



Site-Sample	Age	Unit	Lithology	Long	Lat	S <sub>0</sub>	Dg	Ig	Ds	Is	Int (10-6A/m)	err	Q	Trange	Range of T
AL05-3A	Cam-Lut	Vil	sandstone	516300	4448450	124/14									
AL05-4A	Cam-Lut	Vil	sandstone	516300	4448450	124/14	220,7537	-10,01558	222,9215	-7,73258	104,1754	4,897391	3	3	280-340tc
AL05-5	Cam-Lut	Vil	sandstone	516300	4448450	124/14									
AL05-6A	Cam-Lut	Vil	sandstone	516300	4448450	124/14									
AL05-7A	Cam-Lut	Vil	sandstone	516300	4448450	124/14									
AL05-8A	Cam-Lut	Vil	sandstone	516300	4448450	124/14									
AL06-1A	Bar-Rup	PU	sandstone	516537	4448082	124/14	145,6247	-13,11338	147,6636	-25,90128	90,38884	14,01103	3	5	330-450tc
AL06-2	Bar-Rup	PU	sandstone	516537	4448082	124/14	141,5306	-1,972766	142,2351	-15,18674	138,0903	6,924349	3	3	200-330tc
AL06-3A	Bar-Rup	PU	sandstone	516537	4448082	124/14									
AL06-4A	Bar-Rup	PU	sandstone	516537	4448082	124/14									
AL06-5	Bar-Rup	PU	sandstone	516537	4448082	124/14	209,3582	-29,45383	217,2767	-29,25261	133,2637	8,430795	2	5	420-500tc
AL06-6A	Bar-Rup	PU	sandstone	516537	4448082	124/14	184,2726	-14,00994	188,1601	-20,23783	108,381	11,43598	3	5	390-480tc
AL06-7	Bar-Rup	PU	sandstone	516537	4448082	124/14	218,5501	-4,369691	219,4235	-2,780189	62,62118	7,4234	3	3	290-330tc
AL06-8	Bar-Rup	PU	sandstone	516537	4448082	124/14									
AL06-9	Bar-Rup	PU	sandstone	516537	4448082	124/14	202,4048	-62,64078	229,3111	-61,79342	111,0976	6,468888	3	3	330-360tc
AL06-10	Bar-Rup	PU	sandstone	516537	4448082	124/14	165,8557	-2,008602	167,0653	-12,11081	162,667	3,963643	3	3	200-250tc
AL07-2A	Rup-Aq	PNU	clay	516719	4447690	030/15	3,268465	65,10152	11,91608	51,03938	123,1409	8,234083	2	4	340-460tc
AL07-3	Rup-Aq	PNU	clay	516719	4447690	030/15									
AL07-4	Rup-Aq	PNU	clay	516719	4447690	030/15	16,78537	40,38114	18,62148	25,64184	125,1167	10,43864	2	4	310-480tc
AL07-5A	Rup-Aq	PNU	clay	516719	4447690	030/15	348,7043	59,60368	9,21E-02	47,09954	108,4119	3,485564	2	4	370-480tc
AL07-6A	Rup-Aq	PNU	clay	516719	4447690	030/15									
AL07-7A	Rup-Aq	PNU	clay	516719	4447690	030/15	18,48524	57,35189	21,18747	42,51705	124,7134	7,016691	2	4	340-480tc
AL07-8A	Rup-Aq	PNU	clay	516719	4447690	030/15	352,72	56,09798	1,923401	43,20372	57,97508	16,43663	2	4	340-430tc
AL07-9	Rup-Aq	PNU	clay	516719	4447690	030/15									
AL08-1A	Rup-Aq	PNU	clay	517271	4446221	088/40	158,2779	-69,98954	234,5916	-52,05293	33,66263	1,12E-02	3	4	* 410-440tc
AL08-2A	Rup-Aq	PNU	clay	517271	4446221	088/40	227,8786	-26,86669	232,4645	5,843207	53,97618	18,90505	3	4	* 320-380tc
AL08-3A	Rup-Aq	PNU	clay	517271	4446221	088/40									
AL08-4A	Rup-Aq	PNU	clay	517271	4446221	088/40	161,8427	-56,8737	215,7771	-46,92187	50,69786	5,88E-03	3	3	* 250-290tc
AL08-5A	Rup-Aq	PNU	clay	517271	4446221	088/40	216,9742	-13,47235	217,0669	13,13734	74,71735	10,08158	2	4	290-380tc
