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Supplement of

Simple evaluation of the fold axis, axial plane, and interlimb angle from a borehole image log

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Table S1: Strike, dip angle, and the depth of the simulated beddings used for fold parameters calculation. The layers which are identified as inflexion points are displayed. MBSF: meter below seafloor.
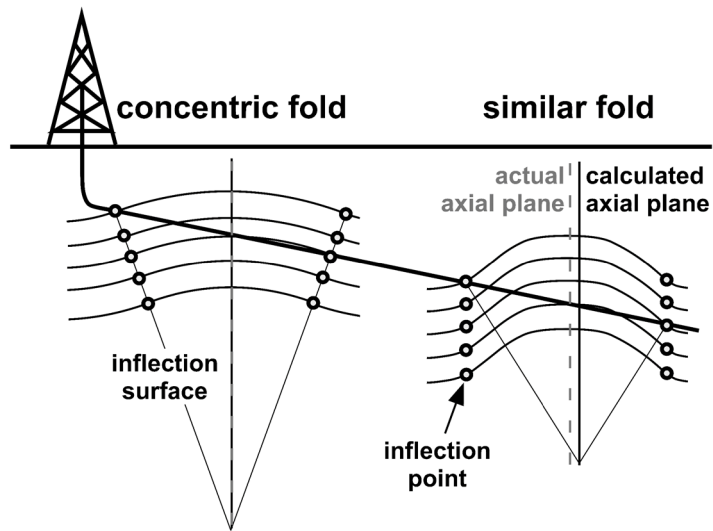
MBSF	Azimuth	Dip	Inflexion point (red)	Inflexion point (blue)
0	14.03624	18.96232	□	
0.5	17.03016	19.99746		□
1	20.19981	21.27952		
1.5	23.54004	22.8846		
2	27.04052	24.91856		
2.5	30.68517	27.53125		□
3	33.69007	31.00272	□	
3.8	30.64066	26.25169		
4.6	27.67208	22.82457		
5.4	24.79638	20.27153		
6.2	22.02306	18.31725		
7	19.35899	16.78709		
7.8	16.80869	15.56615	□	
8.2	23.57017	16.04766		□
8.6	31.01808	16.87855		
9	38.97817	18.20101		
9.4	47.177	20.1994		
9.8	55.28818	23.1091		□
10.2	63.00526	27.22845	□	
10.6	53.6251	20.84512		
11	43.75956	17.01201		
11.4	33.96632	14.70563		
11.8	24.77986	13.33789		□
12.2	16.55716	12.55271		
12.6	9.435158	12.1282	□	
13.3	15.59037	12.802		
14	22.58958	13.86278		
14.7	30.36819	15.54892		
15.4	38.73606	18.27843		□
16.1	47.37901	22.83384		
16.8	55.91576	30.80147	□	
17.8	11.30993	84.90591	□	
18.3	12.22092	87.42122		□
18.8	13.15095	90		
19.3	194.1001	87.36822		
19.8	195.0685	84.69543		
20.3	196.0561	81.99483		□

20.8	197.0629	79.28055	□	
21.2	195.8029	82.21208		
21.6	194.5732	85.11715		
22	193.3738	87.97753		
22.4	12.20443	89.22327		
22.8	11.06507	86.49955		□
23.2	9.955398	83.86314	□	
23.6	11.63097	87.3352		
24	193.3737	89.03078		
24.4	195.1841	85.265		
24.8	197.0626	81.40592		
25.2	199.0088	77.49875		□
25.6	201.0216	73.59284	□	
26	198.277	77.93568		
26.4	195.6587	82.24064		
26.8	193.1682	86.43466		
27.2	10.80517	89.54325		□
27.6	8.567486	85.7386		
28	6.451729	82.18075	□	
28.7	7.886766	84.35442		
29.4	9.378325	86.63475		
30.1	10.92767	89.01708		
30.8	192.5358	88.50595		□
31.5	194.2035	85.94454		
32.2	195.9311	83.31182	□	

