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Descriptions and Laboratory Analysis for Soils in the Northern San Timoteo Badlands, California

By

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The soils that are included in this report were described in the northern San Timoteo badlands, southern California during the time period from 1990 to 1996 as part of an evaluation of the slip history on the northern San Jacinto fault. The soils are described on preserved aggradational surfaces associated with tributary streams within San Timoteo and Reche Canyons. Data tables include field descriptions, a summary of soil development indices, secondary iron oxide contents, and laboratory analysis of selected soils.

Profile Horizon	Depth (cm)	Dry Color	Moist Color	Clay film Color	Texture	Structure	Consistence Dry	Consistence Wet	Clay Films	Roots	Pores	Remarks %gravel
Q1												
STC 1												
A1	0-30	10YR5/3	10YR3/3	--	SiL	sg	so	so,po	--	3vf,1f,1m	2vf,1f	<5%
A2	30-49	10YR5/3.5	10YR3/3	--	SiL-L	2msbk	sh	so,po	--	1vf,1f,1m	2vf,1m	<5%
AB	49-98	10YR5/3.5	10YR3/3	--	L	2msbk	sh	so,po	--	1vf,1f,1m	2f,1m	<5%
Bw	98-150	10YR5/4	10YR4/4	10YR5/4.5	L	2msbk	h	ss,ps	1npf	1f,2m	2vf,2f,1m	<5%
B1	150-172	10YR5/5	8.75YR4/4	7.5YR5/6	SiCL	2msbk	vh	s,ps	1npf,po	1f,1m	1vf,1f	<5%
B2	172-233	10YR5/4	7.5YR5/4	7.5YR4/6	SiCL	3cosbk	vh	s,ps	2n,1mkpf	1f,1m,1c	1vf,1f	5%
BC	233-340	10YR5/4	10YR5/4	7.5YR4/6*	vfSL-L	2msbk	sh	so;po	*	1f,1m,1c	1vf,1f	10%
Cox	340-360	10YR5/3.5	10YR5/3	---	LS	2m-csbk	sh	so,po	---	2vf,1f	2vf,2f,1c	10-15%
STC 7												
A	0-28	10YR5/3	10YR3/3	---	L	1fsbk	so-sh	so,ps	---	1vf,1f	1vf,1f 1m	
A+B	28-38	10YR5/4	10YR4/3	7.5YR5/6	SCL	2msbk	sh	s,p	1vnpf	1vf,1f	2vf	<5%
Bt1	38-90	7.5-10YR5/5	7.5YR4/4	7.5YR5/4	CL	3msbk-pr	h	s,p	1mkpf, 2nbr	1f,2m	2vf,1f	5%
2Bt2	90-120	10YR6/4	10YR4/4	7.5YR5/4	L+	2msbk	h-vh	ss,ps	1mkpf	---	2vf,2f, 1m,1c	5%
2Cox+Bt	120-167	10YR6/3	10YR4/4	7.5YR5/4	SL	1msbk	h-vh*	sopo	v1nco	1m,1c	3vf,2f	<5%,bands
3Cox	167-200	10YR7/4	10YR5/4	---	L	2msbk-abk	vh	so,po	---	1f	3vf	<5%
STC 11												
A1	0-7	10YR5/3	10YR3/2.5	---	SiL	1msbk	s	so ps	---	2vf,1c	3vf,2f	2%
A2	7-25	10YR5/3	10YR4/2	---	L	m, 1m-csbk	sh	so ps	---	2vf,1f	3vf,1f,1c	2%
AB1	25-43	10YR5/4	10YR4/3	7.5YR5/5	L	1msbk	sh	vss ps	1cost	3vf,1f,1c	3vf,1f,2m	5%
AB2	43-73	10YR5/4	10YR4/3	7.5YR5/4	L+	2m-csbk	h	ss ps	v1npf,1cost	2vf	3vf,2f,2c	5%
B21	73-146	10YR5/4	7.5YR5/5	5YR4/4	L-CL	2msbk	h	ss-s p	1mkpf 2nbr,pf	2vf,1f	3vf,2f,1c	30-35%
