

**Table T1.** Modal analyses of Leg 190 sands, Nankai Trough. (Continued on next three pages.)

Sample number:	43	46	48	49	410	412	524	525	534	535	538
Hole, core, section:	1174A-3H-5	1174A-8H-5	1174A-8H-CC	1174A-8H-CC	1174B-1R-1	1174B-9R-2	1175A-37X-1	1175A-37X-4	1175A-43X-3	1175A-43X-3	1175A47X-CC
Interval (cm):	69–73	55–60	0–3	10–15	6–10	108–112	88–90	30–32	75–78	123–126	3–7
Qm (monocrystalline quartz)	8.2	3.8	3.8	4.0	2.0	3.2	21.6	27.2	28.6	26.6	26.8
Qmu (Qm with undulose extinction)	8.6	5.4	6.6	4.4	1.4	5.0	24.0	18.2	17.0	24.8	21.6
Qp (polycrystalline quartz)	4.0	2.0	0.8	2.0	1.4	1.2	13.0	15.0	8.0	9.2	11.2
Qp with a planar fabric							0.2			0.6	
Chert	0.4	0.2	0.4	0.4	1.8		12.4	8.8	5.0	3.6	3.0
P (plagioclase)	18.6	16.2	17.0	17.8	18.2	17.2	5.2	4.2	7.2	5.2	3.4
K (potassium-feldspar)	3.6	1.2	2.2	2.2	1.8	2.8	8.2	7.2	11.4	7.6	6.0
Ls (sedimentary rock fragments)	18.4	17.6	17.6	20.2	32.0	21.8	10.8	15.2	16.4	19.0	23.6
Lvf (felsitic volcanic rock fragments)	6.0	7.4	7.8	3.0	1.2	2.4	2.4	2.8	3.0	1.2	1.0
Lvm (mafic-intermediate Lv)	19.4	38.2	35.6	34.8	33.4	37.0	0.4			0.2	0.2
Lvg (volcanic glass)			0.6	0.4		0.8			0.2		
Lvtp (tube pumice)											
Lv (total volcanic rock fragments)	25.4	45.6	44.0	38.2	34.6	40.2	2.8	2.8	3.2	1.4	1.2
Lms (metasedimentary rock fragments)	4.8	3.0	2.4	1.4	2.4	1.0	0.4	1.0	2.0	1.0	2.6
Lmv (metavolcanic rock fragments)	1.8		1.0	1.8	1.4	2.2				0.2	
Lmu (unidentified Lm)	1.2	0.8	0.6		0.6	1.6	0.4			0.2	
Lp (plutonic clasts)	1.6	0.4	0.4		0.2		1.0	0.2		0.2	
Biotite	0.2			0.2		0.4		0.2			0.2
Chlorite											
Epidote	1.4	0.4	0.2		0.2	0.2			0.6		0.2
Garnet									0.2		0.2
Hornblende	0.2			0.2							0.2
Muscovite											
Opaque minerals				0.2	0.2	0.2			0.4	0.2	
Pyroxene + olivine	1.6	3.4	3.0	7.0	1.8	2.6					
Tourmaline						0.4					
Zircon											
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Carbonate*	1	2	1	1	1		3	8			5
Organic material*						1	1	1	1		
Q (quartz) (%)	21.9	11.9	12.0	11.7	6.7	9.8	71.2	69.3	59.3	65.1	63.0
F (feldspar) (%)	23.0	18.1	19.8	21.6	20.4	20.8	13.4	11.4	18.8	12.9	9.5
L (lithic fragments) (%)	55.1	70.1	68.2	66.7	72.8	69.4	15.4	19.2	21.9	22.1	27.6
Lm (metamorphic lithic fragments) (%)	15.1	5.7	6.1	5.2	6.2	7.2	5.6	5.3	9.3	6.4	9.5
Lv (volcanic lithic fragments) (%)	49.2	68.1	67.1	62.0	48.7	60.2	19.4	14.7	14.8	6.4	4.4
Ls (sedimentary lithic fragments) (%)	35.7	26.3	26.8	32.8	45.1	32.6	75.0	80.0	75.9	87.2	86.1
(Chert + Qp)/Q	0.21	0.19	0.10	0.22	0.48	0.13	0.36	0.34	0.22	0.20	0.23
P/F	0.84	0.93	0.89	0.89	0.91	0.86	0.39	0.37	0.39	0.41	0.36
Lv/L	0.48	0.68	0.67	0.62	0.49	0.60	0.18	0.15	0.15	0.06	0.04
Qm (%)	27.0	17.9	16.5	16.7	9.1	13.8	61.7	70.5	60.6	67.5	74.0
K (%)	11.8	5.7	9.6	9.2	8.2	12.1	23.4	18.7	24.2	19.3	16.6
P (%)	61.2	76.4	73.9	74.2	82.7	74.1	14.9	10.9	15.3	13.2	9.4

