

Electron microprobe analyses of feldspars from volcanic ash beds in the Morrison Formation (wt%)										End Members			
Sample #	Grain	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	BaO	Na ₂ O	K ₂ O	Total	Albite	Anorthite	Orthoclase	Celsian
LCM-1	10a	64.83	22.83	0.26	3.29	0.14	8.88	1.16	101.39	0.774	0.159	0.067	0.003
LCM-1	10b	64.71	22.56	0.29	3.24	0.10	8.91	1.18	100.98	0.777	0.156	0.068	0.002
LCM-1	11b	65.70	21.87	0.20	2.32	0.05	9.47	1.40	101.00	0.811	0.110	0.079	0.001
LCM-1	1a	57.23	26.68	0.18	8.18	0.06	6.54	0.43	99.30	0.577	0.398	0.025	0.001
LCM-1	1b	58.12	26.44	0.21	7.82	0.01	6.76	0.45	99.79	0.594	0.380	0.026	0.000
LCM-1	2a	59.16	24.91	0.28	6.76	0.02	7.20	0.50	98.84	0.639	0.332	0.029	0.000
LCM-1	2b	59.36	25.23	0.33	6.63	0.00	7.14	0.56	99.25	0.639	0.328	0.033	0.000
LCM-1	3a	65.30	18.45	0.45	0.36	0.13	2.79	11.86	99.34	0.258	0.018	0.723	0.002
LCM-1	4a	59.43	25.15	0.26	6.75	0.03	7.25	0.79	99.66	0.631	0.324	0.045	0.001
LCM-1	4b	59.61	25.63	0.25	6.72	0.03	7.03	0.77	100.03	0.625	0.330	0.045	0.001
LCM-1	5a	58.23	26.21	0.34	7.77	0.01	6.81	0.61	99.98	0.592	0.373	0.035	0.000
LCM-1	5b	60.06	25.76	0.22	6.97	0.01	6.70	0.68	100.40	0.609	0.350	0.040	0.000
LCM-1	6a	67.45	18.94	0.20	0.22	0.11	5.15	8.94	101.01	0.462	0.011	0.527	0.002
LCM-1	6b	66.90	19.35	0.14	0.37	0.07	5.52	7.93	100.29	0.505	0.019	0.477	0.001
LCM-1	7a	59.10	25.93	0.29	7.24	0.04	6.72	0.74	100.06	0.600	0.357	0.043	0.001
LCM-1	7b	58.54	25.48	0.28	7.34	0.02	6.80	0.76	99.23	0.599	0.357	0.044	0.000
LCM-1	9a	66.12	18.70	0.38	0.36	0.03	4.38	9.50	99.47	0.405	0.018	0.577	0.001
LCM-1	9b	66.81	19.17	0.49	0.52	0.08	6.37	6.56	100.01	0.581	0.026	0.393	0.002
LCM-1.5	1	64.83	18.81	0.71	0.50	0.19	3.69	10.20	98.93	0.346	0.026	0.628	0.004
LCM-1.5	1	65.13	19.39	0.37	0.68	0.17	5.19	8.17	99.09	0.475	0.034	0.491	0.003
LCM-1.5	2	62.46	23.34	0.26	4.41	0.18	8.38	0.87	99.89	0.736	0.214	0.050	0.003
LCM-1.5	2	62.56	23.55	0.22	4.61	0.14	8.36	0.88	100.31	0.728	0.222	0.050	0.002
LCM-1.5	2	62.11	23.75	0.29	4.64	0.13	8.30	0.87	100.08	0.726	0.224	0.050	0.002
LCM-1.5	3	61.69	23.25	0.35	4.33	0.18	8.51	0.82	99.13	0.744	0.209	0.047	0.003
LCM-1.5	3	63.24	23.41	0.16	4.35	0.13	8.39	0.80	100.47	0.741	0.212	0.046	0.002
LCM-1.5	3	62.40	23.60	0.21	4.43	0.11	8.36	0.80	99.91	0.738	0.216	0.046	0.002
LCM-1.5	4	62.74	22.77	0.18	3.91	0.23	8.71	0.95	99.48	0.758	0.188	0.054	0.004
LCM-1.5	4	62.82	22.97	0.25	4.02	0.18	8.43	0.95	99.61	0.748	0.197	0.055	0.003
LCM-1.5	4	62.05	23.20	0.20	4.40	0.17	8.53	0.93	99.47	0.737	0.210	0.053	0.003
LCM-1.5	5	59.07	26.27	0.27	7.54	0.05	6.92	0.48	100.61	0.607	0.365	0.028	0.001
LCM-1.5	5	58.47	26.05	0.30	7.41	0.06	6.74	0.53	99.55	0.603	0.366	0.031	0.001
LCM-1.5	5	58.38	26.23	0.31	7.57	0.04	6.87	0.46	99.86	0.605	0.368	0.026	0.001
LCM-1.5	6	58.96	26.14	0.40	7.48	0.00	6.86	0.42	100.25	0.609	0.367	0.024	0.000
LCM-1.5	6	57.48	26.46	0.38	8.06	0.05	6.57	0.38	99.37	0.583	0.395	0.022	0.001
LCM-1.5	6	57.64	26.31	0.31	8.17	0.09	6.57	0.39	99.49	0.579	0.398	0.023	0.002
LCM-1.5	7	62.58	23.91	0.25	4.64	0.11	8.27	0.82	100.58	0.727	0.225	0.047	0.002
LCM-1.5	7	61.83	23.69	0.32	4.69	0.14	8.25	0.85	99.76	0.724	0.227	0.049	0.002
LCM-1.5	7	62.39	23.78	0.36	4.70	0.18	8.22	0.86	100.48	0.722	0.228	0.050	0.003
LCM-1.5	8	57.23	27.07	0.37	8.59	0.06	6.20	0.41	99.93	0.553	0.423	0.024	0.001
LCM-1.5	8	57.09	26.92	0.30	8.63	0.07	6.20	0.43	99.65	0.551	0.424	0.025	0.001
LCM-1.5	8	56.86	27.19	0.28	8.73	0.03	6.10	0.41	99.59	0.545	0.431	0.024	0.001
LCM-1.5	9	62.24	23.51	0.29	4.57	0.19	8.26	0.82	99.88	0.729	0.223	0.048	0.003
LCM-1.5	9	62.21	23.34	0.27	4.56	0.10	8.26	0.77	99.50	0.732	0.223	0.045	0.002
LCM-1.5	9	62.43	23.59	0.15	4.73	0.15	8.26	0.83	100.15	0.723	0.229	0.048	0.003
LCM-1.5	10	60.48	25.48	0.31	6.42	0.11	7.41	0.57	100.77	0.654	0.313	0.033	0.002
LCM-1.5	10	60.45	25.19	0.27	6.43	0.08	7.37	0.54	100.31	0.653	0.315	0.031	0.001
LCM-1.5	10	60.11	25.49	0.31	6.49	0.09	7.28	0.55	100.32	0.648	0.320	0.032	0.002
LCM-1.5	11	62.44	23.72	0.19	4.54	0.15	8.33	0.81	100.17	0.733	0.221	0.047	0.003
LCM-1.5	11	62.40	23.74	0.21	4.64	0.07	8.32	0.81	100.17	0.729	0.225	0.046	0.001
LCM-1.5	11	62.25	23.87	0.27	4.80	0.11	8.09	0.75	100.13	0.720	0.236	0.044	0.002
LCM-1.5	12	64.66	20.08	0.34	1.31	0.28	5.07	7.88	99.62	0.462	0.066	0.472	0.005
LCM-1.5	12	64.82	20.90	0.37	2.24	0.15	6.84	4.86	100.17	0.607	0.110	0.284	0.003
LCM-1.5	13	64.11	19.06	0.00	0.00	0.00	0.55	16.26	99.98	0.049	0.000	0.951	0.000
LCM-1.5	13	64.38	19.13	0.00	0.01	0.03	0.58	16.03	100.17	0.052	0.001	0.947	0.001
LCM-1.5	13	64.09	18.92	0.00	0.17	0.05	0.62	16.02	99.87	0.055	0.008	0.937	0.001
LCM-1.5	14	58.05	25.96	0.18	7.32	0.04	7.11	0.45	99.10	0.621	0.353	0.026	0.001
LCM-1.5	14	57.97	26.47	0.22	7.50	0.08	6.98	0.41	99.63	0.612	0.364	0.024	0.001
LCM-1.5	14	57.56	26.97	0.13	8.16	0.07	6.54	0.35	99.78	0.580	0.400	0.021	0.001
LCM-5	2	66.66	17.79	0.20	0.09	0.05	3.39	11.15	99.33	0.315	0.004	0.681	0.001
LCM-5	2	65.45	19.52	0.34	0.59	0.00	5.48	8.08	99.46	0.493	0.029	0.478	0.000
LCM-5	3	64.53	19.48	0.91	1.36	0.18	8.01	4.81	99.27	0.672	0.063	0.265	0.003
LCM-5	4	65.78	18.99	0.55	0.26	0.70	7.68	5.31	99.27	0.679	0.013	0.309	0.012
LCM-5	4	65.95	18.89	0.27	0.40	0.18	5.20	8.78	99.66	0.464	0.020	0.516	0.003
LCM-5	5	65.15	21.97	0.09	2.47	0.00	10.18	0.25	100.12	0.870	0.117	0.014	0.000
LCM-5	5	63.46	23.75	0.29	3.85	0.00	9.43	0.14	100.92	0.810	0.183	0.008	0.000
LCM-5	5	62.80	23.20	0.14	4.33	0.00	9.43	0.12	100.02	0.792	0.201	0.006	0.000
LCM-5	7	55.28	27.62	0.26	9.80	0.06	5.80	0.44	99.25	0.504	0.471	0.025	0.001
LCM-5	7	54.40	28.00	0.43	10.37	0.04	5.43	0.38	99.06	0.476	0.502	0.022	0.001
LCM-5	8	66.11	18.95	0.31	0.48	0.13	4.59	9.83	100.41	0.405	0.024	0.571	0.002
LCM-5	9	67.68	19.97	0.20	0.02	0.02	11.90	0.05	99.83	0.996	0.001	0.003	0.000
LCM-5	9	67.80	19.84	0.06	0.02	0.00	11.94	0.06	99.73	0.996	0.001	0.003	0.000
LCM-5	9	67.31	19.61	0.21	0.03	0.00	11.87	0.03	99.06	0.997	0.001	0.002	0.000
LCM-5	10	64.04	19.42	0.44	1.15	0.17	4.06	9.76	99.04	0.365	0.057	0.578	0.003

LCM-5	11	65.56	20.93	0.38	1.98	0.08	9.94	0.90	99.77	0.855	0.094	0.051	0.001
LCM-5	12	65.40	19.15	0.50	0.47	0.16	5.62	8.27	99.56	0.496	0.023	0.481	0.003
LCM-5		60.81	24.22	0.26	6.32	0.14	7.02	0.83	99.60	0.635	0.316	0.049	0.003
LCM-5		60.91	24.40	0.30	6.44	0.14	7.07	0.93	100.18	0.629	0.316	0.054	0.003
LCM-5		61.00	25.02	0.29	6.64	0.17	6.98	0.85	100.94	0.623	0.327	0.050	0.003
LCM-5		60.08	24.86	0.29	7.08	0.14	6.73	0.82	100.00	0.602	0.350	0.048	0.003
LCM-5		59.87	25.06	0.26	6.95	0.19	6.58	0.76	99.67	0.602	0.352	0.046	0.004
LCM-5		60.00	25.00	0.32	7.14	0.13	6.66	0.79	100.03	0.599	0.355	0.046	0.002
LCM-5		59.76	25.00	0.34	7.05	0.15	6.51	0.80	99.62	0.595	0.356	0.048	0.003
LCM-5		59.59	25.62	0.43	7.57	0.14	6.44	0.67	100.45	0.582	0.378	0.040	0.002
LCM-5		58.86	25.16	0.36	7.75	0.18	6.55	0.68	99.53	0.581	0.380	0.040	0.003