BC	146-225	10YR6/4	10YR4/4	5YR4/3	SiL	2msbk	h	ss ps	1 n pf (sheets)	1vf	2f	25%
Cox1	225-276	10YR6/4	10YR4/4	7.5YR5/6	SiL	m, 2msbk	sh	so po	v1npf	---	2f,1m	5%
Cox2	276-325	5YR4/4?	10YR5/4	---	LS	m, 1msbk	s-sh	so po	2npf(band)	---	2vf,1c	5-10%
Cox3	325-365	10YR6/4	10YR5/3.5	---	SL-LS	m, v1msbk	s	so po	---	---	1vf,1m	15%
STC 14												
A1	0-31	10YR4/4	10YR3/4		SiL	1f sbk	sh-h	vss,ps	0	3vf, 2f	3vf, 2f	< 5 %
AB	31-65	10YR4/3	10YR3/3		L+	2m sbk	h	ss-s, ps-p	cost			
Bt1	65-111	10YR5/4			SiL	2m sbk	h	ss, ps	1mkpf,2fpf	1f, 1vf	1m, 2f, 2vf	
2Bt2	111-156	7.5YR5/5	7.5YR4/4	7.5YR4/6	L-SL	2m sbk	h-vh	ss, ps	v1kpf, 2mkpf	v1vf	1vf	
Bt3/Cox	156-231	7.5YR4/6	7.5YR4/5	5YR4/3 (bands)	CoSL	m,1msbk*	sh	so,po	1npf, cost	v1vf	1vf, 1f	
Cox	231-281	10YR6/4	10YR4/6		SL	m, 1m sbk	sh	so po	0	v1vf		
Q2												
STC 3												
Ap	0-7	10YR5/3	10YR3/3	---	SiL	1 c pl	so	so,po	---	2vf,1f	2vf,1f,1m	<2%
A	7-16	10YR5/3.5	10YR3/3	---	L	2msbk	sh	so,po	---	2f,3vf	2f,2m	5%
Bt1	16-43	7.5YR5/5	7.5YR3/3	---	SL	3msbk	sh-h	ss,ps	1npf,br	2vf,1f	1vf,1f, 2m,1c	3%
Bt2	43-67	7.5YR4/5	7.5YR3/4	---	SL	3msbk	h-vh	ss,ps	2mpf,po	3vf,1f	3vf,2f, 2m	<5%
2Bt3	67-200	7.5YR5/4 +7.5YR5/6	7.5YR4/4	5YR5/4+ + 4/4	SCL	3msbk	vh	ss,ps	2mkpf,po; 1kpf	1vf	1f	15%
2Bt4	200-244	7.5YR5/4	7.5YR4/6	7.5YR4/4 + 5YR5/6	SL	3msbk	h	so,po	2mpf	1vf,1f	3vf,3f 1m	20% Bt bands
2Cox/Bt	244-326	10YR6/4	10YR5/4		LS	2msbk	h	so,po	2nco	2vf	2vf,1f	10%

Profile Horizon	Depth (cm)	Dry Color	Moist Color	Clay film Color	Texture	Structure	Consistence Dry	Consistence Wet	Clay Films	Roots	Pores	Remarks %gravel
STC 9												
Bt1	0-18	7.5YR4.5/4	7.5YR4/4	---	SiCL	2csbk	h	s,p	v1mkpf 1nbrpf	1vf	2vf,1f1m	10%
2Bt2	18-54	7.5YR5/4	7.5YR4/4	5YR4/4	SL	3msbk	sh-h	ss,ps	1mkpf 1nbr,pf	1vf	2vf,f,1m	30%
3Bt3	54-80	10YR6/6	7.5YR4/4	5YR5/4	L+	m;3fsbk	vh	s,p	1npf,br	1vf	1vf,1f	<5%
3Cox/Bt	80-108	10YR6/4	7.5YR4/4	5YR5/6	SL	m:3msbk	vh	ss.ps	1npf,br	1vf	2vf,1m	5%
3Cox	108-120	10YR6/4	10YR5/4	---	SL	m;2msbk	vh	so,ps	---	___	1vf,1f	5%
STC 12												
Ap	0-20	10YR6/3.5	10YR3/3	---	L(SiL)	m,2mabk	sh-h	so vps	---	3vf,1f	2vf,2f	2%
BA	20-49	10YR5/4	7.5-10YR3/3	---	L	m,1msbk	sh	so ps	1 co st po	3vf	3vf,3f,2m	2%
Bt1	49-70	7.5YR6/5	7.5YR3/3	---	SiL	2msbk	h	ss-s ps	1mkpf,po 1npf	1vf	2vf,1f,1m	5%
Bt2	70-117	7.5YR6/6	7.5YR4/6	7.5YR5/4	SiCL	2msbk	h	s p	1mkpf,po 1npf	1vf	2vf,2f,1m	5%
Bt3	117-160	7.5YR6/5	7.5YR4/6	7.5YR5/4	SL	1msbk	sh	vss ps	1npf	1vf	2vf,1f,1c	10%
