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Hydrology and Earth System Sciences Discussions

Interactive comment on "Hydropedological assessment of a vertisol climosequence on the Gulf Coast Prairie Land Resource Area of Texas" *by* L. C. Nordt and S. G. Driese

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General Comment: The manuscript is an excellent contribution that quantifies the occurrence and morphology of redoximorphic features in seasonally wet Vertisols, as related to mean annual precipitation across coastal plane climosequence. The results are presented and discussed in a concise manner, and the manuscript is well-organized and written. Suggestions for improvement are listed as follow.

Specific comments:

Section 4 (Redoximorphic features) – It would be helpful to include a figure illustrat-

ing morphology and location of various redoximorphic features (diffuse vs. nondiffuse boundaries, matrix vs. pore linings, etc.)

Subection 4.2 (Iron depletions), p. 3644, line 12-13 – Sentence reads as "In microhighs, the few nondiffuse boundaries that occur are all nongleyed and along voids (Fig. 6f)." It appears that this is in reference to diffuse boundaries, as non-diffuse boundaries in Fig. 6f are distributed between gleyed and non-gleyed, as well as matrix and void.

Section 4 (Hydropedological formation of Vertisols) - Discussion in this section could benefit from data on organic carbon content and pH included in Table 2, as these properties are mentioned in reference to the extent of redoximorphic features formation in both Laewest and League soils.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 3637, 2009.