LCM-5		59.67	25.78	0.33	7.73	0.11	6.54	0.66	100.82	0.582	0.380	0.039	0.002
LCM-5		58.46	25.21	0.35	7.84	0.06	6.57	0.68	99.17	0.579	0.382	0.039	0.001
LCM-5		59.14	25.71	0.31	7.85	0.10	6.56	0.62	100.27	0.580	0.384	0.036	0.002
LCM-5		58.81	25.54	0.33	7.84	0.11	6.51	0.63	99.77	0.578	0.385	0.037	0.002
LCM-5		59.09	25.61	0.37	7.82	0.08	6.44	0.63	100.04	0.576	0.387	0.037	0.001
LCM-5		58.58	25.50	0.30	7.89	0.15	6.36	0.66	99.44	0.570	0.391	0.039	0.003
LCM-5		58.44	25.96	0.29	8.04	0.08	6.44	0.60	99.85	0.571	0.394	0.035	0.001
LCM-5		58.77	25.71	0.33	8.05	0.06	6.40	0.64	99.96	0.568	0.395	0.037	0.001
LCM-5		57.87	26.49	0.31	8.32	0.11	6.17	0.60	99.87	0.553	0.412	0.035	0.002
LCM-5		58.72	26.25	0.36	8.31	0.07	6.15	0.59	100.46	0.552	0.413	0.035	0.001
LCM-5		58.18	26.12	0.41	8.47	0.11	6.18	0.55	100.02	0.551	0.417	0.032	0.002
LCM-5		57.94	26.33	0.26	8.47	0.10	6.07	0.56	99.72	0.546	0.421	0.033	0.002
LCM-5		58.00	26.35	0.36	8.52	0.05	6.06	0.60	99.93	0.543	0.422	0.035	0.001
LCM-5		57.73	25.97	0.36	8.58	0.04	6.12	0.57	99.38	0.544	0.422	0.034	0.001
LCM-5		57.59	26.36	0.36	8.70	0.08	5.97	0.56	99.62	0.535	0.432	0.033	0.001
LCM-5		57.51	26.48	0.31	8.82	0.05	5.96	0.54	99.65	0.533	0.436	0.032	0.001
LCM-5		58.24	26.49	0.41	8.87	0.10	5.92	0.53	100.56	0.530	0.439	0.031	0.002
LCM-5		57.43	26.42	0.36	8.92	0.09	5.92	0.51	99.64	0.529	0.441	0.030	0.002
LCM-5		57.07	26.82	0.44	9.26	0.08	5.76	0.51	99.94	0.514	0.456	0.030	0.001
LCM-5		56.70	27.16	0.32	9.51	0.11	5.57	0.42	99.78	0.502	0.473	0.025	0.002
LCM-5		57.18	27.42	0.24	9.63	0.10	5.51	0.46	100.54	0.495	0.478	0.027	0.002
LCM-6	2	59.33	24.85	0.38	6.48	0.10	6.86	0.73	98.72	0.628	0.328	0.044	0.002
LCM-6	11	57.29	26.54	0.39	8.62	0.09	6.06	0.56	99.56	0.542	0.425	0.033	0.002
LCM-6	1	60.45	24.89	0.43	6.31	0.13	7.09	0.76	100.06	0.640	0.315	0.045	0.002
LCM-6	1	60.07	24.80	0.33	6.46	0.08	7.22	0.78	99.74	0.639	0.316	0.045	0.001
LCM-6	1	60.68	25.23	0.37	6.43	0.11	7.00	0.75	100.57	0.634	0.321	0.045	0.002
LCM-6	2	59.57	24.84	0.28	6.57	0.10	6.98	0.79	99.12	0.627	0.326	0.046	0.002
LCM-6	2	58.72	25.01	0.35	6.55	0.13	6.93	0.76	98.46	0.627	0.328	0.045	0.002
LCM-6	3	57.24	27.33	0.45	8.81	0.07	5.89	0.55	100.34	0.530	0.438	0.032	0.001
LCM-6	3	56.32	26.68	0.47	9.02	0.09	5.69	0.55	98.82	0.516	0.452	0.033	0.002
LCM-6	3	56.65	27.47	0.45	9.08	0.09	5.75	0.53	100.02	0.517	0.452	0.031	0.002
LCM-6	4	60.67	24.59	0.33	6.32	0.12	7.11	0.81	99.95	0.638	0.314	0.048	0.002
LCM-6	4	60.32	24.54	0.39	6.29	0.12	6.94	0.81	99.41	0.634	0.317	0.049	0.002
LCM-6	4	60.37	24.60	0.35	6.40	0.12	7.04	0.78	99.67	0.635	0.319	0.046	0.002
LCM-6	5	57.36	26.25	0.32	8.38	0.12	6.25	0.60	99.28	0.555	0.411	0.035	0.002
LCM-6	5	56.53	26.04	0.41	8.51	0.08	6.24	0.57	98.37	0.551	0.416	0.033	0.001
LCM-6	6	60.02	24.54	0.38	6.07	0.11	7.34	0.81	99.27	0.654	0.299	0.047	0.002
LCM-6	6	60.02	24.54	0.38	6.07	0.11	7.34	0.81	99.27	0.654	0.299	0.047	0.002
LCM-6	6	60.26	24.85	0.32	6.40	0.19	7.26	0.77	100.04	0.642	0.313	0.045	0.003
LCM-6	7	60.21	24.33	0.43	6.19	0.11	7.27	0.83	99.37	0.647	0.304	0.049	0.002
LCM-6	7	60.27	25.22	0.41	6.58	0.16	7.06	0.74	100.44	0.632	0.325	0.043	0.003
LCM-6	8	59.37	24.51	0.34	6.17	0.15	7.16	0.79	98.48	0.646	0.307	0.047	0.003
LCM-6	8	58.03	25.50	0.36	7.18	0.07	6.72	0.67	98.53	0.604	0.356	0.040	0.001
LCM-6	9	60.39	22.93	0.39	5.30	0.13	7.87	1.02	98.03	0.686	0.255	0.058	0.002
LCM-6	9	61.13	23.65	0.29	5.43	0.25	7.47	1.00	99.21	0.671	0.270	0.059	0.005
LCM-6	10	60.38	23.63	0.37	5.59	0.14	7.51	0.93	98.54	0.670	0.276	0.055	0.002
LCM-6	10	60.57	24.16	0.32	5.68	0.18	7.42	0.95	99.28	0.664	0.281	0.056	0.003
LCM-6	11	56.87	26.49	0.41	8.96	0.07	6.02	0.52	99.35	0.532	0.437	0.030	0.001
LCM-6	12	62.96	23.05	0.26	3.97	0.34	8.15	1.40	100.11	0.723	0.195	0.082	0.006
LCM-6	12	62.23	22.95	0.25	4.29	0.25	7.90	1.31	99.16	0.710	0.213	0.077	0.005
LCM-9	1	55.70	28.24	0.22	10.84	0.00	5.45	0.28	100.73	0.469	0.515	0.016	0.000
LCM-9	1	52.84	29.80	0.33	13.16	0.00	4.57	0.17	100.87	0.382	0.608	0.009	0.000
LCM-9	1	51.97	30.44	0.26	13.94	0.01	3.99	0.17	100.77	0.338	0.653	0.009	0.000
LCM-9	2	58.88	25.32	0.42	7.72	0.09	7.19	0.47	100.09	0.611	0.362	0.026	0.002
LCM-9	2	58.03	24.92	0.36	7.90	0.11	6.93	0.45	98.69	0.598	0.376	0.026	0.002
LCM-9	2	57.58	25.05	0.31	7.93	0.15	6.90	0.46	98.38	0.596	0.378	0.026	0.003
LCM-9	3	58.09	25.61	0.33	8.46	0.10	6.65	0.47	99.70	0.572	0.402	0.026	0.002
LCM-9	3	58.00	26.43	0.57	8.83	0.09	6.00	0.46	100.38	0.536	0.436	0.027	0.002
LCM-9	4	59.44	24.84	0.44	7.45	0.07	6.93	0.57	99.73	0.607	0.361	0.033	0.001
LCM-9	4	59.15	25.54	0.37	7.56	0.12	6.73	0.56	100.03	0.597	0.370	0.033	0.002
LCM-9	4	58.27	26.79	0.44	8.92	0.14	5.88	0.44	100.87	0.530	0.444	0.026	0.002
LCM-9	5	56.66	26.01	0.42	9.00	0.08	6.49	0.41	99.05	0.553	0.424	0.023	0.001
LCM-9	5	56.49	26.39	0.35	9.36	0.05	6.32	0.41	99.36	0.537	0.440	0.023	0.001
LCM-9	6	51.94	29.47	0.69	13.45	0.03	4.37	0.20	100.15	0.366	0.623	0.011	0.001

LCM-9	6	52.11	29.73	0.74	13.84	0.03	3.69	0.18	100.33	0.322	0.668	0.010	0.001
LCM-9	7	56.59	26.21	0.46	9.34	0.12	6.30	0.40	99.41	0.537	0.440	0.022	0.002
LCM-9	7	56.29	26.10	0.53	9.50	0.05	6.24	0.37	99.08	0.532	0.448	0.020	0.001
LCM-9	8	58.23	26.44	0.42	8.80	0.11	6.56	0.44	100.99	0.560	0.415	0.025	0.002
LCM-9	8	57.62	26.46	0.40	9.04	0.15	6.41	0.43	100.51	0.548	0.427	0.024	0.003
LCM-9	10	56.78	26.94	0.53	9.61	0.00	6.06	0.38	100.30	0.521	0.457	0.022	0.000
LCM-9	10	55.92	27.91	0.46	10.40	0.05	5.77	0.32	100.83	0.492	0.490	0.018	0.001
LCM-9	11	59.85	24.42	0.42	6.45	0.22	7.39	0.69	99.43	0.648	0.312	0.040	0.004
LCM-9		63.23	18.75	0.00	0.00	0.25	0.85	16.05	99.13	0.075	0.000	0.925	0.004
LCM-9		64.73	18.91	0.00	0.01	0.23	0.63	16.14	100.64	0.056	0.000	0.944	0.004
LCM-9		60.54	24.76	0.35	5.75	0.16	7.66	0.88	100.09	0.671	0.278	0.051	0.003
LCM-9		60.18	24.67	0.40	5.78	0.13	7.68	0.89	99.73	0.670	0.279	0.051	0.002
LCM-10	10a	57.48	27.44	0.35	9.13	0.08	6.04	0.33	100.84	0.535	0.446	0.019	0.001
LCM-10	10b	57.12	27.38	0.29	9.01	0.02	6.03	0.30	100.15	0.538	0.444	0.017	0.000
LCM-10	10c	56.65	26.90	0.43	9.03	0.04	6.12	0.33	99.49	0.540	0.441	0.019	0.001
LCM-10	11a	60.92	25.04	0.31	5.97	0.01	8.02	0.22	100.49	0.700	0.288	0.013	0.000
LCM-10	11b	60.76	25.24	0.21	6.18	0.07	7.94	0.18	100.57	0.692	0.298	0.010	0.001
LCM-10	11c	60.35	25.35	0.30	6.64	0.00	7.62	0.28	100.53	0.664	0.320	0.016	0.000
LCM-10	2a	66.25	20.00	0.73	1.07	0.09	9.34	1.83	99.31	0.839	0.053	0.108	0.002
LCM-10	2b	66.28	20.03	0.30	1.13	0.09	9.55	1.99	99.36	0.832	0.054	0.114	0.001
LCM-10	2c	67.41	19.73	0.34	0.99	0.14	9.85	1.67	100.12	0.857	0.048	0.095	0.002
LCM-10	3a	52.23	30.35	0.66	12.36	0.00	4.00	0.39	99.98	0.361	0.616	0.023	0.000
LCM-10	3a	52.80	30.41	0.83	12.38	0.00	3.96	0.36	100.75	0.359	0.620	0.022	0.000
LCM-10	3b	50.25	31.19	0.78	13.68	0.00	3.29	0.28	99.47	0.298	0.685	0.016	0.000
LCM-10	4a	53.81	29.31	0.31	11.15	0.00	4.77	0.20	99.54	0.431	0.557	0.012	0.000