BC1	160-201	8.75YR6/4	8.75YR4/4	---	SL	1msbk	sh	so vps	v1co st	0	2vf,2f,1m	10%
BC2	201-258	10YR6/4	7.5YR4/4	---	SL	1msbk	h	so po	v1npf	3vf*	3vf,1f,1m	15%
BC3	258-300	10YR6/3	10YR4/4	---	LS	v1msbk	sh	so po	v1npf	2vf*	2vf,1f,1c	30-40%
2Cox1	300-329	10YR6/4	10YR4/4	---	LS	m,1msbk	so	so po	---	0	2vf,2f,1m	45%
2Cox2	329-360	10YR7/4	10YR5/4	---	S	sg	so	so po	---	0	2vf,1f,1m	70%
STC 15												
A1	0-21	10YR5/4	10YR3/3		SiL	m, 1msbk	sh	so po	0	1vf, 1f	1vf	
AB	21-40	10YR5/4	10YR4/2		L	1m sbk	sh	vss vsp	0	1vf	1vf	
Bt1	40-83	10YR5/4	10YR4/3		L+	2m sbk	h	ss ps	v1mkpf	1vf, 1f	1vf, 1f	
Bt2	83-127	7.5YR5/4	7.5YR4/4		L+	2c sbk, 2mabk	vh	s ps	1kpf, 2mkpf,b	v1vf	2vf, 1f	
Bt3	127-189	7.5YR4.5/4	7.5YR4/4		SL	2c sbk	vh	ss ps	2mkpf,1kpf	1vf	1vf	
Cox/Bt	189-218	10YR6/4	10YR4/6		SL	m, 1 m sbk	sh	vss vsp	1nbr, 1mk pf (in bands)	1vf	1vf int	
Cox	218-233	10YR6/4	10YR6/4		L	m, 1m sbk	sh	so po	0	0	0	
RC 1												
AB	0-15	10YR5/4	10YR3/3	---	SiL	1msbk	so-sh	vss ps	---	2vf,2f,1m	2vf,2f	<5%
Bt1	15-33	7.5YR4/6	5-7.5YR4/4	5YR4/4	CL	2msbk	h	s p	1mkpf,1nbr	2vf,1f	2vf,f,m,1c	5%
Bt2	33-72	7.5YR5/4	7.5YR4/6	5YR5/4	CL	2msbk	vh	s p	1mkpf,2nbr	2vf,1f	2vf,1f,m,c	10%
Bt3	72-110	7.5YR5/6	7.5YR4.5/6	5YR5/4	L+	2msbk	vh	s ps	1mkpf,1nbr	1vf,1f	2vf,1f	5%
Bt4/Cox	110-135	7.5YR6/6	7.5YR5/5	5YR5/6	SiL	1msbk	h	so ps	1npf	1c	2vf,1f	15%
Cox	135-150	10YR7/4	10YR5/4	---	L	1msbk	h	ss ps	---	1m,1c	2vf,1f	15%
RC 3												
Ap	0-19	10YR5/4	10YR3/3	---	SiL	2m-cosbk	sh	so vsp	0	3vf	3vf,1f	<2%
Bw1	19-40	7.5YR4.5/4	7.5YR3/3	---	SiL	2msbk	h	vss ps	v1npf,1cost	3vf,1f	3vf,2m	2%
Bw2	40-51	7.5YR4/4	7.5YR3/3	---	SiL+	2msbk	h	ss ps	1npf,1cost	2vf	3vf,1f,1m	2%
2Bt1	51-88	7.5YR4/6	7.5YR3/4	5YR4/4	SiCL	2msbk	vh	s ps?	2mkpf,3nbr	1vf	3vf,1f,1m	20-25%
2Bt2	88-150	7.5YT6/6	10YR4/4	7.5YR4/6	L+	m,2msbk	h-vh	ss ps	v1mkpf,1npf	1vf	2vf,1f,2m	45-50%
2Cox	150-185	8.75YR6.5/5	10YR4/4	---	SiL	m,1fsbk	sh-h	so po	0	1vf	3vf,2f	20%
3Cox	185-255	10YR6/4	10YR4/4	---	SiL	m,1msbk	sh	so po	v1npf	0	2m,1f	10%
RC 4												
A1	0-20	10YR5/4	10YR3.5/3	---	SiL	2cosbk-abk	sh	vss ps	0	3vf,2f	3vf,2f,1m	1-2%
AB	20-59	7.5YR5/4	7.5YR3/3	---	SiL	m,2msbk	sh	ss ps	1npf,waves	3vf,1f	3vf,1f,1m	1-2%
Bw	59-76	7.5YR5/4	7.5YR3/4	6.75YR5/4	L+	m,2msbk	h	ss ps+	1npf	2vf	2vf,1m	<2%
2Bt1	76-132	7.5YR4/6	7.5YR4/4	---	SCL	m,3msbk	h	s ps	1mkpf,2npf	0-1vf	1vf	40%
3Cox	132-352	7.5YR5/6	7.5YR5/5	---	SL	m,1msbk	so-sh	so po	0	1vf	1vf,1f	5-10%
Bt bands		5YR4/3	5YR4/4		L+		sh	vss ps				
RC 5												
