**INTRODUCTION**

“South Banat I” is a 3D land seismic survey area which covers more than 700 km². The field is situated in a very complex area of southern Pannonian basin. North-eastern part of the field is agricultural and the rest is sands. The thickness of the surface sands goes down to 200m deep which significantly attenuated amplitude and frequency of the signal. The dominant frequency varies from below 20Hz in sands to 30Hz in agricultural areas. Also there are urban zones and densely forested protected zone within sands which caused lower fold coverage.

**METHODS AND RESULTS**

Survey is registered by wireless equipment with single geophone. Every receiver was buried in the ground in order to decrease environmental noise. Due to field conditions followed with strong wind which is common in this area, the acquisition data have very strong noise, especially ground roll type of noise. It was the great effort to attenuate strong ground roll noise and to preserve and enhance the signal. The cleaning of the noise at this field is very complex so we tried to split it in four zones. Since each zone has different parameters of source and terrain morphology, different parameters for noise removal were applied for each zone. This presentation shows how LIFT (Leading Intelligent Filter Technology) technology with different types of signal processing tools (amplitude scaling, balancing, time-variant band-limited suppression, frequency filtering, header manipulation...) suppresses noise on this very demanding survey.

**CONCLUSION**

The thickness of the surface sands goes down to 200m deep which significantly attenuated amplitude and frequency of the signal. The dominant frequency of the signal in sands is below 20Hz and thus mixes with the groundroll spectrum. Great part of the signal is not possible to retrieve in sands area. Anyway, as it can be seen on the sections above, reflections show up after noise removal.