LCM-10	4b	54.83	29.36	0.31	10.96	0.00	4.87	0.21	100.54	0.440	0.547	0.013	0.000
LCM-10	4c	55.15	28.39	0.37	10.36	0.04	5.33	0.23	99.86	0.475	0.511	0.013	0.001
LCM-10	5a	56.65	26.97	0.24	8.78	0.06	6.16	0.34	99.21	0.548	0.432	0.020	0.001
LCM-10	5c	55.56	27.63	0.40	9.53	0.04	5.80	0.27	99.23	0.516	0.469	0.016	0.001
LCM-10	6a	65.88	19.07	0.12	0.03	0.04	4.80	9.91	99.84	0.424	0.001	0.575	0.001
LCM-10	6b	65.00	18.99	0.00	0.01	0.05	1.67	14.76	100.47	0.147	0.000	0.853	0.001
LCM-10	6c	65.82	19.66	0.12	0.01	0.05	4.62	10.43	100.72	0.402	0.001	0.597	0.001
LCM-10	7a	55.64	28.36	0.30	9.81	0.02	5.52	0.25	99.89	0.497	0.488	0.015	0.000
LCM-10	7b	56.62	28.27	0.35	9.50	0.05	5.76	0.24	100.79	0.516	0.470	0.014	0.001
LCM-10	7c	55.66	27.85	0.34	9.88	0.05	5.76	0.25	99.79	0.506	0.479	0.015	0.001
LCM-10	8a	55.62	27.69	0.45	9.76	0.02	5.77	0.25	99.56	0.509	0.476	0.015	0.000
LCM-10	8b	56.55	27.65	0.45	9.44	0.02	5.82	0.27	100.20	0.519	0.465	0.016	0.000
LCM-10	8c	55.93	27.59	0.31	9.54	0.08	5.70	0.28	99.43	0.511	0.472	0.017	0.001
LCM-10	9a	69.25	20.29	0.00	0.07	0.00	11.76	0.10	101.47	0.991	0.003	0.005	0.000
LCM-10	9b	68.54	20.08	0.08	0.11	0.00	11.86	0.06	100.72	0.992	0.005	0.003	0.000
LCM-10	9c	68.58	19.87	0.11	0.08	0.14	11.64	0.11	100.53	0.990	0.004	0.006	0.002
LCM-12	1	58.56	26.14	0.49	7.99	0.05	6.58	0.75	100.55	0.573	0.384	0.043	0.001
LCM-12	1	56.48	27.10	0.67	9.27	0.03	5.99	0.53	100.07	0.523	0.447	0.030	0.001
LCM-12	1	56.07	27.64	0.69	9.39	0.10	5.93	0.54	100.37	0.517	0.452	0.031	0.002
LCM-12	1	59.26	25.98	0.31	7.76	0.07	6.77	0.55	100.71	0.593	0.376	0.032	0.001
LCM-12	2	54.91	28.55	0.67	10.53	0.05	5.19	0.36	100.27	0.462	0.517	0.021	0.001
LCM-12	2	54.28	28.82	0.59	11.04	0.01	4.91	0.33	99.98	0.438	0.543	0.019	0.000
LCM-12	2	54.40	29.16	0.71	11.22	0.04	4.91	0.31	100.75	0.434	0.548	0.018	0.001
LCM-12	2	60.31	24.70	0.42	6.63	0.09	7.32	0.86	100.33	0.634	0.317	0.049	0.002
LCM-12	2	56.31	27.57	0.55	10.16	0.02	5.62	0.46	100.68	0.487	0.487	0.026	0.000
LCM-12	2	54.69	28.66	0.46	11.42	0.00	5.19	0.34	100.75	0.443	0.538	0.019	0.000
LCM-12	2	53.94	29.42	0.48	12.42	0.03	4.63	0.27	101.18	0.397	0.588	0.015	0.000
LCM-12	3	62.12	23.01	0.31	3.98	0.19	8.59	1.26	99.46	0.740	0.189	0.071	0.003
LCM-12	3	61.69	23.27	0.29	4.18	0.17	8.36	1.19	99.15	0.730	0.202	0.068	0.003
LCM-12	3	62.04	23.89	0.31	4.61	0.15	8.22	1.05	100.27	0.717	0.222	0.060	0.003
LCM-12	4	55.11	28.82	0.65	10.69	0.01	5.12	0.42	100.80	0.453	0.523	0.024	0.000
LCM-12	4	53.55	29.65	0.63	11.72	0.04	4.50	0.34	100.43	0.401	0.578	0.020	0.001
LCM-12	4	51.13	30.66	0.66	12.93	0.02	3.93	0.25	99.57	0.350	0.636	0.014	0.000
LCM-12	4	59.34	25.05	0.44	7.28	0.09	7.24	0.80	100.23	0.614	0.341	0.045	0.002
LCM-12	5	68.05	19.94	0.00	0.10	0.00	11.84	0.03	99.96	0.994	0.005	0.002	0.000
LCM-12	5	67.47	20.28	0.05	0.12	0.03	11.72	0.04	99.71	0.992	0.006	0.002	0.001
LCM-12	6	55.82	27.71	0.47	9.78	0.02	5.51	0.43	99.73	0.492	0.483	0.025	0.000
LCM-12	6	55.77	27.83	0.53	9.68	0.03	5.45	0.43	99.71	0.492	0.483	0.026	0.000
LCM-12	6	55.14	27.87	0.54	9.89	0.02	5.51	0.41	99.39	0.490	0.486	0.024	0.000
LCM-12	6	59.57	25.62	0.41	7.60	0.13	7.07	0.72	101.11	0.602	0.358	0.040	0.002
LCM-12	7	58.33	25.77	0.51	7.59	0.05	6.62	0.64	99.50	0.589	0.374	0.037	0.001
LCM-12	7	55.27	27.70	0.40	9.72	0.03	5.60	0.43	99.16	0.498	0.477	0.025	0.001
LCM-12	7	55.38	27.80	0.60	9.82	0.04	5.60	0.45	99.68	0.495	0.479	0.026	0.001
LCM-12	8	54.84	28.08	0.64	10.23	0.04	5.33	0.41	99.57	0.474	0.503	0.024	0.001
LCM-12	8	53.85	28.78	0.73	10.67	0.01	5.06	0.36	99.47	0.452	0.527	0.021	0.000
LCM-12	8	54.02	28.85	0.66	10.96	0.03	4.86	0.32	99.71	0.437	0.544	0.019	0.001
LCM-12	9	56.69	27.44	0.51	9.10	0.06	5.90	0.48	100.17	0.525	0.447	0.028	0.001
LCM-12	9	56.03	27.21	0.54	9.38	0.03	5.78	0.48	99.45	0.512	0.460	0.028	0.001
LCM-12	9	55.75	28.08	0.55	9.91	0.07	5.62	0.43	100.40	0.494	0.482	0.025	0.001

LCM-12	10	57.40	26.33	0.59	8.19	0.09	6.35	0.61	99.56	0.563	0.401	0.035	0.002
LCM-12	10	54.58	28.33	0.48	10.36	0.04	5.37	0.37	99.54	0.474	0.505	0.022	0.001
LCM-12	10	54.22	28.84	0.40	10.70	0.07	5.14	0.34	99.71	0.456	0.524	0.020	0.001
LCM-12	11	55.86	27.04	0.53	9.10	0.05	6.08	0.57	99.22	0.529	0.438	0.033	0.001
LCM-12	11	55.99	27.79	0.59	9.37	0.06	5.79	0.47	100.06	0.514	0.459	0.027	0.001
LCM-12	11	54.69	28.35	0.60	10.15	0.07	5.40	0.42	99.68	0.478	0.497	0.024	0.001
LCM-12	12	60.28	24.66	0.41	5.91	0.11	7.52	0.85	99.75	0.663	0.288	0.049	0.002
LCM-12	12	60.46	24.89	0.31	6.08	0.11	7.61	0.80	100.26	0.662	0.292	0.046	0.002
LCM-12	12	59.64	24.83	0.36	6.32	0.17	7.54	0.75	99.60	0.654	0.303	0.043	0.003
LCM-12	13	57.86	26.16	0.38	8.02	0.06	6.49	0.51	99.48	0.576	0.394	0.030	0.001
LCM-12	13	58.03	26.78	0.35	8.07	0.12	6.48	0.49	100.31	0.575	0.396	0.028	0.002
LCM-12	13	57.13	27.17	0.37	8.57	0.08	6.32	0.47	100.11	0.556	0.417	0.027	0.001
LCM-13	2	61.20	24.93	0.33	5.66	0.13	7.27	0.81	100.32	0.665	0.286	0.049	0.002
LCM-13	5	59.09	25.23	0.21	6.57	0.14	7.09	0.68	99.01	0.635	0.325	0.040	0.003
LCM-13	7	63.08	22.39	0.29	3.24	0.36	8.20	1.55	99.11	0.745	0.163	0.093	0.007
LCM-13	10a	62.60	24.13	0.28	4.78	0.17	8.10	1.01	101.07	0.711	0.231	0.058	0.003
LCM-13	10b	62.22	23.77	0.33	4.56	0.20	8.22	1.00	100.30	0.721	0.221	0.058	0.003
LCM-13	10c	62.99	24.16	0.25	4.67	0.18	7.98	1.03	101.25	0.710	0.230	0.060	0.003
LCM-13	11a	62.61	23.94	0.31	4.79	0.19	8.01	1.02	100.87	0.707	0.233	0.059	0.003
LCM-13	11b	62.65	23.79	0.33	4.72	0.22	8.11	1.05	100.85	0.711	0.229	0.061	0.004
LCM-13	11c	62.37	23.98	0.28	4.86	0.20	8.14	1.00	100.83	0.709	0.234	0.057	0.004
LCM-13	12a	61.62	24.95	0.22	5.73	0.12	7.80	0.75	101.20	0.680	0.276	0.043	0.002
LCM-13	12b	60.96	24.82	0.37	5.59	0.14	7.79	0.76	100.43	0.684	0.272	0.044	0.003
LCM-13	12c	62.26	24.19	0.35	5.04	0.14	7.82	0.90	100.70	0.699	0.249	0.053	0.002
LCM-13	14a	64.86	21.69	0.33	2.48	0.30	8.78	1.97	100.39	0.767	0.120	0.113	0.005
LCM-13	14a	65.06	21.79	0.17	2.50	0.34	8.67	1.97	100.51	0.764	0.122	0.114	0.006
LCM-13	14a	64.53	22.15	0.35	2.80	0.28	8.58	1.81	100.51	0.758	0.137	0.105	0.005
LCM-13	1a	63.98	22.81	0.31	3.43	0.24	8.63	1.49	100.88	0.750	0.165	0.085	0.004
LCM-13	1b	63.87	22.68	0.25	3.40	0.22	8.45	1.49	100.36	0.747	0.166	0.087	0.004
LCM-13	1c	64.61	22.81	0.30	3.12	0.22	8.57	1.63	101.24	0.754	0.152	0.095	0.004
LCM-13	2a	64.60	19.89	0.25	0.32	2.05	4.61	8.99	100.72	0.431	0.017	0.553	0.037
LCM-13	2b	64.85	19.71	0.36	0.32	1.90	4.74	9.01	100.90	0.437	0.016	0.547	0.034
LCM-13	2c	64.68	19.71	0.29	0.27	1.82	4.50	9.25	100.53	0.419	0.014	0.567	0.033
LCM-13	3b	63.79	22.37	0.28	3.20	0.11	9.03	1.01	99.80	0.787	0.154	0.058	0.002
LCM-13	4a	64.80	20.09	0.17	0.42	1.92	4.96	8.61	100.97	0.457	0.021	0.522	0.034
LCM-13	4b	65.15	20.21	0.21	0.42	2.00	4.69	8.72	101.41	0.440	0.022	0.538	0.036
LCM-13	4c	64.56	19.46	0.17	0.36	1.55	4.91	8.87	99.88	0.448	0.018	0.533	0.028
