

Supplementary material I:
Structural data

DOI: 10.1590/2317-4889202220210041
Post-Cretaceous Brittle Tectonics in the Tunas Alkaline Complex, Paraná, Brazil
Taily Ferreira Santos Farias, Eduardo Salamuni, William Rudolf Lopes Peyerl, Viviane Barbosa Gimenez

Field Number	Longitude	Latitude	Name	Dip direction	Ls	Direction/dip/quadrant	Movement	Component	Note	
TFS001	O 49° 3' 58.705"	S 24° 58' 3.995"	N9E to N9W	261/69		N9W/69SW				
			N30W to N49W	234/78		N36W/78SW			Cut both litotypes	
			N10W to N29W	72/82		N18W/82NE				
			N9E to N9W	272/70		N2E/70NW				
			N30W to N49W	225/84		N45W/84SW				
			N10W to N29W	260/75		N10W/75SW				
			N10W to N29W	253/74		N17W/74SW				
			N30W to N49W	224/86		N46W/86SW			Cut both litotypes	
			N30W to N49W	233/84		N37W/84SW			Cut both litotypes	
			N50W to N69W	210/86		N60W/86SW			Cut both litotypes	
			N30W to N49W	224/88		N46W/86SW			Cut both litotypes	
			N50W to N69W	212/87		N58W/87SW			Cut both litotypes	
			N30W to N49W	225/84		N45W/84SW			Cut both litotypes	
			N50W to N69W	220/84		N50W/84SW			Cut both litotypes	
			N50W to N69W	220/85		N50W/84SW			Cut both litotypes	
			N30W to N49W	233/84		N37W/84SW			Cut both litotypes	
			N50W to N69W	208/82	N297/7	N62W/82SW			sinistral	Cut both litotypes
			N50W to N69W	220/89	N308/08	N50W/89SW			sinistral	Cut both litotypes
N50W to N69W	40/89		N50W/89NE				fault			
TFS002	O 49° 3' 48.395"	S 24° 57' 28.344"	N30W to N49W	50/89		N40W/89NE				
			N30W to N49W	236/75		N34W/75SW				
			N9E to N9W	270/72		NSW				
			N50W to N69W	218/74		N52W/74SW				
			N70W to N90W	196/40		N74W/40SW				
			N70W to N90W	195/82		N75W/82SW			two moves	
			N70E to N90E	350/55		N80E/55NW				
			N50E to N69E	334/88		N64E/88NW				
N50E to N69E	146/70		N56E/70SE			fault	presence of cataclase			
N70W to N90W	10 84		N80W/84NE							
TFS003	O 49° 4' 3.693"	S 24° 56' 44.701"	xxxxxxxx							
TFS004	O 49° 5' 5.142"	S 24° 58' 5.705"	xxxxxxxx							
TFS005	O 49° 5' 17.364"	S 24° 56' 6.163"	N50W to N69W	215/89		N55W/89SW				
			N9E to N9W	262/85		N8W/89SW				
			N9E to N9W	263/75		N7W/75SW				
			N9E to N9W	266/76		N4W/76SW				
			N10W to N29W	257/88		N13W/88SW				
			N9E to N9W	262/78		N8W/78SW				
			N9E to N9W	270/88		NS				
			N30W to N49W	58/78		N32W/78NE				
			N30W to N49W	45/85		N45W/85NE				
			N10W to N29W	74/75		N16W/75SW				
			N50W to N69W	32/80		N58W/80NE			cuts rock apophysis	
			N30W to N49W	52/88		N38W/88NE			cuts rock apophysis	
			N10W to N29W	64/14		N26W/14NE				
			N30W to N49W	60/15		N30W/15NE				
N10W to N29W	65/20		N25W/20NE				subhorizontal plane that appears to have stretch marks			
N30E to N49E	315/70		N45E/70NW				plane parallel to foliation			
N30E to N49E	315/75		N45E/75NW				plane parallel to foliation			

