

CHAPTER S. SHALE HILLS

Field Note S2b5. Bokkeveld Group – Bredasdorp Group contact



View on the Bokkeveld Group - Bredasdorp Group contact west of Ouplaas.

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The contact between the Devonian Bokkeveld Group rocks and the mid-Tertiary Bredasdorp Group rocks is very clearly visible in places.

River cuts, such as around the Salt River Gorge are sites where the contact is easily discerned (Figures 1 and 2)

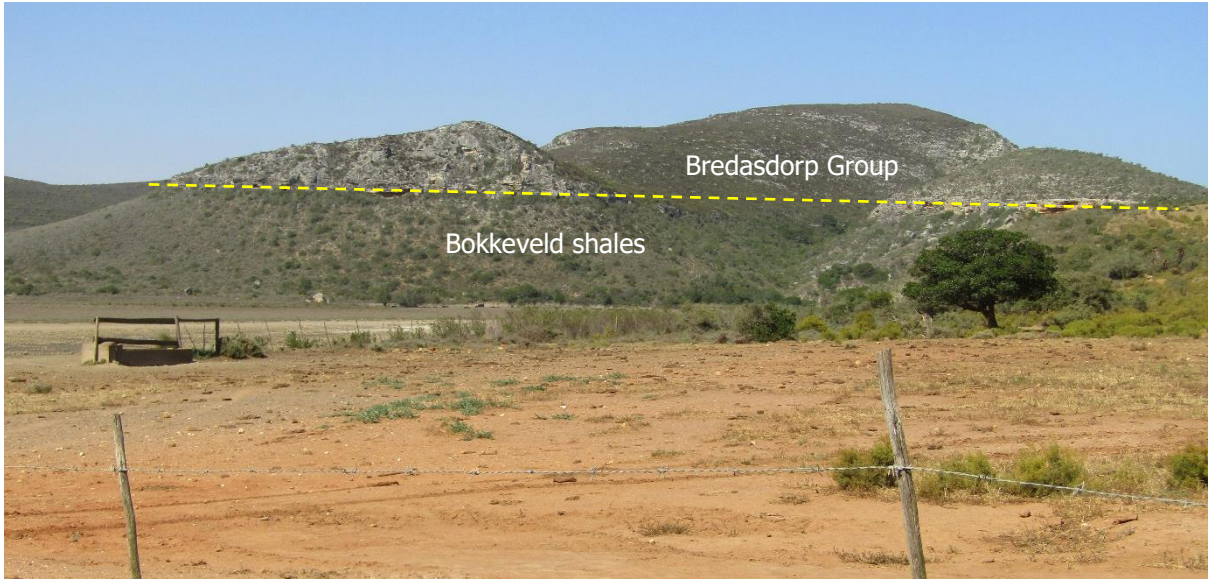


Figure 1. View on the north side of the Salt River Gorge. The Bredasdorp Group is overlying a wave-cut terrace of the Bokkeveld Group, which is sloping very gently seawards (to the right).



Figure 2. The De Hoop Vlei Formation over Bokkeveld shales on the north side of the Salt River Gorge.

The contact is also very clearly visible where Bokkeveld Formation fields are cultivated to the very edge of the Calcrete cover of the limestone rocks of the Bredasdorp Group (Figure 3).



Figure 3. Top and bottom - views of the Bokkeveld Group contact with the Bredasdorp Group rocks between the Kars Rievr Gorge and the Salt River Gorge. Along this section, the De Hoop Vlei Fm is missing, and the limestones are the calcrete cap of the Wankoe Formation. the Bredasdorp Block is seen in the west.

Of note is a small area on the east Renosterfontein Farm, where the contact between the Bokkeveld Group formations and the limestones is concealed under a thick layer of clay (Figures 4 to 9).



Figure 4. Satellite image of the Bokkeveld Group contact with the Bredasdorp Group rocks within the ellipsoid) on the Renosterfontein Farm, close to the salt pan.