LCM-13	5a	65.85	20.76	0.37	1.97	0.09	9.02	1.77	99.83	0.800	0.097	0.103	0.002
LCM-13	5b	64.48	22.81	0.50	3.49	0.11	8.46	1.20	101.05	0.757	0.172	0.071	0.002
LCM-13	6a	63.41	23.64	0.28	4.12	0.21	8.27	1.10	101.02	0.734	0.202	0.064	0.004
LCM-13	6b	62.60	23.76	0.33	4.37	0.20	8.26	1.12	100.63	0.724	0.212	0.064	0.004
LCM-13	7a	65.80	20.05	1.05	1.40	0.14	9.43	1.72	99.60	0.832	0.068	0.100	0.003
LCM-13	7b	66.01	20.21	0.85	1.42	0.10	9.56	1.54	99.68	0.842	0.069	0.089	0.002
LCM-13	7c	65.91	20.68	0.67	1.51	0.08	9.26	1.61	99.71	0.830	0.075	0.095	0.001
LCM-13	8a	64.88	21.83	0.45	2.50	0.21	8.56	1.99	100.42	0.761	0.123	0.116	0.004
LCM-13	8a	64.21	21.94	0.22	2.79	0.29	8.47	1.99	99.91	0.748	0.136	0.116	0.005
LCM-13	9a	63.41	22.72	0.23	3.38	0.28	8.47	1.54	100.03	0.746	0.164	0.089	0.005
LCM-13	9a	63.78	22.58	0.19	3.46	0.28	8.35	1.43	100.07	0.745	0.171	0.084	0.005
LCM-13	9c	64.29	22.68	0.31	3.52	0.29	8.43	1.52	101.04	0.741	0.171	0.088	0.005
LCM-14	feld-1 ore	60.92	24.53	0.22	6.07	0.02	7.37	0.64	99.78	0.661	0.301	0.038	0.000
LCM-14	feld2edge	59.09	25.69	0.37	7.22	0.06	6.90	0.45	99.77	0.617	0.357	0.026	0.001
LCM-14	feld2enter	56.05	27.29	0.42	9.50	0.06	5.87	0.31	99.48	0.519	0.464	0.018	0.001
LCM-14	feld3edge	59.48	25.88	0.48	7.34	0.04	6.90	0.54	100.66	0.610	0.359	0.031	0.001
LCM-14	feld3enter	59.45	25.66	0.33	7.20	0.09	6.78	0.57	100.07	0.609	0.357	0.033	0.002
LCM-14	feld4enter	58.11	25.91	0.36	7.08	0.09	7.02	0.56	99.12	0.621	0.346	0.033	0.002
LCM-14	feld5edge	60.41	24.27	0.31	5.39	0.10	8.07	0.78	99.31	0.698	0.258	0.044	0.002
LCM-14	feld6edge	53.86	29.41	0.52	11.41	0.03	4.66	0.24	100.13	0.419	0.567	0.014	0.001
LCM-14	feld6enter	54.15	28.96	0.61	11.18	0.04	4.92	0.27	100.13	0.436	0.548	0.016	0.001
LCM-14	feld7enter	58.07	26.71	0.39	7.95	0.04	6.69	0.47	100.33	0.587	0.385	0.027	0.001
LCM-14	feld8edge	61.42	24.28	0.23	5.36	0.08	7.89	0.01	99.26	0.727	0.273	0.000	0.001
LCM-14	feld8enter	58.32	26.38	0.12	7.67	0.06	6.72	0.47	99.75	0.596	0.376	0.028	0.001
LCM-15	5	62.90	23.20	0.26	4.54	0.21	8.22	1.00	100.33	0.722	0.220	0.058	0.004
LCM-15	11a	54.18	28.63	0.93	11.34	0.00	4.69	0.34	100.10	0.419	0.560	0.020	0.000
LCM-15	11b	53.65	29.75	0.86	12.30	0.00	4.31	0.33	101.19	0.381	0.600	0.019	0.000
LCM-15	12a	59.76	26.39	0.30	7.88	0.03	6.71	0.59	101.65	0.586	0.380	0.034	0.001
LCM-15	12b	60.92	25.60	0.32	7.02	0.05	7.29	0.71	101.91	0.627	0.334	0.040	0.001
LCM-15	13a	64.19	22.73	0.27	3.63	0.20	8.46	1.33	100.80	0.746	0.177	0.077	0.004
LCM-15	5b	63.05	23.27	0.37	4.49	0.20	8.18	1.00	100.55	0.723	0.219	0.058	0.004
LCM-15	7a	53.74	29.10	0.64	11.66	0.06	4.67	0.29	100.15	0.413	0.570	0.017	0.001
LCM-15	7b	57.77	26.62	0.51	9.10	0.10	5.86	0.46	100.43	0.523	0.449	0.027	0.002
LCM-17		62.47	23.60	0.23	4.92	0.13	7.94	0.90	100.20	0.706	0.242	0.053	0.002
LCM-17		59.89	25.48	0.31	7.14	0.05	7.01	0.49	100.36	0.622	0.350	0.028	0.001
LCM-17		59.14	25.66	0.33	7.42	0.11	6.46	0.89	100.01	0.580	0.368	0.052	0.002
LCM-17		59.61	25.83	0.28	7.77	0.03	6.56	0.44	100.51	0.589	0.385	0.026	0.000

LCM-17	59.27	25.66	0.38	7.84	0.05	6.49	0.44	100.13	0.584	0.390	0.026	0.001	
LCM-17	58.66	26.07	0.40	7.97	0.05	6.51	0.42	100.08	0.581	0.394	0.025	0.001	
LCM-17	58.59	25.71	0.39	8.05	0.09	6.57	0.38	99.78	0.583	0.395	0.022	0.002	
LCM-17	58.92	26.09	0.25	8.21	0.05	6.48	0.44	100.44	0.573	0.401	0.026	0.001	
LCM-17	58.63	25.61	0.34	8.25	0.03	6.53	0.41	99.79	0.575	0.402	0.023	0.001	
LCM-17	58.17	25.92	0.38	8.32	0.09	6.32	0.40	99.61	0.565	0.411	0.024	0.002	
LCM-17	57.98	26.44	0.40	8.47	0.01	6.26	0.37	99.93	0.560	0.419	0.021	0.000	
LCM-17	58.36	26.44	0.52	8.64	0.07	6.24	0.37	100.64	0.554	0.424	0.022	0.001	
LCM-17	58.11	26.33	0.41	8.70	0.01	6.25	0.36	100.17	0.553	0.426	0.021	0.000	
LCM-17	57.53	26.30	0.41	8.70	0.05	6.20	0.37	99.56	0.551	0.427	0.022	0.001	
LCM-17	58.54	26.42	0.47	8.75	0.06	6.21	0.38	100.83	0.550	0.428	0.022	0.001	
LCM-17	58.08	26.45	0.39	8.75	0.05	6.19	0.38	100.30	0.549	0.429	0.022	0.001	
LCM-17	57.78	26.26	0.32	8.83	0.10	6.20	0.39	99.88	0.547	0.430	0.023	0.002	
LCM-17	58.50	26.74	0.33	8.84	0.04	6.16	0.38	100.99	0.545	0.433	0.022	0.001	
LCM-17	58.25	26.58	0.53	8.79	0.05	6.12	0.37	100.68	0.545	0.433	0.022	0.001	
LCM-17	57.16	26.67	0.39	8.86	0.08	6.14	0.36	99.66	0.545	0.434	0.021	0.001	
LCM-17	57.64	26.52	0.37	8.78	0.06	6.08	0.37	99.81	0.544	0.434	0.022	0.001	
LCM-17	57.95	26.33	0.29	8.86	0.07	6.09	0.37	99.97	0.542	0.436	0.022	0.001	
LCM-17	57.60	26.67	0.43	8.96	0.03	6.16	0.38	100.22	0.542	0.436	0.022	0.000	
LCM-17	57.97	26.32	0.42	8.92	0.07	6.10	0.36	100.15	0.541	0.437	0.021	0.001	
LCM-17	58.69	26.98	0.48	8.82	0.09	6.03	0.35	101.42	0.541	0.438	0.021	0.002	
LCM-17	57.82	26.70	0.35	8.91	0.03	6.08	0.35	100.23	0.541	0.438	0.020	0.001	
LCM-17	57.80	26.52	0.29	8.95	0.00	6.09	0.35	100.00	0.541	0.439	0.020	0.000	
LCM-17	57.53	26.94	0.43	8.93	0.01	6.05	0.38	100.27	0.539	0.439	0.022	0.000	
LCM-17	57.78	26.55	0.39	8.95	0.05	6.02	0.35	100.08	0.538	0.442	0.020	0.001	
LCM-17	57.92	26.52	0.36	9.04	0.08	6.06	0.35	100.33	0.537	0.443	0.021	0.001	
LCM-17	57.41	26.77	0.41	9.09	0.03	6.03	0.37	100.09	0.534	0.445	0.021	0.001	
LCM-17	57.52	26.59	0.43	8.99	0.07	5.95	0.35	99.91	0.534	0.445	0.021	0.001	
LCM-17	57.94	26.75	0.30	9.06	0.08	5.99	0.35	100.48	0.533	0.446	0.021	0.001	
LCM-17	57.44	26.92	0.45	9.08	0.02	5.99	0.36	100.25	0.533	0.446	0.021	0.000	
LCM-17	57.30	26.66	0.46	9.12	0.04	5.99	0.33	99.90	0.533	0.448	0.019	0.001	
LCM-17	57.45	26.60	0.40	9.07	0.05	5.93	0.35	99.85	0.531	0.449	0.020	0.001	
LCM-17	57.55	26.78	0.35	9.06	0.05	5.91	0.35	100.03	0.530	0.449	0.020	0.001	
LCM-17	57.69	26.88	0.42	9.22	0.02	5.99	0.33	100.55	0.530	0.451	0.019	0.000	
LCM-17	57.06	26.99	0.43	9.28	0.04	5.97	0.33	100.10	0.528	0.453	0.019	0.001	
LCM-17	57.46	27.09	0.41	9.33	0.01	5.88	0.35	100.52	0.522	0.458	0.020	0.000	
LCM-17	56.87	27.33	0.47	9.54	0.03	5.67	0.33	100.24	0.508	0.472	0.020	0.001	
LCM-17	57.14	27.61	0.55	9.57	0.00	5.59	0.31	100.78	0.504	0.477	0.018	0.000	
LCM-17	56.34	27.52	0.47	10.01	0.01	5.68	0.31	100.33	0.497	0.485	0.018	0.000	
LCM-17	56.30	27.49	0.39	9.93	0.01	5.59	0.30	100.00	0.496	0.487	0.018	0.000	
LCM-17	56.49	27.63	0.45	9.93	0.08	5.56	0.30	100.44	0.495	0.488	0.017	0.001	
LCM-17	56.08	27.98	0.41	9.93	0.01	5.50	0.29	100.19	0.492	0.491	0.017	0.000	
LCM-17	56.37	27.40	0.34	10.03	0.06	5.44	0.30	99.94	0.486	0.496	0.018	0.001	
LCM-17	56.02	27.63	0.36	10.10	0.02	5.43	0.28	99.84	0.485	0.499	0.017	0.000	
LCM-17	54.90	28.38	0.48	11.11	0.03	5.05	0.22	100.18	0.446	0.541	0.013	0.001	
LCM-17	54.76	28.29	0.43	11.21	0.00	5.08	0.24	100.00	0.444	0.542	0.014	0.000	
LCM-18	1	60.88	24.71	0.17	6.74	0.06	7.05	0.74	100.34	0.626	0.331	0.043	0.001
LCM-18	1	60.80	25.03	0.26	6.76	0.01	6.99	0.75	100.58	0.623	0.333	0.044	0.000
LCM-18	1	60.58	25.04	0.24	7.07	0.04	6.82	0.70	100.50	0.609	0.349	0.041	0.001