Field Number	Longitude	Latitude	Name	Dip direction	Ls	Direction/dip/quadrant	Movement	Component	Note
TFS006	O 49° 6' 54.943"	S 24° 56' 32.855"	xxxxxx						
TFS007	O 49° 5' 42.669"	S 24° 57' 36.611"	xxxxxx						
TFS008	O 49° 7' 12.279"	S 24° 55' 42.698"	N50W to N69W	25/35		N65W/35NE	sinistral		
			N10E to N29E	118/40		N28E/40SE			
			N70W to N90W	18/88		N72W/88NE	sinistral		
			N30E to N49E	120/74		N30E/74SE			
			N50W to N69W	26/85		N64W/85NE			
			N50W to N69W	23/56		N67W/35NE			
			N70W to N90W	17/60		N73W/60NE	sinistral		
			N30E to N49E	125/45		N35E/45SE			
			N50W to N69W	28/62		N62W/62NE	sinistral		
			N10E to N29E	116/49		N26E/49SE			
			N30E to N49E	122/45		N32E/45SE			
			N70W to N90W	20/45		N70W/45NE	sinistral		
			N30E to N49E	125/45		N35E/45SE			
			N70W to N90W	5/40		85NW/40NE			
			N70W to N90W	20/52		70NW/52NE			
			N10E to N29E	117/45		N27E/45SE			
			N9E to N9W	270/75		NS/W			
			N9E to N9W	265/80		N5W/80SW			
			N50W to N69W	214/78		N56W/78SW			
			N30E to N49E	305/50		N35E/50NW			
			N30E to N49E	120/42		N30E/42SE			
			N30E to N49E	309/68		N39E/68NW			
						N9E to N9W	96/75		N6E/75SE
			N70E to N90E	342/50		N72E/50NW			
			N10E to N29E	116/59		N26E/59SE			
			N70E to N90E	356/51		N86E/51NW			
			N50E to N69E	338/50		N60E/50NW			
			N9E to N9W	96/72		N6E/72SE			Fault parallel to foliation
			N70W to N90W	192/89		N78W/89SW			Fault // apophysis of syenite
			N50W to N69W	214/84		N56W/84SW			Fault
			N10E to N29E	112/70		N22E/70SE			
			N10E to N29E	110/78		N20E/78SE			
			N30W to N49W	224/88		N46W/88SW			Fault with damage zone
			N10W to N29W	250/65		N20W/65SW			Fault
			N30W to N49W	55/65		N35W/65SW			Fault
			N70W to N90W	192/89		N78W/89SW			Fault
			N70W to N90W	18/85		N70W/85NE			Fault
			N30W to N49W	232/85		N38W/85SW			Fracture parallel to fault
			N10W to N29W	62/84		N28W/84NE			
			N50W to N69W	30/74		N60W/74NE			
			N30W to N49W	58/89		N32W/89NE			Y=dextral
			N10W to N29W	252/70		N18W/70SW			R
			N70W to N90W	194/89		N76W/89SW			
			N10W to N29W	250/35		N20W/35SW			
			N30E to N49E	315/30		N45E/30NW			Shear Zone
			N30W to N49W	40/84		N40W/84NE			Penetrating fracture with spacing of 3cm
			N10E to N29E	283/36		N13E/36NW			
			N50E to N69E	335/60		N65E/60NW			
			N9E to N9W	262/38		N8W/38SW			
			N50E to N69E	159/60		N69E/60SE			
			N9E to N9W	90/40		NS/40WE			