Ap	0-32				SiL	1cosbk	sh-h	ss ps	0	3vf,2f,2m	3vf,1f	>2%
BA	32-67	7.5YR5/4	7.5YR3/4	---	SiL	1msbk	h	s ps	1cost,v1pf	3vf,1f,2m	2vf,1f	1-2%

Profile Horizon	Depth (cm)	Dry Color	Moist Color	Clay film Color	Texture	Structure	Consistence Dry Wet	Clay Films	Roots	Pores	Remarks %gravel
									1c		
Bt1	67-101	7.5YR6/5	7.5YR4/5		SiL,SiCL	2msbk,pr	h s p	1kpf,2mkpf 3n	2vf	2vf,1f	10%
Bt2	101-177	7.5YR6/5	7.5YR4/4	7.5YR5/4	L	2msbk	h ss ps	1npf	1vf	1vf,1f	15%
BC1	177-212	10YR7/4	10YR4/4		L	2msbk	sh-h vss ps	v1npf	1vf	2vf,2m	10%
2BC2	212-312	10YR7/3.5	10YR5/3.5		LS	1msbk	h so po	v1npf	1vf	2vf,1m,1c	40%
2Cox	312-329	10YR7/4	10YR4/4		LS	1fabk	sh-h so po	0	1vf	3vf,1f,1m	65%
3Bt1b	329-354	8.75YR7/5	7.5YR5/5		LS	2mabk	sh-h so po	1npf,2cost	0	1vf,1f	50-60%
3Bt2b	354-377	8.75YR7/5	7.5YR5/5		SL/LS	1mabk	h so po	v1npf	0	1f,1m	40%
3BCb	377-407	10YR6/4	10YR4/4		SL	1fabk	sh-h so po	0	1vf	1vf	<2%
RC 6											
Ap	0-34	10YR4/3	10YR3/3		L	1msbk	<vsh so po	0	3vf,1f,m	2vf,1f,m,c	<2%
AB	34-80	10YR5/4	10YR4/3	7.5YR4/4	L	1msbk	sh ss vsp	1npf	3vf,1f	2vf,1f,2c	5%
Bt1	80-129	7.5YR5/6	7.5YR4/6	5YR4/4	SiCL	2msbk	h s vps	2mkpf,1nbr	1vf	2vf,2f,c	5%
Bt2	129-155	7.5YR6/6	7.5YR5/6	5YR3,4/4	SCL	2msbk	h ss ps	1mkpf,1npf	1vf	1vf	<5%
BC	155-178	10YR6/4	10YR5/4	7.5YR5/4	SCL	1msbk-abk	sh-h ss ps	1npf	1vf	2vf,1f	<5%
2Cox/Bt	178-225	10YR6/5	10YR5/4	---	SL	sg,v1fsbk	sh so po	1npf	1vf	1vf,f,c	40-50%
2Cox2	225-297	10YR6/3	10YR5/3	---	SL	sg,v1fsbk	so so po	0	1vf	1vf,1f	10%
3Bt1b	297-333	10YR5/4	10YR5/4	---	L	m,2fabk	sh so po	2npf	0	0	5%
3Bt2b	333-383	10YR4/4	10YR4/4	---	LS	m,2fabk	sh-h so po	2npf	0	0	5-10%
RC 7											
Ap	0-26	10YR5/4		---	L	1msbk	sh so po	0	3vf	2vf,1f,2m	5%
AB	26-70	8.75YR5/5		---	SCL	2msbk	sh-h ss ps	1npf	3vf	2vf,m,c,1f	<5%
Bt1	70-100	7.5YR5/6		5YR4/6	SCL	2msbk	h ss-s ps	2mkpf,2npf	1vf	1vf,1c	10%
Bt2	100-152	7.5YR5/6		5YR5/6	SL+	1msbk	<h vss vps	1npf,co st	1vf	1vf,1f	10%
Cox1	152-219	10YR7/4	10YR5/3	---	SL	m	sh-h so po	0	1vf	1vf,m,c	25%
2Cox2	219-339	2.5Y7/3	10YR5/3	---	fiSL	sg	so so po	0	1vf,1f	1vf,1c	20%
3Bt1b	339-377	10YR5/4	7.5YR4/4	7.5YR5/6	SL	m,2msbk	h so vsp	1npf	1vf	1vf,f,2m,c	<5%
Q2b											
STC 2											
Bt1b	0-52	7.5YR5/6	7.5YR5/6	5YR5/8	SL	3msbk	vh ss,ps	1npf	2vf	1vf	5%
Bt2b	52-83	7.5YR6/6	7.5YR4/4	5YR5/8	L	3msbk	vh ss,ps	1npf	1vf	1f	5%
Bt3b	83-145	10YR6/5	10YR4/4	---	SiL	3msbk	h so,po	v1npf	1vf	1vf,1f	2%
Cox	145-247	10YR6/5	10YR5/4	---	L	2msbk	h so,po	1nco	---	1vf	<2% CaCO3 on
STC 8											