LCM-18	2	54.10	28.50	0.49	11.58	0.02	4.79	0.33	99.80	0.420	0.561	0.019	0.000
LCM-18	2	51.52	30.09	0.59	13.44	0.00	3.50	0.19	99.33	0.316	0.672	0.011	0.000
LCM-18	2	51.31	30.72	0.47	13.77	0.01	3.42	0.17	99.86	0.307	0.683	0.010	0.000
LCM-18	3	58.33	26.27	0.24	8.66	0.03	6.20	0.52	100.25	0.548	0.422	0.030	0.001
LCM-18	3	57.36	26.66	0.38	9.28	0.03	5.79	0.43	99.92	0.517	0.458	0.025	0.000
LCM-18	3	57.57	26.79	0.30	9.38	0.02	5.79	0.43	100.28	0.514	0.461	0.025	0.000
LCM-18	4	60.82	24.63	0.23	6.56	0.04	7.23	0.82	100.32	0.635	0.318	0.047	0.001
LCM-18	4	60.68	24.67	0.19	7.06	0.09	7.04	0.68	100.41	0.618	0.342	0.039	0.002
LCM-18	4	60.65	25.15	0.29	7.08	0.03	6.82	0.69	100.70	0.609	0.350	0.041	0.000
LCM-18	5	61.95	23.92	0.16	5.68	0.00	7.49	0.86	100.06	0.669	0.280	0.051	0.000
LCM-18	5	61.89	24.11	0.22	5.94	0.04	7.60	0.88	100.68	0.663	0.287	0.051	0.001
LCM-18	5	62.18	23.86	0.18	5.99	0.06	7.56	0.86	100.69	0.661	0.290	0.049	0.001
LCM-18	6	63.92	22.92	0.25	4.34	0.21	8.63	0.86	101.12	0.744	0.207	0.049	0.004
LCM-18	6	63.21	23.33	0.25	4.74	0.20	8.40	0.76	100.89	0.729	0.227	0.043	0.003
LCM-18	6	63.16	23.75	0.19	5.12	0.13	8.23	0.71	101.30	0.714	0.245	0.041	0.002
LCM-18	7	62.57	23.46	0.16	5.40	0.01	7.82	0.97	100.38	0.684	0.261	0.056	0.000
LCM-18	7	62.02	23.87	0.15	5.58	0.01	7.55	0.93	100.10	0.671	0.274	0.054	0.000
LCM-18	7	61.92	23.83	0.10	5.82	0.04	7.65	0.88	100.23	0.668	0.281	0.050	0.001
LCM-18	8	64.75	22.06	0.31	3.41	0.34	8.85	1.14	100.87	0.771	0.164	0.065	0.006
LCM-18	8	64.85	22.26	0.15	3.53	0.25	8.72	1.10	100.87	0.765	0.171	0.064	0.004
LCM-18	8	64.36	22.20	0.23	3.70	0.24	8.93	1.04	100.69	0.766	0.176	0.059	0.004
LCM-18	9	57.08	26.77	0.25	9.26	0.02	5.81	0.46	99.64	0.517	0.456	0.027	0.000
LCM-18	9	57.30	26.96	0.39	9.37	0.09	5.84	0.44	100.39	0.516	0.458	0.026	0.002
LCM-18	9	54.77	28.82	0.52	11.41	0.05	4.65	0.31	100.53	0.417	0.565	0.018	0.001
LCM-18	10	61.77	24.24	0.18	5.93	0.05	7.63	0.80	100.59	0.667	0.287	0.046	0.001
LCM-18	10	61.97	24.08	0.26	6.02	0.04	7.39	0.86	100.62	0.655	0.295	0.050	0.001
LCM-18	10	61.34	24.12	0.29	6.26	0.03	7.41	0.83	100.27	0.650	0.303	0.048	0.001

LCM-18	11	51.97	30.51	0.56	13.58	0.00	3.64	0.27	100.53	0.321	0.663	0.016	0.000
LCM-18	11	52.08	30.38	0.58	13.48	0.02	3.57	0.28	100.38	0.319	0.665	0.017	0.000
LCM-18	11	50.94	31.11	0.49	14.33	0.07	3.37	0.23	100.52	0.294	0.693	0.013	0.001
LCM-20	8	61.41	24.10	0.22	5.57	0.00	7.33	0.94	99.56	0.665	0.279	0.056	0.000
LCM-20	1	54.96	28.61	0.31	10.25	0.00	5.19	0.42	99.73	0.466	0.509	0.025	0.000
LCM-20	2	53.70	28.84	0.42	11.17	0.02	4.80	0.31	99.26	0.429	0.552	0.018	0.000
LCM-20	2	52.38	29.76	0.30	12.21	0.05	4.22	0.24	99.16	0.379	0.606	0.014	0.001
LCM-20	4	55.03	28.46	0.33	10.18	0.02	5.17	0.43	99.62	0.467	0.508	0.026	0.000
LCM-20	6	60.16	25.05	0.15	6.38	0.07	7.08	0.80	99.67	0.636	0.317	0.047	0.001
LCM-20	6	57.96	25.93	0.22	7.64	0.06	6.47	0.62	98.90	0.583	0.380	0.037	0.001
LCM-20	7	60.04	24.29	0.28	5.63	0.09	7.54	0.58	98.45	0.683	0.282	0.035	0.002
LCM-20	8	58.30	26.24	0.28	7.60	0.03	6.49	0.61	99.55	0.585	0.379	0.036	0.001
LCM-20	9	59.88	24.74	0.17	6.25	0.04	7.21	0.47	98.75	0.657	0.315	0.028	0.001
LCM-20	9	59.71	25.01	0.23	6.36	0.08	7.33	0.45	99.17	0.658	0.315	0.027	0.001
LCM-20	10	54.66	26.08	0.37	8.77	0.00	5.89	0.31	96.08	0.538	0.443	0.019	0.000
LCM-22	10a	60.38	23.92	0.27	5.13	0.14	8.25	0.98	99.08	0.704	0.241	0.055	0.002
LCM-22	10b	60.30	24.39	0.40	5.72	0.12	7.88	0.80	99.61	0.681	0.273	0.045	0.002
LCM-22	11a	59.69	25.43	0.47	6.83	0.11	6.97	0.76	100.27	0.620	0.336	0.045	0.002
LCM-22	11b	60.19	25.08	0.46	6.58	0.11	7.07	0.79	100.29	0.630	0.324	0.046	0.002
LCM-22	12a	63.51	19.78	0.24	0.31	2.80	3.97	9.65	100.25	0.378	0.016	0.605	0.051
LCM-22	12b	63.68	19.82	0.18	0.28	2.69	3.94	9.84	100.43	0.372	0.015	0.613	0.049
LCM-22	13a	59.00	25.68	0.35	6.97	0.07	7.03	0.68	99.79	0.620	0.340	0.040	0.001
LCM-22	13b	59.41	25.84	0.34	6.96	0.09	7.05	0.71	100.39	0.621	0.338	0.041	0.002
LCM-22	14a	62.13	23.92	0.29	4.76	0.12	8.05	1.01	100.27	0.710	0.232	0.059	0.002
LCM-22	14b	61.32	24.41	0.40	5.24	0.14	8.02	0.89	100.42	0.697	0.252	0.051	0.002
LCM-22	6a	62.71	23.60	0.18	4.43	0.15	8.18	1.21	100.45	0.716	0.214	0.070	0.003
LCM-22	6b	62.75	23.25	0.29	4.40	0.24	8.14	1.22	100.30	0.715	0.214	0.071	0.004
LCM-22	7a	63.82	23.15	0.25	3.81	0.20	8.30	1.38	100.91	0.734	0.186	0.080	0.004
LCM-22	7b	62.23	23.69	0.29	4.45	0.17	8.18	1.14	100.15	0.718	0.216	0.066	0.003
LCM-22	8a	61.07	24.92	0.18	5.79	0.17	7.66	0.87	100.65	0.670	0.280	0.050	0.003
LCM-22	8b	62.40	23.67	0.33	4.52	0.14	7.99	1.22	100.26	0.708	0.221	0.071	0.003
LCM-22	9a	62.98	23.47	0.31	4.39	0.15	8.28	1.18	100.76	0.721	0.211	0.068	0.003
LCM-22	9b	62.57	23.68	0.34	4.53	0.17	8.20	1.11	100.60	0.717	0.219	0.064	0.003
LCM-22		57.89	25.83	0.47	7.63	0.09	7.15	0.79	99.84	0.602	0.355	0.044	0.001
LCM-22		60.46	23.77	0.39	5.69	0.16	8.04	1.26	99.78	0.669	0.262	0.069	0.003
LCM-22		59.97	24.89	0.46	6.45	0.14	7.55	0.81	100.27	0.648	0.306	0.046	0.002
LCM-22		59.23	25.30	0.37	7.14	0.20	7.49	0.68	100.40	0.630	0.332	0.038	0.003
LCM-22		63.40	22.51	0.27	3.70	0.14	8.90	1.40	100.32	0.750	0.173	0.077	0.002
LCM-22		62.42	23.25	0.29	4.53	0.10	8.43	1.16	100.18	0.721	0.214	0.065	0.002
LCM-22		61.95	24.12	0.28	4.96	0.13	8.57	1.02	101.03	0.715	0.229	0.056	0.002
LCM-22		61.49	23.26	0.43	4.70	0.27	8.41	1.25	99.82	0.711	0.220	0.070	0.005
LCM-22		62.05	23.40	0.33	4.74	0.25	8.27	1.15	100.18	0.710	0.225	0.065	0.004
LCM-22		58.72	25.30	0.34	7.05	0.07	7.48	0.79	99.74	0.629	0.328	0.044	0.001
LCM-22		60.77	24.24	0.43	5.71	0.17	7.90	1.07	100.27	0.672	0.268	0.060	0.003
LCM-22		62.05	23.46	0.41	4.56	0.16	8.72	1.14	100.50	0.727	0.210	0.063	0.003
LCM-22		61.79	23.04	0.30	4.67	0.14	8.38	1.09	99.40	0.718	0.221	0.061	0.002
LCM-22		62.61	23.73	0.29	4.55	0.14	8.47	1.12	100.91	0.723	0.215	0.063	0.002
LCM-22		61.95	22.83	0.35	4.33	0.17	8.76	1.11	99.50	0.737	0.201	0.062	0.003
LCM-23	2	60.75	24.36	0.23	5.72	0.05	7.62	0.62	99.34	0.681	0.282	0.036	0.001
LCM-23	2	60.75	24.18	0.16	5.85	0.07	7.44	0.62	99.07	0.672	0.292	0.037	0.001
LCM-23	3	61.20	23.89	0.26	5.02	0.12	7.84	0.75	99.06	0.706	0.250	0.045	0.002
LCM-23	3	61.50	23.91	0.19	5.02	0.18	7.76	0.76	99.31	0.703	0.251	0.045	0.003
LCM-23	6	58.42	26.19	0.29	7.94	0.07	6.52	0.42	99.85	0.583	0.392	0.025	0.001
LCM-23	7	61.50	23.65	0.11	5.42	0.07	7.70	0.66	99.11	0.692	0.269	0.039	0.001
LCM-23	7	61.54	23.89	0.16	5.55	0.03	7.74	0.66	99.56	0.688	0.273	0.039	0.001
LCM-23	7	61.20	24.55	0.19	5.66	0.08	7.68	0.62	99.98	0.685	0.279	0.036	0.002
LCM-23		67.04	19.20	0.45	0.15	0.00	6.75	6.60	100.18	0.604	0.008	0.389	0.000
LCM-23		66.14	19.08	0.41	0.16	0.01	6.90	6.71	99.40	0.605	0.008	0.387	0.000
LCM-26	1	61.35	24.07	0.18	5.59	0.09	7.40	1.04	99.71	0.662	0.276	0.061	0.002
LCM-26	1	60.34	24.61	0.36	6.91	0.10	6.93	0.81	100.06	0.614	0.338	0.047	0.002
LCM-26	1	59.71	24.84	0.27	7.10	0.08	6.84	0.80	99.64	0.606	0.348	0.047	0.002
