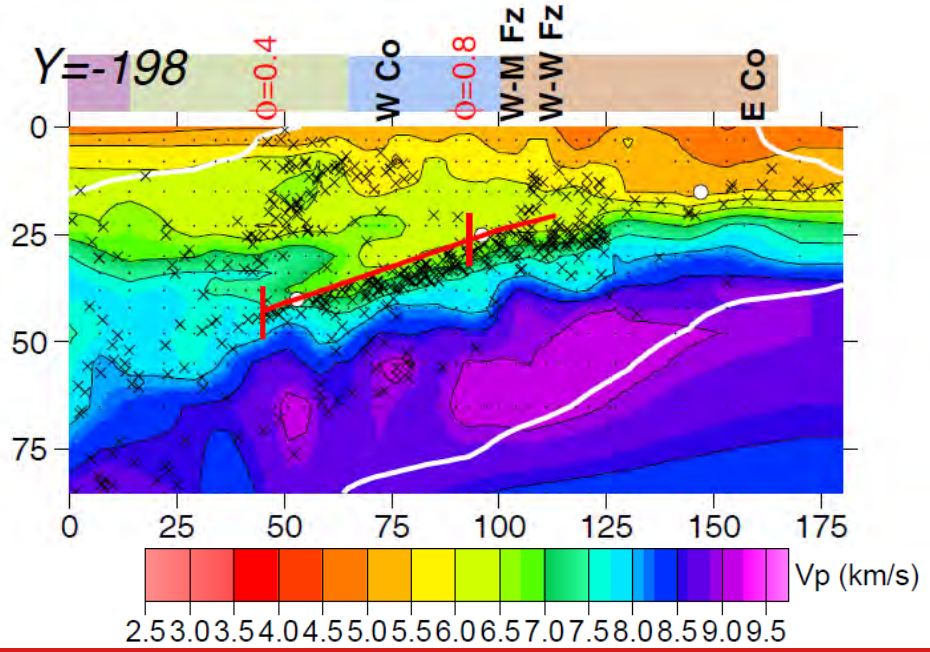
Imaging the plate interface with improved local-earthquake tomography