AL08-6A	Rup-Aq	PNU	clay	517271	4446221	088/40									
AL08-7A	Rup-Aq	PNU	clay	517271	4446221	088/40	128,5957	22,65994	125,1993	-8,338462	47,03833	18,49803	3	4	250-440tc



Site-Sample	Age	Unit	Lithology	Long	Lat	S <sub>0</sub>	Dg	Ig	Ds	Is	Int (10-6A/m)	err	Q	Trange	Range of T
AL12-4B	Bar-Rup	PU	sandy clay	516296	4441923	088/43									
AL12-5A	Bar-Rup	PU	sandy clay	516296	4441923	088/43									
AL12-6A	Bar-Rup	PU	sandy clay	516296	4441923	088/43									
AL12-7A	Bar-Rup	PU	sandy clay	516296	4441923	088/43									
AL13-1A	Bar-Rup	PU	clay	516131	4434561	030/20	158,1417	-18,69038	161,3856	-5,418616	1527,295	3,330358	1	5	280-560tc
AL13-2A	Bar-Rup	PU	clay	516131	4434561	030/20	153,4469	-23,02651	158,329	-10,79306	1900,45	3,32962	1	5	280-560tc
AL13-3A	Bar-Rup	PU	clay	516131	4434561	030/20	156,0881	-20,3795	159,9668	-7,566	1382,454	2,557283	1	5	280-560tc
AL13-4A	Bar-Rup	PU	clay	516131	4434561	030/20	156,3387	-32,3828	163,6308	-19,0318	3441,009	1,244452	1	5	280-560tc
AL13-5A	Bar-Rup	PU	clay	516131	4434561	030/20	147,1676	-26,19885	153,7058	-15,52402	401,2618	5,380519	2	5	340-520tc
AL13-6A	Bar-Rup	PU	clay	516131	4434561	030/20	166,0447	-17,27492	166,0447	-17,27492	1739,536	2,207876	1	5	280-560tc
AL13-8A	Bar-Rup	PU	clay	516131	4434561	030/20	168,3927	-26,37749	168,3927	-26,37749	1903,412	2,705098	2	5	370-500tc
AL13-9A	Bar-Rup	PU	clay	516131	4434561	030/20	167,5217	-47,90825	177,4226	-31,61683	72,51551	14,30633	3	2	250-280tc
AL14-1A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	260,4524	29,74055	260,5163	-29,46268	159,8497	5,894041	3	3	280-310tc
AL14-2A	Bar-Rup	PU	sandy clay	519071	4433433	284/63									
AL14-3A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	285,9363	17,18493	287,2021	-45,6894	74,09279	28,94253	3	3	280-310tc
AL14-4A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	211,1959	41,41071	237,0155	4,938743	314,6996	10,88137	3	3	250-340tc
AL14-5A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	168,8	41,84641	226,4074	34,72678	125,1245	12,41714	3	3	310-370tc
AL14-6A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	351,873	75,87556	296,692	21,32565	214,5095	6,678016	2	3	250-370tc
AL14-7A	Bar-Rup	PU	sandy clay	519071	4433433	284/63	231,3214	31,93815	239,655	-13,52377	94,18158	11,00102	2	4	280-400tc
AL15-1A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-2A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-3A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-4	Bar-Rup	PU	sandy clay	521107	4432991	079/37	294,2694	33,37408	325,3795	57,34332	169,3348	7,892114	3	4	360-390tc
AL15-5A	Bar-Rup	PU	sandy clay	521107	4432991	079/37	166,4185	4,059041	164,1925	2,590673	80,96143	17,00165	3	3	* 200-330tc