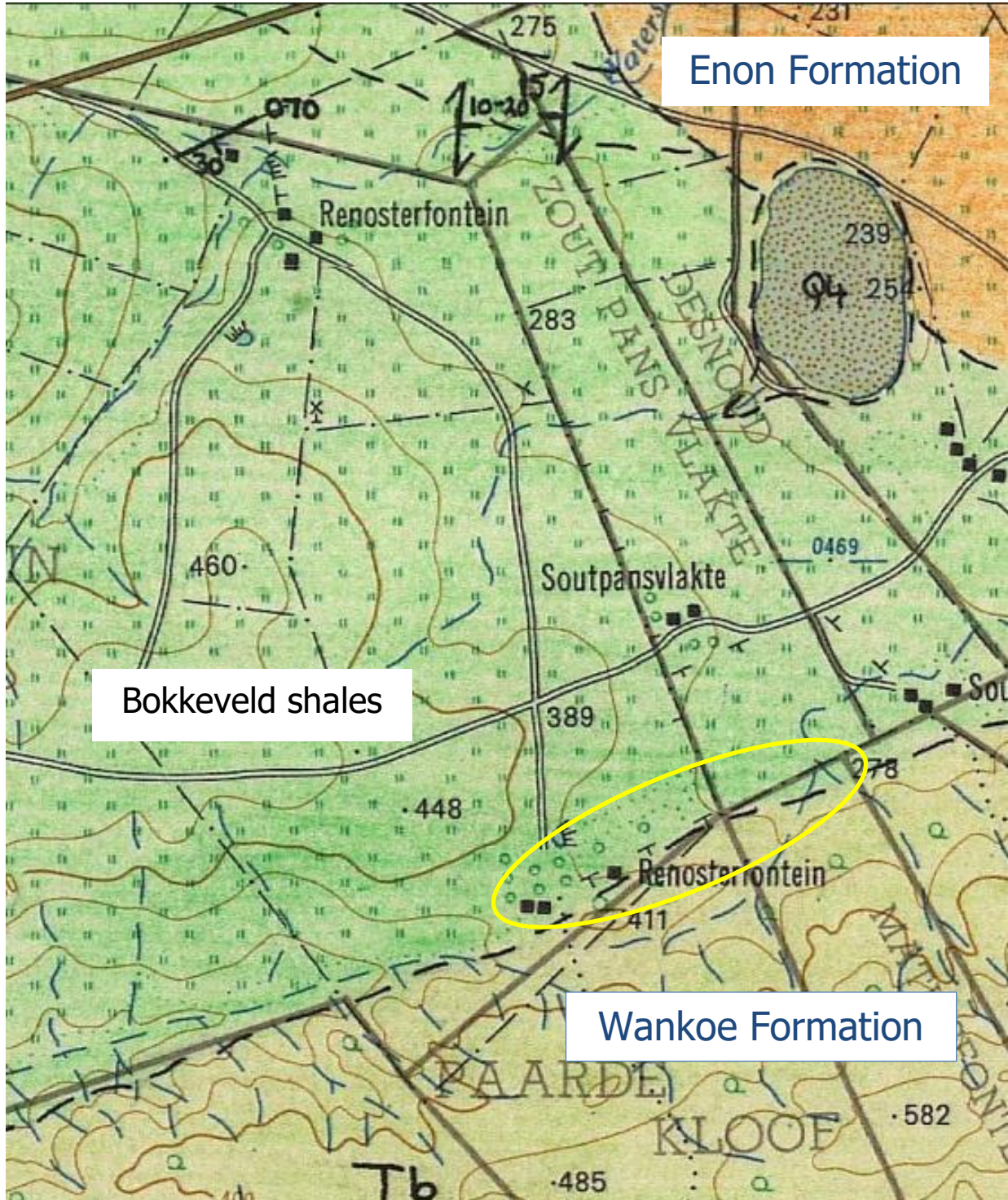


Figure 5. Geology map (3420AC field sheet by J Malan, 1984) showing the area of the concealed Bokkeveld Group contact with the Bredasdorp Group rocks (within the ellipsoid) on the east Renosterfontein Farm, south of the salt pan (Bontebok Vlei).

