

**K. WEST VALLEYS**

**Field Note K2. The West Renoster Valley**

There are seven valleys in the area between the Kars River in the west and the De Hoop Vlei in the east. They form a continuous line of valleys, separating, the Outer West Hard Dunes from the Inner West Hard Dunes – the two sub-parallel ranges, west of De Hoop Vlei.

These valleys are, from west to east: the West Renoster Valley, the East Renoster Valley, the Rietfontein Valley, the Matjesfontein Valley, the Ou Werf Valley, the Hooge Krans Valley and the Patryze Valley (Figure 1). [The valley names were given by the author after the names of the (old) farms on which they are located, or adjacent farms]. Some of the valleys are enclosed; none of them drains into a river. The access to the valleys is only possible from the farms to the west of the Outer West Hard Dunes.

The valleys are briefly described below and in detail in the following Field Notes.



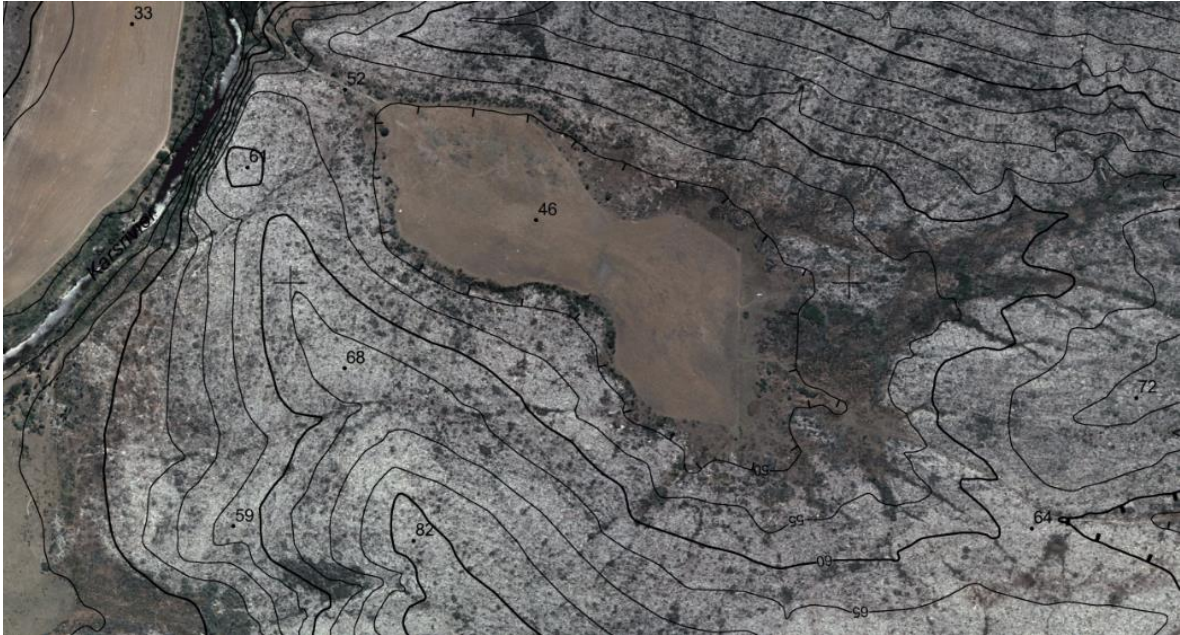
**Figure 1. Satellite image of the area west of De Hoop Vlei, showing the West Hard Dunes ranges and the valleys between them [all names were given by the author]: 1 – West Renoster Valley; 2- East Renoster Valley; 3 – Rietfontein Valley; 4 – Matjesfontein Valley; 5 - Ou Werf Valley; 6 - Hooge Krans Valley; 7- Patryze Valley. The combined length of the valleys is ~20 km. Arrows point to: green - Kars River; white – De Hoop Vlei.**



The West Renoster Valleys was named after the adjacent farm Renosterfontein. It has an elliptical shape and is quite flat. It is surrounded by hills (Hard Dunes). The valley can be accessed from the north and the west (Figures 2 and 3).