TFS010	O 49° 6' 3.701"	S 24° 55' 3.347"	N50E to N69E	140/88		N50E/88SE			Shear Zone
			N30E to N49E	310/87		N40E/87NW			
			N30E to N49E	124/74		N34E/74SE			Shear Zone
			N50W to N69W	40/84		N50W/84NE			
TFS011	O 49° 5' 45.042"	S 24° 57' 37.681"	N70E to N90E	350/80		N80E/80NW			microssienite dike
			N50E to N69E	330/73		N60E/73NW			traquite dike
			N9E to N9W	98/35		N8E/35SE			fault with <i>breccia e gouge</i>
			N30E to N49E	315/55		N45E/55NW			quartz vein
			N30E to N49E	300/75		N30E/75NW			phonolite dike
			N30E to N49E	125/52		N35E/52SE			after the dike
			N10E to N29E	112/57		N22E/57SE			after the dike
			N10E to N29E	115/52		N25E/52SE			after the dike
			N9E to N9W	95/45		N05E/45SE			after the dike
			N10E to N29E	280/47		N10E/47NW			after the dike
			N10W to N29W	250/68		N20W/68SW			after the dike
			N10W to N29W	255/70		N15W/70SW			after the dike
			N10W to N29W	258/66		N12W/66SW			after the dike
			N30E to N49E	300/85		N30E/85NW			after the dike
			N30E to N49E	310/82		N40E/82NW			after the dike
			N50E to N69E	320/82		N50E/82NW			after the dike
			N50E to N69E	325/89		N55E/89NW			after the dike
			N30E to N49E	300/80		N30E/80NW			big fault
			N70E to N90E	351/80	N341/80	N81E/80NW		normal	Y
			N30E to N49E	311/89		N41E/89NW			P
			N10E to N29E	295/85	N21/40	N25E/85NW		normal	
			N50E to N69E	330/80	N40/63	N60E/80NW		normal	Y
			N70E to N90E	345/88	N67/75	N75E/88NW		normal	Y
			N70E to N90E	350/74	N357/74	N80E/74NW		normal	Y
			N50E to N69E	335/75		N65E/75NW			Y
			N50E to N69E	145/85		N55E/85SE			Y
			N30E to N49E	120/80	N34/24	N30E/80SE		normal	P
			N30W to N49W	60/89		N30W/89NE			
			N9E to N9W	95/85		N5E/85SE			
			N9E to N9W	271/75		N1E/75NW			
			N9E to N9W	275/80		N5E/80NW			traquite dike
			N9E to N9W	145/80	N15/29	N55E/80SE		sinistral	y
			N50E to N69E	325/80		N55E/80NW			flower structure
			N50E to N69E	330/85	N45/80	N60E/85NW		normal	Y
			N30E to N49E	300/85	N38/30	N30E/85NW		sinistral	R
			N30E to N49E	295/85		N25E/85NW			R
			N50E to N69E	140/85		N50E/85SE		sinistral	
			N30E to N49E	300/85	N29/14	N30E/85NW		dextral	
			N30E to N49E	315/89		N45E/89NW			
			N30E to N49E	328/55	N45/18	N58E/55NW		sinistral	filled with silica
			N30E to N49E	315/89	N33/85	N45E/89NW		normal	Y
			N50E to N69E	320/70	N32/40	N50E/70NW		normal/oblique	
			N30W a N49W	53/70	N123/43	N37W/70NE		oblique	
			N30W to N49W	45/88	N320/10	N45W/88NE			
N30W to N49W	55/75	N335/35	N35W/75NE		normal/sinistral				
N30E to N49E	310/70		N40E/70NW						
N30E to N49E	315/75		N45E/75NW		sinistral	conjugated to N1E			
N70W to N90W	005/85	N93/20	N85W/85NE		sinistral.				
N30W to N49W	50/80		N40W/80NE			conjugated to N1E			
TFS012	O 49° 5' 5.061"	S 24° 57' 41.004"	N50E a N69E	140/75	N79/61	N50E/75SE		normal	Y
			N50E to N69E	148/70	N99/61	N58E/70SE		normal	Y
			N50E to N69E	330/85	N33/79	N60E/85NW		normal	Y
			N30E to N49E	300/85	N27/29	N30E/85NW		dextral	R