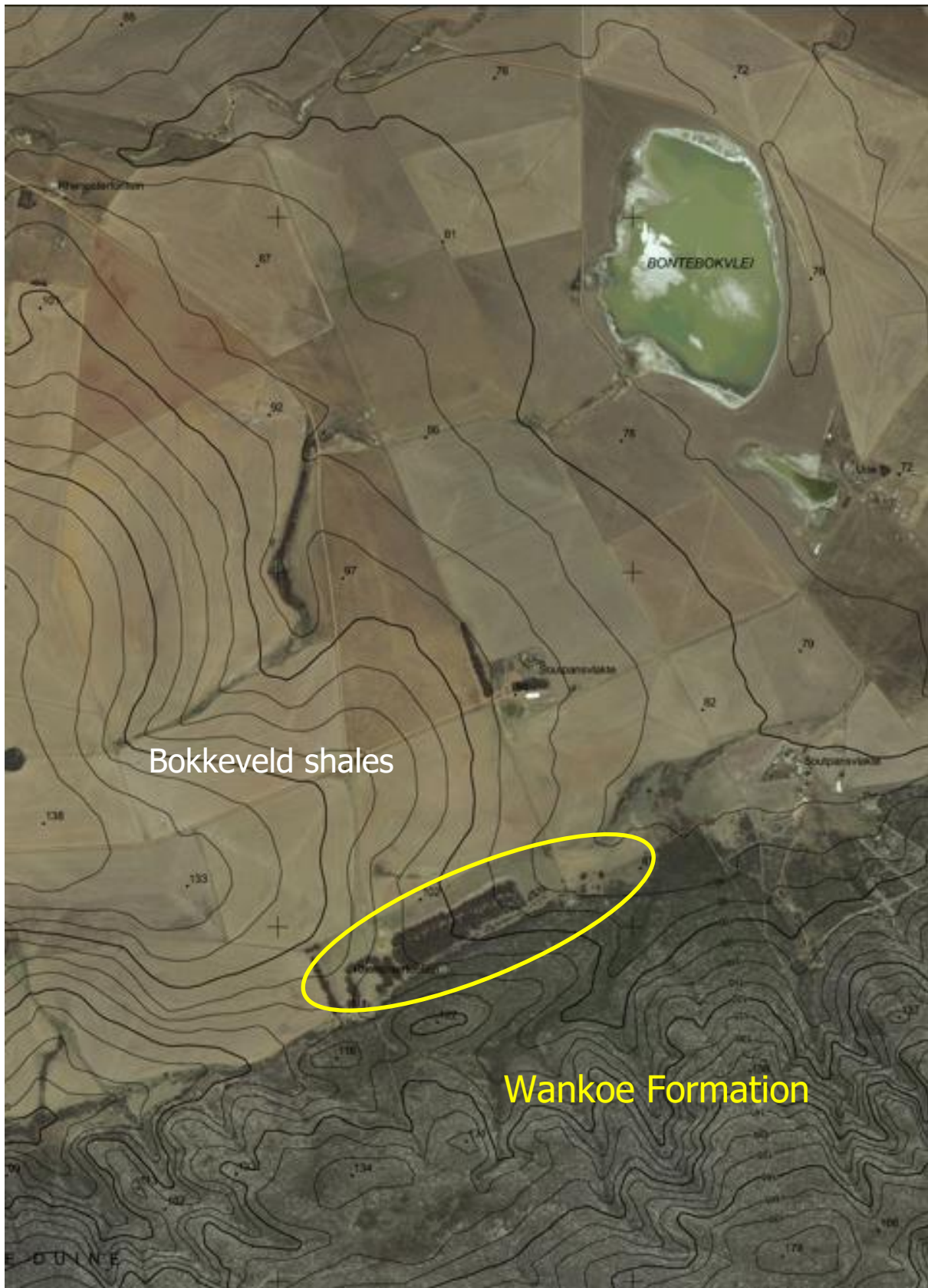


Figure 6. Topography map showing the area of the concealed Bokkeveld Group contact with the Bredasdorp Group rocks (within the ellipsoid) on the east Renosterfontein Farm.

The area in question is unique along the contact between the Bokkeveld Group and the Bredasdorp Group, as it contains thick clay, on which tall thickets of eucalyptus and pine trees are present (Figures 6 to



Figure 7. Topography map showing the clayey area of the concealed Bokkeveld Group contact with the Bredasdorp Group rocks (within the ellipsoid), with the eucalyptus and pine trees on the east Renosterfontein Farm.



Figure 8. The clayey area and the eucalyptus trees.



Figure 9. The clayey area and the eucalyptus and pine trees. Pines cannot be seen anywhere else along the contact line.

To the west of the eucalyptuses, the contact line is clear and visible again (Figure 10).