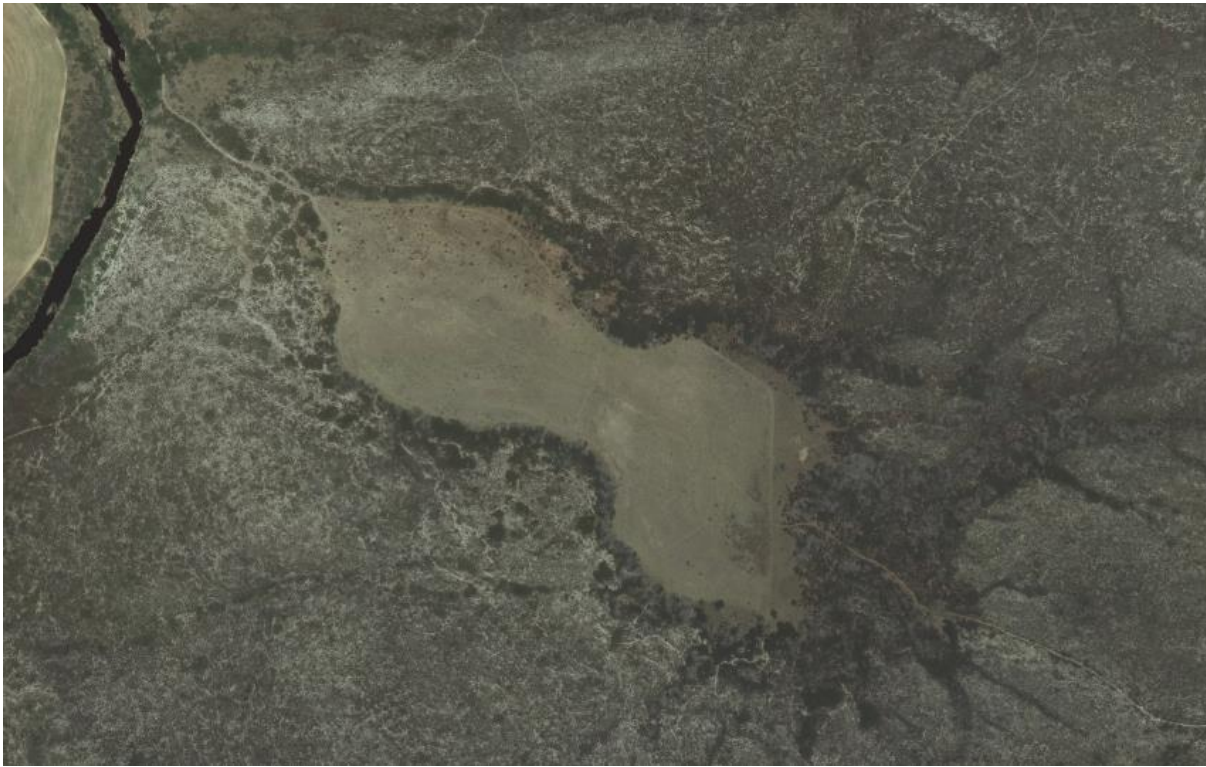
**Figure 2. Satellite image of the Renoster Valleys and heir surrounds. Arrows point to: white - the roads into the valley via Renosterfontein Farm and the Kars River; yellow – the road from Soutpansvlakte Farm.**



**Figure 3. Topography map of the hills around the West Renoster Valley.**



The valley floor is covered with low grass. After heavy rains a periodical vlei is formed at the lowest part of the valley (Figures 4 and 5).



