

Supplementary Materials for  
**Grooving in the Midcontinent: a tectonic origin for the mysterious  
striations of L'Anse Bay, Michigan**

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The file includes:

table S1. structural measurement on slickenlines (shown in Fig. 3C)

table S2. structural measurement on the thrust fault (shown in Fig. 3E and F)

Table S1: Structural measurement (trend and plunge of slickenlines in Figure 3C)

Data Point	Trend	Plunge
1	267	6
2	244	5
3	252	3
4	261	3
5	254	4
6	251	2
7	244	1
8	246	1
9	250	0
10	247	2
11	242	2
12	246	3
13	250	2
14	239	4
15	238	4
16	242	3
17	235	1
18	240	0
19	244	5
20	267	6

Table S3: Structural measurements (dip direction and dip on the thrust fault in Figures 3E&F)

Data Point	Dip Direction	Dip
1	200	40
2	227	36
3	212	39
4	225	38
5	219	32
6	188	27
7	178	32
8	183	28
9	201	30
10	193	34
11	203	29
12	188	26
13	205	29
14	211	35
15	216	38
16	248	41
17	203	30
18	265	29
19	235	28