Note: \* = raw counts (not in 500 counts).

**Table T1 (continued).**

Sample number:	613	614	615	616	617	618	622	631	633	634	71
Hole, core, section:	1176A32X-CC 1176A-33X-CC 1176A34X-CC 1176A-35X-1 1176A-36X-2 1176A-40X-1 1176A-40X-1 1176A-44X-CC 1176A-46X-CC 1176A-48X-CC 1177A-16R-5										
Interval (cm):	7–9	39–41	5–8	35–39	35–38	43–46	43–46	34–38	19–23	14–17	8–10
Qm (monocrystalline quartz)	23.8	26.0	26.6	21.2	13.6	23.4	24.4	32.4	8.8	16.8	15.2
Qmu (Qm with undulose extinction)	21.6	18.6	18.0	22.8	25.0	18.0	20.2	21.4	22.2	24.6	19.8
Qp (polycrystalline quartz)	8.8	7.2	9.4	13.0	11.4	10.6	6.0	8.8	15.4	20.0	6.4
Qp with a planar fabric	0.4								1.0	0.6	
Chert	5.2	2.8	3.8	12.6	11.8	14.4	4.0	6.2	23.2	10.0	2.6
P (plagioclase)	4.6	9.4	7.2	4.0	4.2	5.0	11.6	5.8	2.2	4.2	15.2
K (potassium)-feldspar	7.8	12.0	14.0	6.6	7.4	5.0	12.0	10.2	3.2	5.4	9.0
Ls (sedimentary rock fragments)	20.2	15.8	13.0	14.4	19.4	13.2	16.2	9.8	19.2	13.2	27.6
Lvf (felsitic volcanic rock fragments)	2.8	2.8	3.8	3.4	5.8	5.8	1.4	2.4	3.2	2.4	2.8
Lvm (mafic-intermediate Lv)	0.4		0.8	0.2	0.4	1.4		0.2	0.6	0.6	0.4
Lvg (volcanic glass)											
Lvtp (tube pumice)									0.2		
Lv (total volcanic rock fragments)	3.2	2.8	4.6	3.6	6.2	7.2	1.4	2.6	4.0	3.0	3.2
Lms (metasedimentary rock fragments)	2.4	3.2	2.0	1.8	0.8	2.4	3.2	1.8	0.4	1.2	0.6
Lmv (metavolcanic rock fragments)	0.6	0.4									
Lmu (unidentified Lm)			0.8	1.2			0.2		0.2		0.2
Lp (plutonic clasts)	0.6						0.6		0.2	0.4	0.8
Biotite											
Chlorite											
Epidote	0.4	0.8					0.4	0.6			
Garnet		0.2					0.4				
Hornblende	0.2										
Muscovite	0.2									0.2	
Opaque minerals											
Pyroxene + olivine											
Tourmaline					0.2		0.2				0.2
Zircon			0.2								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Carbonate*			12	3	12	3	3	1	17	4	
Organic material*		3	21	3	5	4	17	5	7	6	2
Q (quartz) (%)	60.3	55.2	57.9	69.6	61.9	66.4	55.2	69.2	70.6	72.0	44.2
F (feldspar) (%)	12.5	21.6	21.2	10.6	11.6	10.0	23.8	16.1	5.4	9.6	24.3
L (lithic fragments) (%)	27.2	23.2	20.8	19.8	26.5	23.6	21.0	14.7	24.0	18.4	44.2
Lm (metamorphic lithic fragments) (%)	11.4	19.1	15.4	9.1	3.0	11.3	15.4	13.9	1.7	8.0	1.9
Lv (volcanic lithic fragments) (%)	12.1	12.2	22.1	18.2	23.5	31.3	6.7	18.1	16.9	17.0	10.2
Ls (sedimentary lithic fragments) (%)	76.5	68.7	62.5	72.7	73.5	57.4	77.9	68.1	81.4	75.0	87.9
(Chert + Qp)/Q	0.23	0.18	0.23	0.37	0.38	0.38	0.18	0.22	0.55	0.42	0.20
P/F	0.37	0.44	0.34	0.38	0.36	0.50	0.49	0.36	0.41	0.44	0.63
Lv/L	0.12	0.12	0.22	0.18	0.23	0.31	0.07	0.18	0.17	0.16	0.10
Qm (%)	65.7	54.9	55.6	66.7	54.0	70.1	50.8	66.9	62.0	63.6	38.6
K (%)	21.5	25.3	29.3	20.8	29.4	15.0	25.0	21.1	22.5	20.5	22.8
P (%)	12.7	19.8	15.1	12.6	16.7	15.0	24.2	12.0	15.5	15.9	38.6