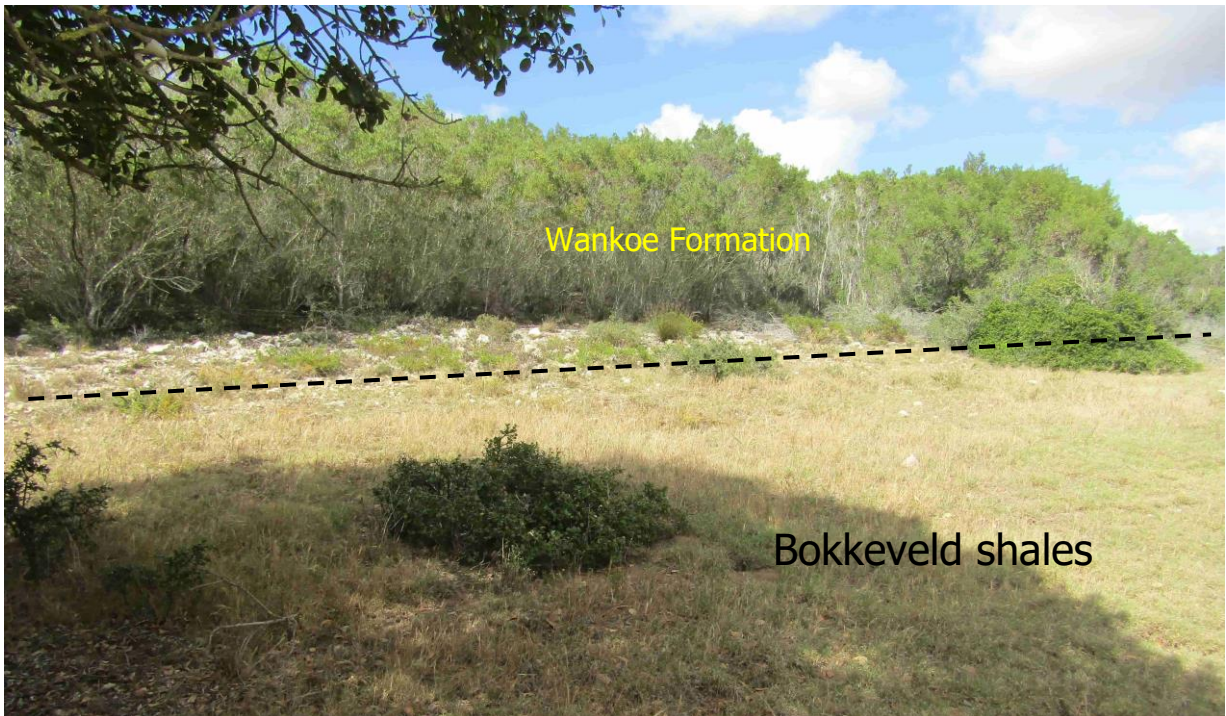
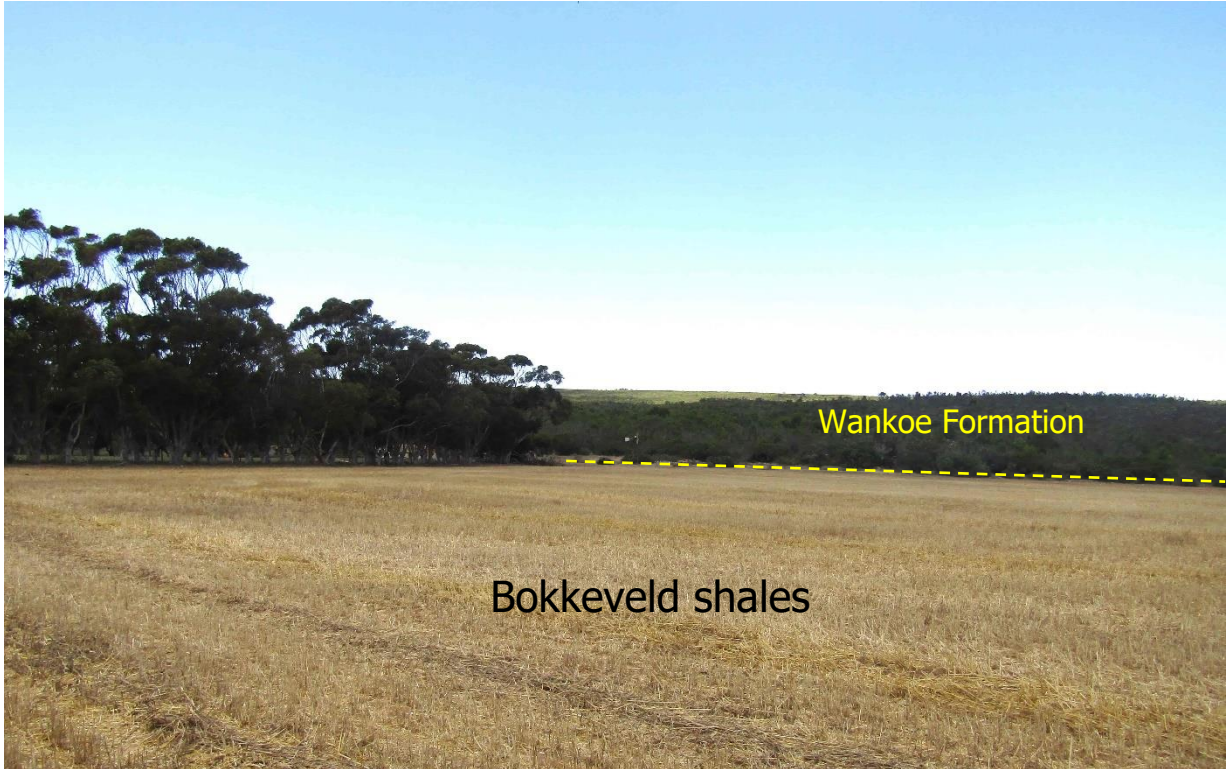


Figure 10. The contact line between the Bokkeveld Group and the Bredasdorp Group is visible again west of the eucalyptus thickets.

The origin of the clay in this area is a subject for further study.