Bwk1b	0-21	7.5YR6/6	7.5YR4/4	---	SL	m;2msbk	sh so,po	---	1vf,1f, 1m,1c	2vf,1f	10%
Bwk2b	21-76	7.5YR5/6	7.5YR5/4	---	L	m;2msbk	h vss,ps	---	1vf,1f	1vf,1f	5%
2Ckb	76-150	10YR6/4	10YR5/3	---	Si	m;3msbk	h so,po	---	1vf	2vf,1f	<5%
3Bwk1b	150-175	10YR6/5	10YR4/4	---	SiL	m;2msbk	sh ss,ps	---	1vf,1f	2vf,1f1c	5% ped faces
Q3											
STC 4											
Bt1	15-132	2.5YR4/7	3.75YR4/6	---	SL	3msbk	vh s,ps	1kpf,3nbr	1f,1co	---	10%
2Bt2	132-230	7.5YR5/6	7.5YR5/4	2.5YR4/8	SiL	3csbk	h-vh so,ps	v1npf,1nco	1vf,1m	1vf	5%
STC 10											
Bt1	0-35	2.5YR4/6 5YR4/6	5YR4/6		SC	3msbk	vh s,p	1kpf,2nbr 2mkpf	1vf	1vf	25%
Bt2	35-89	7.5YR4.5/6	6.25YR5/6	5YR4/6	SCL	2msbk	h s,ps	1mkpf,2nbr	1vf,1f1m	1vf1f	15%
Cox	89-115	10YR5/4	10YR4/4		SL	1msbk	sh vss,vsp	---	1vf1f	1f2vf	25%
STC 13											
Ap	0-27	10YR4/3	10YR3/3	---	L	1 co sbk	sh so po	---	3vf,1f	1vf,1f,1m	10%
AB	27-82	7.5YR4/4	7.5YR4/5	5YR5/4	SL	1msbk	sh ss ps	1npf	2vf	2vf1f2m1c	10%

Profile Horizon	Depth (cm)	Dry Color	Moist Color	Clay film Color	Texture	Structure	Consistence Dry Wet	Clay Films	Roots	Pores	Remarks %gravel
Bt1	82-116	7.5YR4/4	7.5YR3.5/4	5YR3/3	SCL	1msbk	sh ss+ p-	1mkpf, 2npf	2vf	1vf,1f	5%
Bt2	116-141	7.5YR5/6	7.5YR4/6	5YR4/4	CL	2-3msbk	h s ps	3mk,2kpf	1vf	2co	10-15%
Bt3	141-169	7.5YR5/6	7.5YR5/6	2.5YR3/4	SCL	2msbk	h s p	3mk,2kpf	0	1vf	10%
Bt4	169-223	7.5YR5/7	7.5YR5/4	5YR5/6 5YR4/4	SCL	2msbk	sh ss ps	2n,1mkpf	0	1m	20%
Bt5	223-291	7.5YR6/6	7.5YR4/4	5YR4/4	SCL	2msbk	h ss ps	2mk,1kpf	0	1vf,1f,1m	10%
Bt6	291-336	7.5YR6/6	10YR4/4	5YR5/4,6 5YR4/4	SCL-SL+	1msbk	sh-h vss po	2mk,v1kpf	v1vf	1vf	10%
BC1	336-400	7.5YR5/6	7.5-10YR4/4	5YR4/6	SL-SCL?	1msbk	sh so po	1mkpf	1vf	1vf	15-20%
RC 2											
Bt1b	0-45	5YR4/6 5YR5/8	5YR5/8	---	SL-SCL	3copr	h so po	2kpf,1nbr	2vf	2vf	<2%
Bt2b	45-61	7.5YR5/8 7.5YR4/6	7.5YR5/6	---	SıL	2msbk	h ss ps	2npf,br, v1kpf	1vf	1vf	<2%
Bt3b	61-230	7.5YR5/4-6	7.5YR4/6	---	SL	2msbk	h vss vsp	1npf	0	0	5%
Cox/BC	230-325	10YR5/4	10YR4/4	---	SL	m	vh so po	0	0	0	5%
Q3b											
STC 5											
Bt1b	0-70	5YR5/6	5YR4/6	---	SL	3mabk	h vss,po	3npf,br 1mkpf	1m,1c	1f	20%
Bt2b	70-121	7.5YR5/6	7.5YR4/6	5YR5/8	SL	3c a-sbk	vh vss,po	2npfbr v1mkpf	1vf,1c	--	35-40% *Bt bands
Bt3b	121-175	7.5YR5/6	7.5YR5/4	5YR5/8	L	2msbk	h ss,ps	1npf,br 1mkpf(silt?)	2m,1c 1vf,1f	2vf,2f	15%
Coxb	175-215	7.5YR5/7	7.5YR5/7	---	LS	1msbk	sh so,po	few stains	2vf,1m 1c	1vf,1f	30%
Q4											
STC 6											
Bt1	0-35	2.5YR4/8	2.5YR4/7	2.5YR3/6	SC	3coabk	vh s,p	2kpf,4nbr	1vf,1f	1f	5-10%