**Table T1 (continued).**

Sample number:	73	74	76	732	733	745	817	820	828	831	838
Hole, core, section:	1177A-17R-1	1177A-18R-1	1177A-20R-2	1177A-37R-3	1177A-37R-4	1177A-45R-1	1178A-30X-5	1178A-34X-1	1178A-42X-1	1178A-43X-3	1178B-11R-4
Interval (cm):	52–56	19–24	78–82	148–150	9–12	84–88	76–81	128–132	125–139	34–40	36–39
Qm (monocrystalline quartz)	8.8	13.0	11.6	20.4	17.8	15.8	12.4	14.6	13.2	11.6	11.0
Qmu (Qm with undulose extinction)	21.0	18.4	27.4	31.2	39.0	28.8	12.6	10.4	8.8	8.4	10.8
Qp (polycrystalline quartz)	4.2	5.4	6.6	3.6	7.0	5.2	3.8	3.4	3.0	4.6	3.2
Qp with a planar fabric								0.2	0.2		
Chert	2.0	1.6	1.6	2.0	2.8	4.2	2.2	2.6	2.4	4.6	1.0
P (plagioclase)	10.8	13.6	19.8	13.8	16.0	14.2	7.4	7.6	6.0	4.8	7.8
K (potassium-feldspar)	9.6	6.6	10.4	14.0	5.4	20.2	7.6	10.8	9.2	4.6	5.4
Ls (sedimentary rock fragments)	35.6	33.2	15.6	5.2	8.4	4.0	51.2	47.8	54.6	57.6	59.4
Lvf (felsitic volcanic rock fragments)	5.4	2.2	3.4	7.4	2.2	6.0	0.6	0.4	2.0	1.6	0.2
Lvm (mafic-intermediate Lv)		0.2		0.2	0.2	0.2	0.2	0.4		0.2	
Lvg (volcanic glass)	0.2	0.2	0.2	0.4	0.2	0.2					
Lvtp (tube pumice)											
Lv (total volcanic rock fragments)	5.6	2.6	3.6	8.0	2.6	6.4	0.8	0.8	2.0	1.8	0.2
Lms (metasedimentary rock fragments)	1.6	5.0	2.6	1.2	0.8	1.0	1.0	1.0	0.4	1.4	0.2
Lmv (metavolcanic rock fragments)							0.4				
Lmu (unidentified Lm)	0.2	0.2					0.6	0.8	0.2	0.6	0.8
Lp (plutonic clasts)	0.4	0.2		0.2	0.2						
Biotite											
Chlorite											
Epidote				0.8	0.2						0.2
Garnet							0.2				
Hornblende											
Muscovite	0.2										
Opaque minerals											
Pyroxene + olivine											
Tourmaline	0.2				0.2						
Zircon											
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Carbonate*	2	1	1	1			2	2	2	1	1
Organic material*	9		2		4	3		2	4	1	4
Q (quartz) (%)	36.1	38.5	47.6	57.4	66.6	54.1	31.0	31.2	27.6	29.2	26.1
F (feldspar) (%)	20.4	20.2	30.4	27.9	21.4	34.5	15.0	18.4	15.2	9.4	13.2
L (lithic fragments) (%)	43.5	41.3	22.0	14.7	12.0	11.4	54.0	50.4	57.2	61.4	60.7
Lm (metamorphic lithic fragments) (%)	4.2	12.7	11.9	8.3	6.8	8.8	3.7	3.6	1.0	3.3	1.7
Lv (volcanic lithic fragments) (%)	13.0	6.3	16.5	55.6	22.0	56.1	1.5	1.6	3.5	2.9	0.3
Ls (sedimentary lithic fragments) (%)	82.8	81.0	71.6	36.1	71.2	35.1	94.8	94.8	95.5	93.8	98.0
(Chert + Qp)/Q	0.17	0.18	0.17	0.10	0.15	0.17	0.19	0.19	0.20	0.32	0.16
P/F	0.53	0.67	0.66	0.50	0.75	0.41	0.49	0.41	0.39	0.51	0.59
Lv/L	0.13	0.06	0.17	0.55	0.22	0.56	0.01	0.02	0.03	0.03	0.00
Qm (%)	30.1	39.2	27.8	42.3	45.4	31.5	45.3	44.2	46.5	55.2	45.5
K (%)	32.9	19.9	24.9	29.0	13.8	40.2	27.7	32.7	32.4	21.9	22.3
P (%)	37.0	41.0	47.4	28.6	40.8	28.3	27.0	23.0	21.1	22.9	32.2

