The base of the Little Butte Volcanic Series (lower Miocene to Eocene?) –

The mapped distribution of the unit corresponds in part to areas mapped as Hazelair, from Willamette Silt (Qws). The mapped distribution of the unit is based on silty and sandy soils correlation with the channel-filling gravels that underlie a 4.5 ± 0.3 Ma (K-Ar; Walker and 

Water well drillers commonly describe the unit as clay or gravel and clay in their well logs. Volcaniclastic conglomerate and 

root fragments. The unit is equivalent to the Calapooia clay of Niem and others (1987) and in 

Lower Tertiary Sedimentary Deposits –

The northern trace of the Golden Valley Fault is not readily imaged by either the 716-77-W11 or 

which were mapped as intrusions by Allison and Felts (1956), form a northwest-trending belt of 

Mafic intrusions (lower Miocene, Oligocene, and middle Eocene) –

Irregular plug

Light gray, crystal-


Globigerinatheka index

Cibicides natlandi


Smith, J. G., Sawlan, M. S., and Katcher, A. C., 1980, An important lower Oligocene welded tuff marker bed 