**Figure 4. Satellite image of the West Renoster Valley. The eastern part is a field of low dunes (red sand).**



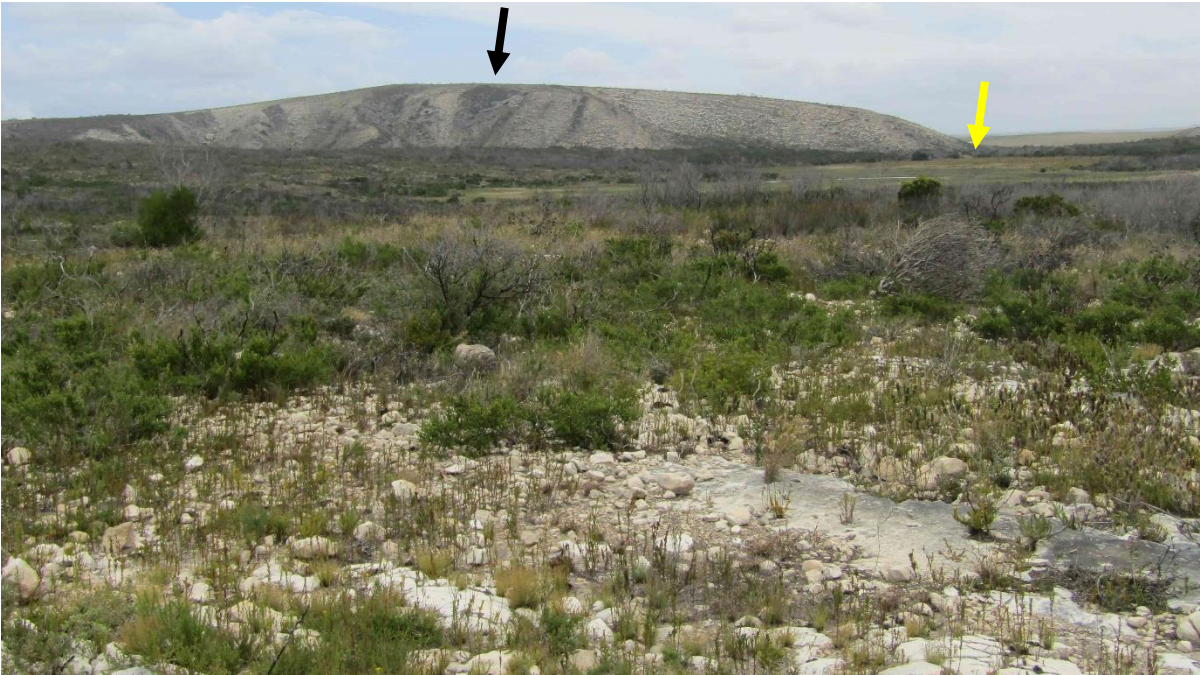
**Figure 5. Satellite image of the West Renoster Valley, showing the vlei, which was formed after heavy rains (2005).**



The calcrete-capped Hard Dunes around of the West Renoster Valley peak at ~50 m above the valley floor (Figures 6 and 7). On the east, the sill (separating it from the East Renoster Valley) is lower. On the west the sill, which separates the valley from the Kars River, is only 5 m above the valley floor.



**Figure 6. View to the south on the West Renoster Valley (yellow arrow).**



**Figure 7. View to the west on the West Renoster Valley from the low hill, which separates it from the East Renoster Valley. The yellow arrow points to the sill at the west end of the valley. Black arrow points on the Bredasdorp Hard Dunes.**



Except for the eastern section, the West Renoster Valley floor is flat (Figures 8 and 9).



**Figure 8. The floor of the valley is flat. View from the northwest end to the southeast.**



**Figure 9. The floor of the valley is flat. View from the southeast end to the northwest. Arrow points on the Bredasdorp Hard Dunes.**



The floor of the valley consists of fine sediments with pebbles in the western section and of red sand in the eastern section (Figure 10).



**Figure 10. Top – soil with pebbles in the western part of the valley. Bottom - low dunes of red sand of the eastern part of the valley.**



Rounded pebbles and chunks of quartz are present on the floor of the valley (Figure 11).



**Figure 10. Top and bottom - rounded and sub-rounded clasts, quartz chunks as well as calcrete clasts from the hills around it, are abundant on the floor of the western part of the valley.**



Small ferricrete lumps and chunks of shales are present on the floor of the valley (Figure 12).



**Figure 11. Small ferricrete lumps and shale chunks on the floor of the West Renoster Valley.**

The West Renoster Valley is not a karst feature (doline), as suggested by some researchers (Marker and Craven, 2002). The presence of rock pieces of non-aeolian origin on the Wankoe Formation is a subject for further study.