N50E to N69E	335/80		N65E/80NW			filled by epidote
N50E to N69E	320/85		N50E/85NW			displaces dike NS/89
N30E to N49E	315/89	N33/85	N45E/89NW		normal	plane reactivated
N50E to N69E	320/70	N32/40	N50E/70NW		normal oblíqua	plane reactivated
N30E to N49E	300/85	N29/14	N30E/85NW		dextral	plane reactivated
N50E to N69E	328/55	N45/18	N58E/55NW		sinistral	
N30E to N49E	315/78	N44/5	N45E/78NW		sinistral	Y
N50E to N69E	320/85		N50E/85NW			R
N30W to N49W	45/88	N315/10	N45W/88NE		dextral	cuts NE-SW trending fault
N30W to N49W	55/75	N335/35	N35W/75NE		normal sinistral	cut by the N45W/88NE
N70W to N90W	5/85	N93/20	N85W/85NE		sinistral	
N30W to N49W	230/85		N40W/85SW			
N50W to N69W	210/45		N60W/45SW			
N50W to N69W	215/60		N55W/60SW			
N30W to N49W	240/45		N30W/45SW			
N50W to N69W	220/50		N50W/50SW			
N50W to N69W	220/75		N50W/70SW			
N50W to N69W	210/40		N60W/40SW			
N30W to N49W	225/89		N45W/89SW			
N30W to N49W	50/85		N40W/85NE			
N30W to N49W	45/85		N45W/85NE			
N30W to N49W	230/85		N40W/85SW			
N30W to N49W	58/30		N32W/30NE			
N30W to N49W	50/50		N40W/50NE			

TFS013

O 49° 6' 27.565"

S 24° 57' 14.953"

Field Number	Longitude	Latitude	Name	Dip Direction	Ls	Direction/dip/quadrant	Movement	Component	Note
			N30E to N49E	300/80	N265/75	N30E/80NW		inverse	foliation plane reactivated, open to closed
			N30E to N49E	300/82	N354/70	N30E/82NW		inverse	foliation plane reactivated, open to closed
			N10E to N29E	297/75	N280/70	N27E/75NW		inverse	foliation plane reactivated, open to closed
			N30E to N49E	315/77		N45E/77NW			foliation plane reactivated, open to closed
			N30E to N49E	315/75		N45E/75NW			foliation plane reactivated, open to closed
			N30E to N49E	305/75		N35E/75NW			foliation plane, presence of damage zone
			N30W to N49W	50/85		N40W/85NE			
			N50W a N69W	35/84		N55W/84NE			
			N50W a N69W	40/85		N50W/85NE			
			N30W a N49W	45/85		N45W/85NE			
			N50W a N69W	30/75	N302/6	N60W/75NE	dextral		
			N70W to N90W	18/75	N298/34	N72W/75NE	dextral		
			N70W to N90W	181/65		N89W/65SW	dextral		
			N70W to N90W	188/66		N82W/66SW			
			N10W to N29W	245/75		N25W/75SW			
			N10W to N29W	245/85		N25W/85SW			
			N9E to N9W	280/60		N10E/60NW			
TFS014	O 49° 6' 18.182"	S 24° 57' 13.046"	N50W to N69W	220/80		N50W/80SW			
TFS015	O 49° 6' 55.165"	S 24° 56' 18.232"	xxxxxx						
TFS016	O 49° 7' 58.187"	S 24° 55' 45.030"	Foliation breakdown plane	320/89		N50E/89NW			
			N50W a N69W	35/80		N55W/80NE			irregular plane with carbonate
			N70W to N90W	20/75		N70W/75NE			fracture
			N70W to N90W	195/85		N75W/85SW			fracture
			N10W to N29W	255/55		N15W/55SW			pseudotachylite in the plane
			N70W to N90W	185/85		N85W/85SW	sinistral		
			N70W to N90W	185/89		N85W/89SW	sinistral		
			N10E to N29E	105/85		N15E/85SE			
			N10W to N29W	260/78		N10W/78SW			
			N70E to N90E	355/75		N85E/75NW	sinistral		main fault
			N70E to N90E	340/89		N70E/89NW			15° of the main fault
			N70W to N90W	185/87		N85W/87SW	sinistral		pervasive fault
			N10E to N29E	105/85		N15E/85SE			
			N10W to N29W	260/78		N10W/78SW			
			N50E to N69E	330/80		N60E/80NW			
			N70E to N90E	355/90	N85/14	N85E/90NW			
			N70E to N90E	355/88	N84/22	N85E/88NW			
			N70E to N90E	340/89		N70E/89NW			15° of the main fault

