

Data Repository item 2002023

TABLE DR1. SITE-MEAN PALEOMAGNETIC DIRECTIONS

Site No.	Geographic		Stratigraphic		α_{95} (°)	k	N	Dip az. (°)	Dip (°)
	I (°)	D (°)	I (°)	D (°)					
E BO LIANG SECTION									
GN004	-26.4	218.4	-50.0	205.9	11.8	23.2	7	246	28
GN006	-25.2	208.1	-45.3	193.8	4.4	165.3	7	246	28
GN007	-19.0	218.9	-43.0	210.0	7.5	68.0	6	246	28
GN010	-11.2	208.8	-32.5	201.3	5.4	91.7	8	246	28
GN012	-19.5	198.5	-36.4	186.2	20.3	12.1	5	246	28
GN013	-27.1	197.1	-42.6	180.3	5.9	135.7	5	246	28
GN014	-31.5	207.9	-51.0	189.5	6.8	59.4	8	246	28
GN015	-29.2	196.6	-44.2	178.4	9.6	35.0	7	246	28
GN016	-32.2	201.1	-48.8	181.1	6.1	72.2	8	246	28
GN017	-22.4	201.9	-40.4	188.4	5.1	179.6	5	246	28
GN018	-9.4	198.9	-27.4	191.5	9.2	32.5	8	246	28
GN021	29.4	353.4	44.4	352.2	10.5	34.7	6	179	15
GN022	35.4	0.7	51.4	1.2	4.7	173.1	6	179	16
GN023	38.5	22.8	45.5	23.7	3.7	223.3	7	195	7
GN024	-29.1	188.5	-40.6	170.2	11.2	38.0	5	246	28
GN026	-31.1	193.7	-44.6	174.0	8.2	46.8	7	246	28
AVG.	26.5	20.0			6.2	36.7	16	Geographic	
AVG.			43.6	8.0	5.1	53.7	16	Stratigraphic	
XQA SECTION									
XQ039	-42.5	185.7	-42.5	185.7	11.0	31.3	7	0	0
XQ043	45.9	13.7	45.9	13.7	19.9	15.7	5	0	0
XQ051	-22.9	201.0	-46.9	216.4	10.9	32.5	6	163.5	42
XQ052	7.8	186.8	-30.8	190.7	8.9	39.6	8	163.5	42
XQ053	15.9	177.0	-25.3	177.9	12.3	24.9	7	163.5	42
XQ054	10.2	184.9	-29.0	187.8	14.5	15.5	8	163.5	42
XQ055*	27.4	229.1	5.3	217.8	7.8	51.5	8	163.5	42
AVG.	12.8	7.9			25.1	8.1	6	Geographic	
AVG.			37.3	11.0	11.5	34.8	6	Stratigraphic	
XQB SECTION High Temperature Component									
XQ002	-12.0	180.3	-33.0	176.9	12.3	21.2	8	200	23
XQ003	21.4	346.2	31.1	1.8	13.5	17.9	8	101	32
XQ004	19.8	348.1	26.3	354.8	10.2	30.2	8	104	17
XQ005	27.9	346.4	34.7	349.8	10.1	31.2	8	135	8
XQ007	-27.6	181.4	-46.5	177.7	11.2	30.2	7	194	20
XQ008	-22.4	194.2	-41.9	194.2	17.0	21.2	5	194	20
XQ009	19.4	9.2	38.8	8.2	6.5	87.4	7	194	20
XQ010	-20.6	180.7	-39.5	177.7	8.5	42.9	8	194	20
XQ012	-16.3	169.2	-33.8	165.1	7.4	68.0	7	194	20
XQ013	-23.7	186.7	-43.0	184.8	12.7	23.5	7	194	20
XQ014	-1.1	186.5	-20.4	186.0	6.6	70.5	8	194	20
XQ018	-19.4	188.2	-38.8	187.0	9.1	54.8	6	194	20

XQ028	-9.7	5.0	9.5	5.0	21.4	19.4	4	194	20
XQ033	-7.6	182.7	-26.6	181.5	14.4	29.1	5	194	20
AVG.	16.6	0.4			6.8	35.6	14	Geographic	
AVG.			33.4	0.7	5.8	47.9	14	Stratigraphic	