AL15-6A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-7A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-8A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL15-9A	Bar-Rup	PU	sandy clay	521107	4432991	079/37									
AL16-1	Bar-Rup	PU	sandy clay	522566	4426806	060/31									
AL16-2A	Bar-Rup	PU	sandy clay	522566	4426806	060/31	101,0582	-26,99693	119,8844	-46,64692	92,63242	21,94641	3	5	490-540tc
AL16-3A	Bar-Rup	PU	sandy clay	522566	4426806	060/31	111,0244	-17,89176	124,385	-34,16275	139,6623	22,41965	3	4	340-460tc





Site-Sample	Age	Unit	Lithology	Long	Lat	S <sub>0</sub>	Dg	Ig	Ds	Is	Int (10-6A/m)	err	Q	Trange	Range of T
AL24-9A	Tur	Cr	marl	518350	4413839	010/35									
AL25-1A	Rup-Aq	PNU	clay	528719	4405082	250/30	16,37337	9,046468	8,299169	26,05992	137,1947	7,605465	2	3	* 200-340tc
AL25-2A	Rup-Aq	PNU	clay	528719	4405082	250/30									
AL25-3A	Rup-Aq	PNU	clay	528719	4405082	250/30	312,111	23,76088	304,4643	8,368843	74,95995	2,666841	3	2	250-280tc
AL25-4A	Rup-Aq	PNU	clay	528719	4405082	250/30									
AL25-5A	Rup-Aq	PNU	clay	528719	4405082	250/30	8,811975	33,23502	345,7264	43,29248	55,47947	10,04946	2	4	340-400tc
AL25-6	Rup-Aq	PNU	clay	528719	4405082	250/30	30,60538	37,95317	4,035552	57,53773	405,8986	4,634765	2	4	280-430tc
AL25-7	Rup-Aq	PNU	clay	528719	4405082	250/30	15,12733	37,84983	347,5719	50,07947	105,3638	7,675424	2	5	370-520tc
AL25-8	Rup-Aq	PNU	clay	528719	4405082	250/30									
AL26-2A	Bar-Rup	PU	clay	529229	4405138	294/18	351,5016	10,86233	351,5016	10,86233	611,2044	3,894596	2	4	250-400tc
AL26-3B	Bar-Rup	PU	clay	529229	4405138	294/18	355,7881	14,69667	355,7881	14,69667	324,6693	5,980172	1	5	280-560tc
AL26-4	Bar-Rup	PU	clay	529229	4405138	294/18	4,068337	25,351	357,2663	18,59716	398,1099	4,132633	2	5	250-540tc
AL26-5A	Bar-Rup	PU	clay	529229	4405138	294/18	345,1251	43,71637	334,8181	31,44543	187,9128	11,24624	2	4	280-460tc
AL26-6A	Bar-Rup	PU	clay	529229	4405138	294/18	354,2783	30,12041	346,9777	20,53995	337,0906	4,545813	1	5	280-540tc
AL26-7	Bar-Rup	PU	clay	529229	4405138	294/18	347,2789	48,08258	334,9624	36,05968	404,9568	4,895009	1	5	250-580tc
AL26-8B	Bar-Rup	PU	clay	529229	4405138	294/18	348,857	19,48786	348,857	19,48786	428,6029	5,651715	1	5	280-520tc
AL26-9B	Bar-Rup	PU	clay	529229	4405138	294/18	354,8913	25,44823	354,8913	25,44823	606,092	3,764181	1	6	200-600tc
SA01-1A	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-2A	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-3	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-4A	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-7A	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-8A	Aq	NU1	sandstone	524072	4481917	079/18									
SA01-9A	Aq	NU1	sandstone	524072	4481917	079/18	136,245	-58,55708	168,3006	-63,51371	146,9843	7,804418	2	4	340-430tc