Bt2	35-111	5YR5/6	3.75YR4/6	2.5 4/7	SCL	3cabk	vh s,ps	1kpf,3nbr	1vf,1m	1vf,1f	20%
Bt3	111-185	7.5YR5/7	7.5YR4/6	2.5YR4/6	LS	2csbk	sh-h* so,po	1nbr v1mkbr*	1c	1vf	35% *Bt bands
Cox	185-225	7.5YR5/6	7.5YR4/6	---	LS	1msbk	sh so,po	---	3vf,1f 1m	1vf,1f	55%

Surface and soil profile	Total Thickness	SDI4 1	SDI4 adjusted for gravel %	Weighted Mean 2	SDI4 extended to 400 cm	Rr 3
San Timoteo Canyon						
Qt1						
STC 1	360	78.70	74.19	0.21	82.81	3.0
STC 7	187	54.60	51.87	0.28	93.47	3.0
STC 11	245	83.80	63.60	0.26	110.49	5.0
STC 14	251	75.75		0.30	99.59	3.75
Qt2						
STC 3	264	103.95	86.93	0.33	190.41	6.0
STC 9	120	46.79	40.52	0.34	99.88	6.0
STC 12	320	79.33	70.91	0.22	75.11	3.75
STC 15	238	79.32		0.33	102	5
Qt3						
STC 4	215	102.47	94.09	0.44	127.85	15
STC 10	109	52.02	41.73	0.38	90.58	11.25
STC 13	400	168.71	146.71	0.37	146.71	10.0
Qt4						
STC 6	205	100.72	78.21	0.38	130.90	15
Reche Canyon						
Qt2						
RC 5	332	87.17	72.45	0.22	78.57	5.0
RC 6	265	70.90	65.01	0.25	72.10	6.0
RC 3	170	62.03	40.57	0.24	71.62	5.0
RC 4	152	49.87	38.09	0.25	77.15	3.0
Qt3						
RC 2	250	94.95	91.09	0.36	114.34	8.0

Surface/ Pedon	% Total Fe	% FeO	% Fe2O3	%Fe2O3d	FeO/ Fe2O3	Fe2O3d/ Fe2O3t	%Fe2O3o	Fe2O3o/ Fe2O3t	Fe2O3o/ Fe2O3d
Q1/STC7									
7.1	4.31	1.02	3.18	1.01	0.32	0.23	0.64	0.15	0.63
7.2	3.61	0.44	3.12	0.97	0.14	0.27	0.67	0.19	0.69
7.3	3.50	0.34	3.12	0.89	0.11	0.25	0.61	0.17	0.69
7.4	3.18	0.33	2.81	0.76	0.12	0.24	0.46	0.14	0.61
7.5	3.03	0.44	2.54	0.68	0.17	0.22	0.53	0.18	0.78
7.6	3.62	0.44	3.13	0.74	0.14	0.2	0.44	0.12	0.59
Q2b/STC8									
8.1	3.63	0.70	2.85	0.72	0.25	0.2	0.37	0.1	0.51
8.2	4.26	0.64	3.55	0.75	0.18	0.18	0.38	0.09	0.51
8.3	4.94	0.77	4.08	0.80	0.19	0.16	0.41	0.08	0.51
8.4	4.89	<0.01	4.88	0.85	0.002	0.17	0.34	0.07	0.4
Q2/STC9									
9.1	4.72	0.71	3.93	1.24	0.18	0.26	0.84	0.18	0.68
9.2	3.46	0.37	3.05	0.89	0.12	0.26	0.47	0.14	0.53
9.3	3.52	0.38	3.10	0.95	0.12	0.27	0.46	0.13	0.48
9.4	3.70	0.42	3.23	0.90	0.13	0.24	0.48	0.13	0.53
9.5	2.98	0.50	2.42	0.65	0.21	0.22	0.39	0.13	0.6
Q3/STC10									
10.1	5.87	0.86	4.91	1.69	1.18	0.29	0.67	0.11	0.4
10.2	5.92	0.92	4.90	1.19	0.19	0.2	0.64	0.11	0.54
10.3	5.88	0.98	4.78	0.89	0.21	0.15	0.58	0.1	0.65
Q4/STC6									
6.1	6.51	0.56	5.95	2.42	0.09	0.37	0.96	0.15	0.4
6.2	5.62	0.83	4.79	1.71	0.17	0.3	0.46	0.08	0.27
6.3	4.2	0.74	3.46	1.62	0.21	0.39	0.5	0.12	0.31
6.4	4.8	0.82	3.98	1.19	0.21	0.25	0.89	0.19	0.75
6.5	4.61	0.95	3.66	1.16	0.26	0.25	0.43	0.09	0.37