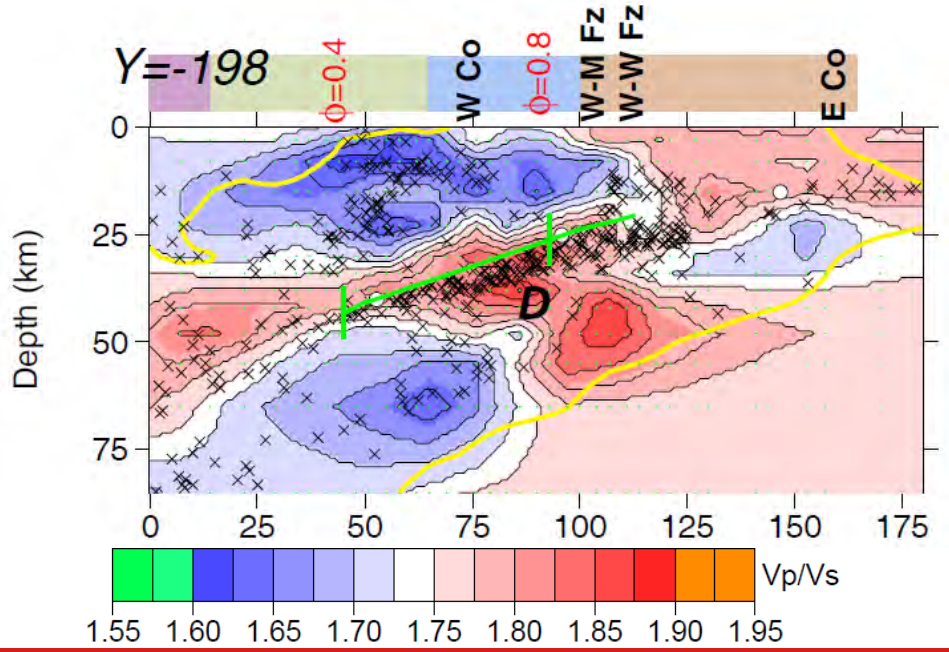
Gisborne

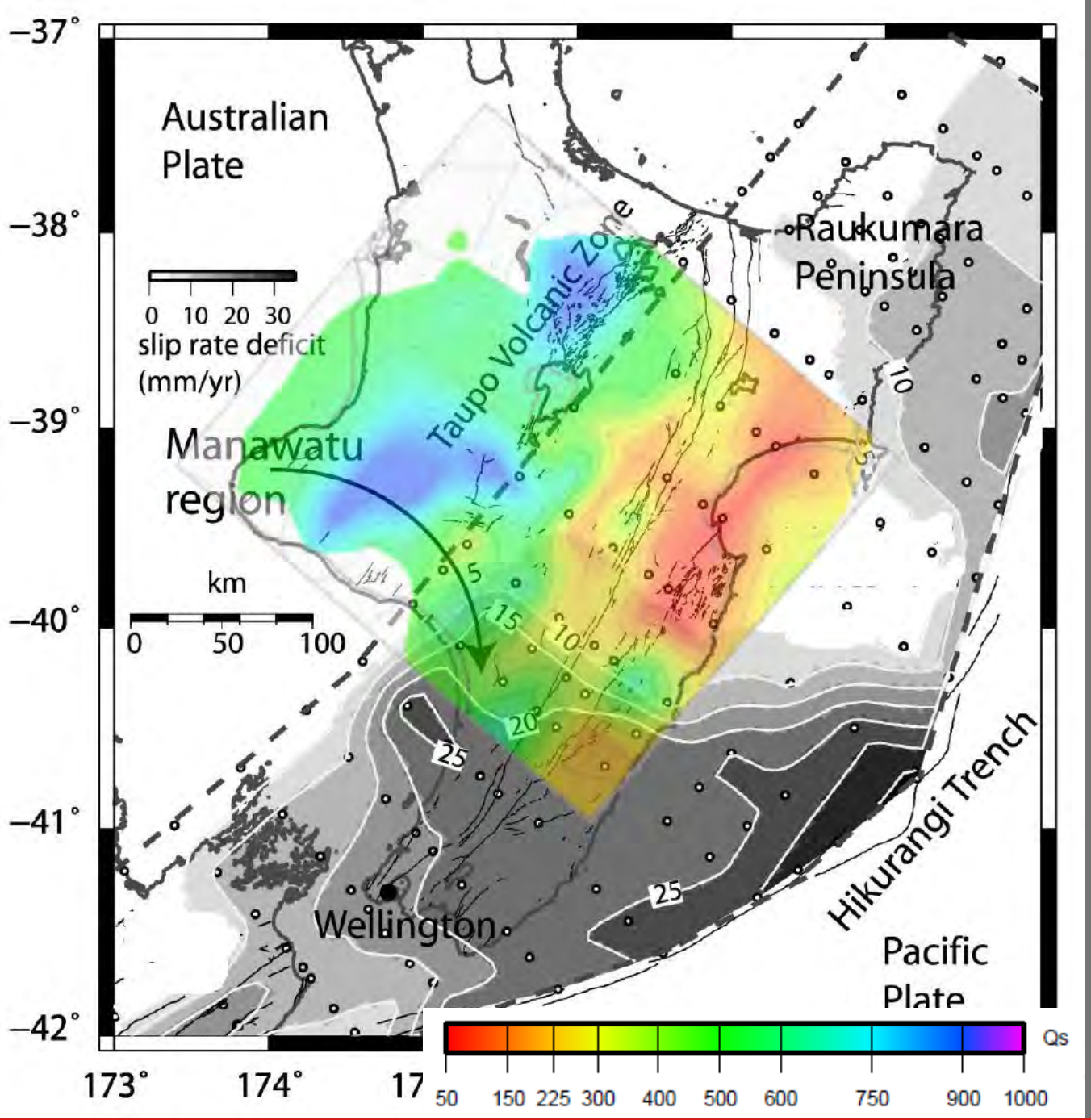




Southern North island

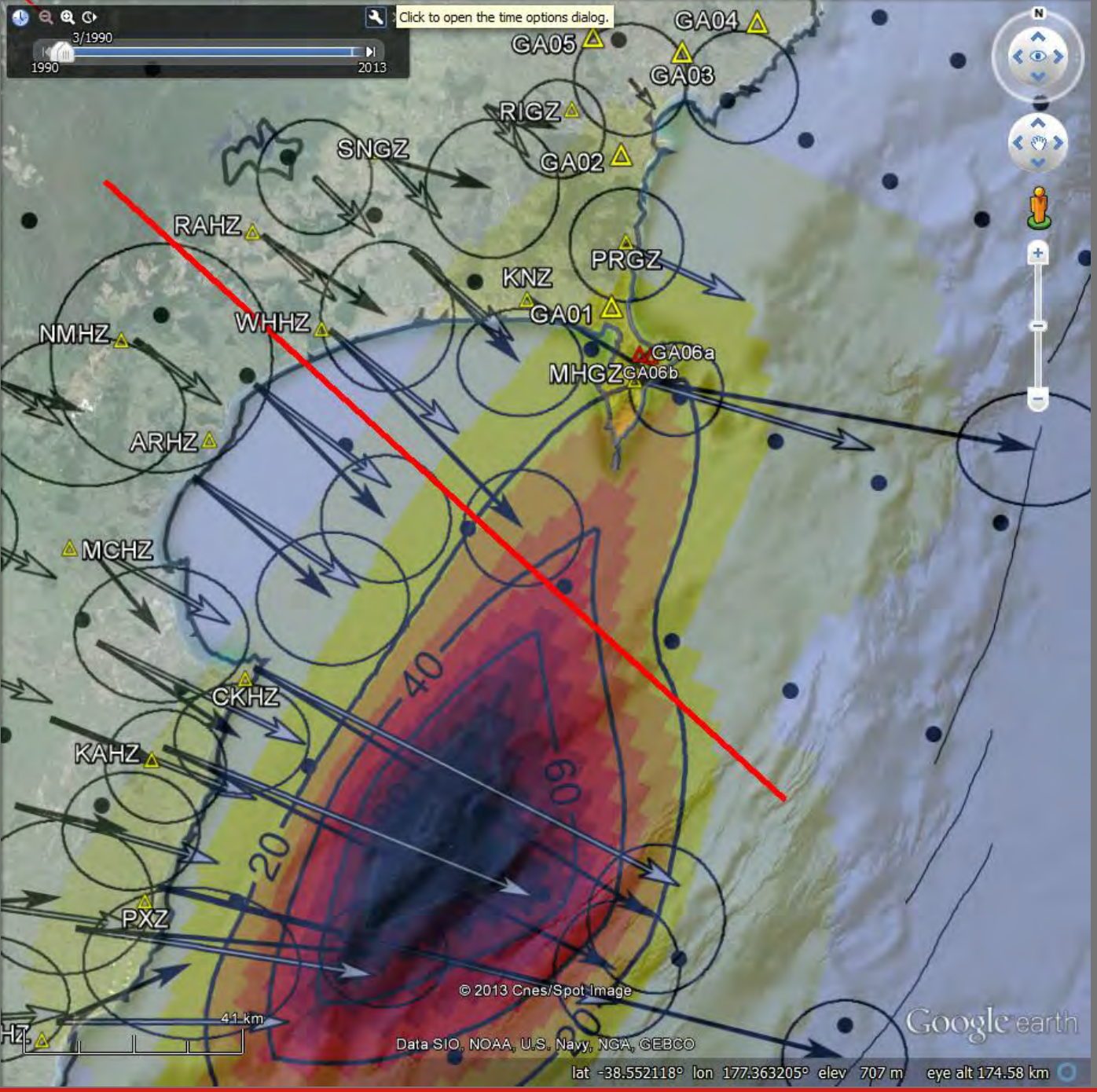






Qs at 18 km depth superimposed on the distribution of subduction interface interseismic slip rate deficit (Wallace et al. 2004)