SA01-10A	Aq	NU1	sandstone	524072	4481917	079/18	157,9876	-28,41403	168,0815	-29,83253	210,9254	5,98233	2	3	280-340tc
SA02-1A	Rup-Aq	PNU	clay	523200	4481580	083/34	359,6808	11,17604	4,496227	4,739449	1187,436	2,647561	1	6	280-620tc
SA02-2A	Rup-Aq	PNU	clay	523200	4481580	083/34	5,48001	35,42177	23,14356	21,74124	447,8549	4,697189	1	6	400-620tc
SA02-3A	Rup-Aq	PNU	clay	523200	4481580	083/34	349,0399	12,96946	356,8295	12,09025	813,0044	4,086556	1	6	340-620tc
SA02-4A	Rup-Aq	PNU	clay	523200	4481580	083/34	354,3097	39,37339	18,07108	30,31332	874,6219	2,086917	1	4	280-430tc
SA02-5B	Rup-Aq	PNU	clay	523200	4481580	083/34	13,42675	8,311424	13,42675	8,311424	1270,964	3,144444	1	6	280-620tc
SA02-6A	Rup-Aq	PNU	clay	523200	4481580	083/34	17,95327	9,460847	17,95327	9,460847	836,8582	3,574806	1	6	280-640tc

Site-Sample	Age	Unit	Lithology	Long	Lat	S <sub>0</sub>	Dg	Ig	Ds	Is	Int (10-6A/m)	err	Q	Trange	Range of T
SA02-7B	Rup-Aq	PNU	clay	523200	4481580	083/34	5,745343	11,74437	5,745343	11,74437	652,5339	3,252849	1	6	310-640tc
SA02-8A	Rup-Aq	PNU	clay	523200	4481580	083/34	335,022	4,542397	335,022	4,542397	513,8909	4,16542	2	5	280-520tc
SA03-1A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-2B	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-3A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-4A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-5A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-6A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-7B	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA03-8A	Bar-Rup	PU	limestone	534504	4492010	095/19									
SA04-1A	Bar-Rup	PU	sandy clay	534504	4492010	095/19	198,2063	-34,74361	209,216	-28,09543	37,89692	4,781497	3	2	250-280tc
SA04-2A	Bar-Rup	PU	sandy clay	534504	4492010	095/19	169,1308	-16,30217	175,3094	-20,05716	34,60336	5,238552	3	2	250-280tc
SA04-3A	Bar-Rup	PU	sandy clay	534504	4492010	095/19									
SA04-4A	Bar-Rup	PU	sandy clay	534504	4492010	095/19									
SA04-5A	Bar-Rup	PU	sandy clay	534504	4492010	095/19	39,55308	32,16924	46,77679	19,95138	31,12477	5,813992	3	3	* 200-310tc
SA04-7A	Bar-Rup	PU	sandy clay	534504	4492010	095/19									
SA04-8A	Bar-Rup	PU	sandy clay	534504	4492010	095/19									
SA04-9B	Bar-Rup	PU	sandy clay	534504	4492010	095/19									
SA05-2A	Bar-Rup	PU	clay	533923	4491893	074/20									
SA05-3A	Bar-Rup	PU	clay	533923	4491893	074/20	324,5391	0,6943565	325,7871	6,71023	157,0806	5,911777	2	4	280-460tc
SA05-4A	Bar-Rup	PU	clay	533923	4491893	074/20									
SA05-5A	Bar-Rup	PU	clay	533923	4491893	074/20	353,3604	23,8586	0,9852172	18,73261	130,8954	4,958693	2	4	310-490tc
SA05-5B	Bar-Rup	PU	clay	533923	4491893	074/20	342,839	14,10323	347,7275	13,12123	183,5817	4,252697	2	4	280-460tc
SA05-7A	Bar-Rup	PU	clay	533923	4491893	074/20	357,2764	8,221492	359,1451	2,753628	90,83607	7,787082	2	4	280-460tc