Q3/RC2									
2.1	5.16	0.49	4.67	1.46	0.1	0.28	0.15	0.03	0.1
2.2	4.88	0.46	4.42	0.94	0.1	0.19	0.22	0.05	0.23
2.3	4.97	0.59	4.38	0.97	0.13	0.2	0.19	0.04	0.2
2.4	4.54	0.74	3.8	0.98	0.19	0.22	0.27	0.06	0.28
2.6	4.98	0.95	4.03	0.9	0.24	0.18	0.25	0.05	0.28
2.7	5.36	0.58	4.78	0.95	0.12	0.18	0.29	0.05	0.31
Q2/RC6									
6.1	4.15	1.04	3.11	1.16	0.33	0.28	0.52	0.13	0.45
6.2	4.12	0.75	3.37	1.36	0.22	0.33	0.57	0.14	0.42
6.3	3.83	0.38	3.45	0.98	0.11	0.26	0.35	0.09	0.36
6.4	3.6	0.41	3.19	0.95	0.13	0.26	0.31	0.09	0.33
6.5	3.54	0.37	3.17	0.81	0.12	0.23	0.22	0.06	0.27
6.6	3.32	0.57	2.75	0.78	0.21	0.23	0.37	0.11	0.47
6.7	2.77	0.46	2.31	0.57	0.2	0.21	0.22	0.08	0.39
6.8	3.44	0.46	2.98	0.76	0.15	0.22	0.2	0.06	0.26
6.9	3.81	0.48	3.33	0.8	0.14	0.21	0.26	0.07	0.33

Surface	Profile Horizon	Depth	Color Dry; Moist 1	PARTICLE SIZE % Sand	% Silt	% Clay	Clay Films 2	Fe2O3T (%)	FeO/ Fe2O3T (%)	Fe2O3o/ Fe2O3d ratio
San Timoteo										
Q1	STC 7									
	A1	0-18	10YR5/3;3/3	56.13	37.38	6.49	0	3.18	0.32	.63
	AB	18-38	10YR5/4;4/3	59.07	23.96	16.97	1vnpf	3.12	0.14	.69
	Bt1	38-90	8.75YR5/4;7.5YR4/4	62.60	19.75	17.65	1mkpf	3.12	0.11	.69
	2Bt2	90-120	10YR6/4;4/4	70.97	19.65	9.37	2nbr	2.81	0.12	.61
	2Cox/Bt	120-167	10YR6/3;4/4	75.36	16.48	8.16	1mkpf	2.54	0.17	.78
	3Cox	167-200	10YR7/4;5/4	59.67	30.78	9.55	v1nco	3.13	0.14	.59
Q2	STC 9									
	Bt1	0-18	7.5YR5/4;4/4	50.97	36.08	12.95	v1mkpf,1nbrpf	3.93	0.18	.68
	2Bt2	18-54	7.5YR5/4;4/4	66.76	20.47	12.77	1mkpf,1nbr,pf	3.05	0.12	.53
	3Bt3	54-80	10YR6/6; 7.5YR4/4	57.57	31.47	10.95	1npf,br	3.10	0.12	.48
	3Cox/Bt	80-108	10YR6/4; 7.5YR4/4	61.59	27.83	10.58	1npf,br	3.23	0.13	.53
	3Cox	108-120	10YR6/4;5/4	73.73	22.31	3.96	0	2.42	0.21	.60
Q3	STC 10									
	Bt1	0-35	2.5YR4/6; 5YR4/6	59.55	24.83	15.61	1kpf,2nbr,2mkpf	4.91	0.18	.40
	Bt2	35-89	7.5YR4.5/6; 6.25YR5/6	66.97	22.50	10.53	1mkpf,2nbr	4.90	0.19	.54
	Cox	89-115	10YR5/4;4/4	73.50	20.03	6.47	0	4.78	0.21	.65
Q4	STC 6									
	Bt1	0-35	2.5YR4/8;4/7	54.44	21.32	24.24	2kpf,4nbr	5.95	0.09	.40
	Bt2	35-75	5YR5/6; 3.75YR4/6	70.24	16.21	13.55	1kpf,3nbr	4.79	0.17	.27
		75-111	5YR5/6; 3.75YR4/6	70.37	14.66	14.98	1kpf,3nbr	3.46	0.21	.31
	Bt3	111-185	7.5YR5/7;4/6	83.37	10.66	5.97	1nbr,v1mkbr	3.98	0.21	.75
	Cox	185-225	7.5YR5/6;4/6	92.42	3.97	3.61	0	3.66	0.26	.37
Reche Canyon										
Q2	RC 6									
	Ap	0-34	10YR4/3;3/3	62.60	30.97	6.43	0	3.11	0.33	.45
	AB	34-80	10YR5/4;4/3	55.73	32.67	11.60	1npf	3.37	0.22	.42