**Table T1 (continued).**

Sample number:	839	846	848	849	852	856
Hole, core, section:	1178B-12R-2	1178B-21R-2	1178B-23R-2	1178B-23R-2	1178B-25R-2	1178B-30R-3
Interval (cm):	32–33	66–71	45–47	133–135	51–53	15–20
Qm (monocrystalline quartz)	11.8	12.6	7.0	6.6	7.0	6.4
Qmu (Qm with undulose extinction)	13.6	11.6	9.8	13.0	12.2	18.2
Qp (polycrystalline quartz)	5.2	8.2	3.4	4.6	4.4	4.0
Qp with a planar fabric						
Chert	3.8	4.0	2.6	3.8	1.4	3.6
P (plagioclase)	10.6	9.2	10.8	8.8	10.0	9.8
K (potassium)-feldspar	10.6	10.0	10.2	4.8	6.0	6.4
Ls (sedimentary rock fragments)	41.4	40.6	47.2	53.2	51.6	48.4
Lvf (felsitic volcanic rock fragments)	1.4	2.0	4.0	2.6	4.8	1.6
Lvm (mafic-intermediate Lv)	0.2			0.2	0.6	
Lvg (volcanic glass)						
Lvtp (tube pumice)						
Lv (total volcanic rock fragments)	1.6	2.0	4.0	2.8	5.4	1.6
Lms (metasedimentary rock fragments)	0.8	1.6	3.6	2.0	1.4	1.6
Lmv (metavolcanic rock fragments)			0.2		0.2	
Lmu (unidentified Lm)	0.2			0.2	0.4	
Lp (plutonic clasts)				0.8	0.2	
Biotite						
Chlorite		0.4				
Epidote						
Garnet						
Hornblende						
Muscovite			0.2			
Opaque minerals						
Pyroxene + olivine						
Tourmaline						
Zircon						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Carbonate*		2	1	2	1	1
Organic material*	3	7	6	2	4	2
Q (quartz) (%)	34.5	36.4	22.8	28.0	25.0	32.2
F (feldspar) (%)	21.3	19.2	21.0	13.6	16.0	16.2
L (lithic fragments) (%)	44.2	44.4	56.1	58.4	59.0	51.6
Lm (metamorphic lithic fragments) (%)	2.3	4.1	7.2	3.8	3.4	3.1
Lv (volcanic lithic fragments) (%)	3.6	4.5	7.2	4.8	9.2	3.1
Ls (sedimentary lithic fragments) (%)	94.1	91.4	85.5	91.4	87.5	93.8
(Chert + Qp)/Q	0.26	0.34	0.26	0.30	0.23	0.24
P/F	0.50	0.48	0.51	0.65	0.63	0.60
Lv/L	0.04	0.05	0.07	0.05	0.09	0.03
Qm (%)	35.8	39.6	25.0	32.7	30.4	28.3
K (%)	32.1	31.4	36.4	23.8	26.1	28.3
P (%)	32.1	28.9	38.6	43.6	43.5	43.4