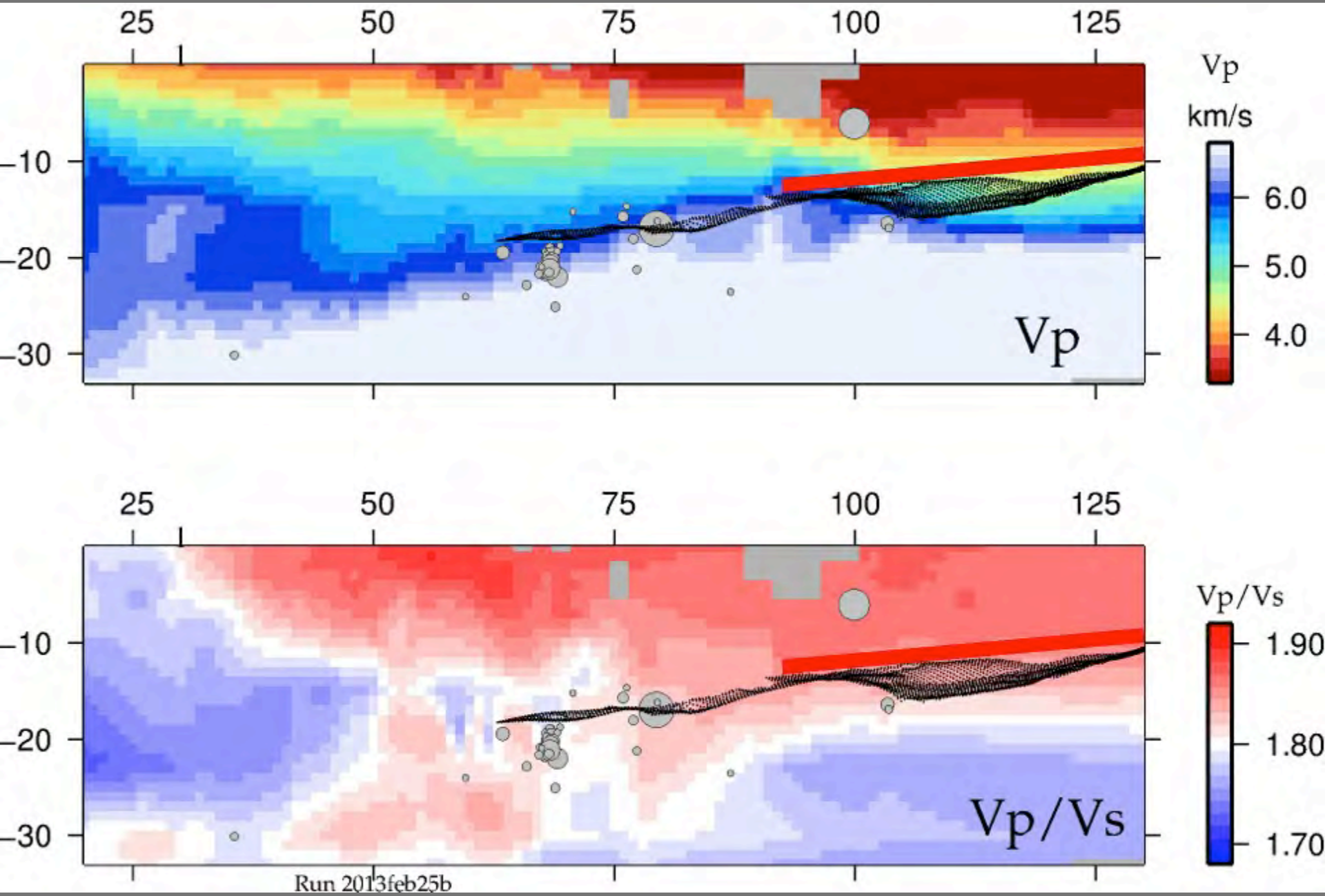
Kirsty Styles PhD thesis, 2009



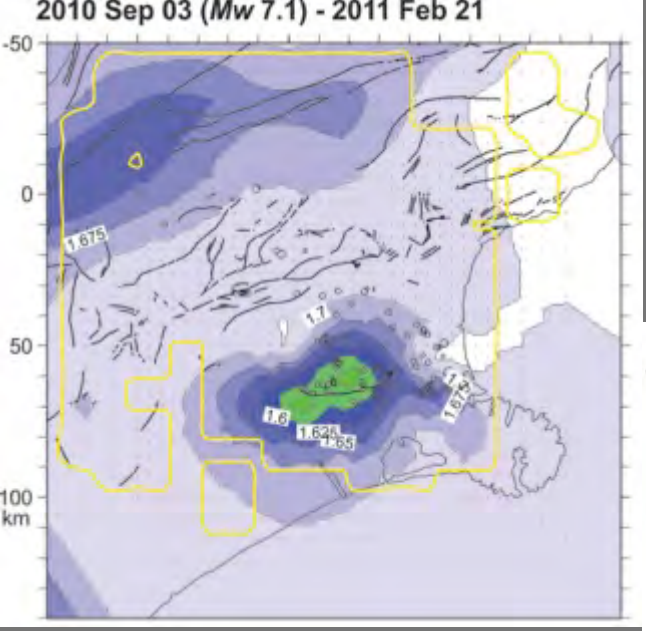
Hawke Bay SSE

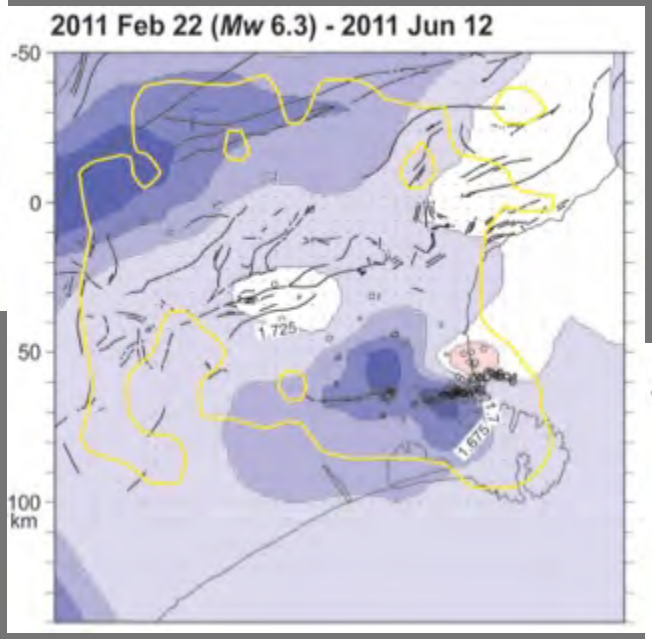
Late February – early March 2013