	Bt1	80-129	7.5YR5/6;4/6	59.92	23.56	16.52	2mkpf,1nbr	3.45	0.11	.36
	Bt2	129-155	7.5YR6/6;5/6	58.82	27.72	13.46	1mkpf,1npf	3.19	0.13	.33
	BC	155-178	10YR6/4;5/4	54.47	35.45	10.07	1npf	3.17	0.12	.27
	2Cox	178-225	10YR6/5;5/4	84.03	12.39	3.58	1npf	2.75	0.21	.47
	2Cox2	225-297	10YR6/3;5/3	82.18	15.41	2.41	0	2.31	0.20	.39
	3Bt1b	297-333	10YR5/4;5/4	71.86	25.55	2.59	2npf	2.98	0.15	.26
	3Bt2b	333-383	10YR4/4;4/4	80.65	17.56	1.79	2npf	3.33	0.14	.33
Q3	RC 2									
	Bt1b	0-45	5YR4/6;5/8	87.95	9.80	2.25	2kpf,1nbr	4.67	0.10	.10
	Bt2b	45-61	7.5YR5/8;5/6	77.18	20.38	2.44	2npf,br, v1kpf	4.42	0.10	.23
	Bt3b	61-116	7.5YR5/4;4/6	81.02	17.59	1.39	1npf	4.38	0.13	.20
		116-171	7.5YR5/4;4/6	81.05	17.95	1.01	1npf	3.80	0.19	.28
		171-230	7.5YR5/4;4/6	82.50	16.89	0.61	1npf	4.03	0.24	.28
	Cox/Bt	230-325	10YR5/4;4/4	82.08	17.15	0.77	0	4.78	0.12	0.31
Cajon Pass										
Qoac	A1	0-3.5	10YR4/3;3/2	65.30	29.60	5.10	0	2.43	0.85	0.27
	A2	3.5-12	10YR5/3;3/3	69.60	25.50	4.90	0	2.27	0.78	0.35
	Bt1	12 21	10YR5/4;3/3	71.40	22.40	6.20	v1npo, co	2.80	0.63	0.36
	Bt2	21-37	10YR5/3;4/3	71.00	19.60	9.40	1npo,co	2.82	0.61	0.38
	Bt3	37-50	8.75YR5/4;4/4	74.60	15.10	10.30	v1po, co	2.67	0.58	0.37
	Bt4	50-65	10YR5/4;4/4	75.50	14.80	9.70	v1po, co	3.05	0.50	0.33
	BC	65-79	10YR-2Y5/4;4/3	80.70	11.70	7.60	co	2.61	0.67	0.36
	Cox1	79-99	2.5Y5/4;4/2	84.40	9.30	6.30	co	2.41	0.66	0.40
	Cox2	99-110	2.5Y5/4-5Y5/3; 2.5Y4/2	85.40	9.20	5.40	co	2.73	0.59	0.35
Qoad	BA	0-9	7.5YR5/4;3/4	60.00	22.70	17.30	1npo,co	4.03	0.50	0.24
	2Bt1	9 42	5YR4/6;4/4	29.00	46.80	24.20	2npo,co,br	5.96	0.17	0.24
	2Bt2	42-77	5YR5/6;4/4	52.50	25.70	21.80	2mkpo,co,br	5.78	0.20	0.27
	2Bt3	77-99	6.25YR5/4;4/4	60.00	21.60	18.40	1mkpo, co, br	4.91	0.31	0.31
	2BC	99-140	7.5YR6/6;4/6	81.30	16.90	1.80	co	4.02	0.43	0.29
	2Cox1	140-190	8.75YR6/4;4/4	88.00	12.00		0	3.68	0.45	0.33
	2Cox2	190 +	10YR7/4;4/4	93.50	6.40	0.10	0	2.71	0.60	0.43
Qoae	2BAt	0-13	2.5YR4/6;4/6	56.20	15.50	28.30	2kpf, 2mkpo,br	3.09	0.11	0.18
	2Bt1	13-36	2.5YR4/6;4/4	47.20	18.30	34.50	3mkpf,2mkpo,br	1.87	0.07	0.16
	2Bt2	36-54	3.75YR4/4;5YR5/6	62.70	15.00	22.30	3mkpf,2mkpo	2.78	0.05	0.09
	2Bt3	54-142	5YR5/6;4/6	67.40	17.00	15.60	3mkpf,2mkpo	2.31	0.07	0.15
	2Bt4	142-183	5YR5/6;4/6	75.40	10.80	13.80	2npf,1npo,co			0.14
	2Bt5	183-335	5YR5/6;4/6	72.10	12.60	15.30	1 & 2mkpo,br			0.17
	2Bt6	335-701	5YR5/6;4/6	77.70	10.30	12.00	1 & 2npo,br			0.20
	2Bt7	701-1460	6.25YR5/6;4/6				co			0.32
	2Cox	1460 +	10YR5/6;4/6	93.80	4.70	1.60	0	1.96	0.18	0.31