SA05-8B	Bar-Rup	PU	clay	533923	4491893	074/20	39,0311	44,18523	46,20944	26,76649	44,9141	5,12603	2	3	280-370tc
SA06-1A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)									
SA06-2A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)	224,446	12,52528	229,0366	-9,031934	6,007824	14,96747	3	4	380-410tc
SA06-3A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)	271,3528	30,21758	247,8925	-53,20852	7,743426	17,59951	3	4	* 350-440tc
SA06-5A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)									
SA06-4A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)	309,7689	-38,58051	127,283	-35,40654	24,15962	15,24115	3	5	* 350-520tc
SA06-6A	Bar-Rup	PU	limestone	531264	4488841	130/74 (overt.)	238,6022	53,73086	270,8072	-24,68808	15,55131	7,453691	2	4	* 290-380tc











Site-Sample	Age	Unit	Lithology	Long	Lat	S <sub>0</sub>	Dg	Ig	Ds	Is	Int (10-6A/m)	err	Q	Trange	Range of T
SA18-9A	Rup-Aq	PNU	sandstone	522208	4473921	098/20									
SA18-10A	Rup-Aq	PNU	sandstone	522208	4473921	098/20									
SA19-1A	Bar-Rup	PU	clay	522350	4477328	025/40	151,4143	-37,41658	193,1149	-60,25283	83,79001	6,971262	2	6	450-560tc
SA19-2A	Bar-Rup	PU	clay	522350	4477328	025/40	138,6821	-31,56674	168,4663	-63,72009	78,94843	7,037959	2	6	480-580tc
SA19-3A	Bar-Rup	PU	clay	522350	4477328	025/40	154,0023	-29,263	184,6041	-53,21101	108,749	10,13526	2	6	520-600tc
SA19-4A	Bar-Rup	PU	clay	522350	4477328	025/40	148,8354	-6,801347	160,0304	-37,69109	29,46576	10,53425	2	6	540-580tc
SA19-5A	Bar-Rup	PU	clay	522350	4477328	025/40	169,4558	1,114498	175,4578	-20,17477	190,3087	6,614972	2	6	500-560tc
SA19-7A	Bar-Rup	PU	clay	522350	4477328	025/40	306,9635	7,454166	312,9069	45,99022	218,486	6,717144	2	5	290-520tc
SA19-8A	Bar-Rup	PU	clay	522350	4477328	025/40	190,7654	12,5954	185,7361	1,648291	116,7645	15,61532	3	3	290-330tc
SA19-9A	Bar-Rup	PU	clay	522350	4477328	025/40									
SA19-10A	Bar-Rup	PU	clay	522350	4477328	025/40	334,0328	13,4341	350,09	40,77917	34,73036	8,271846	2	4	360-420tc
SA19-11A	Bar-Rup	PU	clay	522350	4477328	025/40	282,5407	6,79028	277,7822	45,82476	82,70889	5,788915	2	5	360-500tc
SA19-12A	Bar-Rup	PU	clay	522350	4477328	025/40	243,4149	-27,20924	250,4828	0,947543	34,02044	15,1929	3	5	390-480tc

Appendix A. Geographic Coordinates in UTM units; So: bedding attitude (dip direction / dip); Units and ages: Cr = Cretaceous units (LCr = Lower Cretaceous; Cen = Cenomanian; Tur = Turonian; Con = Coniacian; Con-San = Coniacian-Santonian); Vil = Villalba de la Sierra Fm. (Cam-Lut = Campanian-Lutetian); PU = Paleogene Unit (Bar-Rup = Bartonian-Rupelian); PNU = Paleogene-Neogene Unit (Rup-Aq = Rupelian-Aquitania); NU1 = 1st Neogene Unit (Aq = Aquitanian); NU2 = 2<sup>nd</sup> Neogene Unit (Bur-Lan = Burdigalian-Langhian); Q: Site Quality