LCM-26	2	61.57	23.58	0.42	5.94	0.11	7.48	1.01	100.11	0.655	0.287	0.058	0.002
LCM-26	2	61.61	23.96	0.22	6.09	0.18	7.60	0.94	100.60	0.656	0.290	0.053	0.003
LCM-26	2	61.36	23.87	0.48	6.03	0.14	7.40	1.05	100.33	0.648	0.292	0.060	0.002
LCM-26	3	61.31	23.33	0.36	5.85	0.12	7.44	1.08	99.49	0.654	0.284	0.062	0.002
LCM-26	3	61.78	23.97	0.38	5.96	0.14	7.47	1.00	100.70	0.654	0.288	0.058	0.002
LCM-26	3	60.87	23.61	0.31	6.04	0.09	7.25	1.01	99.18	0.644	0.297	0.059	0.002
LCM-26	4	63.38	22.91	0.43	4.50	0.15	8.34	0.99	100.71	0.727	0.217	0.057	0.003
LCM-26	4	62.71	23.18	0.38	5.07	0.11	8.25	0.84	100.53	0.711	0.241	0.048	0.002
LCM-26	4	62.37	23.31	0.20	5.11	0.11	8.09	0.84	100.03	0.706	0.246	0.048	0.002
LCM-26	5	62.29	23.40	0.30	5.25	0.17	8.38	0.83	100.62	0.708	0.245	0.046	0.003
LCM-26	5	62.33	23.80	0.26	5.32	0.18	8.06	0.79	100.74	0.699	0.255	0.045	0.003
LCM-26	5	62.13	23.78	0.17	5.57	0.13	7.79	0.76	100.32	0.685	0.271	0.044	0.002
LCM-26	6	62.55	23.46	0.30	5.29	0.13	7.78	0.87	100.38	0.690	0.259	0.050	0.002

LCM-26	6	62.14	23.80	0.35	5.55	0.05	7.97	0.86	100.71	0.687	0.265	0.049	0.001
LCM-26	6	61.90	24.35	0.29	6.07	0.10	7.63	0.68	101.01	0.668	0.293	0.039	0.002
LCM-26	7	62.51	23.53	0.32	5.34	0.14	7.83	1.24	100.91	0.675	0.254	0.070	0.002
LCM-26	7	62.48	23.67	0.30	5.28	0.14	7.67	1.26	100.79	0.672	0.256	0.073	0.002
LCM-26	7	61.98	23.56	0.40	5.55	0.15	7.52	1.24	100.40	0.659	0.269	0.071	0.003
LCM-26	8	61.95	23.70	0.37	5.50	0.17	7.72	1.16	100.57	0.670	0.264	0.066	0.003
LCM-26	8	62.09	23.36	0.33	5.60	0.12	7.58	1.14	100.21	0.664	0.271	0.065	0.002
LCM-26	8	62.19	23.72	0.31	5.56	0.14	7.43	1.12	100.48	0.661	0.273	0.066	0.003
LCM-26	9	58.04	27.06	0.49	9.19	0.07	6.12	0.55	101.51	0.529	0.439	0.031	0.001
LCM-26	9	57.47	26.71	0.44	9.17	0.08	5.80	0.50	100.17	0.518	0.452	0.030	0.001
LCM-26	9	56.88	27.27	0.39	9.52	0.02	5.75	0.48	100.30	0.508	0.464	0.028	0.000
LCM-26	10	62.61	23.39	0.33	4.82	0.20	8.06	0.99	100.39	0.709	0.234	0.057	0.004
LCM-26	10	62.85	22.89	0.19	4.80	0.19	7.98	1.03	99.93	0.706	0.234	0.060	0.003
LCM-26	10	62.69	22.89	0.34	4.95	0.16	7.86	1.00	99.88	0.699	0.243	0.058	0.003
LCM-26	11	64.70	18.93	0.16	0.26	1.96	3.92	10.15	100.09	0.365	0.014	0.621	0.036
LCM-26	11	63.78	18.94	0.27	0.30	2.33	3.83	10.00	99.44	0.362	0.015	0.622	0.043
LCM-26	11	64.23	21.63	0.21	3.29	0.15	8.38	1.41	99.29	0.753	0.164	0.083	0.003
LCM-27	10a	60.90	25.44	0.34	5.93	0.13	7.88	0.69	101.30	0.679	0.282	0.039	0.002
LCM-27	10b	60.05	26.17	0.22	6.94	0.12	7.42	0.56	101.47	0.638	0.330	0.032	0.002
LCM-27	11a	67.77	19.22	0.66	0.09	0.00	7.55	6.31	101.59	0.642	0.004	0.353	0.000
LCM-27	11b	68.00	19.10	0.55	0.12	0.05	7.64	5.82	101.29	0.662	0.006	0.332	0.001
LCM-27	1a	57.88	27.35	0.25	8.46	0.11	6.58	0.41	101.03	0.571	0.406	0.023	0.002
LCM-27	1b	60.46	25.86	0.22	6.45	0.10	7.65	0.60	101.33	0.659	0.307	0.034	0.002
LCM-27	4a	65.05	22.38	0.29	2.92	0.16	9.24	1.49	101.51	0.781	0.136	0.083	0.003
LCM-27	4b	65.04	21.72	0.25	2.74	0.07	9.02	1.59	100.43	0.779	0.131	0.090	0.001
LCM-27	5a	63.03	22.94	0.30	4.04	0.14	8.61	1.04	100.09	0.747	0.194	0.059	0.002
LCM-27	5b	63.45	23.00	0.24	4.11	0.16	8.73	1.01	100.70	0.748	0.195	0.057	0.003
LCM-27	6a	67.65	19.40	0.35	0.22	0.14	7.45	6.32	101.53	0.635	0.010	0.355	0.002
LCM-27	7a	60.06	25.67	0.36	6.70	0.13	7.27	0.76	100.95	0.634	0.323	0.044	0.002
LCM-27	7b	59.45	25.71	0.32	7.11	0.09	7.07	0.73	100.48	0.616	0.342	0.042	0.002
LCM-27	8a	67.86	19.38	0.33	0.26	0.00	7.72	5.88	101.44	0.658	0.012	0.330	0.000
LCM-27	8b	67.39	19.69	0.28	0.25	0.04	7.90	5.93	101.48	0.661	0.012	0.327	0.001
LCM-27	9a	64.79	21.78	0.21	2.68	0.12	9.13	1.59	100.30	0.783	0.127	0.090	0.002
LCM-27		68.17	18.74	0.46	0.16	0.00	6.78	6.66	100.97	0.602	0.008	0.390	0.000
LCM-27		67.81	18.74	0.45	0.17	0.00	7.03	6.15	100.34	0.629	0.008	0.362	0.000
LCM-27		67.90	18.59	0.43	0.18	0.01	6.97	6.53	100.60	0.614	0.009	0.378	0.000
LCM-27		67.61	18.67	0.43	0.18	0.01	6.89	6.49	100.27	0.612	0.009	0.380	0.000
LCM-27		68.69	18.84	0.37	0.18	0.01	6.62	6.60	101.30	0.599	0.009	0.392	0.000
LCM-27		67.57	18.57	0.36	0.19	0.00	7.26	6.09	100.03	0.638	0.009	0.353	0.000
LCM-27		67.60	18.58	0.35	0.19	0.06	6.70	6.70	100.16	0.598	0.009	0.393	0.001
LCM-27		67.61	18.57	0.42	0.19	0.02	6.72	6.68	100.22	0.599	0.009	0.392	0.000
LCM-27		67.15	18.89	0.34	0.20	0.00	6.92	6.53	100.02	0.611	0.010	0.379	0.000
LCM-27		67.76	18.70	0.38	0.21	0.02	6.95	6.40	100.41	0.617	0.010	0.373	0.000
LCM-27		67.45	18.87	0.22	0.30	0.18	6.77	6.47	100.26	0.605	0.015	0.381	0.003
LCM-27		65.53	21.23	0.26	2.49	0.12	8.70	1.81	100.13	0.772	0.122	0.106	0.002
LCM-27		65.54	21.19	0.28	2.50	0.14	8.74	1.80	100.18	0.773	0.122	0.105	0.002
LCM-27		65.35	21.35	0.21	2.51	0.14	8.75	1.81	100.11	0.773	0.122	0.105	0.002
LCM-27		65.79	20.97	0.18	2.51	0.13	8.61	1.86	100.03	0.768	0.124	0.109	0.002
LCM-27		65.46	21.36	0.26	2.59	0.11	8.68	1.81	100.27	0.768	0.127	0.105	0.002
LCM-27		64.07	22.12	0.20	3.79	0.04	8.53	0.98	99.73	0.757	0.186	0.057	0.001
LCM-27		63.75	22.07	0.34	3.79	0.13	8.30	1.11	99.49	0.746	0.188	0.066	0.002
LCM-27		64.05	22.56	0.32	3.97	0.08	8.49	1.08	100.54	0.745	0.193	0.062	0.001
LCM-27		63.24	22.59	0.22	4.06	0.11	8.29	1.02	99.53	0.740	0.200	0.060	0.002
LCM-27		62.67	22.77	0.30	4.37	0.12	8.19	0.91	99.33	0.731	0.216	0.053	0.002
LCM-27		63.21	22.98	0.25	4.37	0.17	8.08	1.05	100.11	0.722	0.216	0.062	0.003
LCM-27		63.41	22.90	0.21	4.47	0.17	8.15	0.95	100.27	0.725	0.220	0.055	0.003
LCM-27		63.24	23.38	0.28	4.57	0.16	8.16	0.94	100.74	0.722	0.223	0.055	0.003
LCM-27		62.45	22.83	0.38	4.62	0.15	8.10	0.89	99.42	0.721	0.227	0.052	0.003
LCM-27		62.68	23.09	0.31	4.68	0.18	8.03	0.89	99.87	0.717	0.231	0.052	0.003
LCM-27		63.24	23.43	0.20	4.70	0.14	8.00	0.93	100.64	0.714	0.232	0.055	0.002
LCM-27		62.73	22.95	0.32	4.67	0.17	7.94	0.91	99.68	0.714	0.232	0.054	0.003
LCM-27		63.18	23.44	0.21	4.70	0.11	7.83	0.95	100.42	0.708	0.235	0.057	0.002
LCM-27		63.83	23.48	0.31	4.74	0.12	7.84	0.85	101.18	0.711	0.238	0.051	0.002
LCM-27		64.00	23.49	0.21	4.73	0.10	7.73	0.87	101.12	0.708	0.239	0.052	0.002
LCM-27		63.19	23.39	0.26	4.94	0.12	7.92	0.81	100.63	0.708	0.244	0.048	0.002
LCM-27		63.39	23.88	0.25	5.03	0.14	7.62	0.84	101.15	0.696	0.254	0.050	0.003
LCM-27		62.31	23.50	0.35	5.26	0.11	7.76	0.89	100.18	0.689	0.258	0.052	0.002
LCM-27		61.87	23.59	0.25	5.29	0.15	7.66	0.75	99.56	0.692	0.264	0.044	0.003
LCM-27		61.72	23.56	0.33	5.47	0.12	7.74	0.80	99.74	0.686	0.268	0.046	0.002
LCM-27		61.58	24.01	0.22	5.46	0.10	7.69	0.73	99.79	0.687	0.270	0.043	0.002
LCM-27		61.67	24.08	0.23	5.57	0.10	7.54	0.73	99.92	0.680	0.277	0.043	0.002
LCM-27		61.41	23.97	0.32	5.61	0.11	7.43	0.76	99.59	0.674	0.281	0.045	0.002
LCM-27		60.17	24.54	0.18	6.55	0.13	7.43	0.57	99.57	0.650	0.317	0.033	0.002
LCM-27		60.47	24.65	0.39	6.45	0.15	7.21	0.64	99.94	0.644	0.318	0.037	0.003

