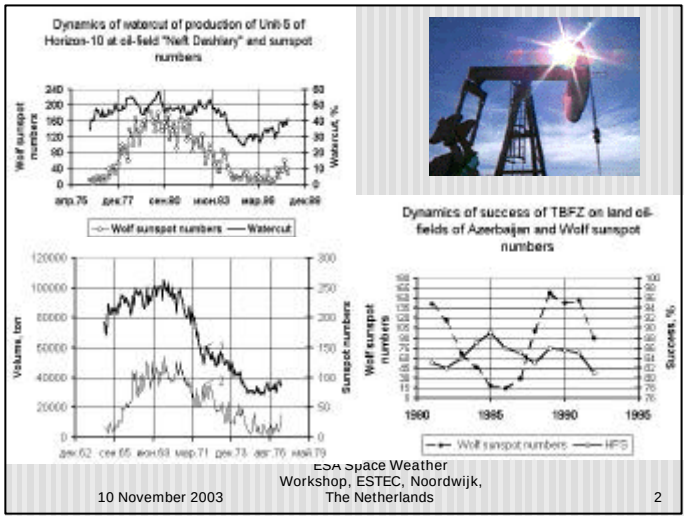

Purposes of investigation: study the possible influence of solar and geomagnetic activity on technological processes of development at the offshore oil-field "Neft Dashlary" ("Oil Rocks") in the Caspian Sea as well as at some land oil-fields in Azerbaijan.

Reliability of data and conducted research:

- the certain time period of oil-development was selected, at which a comparatively stable state of technogenic effects on oil-production activity was registered
- the non-parametrical index of correlation – Spearman correlation coefficient – was applied
- The significance of a correlation coefficient was evaluated with the help of Student's *t*-criterion.

Practically important technological indexes of oil indexes under investigation:

- success of treatment of bottomhole formation zone (TBFZ)
- dynamics of success of hydraulic-fracturing of seam (HFS)

Main Results:

- Correlations between considered processes -vibro-affecting, the hydraulic breaking of fracturing, acidizing effect – and solar activityare, -0,65; -0,84; -0,72 consequently

Conclusions:

- the strength of geomagnetic field and its changes affect the double electron layers at the border of medium "solid matter – reservoir fluid" (oil, water or gas) which leads to changes of filtration characteristics of porous medium and, as a result, of indexes of oil-field development process. Depending on the state of geomagnetic field, filtration characteristics in the process of oil extraction could be changed
- dynamics of the success of Hydraulic-Fracturing Seam (HFS) could be explained by the influence of geomagnetic activity (double peaks). Another explanation could be an influence of two magnetic cycles (the main 22 year and the quasi-two year period) on the Sun.