XQB SECTION Intermediate Temperature Component

XQ002	-28.6	181.7	-49.5	174.8	6.3	77.3	8	200	23
XQ003	31.4	345.6	39.4	8.5	15.2	20.3	6	101	32
XQ004	30.9	340.0	39.2	350.6	5.5	103.7	8	104	17
XQ005	39.3	348.7	45.8	353.0	5.6	97.2	8	135	8
XQ006	52.8	2.9	71.7	352.4	9.0	39.0	8	194	20
XQ007	-31.6	183.6	-50.7	180.0	6.6	72.2	8	194	20
XQ008	-29.5	190.9	-48.9	189.9	8.7	48.6	7	194	20
XQ009	32.5	7.8	51.8	5.6	7.1	61.9	8	194	20
XQ010	-26.2	185.2	-45.4	182.7	6.9	64.5	8	194	20
XQ011	-42.9	185.7	-62.1	180.9	12.4	30.1	6	194	20
XQ012	-30.2	172.0	-47.9	165.1	9.1	45.2	7	194	20
XQ013	-29.4	187.4	-48.7	185.2	7.6	54.5	8	194	20
XQ014	-13.8	185.9	-33.0	184.6	5.6	119.2	7	194	20
XQ017	-16.0	169.3	-33.5	165.2	24.2	11.0	5	194	20
XQ018	-24.8	186.8	-44.1	184.9	6.4	89.9	7	194	20
XQ019	35.0	3.4	54.1	359.1	6.3	91.6	7	194	20
XQ020	39.9	4.2	59.0	359.4	10.7	27.7	8	194	20
XQ021	29.4	5.5	48.6	2.8	3.7	269.8	7	194	20
XQ022	9.2	10.2	28.6	9.7	7.3	68.5	7	194	20
XQ023	33.9	8.9	53.2	6.9	3.5	258.1	8	194	20
XQ024	29.6	7.8	49.0	5.7	7.7	53.2	8	194	20
XQ025	27.6	356.9	46.0	352.0	7.6	78.2	6	194	20
XQ026	-39.1	184.1	-58.2	179.3	10.5	28.8	8	194	20
XQ027	28.4	16.9	47.9	17.8	6.1	82.3	8	194	20
XQ028	16.7	3.5	35.9	1.5	5.8	91.0	8	194	20
XQ029	40.8	6.0	60.0	1.8	4.3	245.8	6	194	20
XQ030	35.5	4.9	54.6	1.1	10.4	34.8	7	194	20
XQ031	27.4	356.8	45.8	351.9	6.1	84.6	8	194	20
XQ032	43.0	3.3	62.0	357.2	5.2	98.2	9	194	20
XQ033	-18.7	180.8	-37.6	178.2	7.3	58.8	8	194	20
AVG.	30.7	2.2			3.8	48.3	30	Geographic	
AVG.			48.6	0.4	3.6	55.6	30	Stratigraphic	

Notes: Site No. - number for paleomagnetic site; *I* and *D* - inclination and declination of site-mean direction in geographic coordinates (with no structural correction) and stratigraphic coordinates (after restoration of local bedding to horizontal); α_{95} - radius of cone of 95% confidence about site-mean direction; *k* - concentration parameter; *N* - number of samples averaged to calculate site-mean paleomagnetic direction; Dip Az. - azimuth of down dip direction of local bedding; Dip - angle of dip of local bedding; AVG. - average direction for sampled section calculated by treating each site-mean direction as a unit vector is given in stratigraphic and geographic coordinates; * - discarded site.

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TABLE DR2. PALAEOMAGNETIC RESULTS OF THE EASTERN TIBETAN PLATEAU

Locality	Age (Ma)	Direction-space analysis							Reference
		Location		Observed Direction			Rotation $R \pm \Delta R$	Flattening $F \pm \Delta F$	
		Lat (°N)	Long (°E)	I (°)	D (°)	α_{95} (°)	(°)	(°)	
Xiao Qaidam (HTC)	10	37.4	95.3	33.4	0.7	5.8	-5.6 ± 6.0	26.4 ± 4.9	This study
Xiao Qaidam (ITC)	10	37.4	95.3	48.6	0.4	3.6	-5.9 ± 4.9	11.2 ± 3.3	This study
Xiao Qaidam (A)	30	37.5	95.2	37.3	11.0	11.5	3.3 ± 12.0	25.6 ± 9.4	This study
E Bo Liang	30	38.7	92.8	43.6	8.0	5.1	-0.2 ± 6.4	20.1 ± 4.4	This study
Yushu	10	33.2	96.7	30.7	35.6	9.0	29.8 ± 8.7	25.4 ± 7.4	1
Tuoluo Lake	20	35.3	98.6	46.2	20.1	27.1	12.5 ± 33.1	13.1 ± 21.8	1
Jungong	10	34.7	100.7	33.5	19.8	6.0	14.2 ± 6.2	24.3 ± 5.1	1
Xining	40	36.5	102.0	40.8	29.3	13.2	20.1 ± 14.6	21.2 ± 10.8	1
Xining-Lanzhou	120	36.2	103.5	44.1	44.7	5.1	27.8 ± 6.8	5.5 ± 5.5	2
Fenghuoshan	50	34.5	92.8	34.6	25.5	6.0	12.3 ± 7.4	25.1 ± 5.7	2, 3
Hekou group	120	39.0	99.6	39.0	41.9	5.1	25.1 ± 6.5	12.6 ± 5.4	4
Pole-space analysis									
Locality	Age (Ma)	Location		Observed Pole			Rotation $R \pm \Delta R$	Translation $p \pm \Delta p$	Reference
		Lat (°N)	Long (°E)	Lat (°N)	Long (°E)	A_{95} (°)	(°)	(°)	
		Mangkang	29.7	98.6	48.6	173.5	6.0	33.6 ± 7.2	-4.5 ± 6.2
South China block	80	30.0	102.9	72.8	241.1	5.0	3.7 ± 5.2	11.0 ± 4.8	7
South China block	80	26.5	102.4	81.5	220.9	7.1	7.0 ± 6.8	1.9 ± 6.3	5
South China block	120	27.9	102.3	77.4	196.2	14.0	3.5 ± 13.3	-3.6 ± 11.9	8
South China block	120	26.8	102.5	69.0	204.6	4.3	4.5 ± 5.7	1.0 ± 5.3	5