Table S2: Orientations of the calculated fold axis, axial plane, and interlimb angle based on simulated beddings. The column for the difference between A and B shows the absolute value of the difference and the percentage of the difference relative to A.

| using RED inflexion points (A) | | | | | | using BLUE inflexion points (B) | | | | | | gap between calculated values of A and B | | | | | |
| | Fold axis | | Axial plane | | Interlimb angle | | Fold axis | | Axial plane | | Interlimb angle | | Fold axis | | Axial plane | | Interlimb angle |
MBSF	Azimuth	Plunge	Strike	Dip		MBSF	Azimuth	Plunge	Strike	Dip		MBSF	Azimuth	Plunge	Strike	Dip	
1.99	326.3	13.0	151.3	69.4	165.5	2.03	327.8	13.4	152.5	70.9	170.7	0.04 (2.10%)	1.51 (0.46%)	0.36 (2.76%)	1.25 (0.83%)	1.49 (2.14%)	5.19 (3.14%)
4.52	317.3	8.0	140.5	68.5	163.3	4.45	309.3	4.5	131.0	68.8	168.2	0.07 (1.47%)	8.01 (2.53%)	3.59 (44.64%)	9.47 (6.74%)	0.24 (0.34%)	4.91 (3.00%)
9.90	5.0	15.3	188.5	77.5	160.3	9.75	5.0	15.3	188.0	79.1	167.5	0.15 (1.56%)	0.00 (0.00%)	0.00 (0.00%)	0.46 (0.24%)	1.62 (2.09%)	7.16 (4.47%)
10.43	357.1	11.9	179.9	76.7	157.9	10.52	353.7	11.5	176.4	76.8	166.6	0.09 (0.81%)	3.38 (0.95%)	0.38 (3.18%)	3.49 (1.94%)	0.10 (0.13%)	8.76 (5.55%)
15.49	345.1	11.1	166.6	82.2	174.0	14.90	338.4	9.3	160.5	77.5	173.8	0.59 (3.79%)	6.64 (1.92%)	1.78 (16.08%)	6.10 (3.66%)	4.71 (5.73%)	0.19 (0.11%)
19.29	283.2	19.8	201.9	20.0	163.2	19.54	283.2	19.8	201.6	20.0	168.7	0.26 (1.32%)	0.00 (0.00%)	0.00 (0.00%)	0.31 (0.15%)	0.02 (0.08%)	5.56 (3.41%)
22.01	282.5	22.7	199.0	22.8	161.7	21.76	282.6	23.3	198.8	23.5	167.5	0.25 (1.14%)	0.05 (0.02%)	0.67 (2.97%)	0.21 (0.10%)	0.67 (2.92%)	5.74 (3.55%)
24.37	282.9	25.6	206.0	26.2	154.9	24.18	282.8	26.1	204.1	26.5	162.2	0.19 (0.79%)	0.13 (0.05%)	0.47 (1.83%)	1.87 (0.91%)	0.32 (1.24%)	7.22 (4.66%)
26.83	281.1	30.4	200.9	30.8	151.8	26.62	281.1	31.9	204.4	32.6	164.7	0.20 (0.76%)	0.02 (0.01%)	1.46 (4.80%)	3.47 (1.73%)	1.79 (5.81%)	12.89 (8.49%)
30.10	281.6	33.0	190.3	33.0	162.7	29.70	281.2	41.6	192.3	41.6	177.4	0.40 (1.34%)	0.36 (0.13%)	8.58 (26.02%)	1.93 (1.02%)	8.58 (26.01%)	14.71 (9.04%)

Figure S1: Deviation between the calculated and actual axial surfaces when the method is applied to similar folds. The calculated dip and strike of the axial plane is the same as the actual one, but the intersection point with the borehole is identified at a different place than the actual plane location.