TFS017	O 49° 5'53.140"	S 24°55' 48.259"	N9E to N9W	85/65		N5W/65NE		
			N9E to N9W	95/60		N5E/60SE		
TFS018	O 49° 5' 57.583"	S 24° 55' 32.780"	N9E to N9W	85/65		N5W/65NE		
			N9E to N9W	95/60	N178/11	N5E/60SE		
			N70W to N90W	005/80	N93/15	N85W/80NE	sinistral	
			N70W to N90W	20/65	N108/5	N70W/65NE	sinistral	
			N70W to N90W	10 65		N80W/65NE		
			N70W to N90W	04 85	N94/02	N86W/85NE	sinistral	
			N70W to N90W	10 72	N98/8	N80W/72NE	sinistral	
			N50E to N69E	330/80		N60E/80NW		
			N50E to N69E	320/35		N50E/35NW		
			N50E to N69E	325/35		N55E/35NW		
			N50W a N69W	220/75		N50W/75SW		
			N10W to N29W	250/50		N20W/50SW		
			N10W to N29W	250/35		N20W/35SW		
			N70W to N90W	200/60		N70W/60SW		
			N30W to N49W	60/65		N30W/65NE		cut by the N60W fault
			N10W to N29W	65/65		N25W/65NE		cut by the N60W fault
			new plane with flower structure	30/80	N306/35	N60W/80NE	sinistral	
			N70W to N90W	15/83		N75W/83NE		
			N50W a N69W	30/82	N304/28	N60W/82NE	sinistral	
			N50E to N69E	330/80		N60E/80NW		
			N10W to N29W	80/65		N10W/65NE	sinistral	
			N10W to N29W	70/75		N20W/75NE	sinistral	
			N10W to N29W	250/70		N20W/70SW	sinistral	
			N50W a N69W	205/70		N65W/70SW	dextral	
			N50E to N69E	330/85		N60E/85NW	sinistral	
			N50E to N69E	332/80		N62E/80NW	sinistral	
			N50E to N69E	153/70		N63E/70SE	sinistral	
			N30E to N49E	300/70		N30E/70NW		
			N10E to N29E	294/70		N24E/70NW		
			N10E to N29E	288/55	N220/29	N18E/55NW	dextral	
			N9E to N9W	90/68		NS/68E:	sinistral	
			N10E to N29E	288/78		N18E/78NE		
			N10E to N29E	285/71	N10/15	N15E/71NE	sinistral	
N10W to N29W	70/70	N341/3	N20W/70NE	sinistral				
N70W to N90W	10/075	N280/15	N80W/75NE	dextral				
N70W to N90W	10/070	N289/23	N80W/70NE	sinisral	Y			
N50E to N69E	150/74		N60E/74SE		R'			
N10W to N29W	250/70		N20W/60SW		P'			
N70W to N90W	20/85	N108/17	N70W/85NE	dextral	flower structure			
N70W to N90W	18/86	N107/11	N72W/86NE	dextral	flower structure			
N70W to N90W	19/84	N108/9	N71W/84NE	dextral	flower structure			
N50E to N69E	150/85	N60/4	N60E/85SE	sinistral	flower structure			