Notes: Locality = name of paleomagnetic sampling locality. Age = age of reference Eurasian pole (Besse and Courtillot, 1991) used to calculate expected inclination and declination at the sampled locality. Location Lat = latitude of sampling locality. Location Long = longitude of sampling locality. Observed direction = mean paleomagnetic direction. I = inclination. D = declination. α_{95} = radius of 95% confidence circle. Rotation (R) = vertical-axis rotation indicated by observed declination minus expected declination (positive indicates clockwise rotation). ΔR = 95% confidence limit on rotation. Flattening (F) = flattening of inclination indicated by expected inclination minus observed inclination. ΔF = 95% confidence limit on flattening. Observed pole = observed paleomagnetic pole at sampling locality. A_{95} = 95% confidence limit on observed pole. Translation (p) = distance of sampling locality from observed pole minus distance from reference pole; Δp = 95% confidence limit on translation. References: 1, Cogné et al. (1999); 2, Halim et al. (1998); 3, Lin and Watts (1988); 4, Frost et al. (1995); 5, Huang et al. (1992); 6, Otofugi et al. (1990); 7, Enkin et al. (1991); 8, Zhu et al. (1988).

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DATA REPOSITORY ITEM

Dupont-Nivet et al. Figure DR1

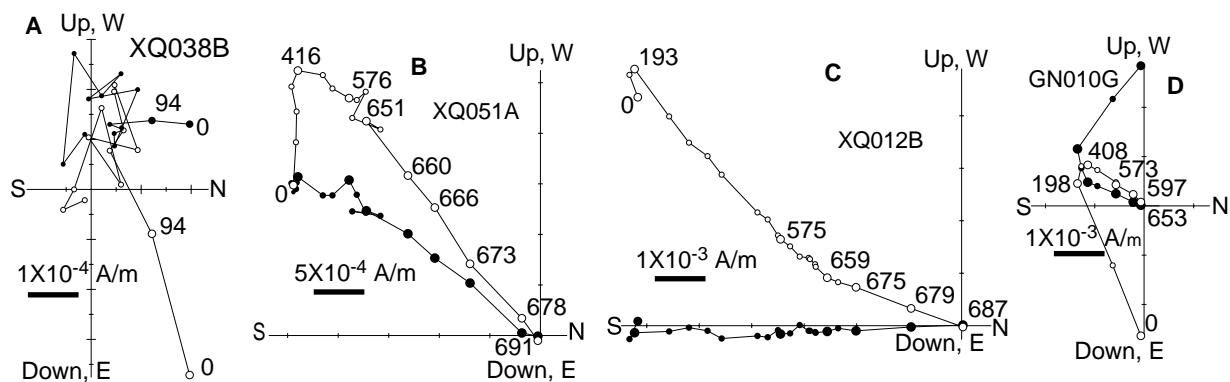


Figure DR1. Vector-component diagrams of thermal-demagnetization behavior. A: Sample XQ038B from Xiao Qaidam area from which characteristic remanent magnetization direction could not be determined. B: Sample XQ051A from XQA section, Xiao Qaidam area. C: Sample XQ012B from XQB section, Xiao Qaidam area. D: Sample GN010G from E Bo Liang range. Open circles are projections onto vertical plane, and filled circles are projections onto horizontal plane. Numbers adjacent to data points indicate temperature (in °C).