LCM-27		59.70	25.03	0.30	6.86	0.09	7.03	0.58	99.58		0.627	0.339	0.034	0.002
LCM-27		59.28	25.08	0.45	7.37	0.12	6.72	0.61	99.62		0.600	0.364	0.036	0.002
LCM-27		59.25	25.79	0.23	7.88	0.00	6.48	0.45	100.08		0.582	0.391	0.027	0.000
LCM-27		57.74	26.27	0.24	8.61	0.09	6.18	0.37	99.49		0.553	0.426	0.022	0.002
LCM-27		56.51	27.17	0.26	9.22	0.07	5.84	0.35	99.42		0.523	0.456	0.021	0.001
LCM-27		55.99	28.02	0.30	10.03	0.05	5.37	0.29	100.04		0.483	0.499	0.017	0.001
LCM-27		55.79	27.77	0.51	10.19	0.05	5.26	0.29	99.87		0.474	0.508	0.017	0.001
LCM-29	1	66.82	19.67	0.07	0.30	0.00	11.62	0.16	98.64		0.978	0.014	0.009	0.000
LCM-29	1	67.01	20.37	0.00	0.46	0.02	11.63	0.11	99.59		0.973	0.021	0.006	0.000
LCM-29	1	67.70	20.70	0.00	0.47	0.03	11.61	0.11	100.62		0.972	0.022	0.006	0.001
LCM-29	2	68.01	19.73	0.16	0.08	0.00	11.85	0.08	99.90		0.992	0.004	0.004	0.000
LCM-29	2	67.36	20.04	0.10	0.24	0.00	11.80	0.09	99.63		0.984	0.011	0.005	0.000
LCM-29	3	68.16	20.09	0.09	0.04	0.00	11.86	0.07	100.32		0.994	0.002	0.004	0.000
LCM-29	3	67.98	19.79	0.06	0.04	0.04	11.98	0.14	100.01		0.991	0.002	0.008	0.001
LCM-29	3	67.79	19.68	0.05	0.04	0.14	11.86	0.11	99.67		0.992	0.002	0.006	0.002
LCM-29	4	68.38	19.70	0.00	0.02	0.00	11.80	0.13	100.03		0.992	0.001	0.007	0.000
LCM-29	4	67.64	20.18	0.00	0.11	0.00	11.68	0.08	99.68		0.990	0.005	0.004	0.000
LCM-29	4	67.23	19.99	0.04	0.16	0.01	11.76	0.31	99.49		0.976	0.007	0.017	0.000
LCM-29	5	68.14	19.88	0.20	0.03	0.00	12.01	0.11	100.37		0.993	0.001	0.006	0.000
LCM-29	5	67.59	19.82	0.07	0.05	0.05	11.84	0.03	99.44		0.996	0.002	0.002	0.001
LCM-29	5	67.03	19.69	0.27	0.49	0.12	11.72	0.06	99.38		0.975	0.022	0.003	0.002
LCM-29	6	67.44	19.39	0.31	0.06	0.68	11.52	0.34	99.74		0.978	0.003	0.019	0.012
LCM-29	7	67.81	19.91	0.06	0.40	0.00	11.76	0.08	100.03		0.977	0.018	0.005	0.000
LCM-29	7	67.28	20.01	0.08	0.60	0.03	11.54	0.16	99.70		0.964	0.028	0.009	0.001
LCM-29	7	67.59	19.54	0.08	0.63	0.05	11.80	0.12	99.82		0.965	0.029	0.007	0.001
LCM-29	8	63.36	18.79	0.00	0.00	0.32	0.45	16.37	99.30		0.040	0.000	0.960	0.006
LCM-29	8	68.28	20.17	0.02	0.06	0.00	11.86	0.08	100.46		0.993	0.003	0.004	0.000
LCM-29	8	67.39	20.00	0.00	0.07	0.05	11.96	0.08	99.54		0.992	0.003	0.005	0.001
LCM-29	9	65.95	20.34	0.15	1.09	0.02	10.59	0.86	99.01		0.901	0.051	0.048	0.000
LCM-29	9	66.32	20.50	0.14	1.28	0.00	10.43	0.79	99.46		0.895	0.061	0.045	0.000
LCM-29	10	65.05	19.34	0.30	0.31	0.62	3.77	11.17	100.56		0.334	0.015	0.651	0.011
LCM-29	10	64.51	19.46	0.17	0.37	0.71	3.76	11.00	99.98		0.336	0.018	0.646	0.013
LCM-29	10	64.78	19.65	0.20	0.39	0.74	3.75	11.01	100.53		0.334	0.019	0.646	0.013
LCM-29		59.70	25.06	0.24	6.09	0.14	8.09	0.63	99.95		0.682	0.283	0.035	0.002
LCM-29		59.94	25.49	0.32	6.41	0.14	7.64	0.60	100.54		0.660	0.306	0.034	0.002
LCM-29		58.42	26.05	0.30	7.55	0.00	7.22	0.49	100.04		0.616	0.356	0.027	0.000
LCM-29		57.76	26.66	0.36	8.18	0.08	6.92	0.42	100.38		0.591	0.386	0.024	0.001
LCM-29		58.44	26.45	0.40	7.91	0.08	6.92	0.60	100.80		0.592	0.374	0.034	0.001
LCM-29		59.21	25.01	0.33	6.59	0.08	7.79	0.78	99.78		0.652	0.305	0.043	0.001
LCM-29		60.16	25.34	0.27	6.22	0.10	7.78	0.62	100.49		0.669	0.296	0.035	0.002
LCM-29		59.38	25.48	0.27	6.46	0.11	7.98	0.60	100.28		0.668	0.299	0.033	0.002
LCM-29		55.80	27.62	0.24	8.93	0.03	6.23	0.45	99.29		0.544	0.431	0.026	0.001
LCM-29		57.04	27.46	0.31	8.89	0.04	6.20	0.37	100.30		0.546	0.433	0.022	0.001
LCM-29		57.97	26.49	0.30	7.34	0.03	7.04	0.47	99.64		0.617	0.356	0.027	0.001
LCM-29		58.67	25.97	0.43	7.18	0.11	7.32	0.54	100.22		0.629	0.341	0.030	0.002
LCM-29		58.79	26.18	0.37	7.38	0.07	7.21	0.51	100.51		0.620	0.351	0.029	0.001
LCM-29		59.82	25.22	0.27	6.28	0.10	7.72	0.61	100.03		0.666	0.300	0.034	0.002
LCM-29		55.27	27.76	0.34	9.10	0.02	6.38	0.36	99.22		0.548	0.432	0.021	0.000
LCM-29		56.23	27.10	0.31	8.91	0.02	6.35	0.34	99.25		0.552	0.428	0.020	0.000
LCM-29		58.75	25.84	0.20	6.81	0.07	7.47	0.54	99.67		0.645	0.325	0.031	0.001
LCM-29		59.13	25.33	0.17	6.92	0.06	7.36	0.51	99.47		0.639	0.332	0.029	0.001
LCM-31	10a	60.77	25.20	0.27	6.08	0.08	7.66	0.55	100.61		0.673	0.295	0.032	0.001
LCM-31	10b	60.53	25.99	0.38	6.78	0.05	7.25	0.48	101.46		0.641	0.331	0.028	0.001
LCM-31	11a	59.53	25.95	0.20	7.13	0.05	7.26	0.45	100.56		0.631	0.343	0.026	0.001
LCM-31	11b	58.66	26.65	0.22	7.66	0.00	6.90	0.42	100.50		0.605	0.371	0.024	0.000
LCM-31	1a	58.21	26.68	0.31	7.85	0.04	6.63	0.43	100.14		0.589	0.385	0.025	0.001
LCM-31	1b	58.54	26.75	0.21	7.95	0.09	6.67	0.46	100.66		0.587	0.387	0.026	0.002
LCM-31	2a	60.69	25.47	0.26	6.29	0.04	7.66	0.51	100.93		0.668	0.303	0.029	0.001
LCM-31	2b	60.69	25.42	0.23	6.18	0.05	7.71	0.54	100.81		0.672	0.297	0.031	0.001
LCM-31	3a	60.16	25.85	0.18	6.79	0.07	7.25	0.45	100.76		0.642	0.332	0.026	0.001
LCM-31	3b	59.55	25.51	0.23	6.80	0.07	7.30	0.44	99.89		0.643	0.331	0.026	0.001
LCM-31	feld4a	65.02	19.35	0.04	0.01	0.13	1.19	15.07	100.81		0.107	0.000	0.892	0.002
LCM-31		57.85	25.55	0.41	7.75	0.21	7.17	0.68	99.61		0.603	0.360	0.038	0.003
LCM-31		58.56	25.91	0.36	7.52	0.14	7.11	0.66	100.27		0.608	0.355	0.037	0.002
LCM-31		61.46	23.48	0.32	4.67	0.21	8.60	0.99	99.74		0.727	0.218	0.055	0.004
LCM-31		59.88	25.37	0.28	6.75	0.06	7.46	0.75	100.55		0.638	0.319	0.042	0.001
LCM-31		59.72	25.33	0.33	6.75	0.05	7.70	0.78	100.65		0.645	0.312	0.043	0.001
LCM-31		66.33	19.19	0.43	0.19	0.00	7.49	6.50	100.13		0.631	0.009	0.360	0.000
LCM-31		66.55	19.14	0.47	0.16	0.05	7.00	6.83	100.19		0.604	0.007	0.388	0.001
LCM-31		61.48	24.06	0.39	5.27	0.07	8.02	0.80	100.09		0.700	0.254	0.046	0.001
LCM-31		61.28	24.07	0.37	4.96	0.21	8.50	0.97	100.37		0.715	0.231	0.054	0.004
LCM-31		61.69	22.86	0.28	4.17	0.17	8.86	1.11	99.14		0.745	0.194	0.062	0.003
LCM-31		61.08	23.17	0.32	4.53	0.18	8.70	1.06	99.05		0.731	0.210	0.059	0.003
LCM-31		61.12	23.50	0.36	5.05	0.10	8.40	0.89	99.41		0.713	0.237	0.050	0.002

LCM-32	1a	63.20	20.47	0.13	0.59	2.72	3.95	9.77	100.84	0.369	0.031	0.601	0.049
LCM-32	1b	63.29	20.20	0.12	0.62	2.91	3.89	9.70	100.73	0.367	0.032	0.601	0.052
LCM-32	4b	63.98	20.17	0.16	0.65	1.31	4.27	9.94	100.47	0.382	0.032	0.585	0.023
LCM-32	5b	57.73	27.09	0.40	8.17	0.33	6.19	0.79	100.70	0.552	0.402	0.046	0.006
LCM-32	5c	58.40	27.06	0.40	7.85	0.25	6.22	0.79	100.98	0.561	0.392	0.047	0.005
LCM-32	10a	64.46	20.14	0.15	0.54	1.34	4.20	9.89	100.71	0.382	0.027	0.591	0.024
LCM-32	10b	64.25	20.10	0.16	0.59	1.37	4.15	9.70	100.32	0.382	0.030	0.588	0.025
LCM-32	10c	64.26	19.77	0.13	0.58	1.33	4.05	9.83	99.95	0.374	0.030	0.597	0.024
LCM-32	1c	62.66	20.17	0.18	0.60	2.71	4.03	9.50	99.86	0.380	0.031	0.589	0.049
LCM-32	2a	59.90	25.31	0.37	6.37	0.10	7.41	0.58	100.04	0.655	0.311	0.034	0.002
LCM-32	2b	60.69	25.42	0.33	6.28	0.08	7.28	0.59	100.66	0.654	0.312	0.035	0.001
LCM-32	3a	58.36	25.93	0.32	7.14	0.05	6.96	0.59	99.34	0.616	0.349	0.034	0.001