Field Number	Longitude	Latitude	Name	Dip Direction	Ls	Direction/dip/quadrant	Movement	Component	Note
TFS019	O 49° 6' 46.047"	S 24° 55' 21.202"	N9E to N9W	95/85		N5E/85SE			
			N50W to N69W	40/87		N50W/87NE			
			N30W to N49W	46/88		N44W/88NE			
			N70W to N90W	10/76		N80W/76NE			
			N9E to N9W	89/83		N1W/83NE			
			N50E to N69E	320/80		N50E/80NW			previous to 89/83 trending fault
			N50W to N69W	38/86	N130/50	N52W/86NE			
			N30E to N49E	310/78	N221/05	N40E/78NW	sinistral		
			N30E to N49E	138/85	N228/5	N48E/85SE	sinistral		
			N50E to N69E	320/80	N234/24	N50E/80NW	sinistral		
			N30E to N49E	136/88	N47/26	N46E/88SE	sinistral		spoons indicate
			N30E to N49E	135/88		N45E/88SE	sinistral		
			N10E to N29E	305/70		N35E/70NW			traquite dike
			N30E to N49E	305/85		N35E/85NW	dextral		
			N70E to N90E	175/88		N85E/88SE			
			N70E to N90E	356/86		N86E/86NW			post N40W/87NE fault
			N70E to N90E	166/80		N76E/80SE	dextral		
			N70E to N90E	163/70		N73E/70SE	dextral		
			N30E to N49E	135/88		N45E/88SE	sinistral		
			N30E to N49E	315/85		N45E/85NW	sinistral		
			N30W to N49W	310/87		N40W/87NE	dextral		
			N70W to N90W	20/60		N70W/60NE	sinistral		
			N50E to N69E	155/35		N65E/35SE			
			N50E to N69E	140/30		N50E/30SE			
			N50E to N69E	155/45		N65E/45SE	flower structure		
			N9E to N9W	146/45		N56E/45SE	flower structure		
			N10W to N29W	255/50		N15W/50SW			
			N10W to N29W	250/75		N20W/75SW	flower structure		
			N10W to N29W	250/80		N20W/80SW	flower structure		
			N10W to N29W	255/75		N15W/75SW	flower structure	dextral	
			N9E to N9W	261/35		N9W/35NE	flower structure	normal	
			N10E to N29E	100/35		N10E/35SE	flower structure		
			N9E to N9W	91/35		N1E/35SE	flower structure		
			N10W to N29W	244/75		N26W/75SW	sinistral		
			N50W to N69W	240/75		N30W/75SW			
			N50W to N69W	220/85		N50W/85SW			
			N10W to N29W	71/85		N19W/85NE	sinistral		
			N10W to N29W	71/85		N19W/85NE	sinistral		
			N30E to N49E	305/85		N35E/85NW	dextral		flower structure
			N30E to N49E	310/86		N40E/86NW	dextral		flower structure
			N50E to N69E	150/85		N60E/85SE	sinistral		cut the N40W trending fault
			N30W to N49W	50/85		N40W/85NE	dextral		cut by N60E trending fault
			N30W to N49W	60/85		N30W/85NE	dextral		cut the N86E trending fault
			N70E to N90E	356/86		N86E/86NW			cut by N40E trending fault
			N30E to N49E	310/86		N40E/86NW	dextral		cut the N86E trending fault
			N70E to N90E	166/82		N76E/82SE	dextral		first sinistral
			N70E to N90E	163/70		N73E/70SE	dextral		first sinistral
			N70E to N90E	165/84		N75E/84SE	dextral		first sinistral
			N9E to N9W	90/80		NS/80E	transpressional dextral		