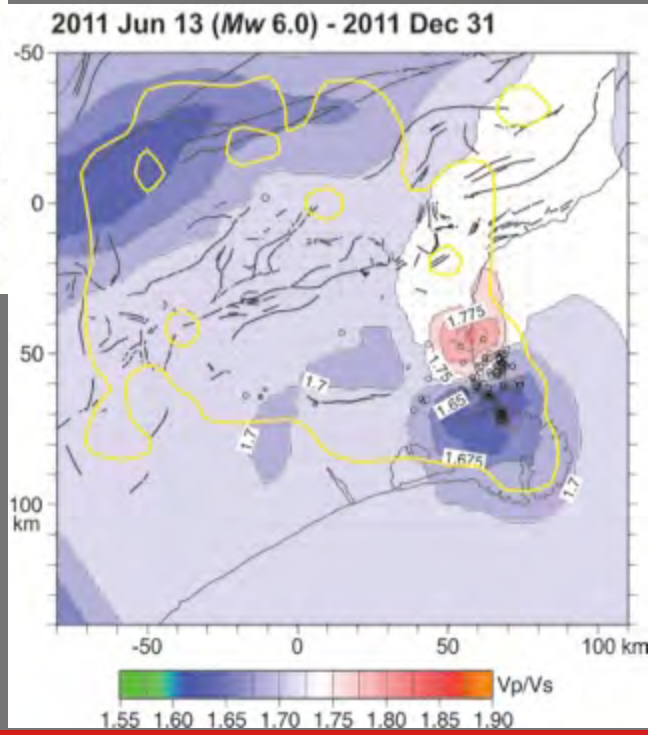
Mw 6.8


25
50
75
100
125
−10
−20
−30
Vp
km/s
6.0
5.0
4.0
Vp
25
50
75
100
125
−10
−20
−30
Vp/Vs
1.90
1.80
1.70
Vp/Vs
Run 2013feb25b

