GEO 420K: Field Trip 3

SAFETY FIRST

The purpose of this trip is to gain experience observing, interpreting, and recording features of various sedimentary rocks.

STOP 1: Hamilton Creek, J&R Ranch near Marble Falls.

Rocks: sedimentary features in the Smithwick Shale (Pennsylvanian, marine); float of the Ellenburger Group (Ordovician).

Project: A) measure and plot the orientation of the following features on the compass diagram provided: 1) joints, 2) faults, 3) sandstone dikes, 4) fossil wood, 5) current ripples and solemarks.

B) On the back of the sheet comment on which features have similar trends (if any) and possible reasons why.

C) Sketch at least 2 of these features (be sure to include labels and a scale).

D) Examine and describe the Smithwick Shale.

THIS IS INDIVIDUAL WORK.

Hand in parts A, B, and C at next lab. Hand in part D before we leave the outcrop.

STOP 2: Honeycut Formation of the Ellenburger Group (Ordovician).

We provide you with a checklist of rock types and features to look for.

Check those that you find and indicate whether you found it near the northern (N), central (C), or southern (S) part of the road cut. You are welcome to add feature that are not on the list.

THIS IS INDIVIDUAL WORK.

Hand in before we leave the outcrop.

Ask for help.