TFS020	O 49° 5' 49.212"	S 24° 57' 16.473"	N9E to N9W	88/85		N2W/85NE	transpressional dextral					
			N10W to N29W	80/83		N10W/83NE						
			N9E to N9W	94/87		N4E/87SE	normal					
			N9E to N9W	82/3		N8W/35NE	normal					
			N30W to N49W	60/85		N30W/85NE						
			N50E to N69E	146/45		N56E/45SE			flower structure			
			N50E to N69E	155/45		N65E/45SE			flower structure			
			N10W to N29W	64/75		N26W/75NE	sinistral					
			N30W to N49W	60/76		N30W/76NE	sinistral					
			N10W to N29W	71/85		N19W/85NE	sinistral					
TFS021	O 49° 5' 0.317"	S 24° 56' 27.031"	N30E to N49E	305/30		N35E/30NW	phyllite foliation					
			N30E to N49E	300/35		N30E/35NW	phyllite foliation					
			N50W to N69W	40/85		N50W/85NE	phyllite fault					
			N30E to N49E	130/57		N40E/57SE	phyllite fault					
			N9E to N9W	275/85		N5E/85NW	Fault					
			N9E to N9W	274/79		N4E/79NW						
			N9E to N9W	90/80		NS/80E						
			N50E to N69E	330/89		N60E/89NW	sinistral					
			N50E to N69E	335/80		N65E/80NW	sinistral					
			N50E to N69E	335/89		N65E/89NW	sinistral					
			N70E to N90E	340/89		N70E/89NW	sinistral	Y				
			N50E to N69E	325/89		N55E/89NW		R				
			N50E to N69E	150/85		N60E/85SE	sinistral					
			N30E to N49E	138/85		N48E/85SE		R				
			N50W to N69W	215/80		N55W/80SW		R'				
			N30W to N49W	50/82		N40W/82NE		TAC fault contact				
			N50E to N69E	335/85		N65E/85NW	sinistral					
			N50E to N69E	325/89		N55E/89NW	sinistral					
			N50E to N69E	150/85		N60E/85SE	sinistral	Y				
			N30E to N49E	138/85		N48E/85SE		R				
			N50W to N69W	215/80		N55W/80SW		R'				
			N9E to N9W	275/85		N5E/85NW	sinistral					
			N9E to N9W	274/79		N4E/79NW	sinistral					
			TFS021	O 49° 5' 0.317"	S 24° 56' 27.031"	N70W to N90W	200/85		N70W/85SW			
						N70E to N90E	174/80		N84E/80SE			
						N10E to N29E	115/60		N25E/60SE			
N70E to N90E	340/80					N70E/80NW	sinistral					
N50E to N69E	330/80					N60E/80NW						
N30E to N49E	305/88					N35E/88NW						
N70E to N90E	320/89					N50E/89NW		R				
N70E to N90E	340/85					N70E/85NW						
N50E to N69E	320/80					N50E/80NW		R				
N70E to N90E	355/80					N85E/80NW		Y				
N50E to N69E	335/75					N65E/75NW		R				
N70E to N90E	345/75					N75E/75NW						
N30E to N49E	310/60					N40E/60NW						
N50E to N69E	145/75					N55E/75SE						
N70W to N90W	185/75					N85W/75SW						
N50E to N69E	335/60					N65E/60NW						
N9E to N9W	275/85					N5E/85NW						
N70E to N90E	340/75					N70E/75NW						
N70E to N90E	345/75					N75E/75NW						
N50E to N69E	330/75					N60E/75NW	sinistral	R				
N70E to N90E	340/60					N70E/60NW	sinistral	Y				
N10E to N29E	110/60					N20E/60SE						
N70E to N90E	359/89					N89E/89NW						
N30E to N49E	135/70					N45E/70SE						
N50W to N69W	25/65					N65W/65NE						

TSF022	O 49° 5' 46.996"	S 24° 56' 42.027"	N9E to N9W	275/75		N5E/75NW		R'?	
			N10E to N29E	295/85		N25E/85NW		R'?	
TFS023	O 49° 4' 24.24"	S 24° 57' 25.2"	N70E to N90E	345/80		N75E/80NW			traquite dike
			N30E to N49E	120/85		N30E/85SE			traquite dike