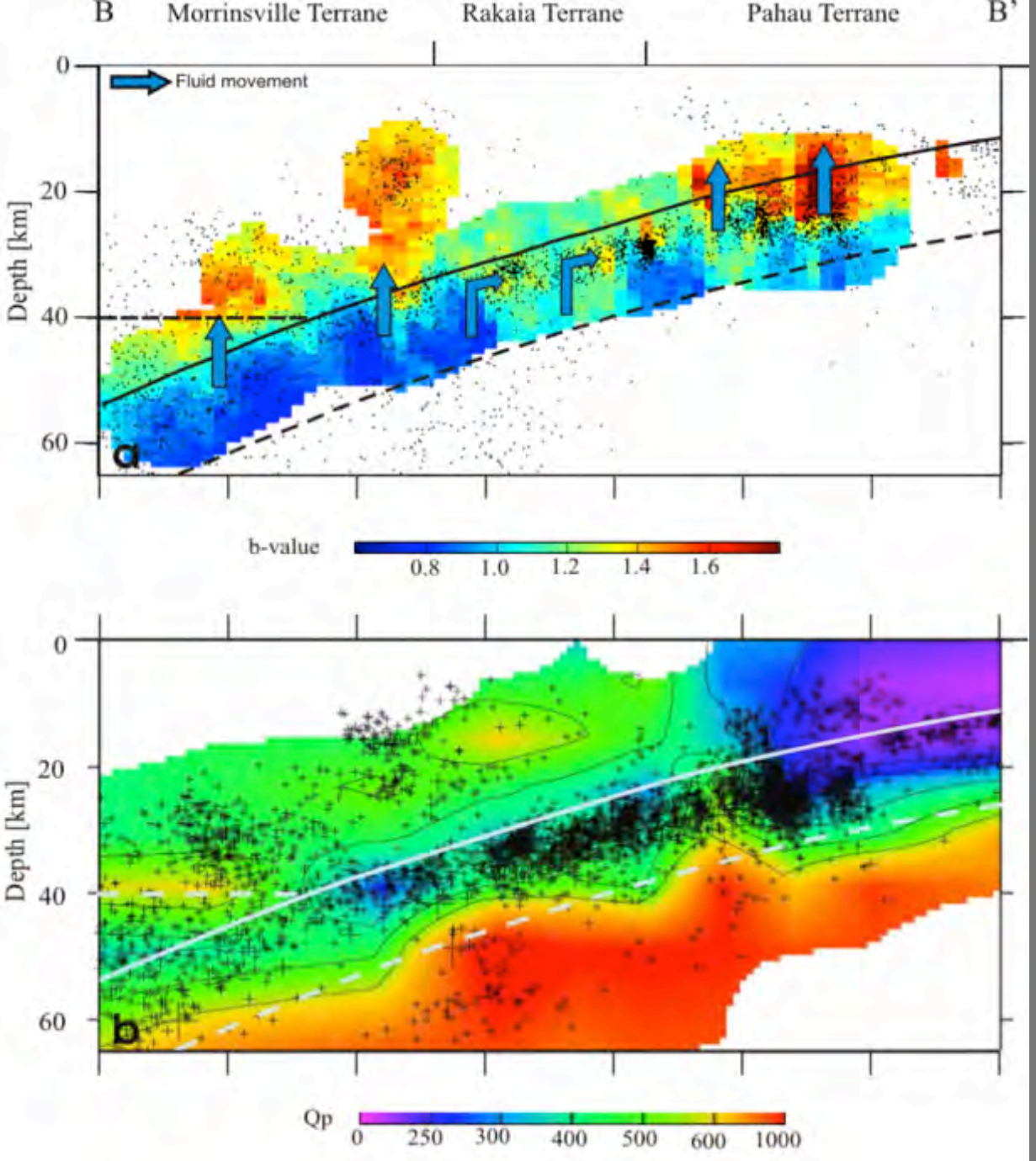
Time-lapse tomography of the 2010-2011 Canterbury earthquake sequence







Maps of Vp/Vs at 3 km depth (~depth of maximum slip in Mw 7.1 Darfield earthquake)



Crustal heterogeneity from b-value variation

Montuori et al., *Geophysical Journal International*, 2010

Relationship between surface deformation and low Qp in the forearc in southern Hawke's Bay