LCM-32	3b	59.45	26.20	0.31	7.00	0.13	6.97	0.60	100.66	0.620	0.345	0.035	0.002
LCM-32	4a	64.04	20.21	0.09	0.67	1.49	4.23	9.68	100.41	0.386	0.034	0.580	0.027
LCM-32	4c	63.86	20.26	0.11	0.72	1.40	4.24	9.55	100.15	0.388	0.037	0.575	0.025
LCM-32	5a	58.02	26.78	0.37	7.72	0.33	6.24	0.83	100.29	0.565	0.386	0.049	0.006
LCM-32	6a	66.41	19.35	0.09	0.24	0.13	4.12	10.51	100.84	0.369	0.012	0.619	0.002
LCM-32	6b	65.06	19.04	0.12	0.21	0.08	4.04	10.72	99.28	0.361	0.010	0.629	0.001
LCM-32	7a	62.45	23.86	0.26	4.78	0.09	7.43	1.75	100.60	0.662	0.235	0.103	0.002
LCM-32	7b	61.02	23.92	0.24	4.94	0.11	7.41	1.74	99.39	0.657	0.242	0.101	0.002
LCM-32	8a	63.89	19.93	0.12	0.64	1.08	4.21	9.64	99.52	0.386	0.033	0.581	0.020
LCM-32	8b	63.41	19.71	0.15	0.68	1.07	4.46	9.83	99.31	0.394	0.033	0.572	0.019
LCM-32	9a	64.11	20.27	0.11	0.67	2.04	4.12	9.52	100.84	0.383	0.034	0.582	0.037
LCM-32	9b	63.80	20.24	0.12	0.68	2.10	4.11	9.33	100.39	0.387	0.035	0.578	0.038
LCM-32	9c	64.18	20.49	0.14	0.74	2.00	4.15	9.71	101.41	0.379	0.037	0.584	0.036
LCM-34		59.88	24.51	0.31	5.91	0.11	7.70	0.74	99.17	0.672	0.285	0.042	0.002
LCM-34		60.47	24.67	0.29	5.93	0.13	7.57	0.72	99.77	0.669	0.289	0.042	0.002
LCM-34		59.60	24.62	0.33	6.08	0.11	7.60	0.73	99.07	0.664	0.294	0.042	0.002
LCM-34		61.02	23.83	0.46	5.14	0.20	7.89	0.83	99.38	0.699	0.252	0.049	0.004
LCM-34		60.74	24.48	0.31	5.94	0.13	7.25	0.74	99.57	0.658	0.298	0.044	0.002
LCM-34		60.95	25.32	0.39	5.97	0.10	7.35	0.74	100.82	0.660	0.296	0.044	0.002
LCM-34		60.13	24.50	0.50	5.86	0.16	7.54	0.73	99.44	0.670	0.288	0.043	0.003
LCM-34		59.98	24.62	0.39	6.08	0.14	7.75	0.70	99.66	0.670	0.290	0.040	0.002
LCM-34		61.87	24.17	0.32	5.04	0.14	7.95	0.89	100.37	0.702	0.246	0.052	0.003
LCM-34		61.63	24.65	0.48	5.65	0.17	7.65	0.76	100.98	0.679	0.277	0.044	0.003
LCM-34		60.87	23.96	0.38	5.33	0.12	8.04	0.84	99.55	0.697	0.255	0.048	0.002
LCM-34		59.31	24.67	0.37	6.12	0.12	7.82	0.72	99.13	0.670	0.290	0.041	0.002
LCM-35	11a	63.73	23.66	0.17	3.98	0.12	8.36	1.11	101.13	0.741	0.195	0.065	0.002
LCM-35	1a	60.49	25.60	0.36	6.24	0.21	7.13	0.79	100.81	0.642	0.311	0.047	0.004
LCM-35	2b	64.32	22.49	0.30	2.96	0.13	8.99	1.36	100.54	0.780	0.142	0.078	0.002
LCM-35	5a	66.85	19.38	0.32	0.18	0.14	5.08	9.16	101.12	0.453	0.009	0.538	0.003
LCM-35	5b	66.54	19.21	0.35	0.16	0.06	5.13	9.17	100.62	0.456	0.008	0.536	0.001
LCM-35	6a	61.64	24.26	0.28	4.93	0.14	8.12	0.83	100.20	0.713	0.239	0.048	0.002
LCM-35	8b	62.42	24.03	0.42	4.54	0.35	7.76	1.29	100.80	0.698	0.226	0.076	0.006
LCM-35	9a	59.71	26.08	0.41	7.00	0.08	6.77	0.78	100.83	0.607	0.347	0.046	0.001
LCM-35	9b	58.15	26.49	0.40	7.63	0.14	6.63	0.71	100.14	0.586	0.373	0.041	0.002
LCM-35	10a	64.06	22.40	0.34	2.60	0.70	8.21	2.29	100.59	0.736	0.129	0.135	0.012
LCM-35	10b	64.09	22.74	0.45	3.16	0.31	8.25	1.62	100.61	0.746	0.158	0.096	0.006
LCM-35	10c	64.63	21.78	0.33	2.15	0.53	7.79	3.24	100.43	0.701	0.107	0.192	0.009
LCM-35	11b	63.14	23.39	0.28	3.87	0.05	8.39	1.17	100.29	0.743	0.189	0.068	0.001
LCM-35	1b	59.93	26.01	0.38	7.08	0.09	6.82	0.64	100.95	0.611	0.351	0.038	0.002
LCM-35	1c	60.64	25.99	0.43	6.61	0.14	6.97	0.70	101.48	0.629	0.329	0.042	0.003
LCM-35	2a	63.66	22.54	0.33	3.24	0.14	8.84	1.34	100.08	0.768	0.155	0.076	0.002
LCM-35	2c	64.22	22.21	0.35	2.82	0.17	9.05	1.46	100.28	0.782	0.135	0.083	0.003
LCM-35	3a	65.66	21.55	0.28	1.82	0.38	7.27	4.23	101.19	0.657	0.091	0.252	0.007
LCM-35	3c	64.59	21.33	0.27	1.78	0.38	7.46	4.02	99.82	0.673	0.089	0.239	0.007
LCM-35	6b	61.76	24.02	0.33	4.79	0.11	8.19	0.87	100.07	0.718	0.232	0.050	0.002
LCM-35	7a	64.48	23.10	0.26	3.55	0.15	8.22	1.55	101.31	0.734	0.175	0.091	0.003
LCM-35	8a	62.46	24.09	0.35	4.57	0.43	7.72	1.26	100.88	0.697	0.228	0.075	0.008
LCM-35		63.38	22.20	0.17	3.30	0.01	9.16	1.53	99.76	0.764	0.152	0.084	0.000
LCM-35		60.99	23.94	0.28	4.95	0.13	7.73	1.61	99.62	0.671	0.237	0.092	0.002
LCM-35		60.85	24.05	0.23	5.18	0.20	7.71	1.70	99.92	0.659	0.245	0.096	0.003
LCM-35		65.91	18.70	0.44	0.18	0.00	6.96	7.16	99.34	0.592	0.008	0.400	0.000
LCM-35		65.38	18.48	0.51	0.15	0.05	7.04	7.06	98.69	0.598	0.007	0.395	0.001
LCM-35		66.53	19.27	0.32	0.24	0.04	7.10	7.00	100.49	0.600	0.011	0.389	0.001
LCM-35		65.80	19.12	0.31	0.21	0.02	6.93	6.93	99.33	0.597	0.010	0.393	0.000
LCM-35		63.84	19.89	0.13	0.73	1.12	4.56	9.67	99.95	0.403	0.036	0.562	0.020
LCM-35		63.35	19.86	0.18	0.62	1.74	4.24	9.64	99.64	0.388	0.031	0.580	0.031
LCM-35		64.52	19.71	0.09	0.62	0.60	4.54	9.75	99.83	0.402	0.030	0.568	0.011
LCM-35		64.00	19.50	0.14	0.62	0.61	4.57	9.82	99.26	0.402	0.030	0.568	0.011
LCM-35		64.74	19.86	0.15	0.64	0.57	4.58	9.71	100.25	0.405	0.031	0.564	0.010
LCM-35		63.99	20.09	0.20	0.67	1.14	4.49	9.83	100.41	0.397	0.032	0.571	0.020
LCM-35		62.98	19.50	0.14	0.61	1.63	4.24	9.87	98.96	0.383	0.030	0.587	0.029
LCM-35		65.73	18.86	0.36	0.24	0.03	6.88	7.00	99.10	0.592	0.011	0.396	0.000
LCM-35		65.99	19.04	0.44	0.21	0.02	6.92	7.04	99.67	0.593	0.010	0.397	0.000
LCM-36	1	61.99	22.90	0.35	4.16	0.86	7.89	1.09	99.24	0.723	0.211	0.066	0.016

LCM-36	1	61.61	23.48	0.46	4.82	0.28	7.92	1.00	99.58	0.705	0.237	0.058	0.005
LCM-36	1	60.59	25.02	0.32	6.16	0.10	7.34	0.55	100.08	0.661	0.307	0.032	0.002
LCM-36	1	60.37	25.75	0.49	6.56	0.07	7.29	0.53	101.07	0.647	0.322	0.031	0.001
LCM-36	1	61.02	25.58	0.44	6.57	0.05	7.00	0.54	101.20	0.637	0.331	0.032	0.001
LCM-36	2	60.39	25.87	0.52	6.98	0.07	6.98	0.49	101.31	0.625	0.346	0.029	0.001
LCM-36	2	59.73	26.14	0.58	7.26	0.07	6.81	0.46	101.05	0.612	0.361	0.027	0.001
LCM-36	2	58.80	25.84	0.53	7.48	0.15	6.21	1.03	100.03	0.564	0.375	0.061	0.003
LCM-36	3	63.01	21.00	0.21	2.73	2.81	9.05	0.44	99.25	0.834	0.139	0.027	0.050
LCM-36	3	65.05	22.52	0.36	3.03	0.40	8.28	1.50	101.15	0.757	0.153	0.090	0.007
LCM-36	3	63.90	22.74	0.34	3.38	0.30	8.70	1.41	100.75	0.757	0.162	0.081	0.005
LCM-36	3	64.01	22.73	0.30	3.49	0.36	8.47	1.36	100.71	0.750	0.171	0.079	0.006
LCM-36	3	61.48	24.66	0.29	5.75	0.11	7.62	0.67	100.58	0.678	0.283	0.039	0.002
LCM-36	3	61.15	24.26	0.39	5.87	0.11	7.51	0.66	99.95	0.671	0.290	0.039	0.002
LCM-36	4	64.48	22.52	0.42	2.78	0.58	8.45	1.77	101.01	0.758	0.138	0.105	0.010
LCM-36	4	61.26	23.76	0.44	5.27	0.18	7.59	0.75	99.25	0.690	0.265	0.045	0.003
LCM-36	4	61.22	25.04	0.41	5.60	0.36	7.69	0.64	100.98	0.686	0.276	0.038	0.007
LCM-36	4	60.58	24.87	0.28	5.73	0.40	7.62	0.67	100.14	0.679	0.282	0.039	0.007
LCM-36	5	61.80	25.17	0.39	5.74	0.19	7.36	0.85	101.50	0.664	0.286	0.050	0.003
LCM-36	5	60.54	25.05	0.39	5.90	0.20	7.39	0.85	100.33	0.659	0.291	0.050	0.004
LCM-36	5	61.17	24.88	0.43	5.97	0.17	7.33	0.82	100.76	0.656	0.296	0.048	0.003
LCM-36	5	60.52	24.37	0.48	6.03	0.14	7.33	0.64	99.50	0.662	0.301	0.038	0.003
LCM-36	5	60.65	24.94	0.41	6.34	0.10	7.15	0.66	100.25	0.645	0.316	0.039	0.002
LCM-36	6	62.28	24.11	0.35	5.06	0.15	7.83	0.78	100.56	0.703	0.251	0.046	0.003
LCM-36	6	61.77	24.44	0.41	5.27	0.17	8.00	0.76	100.83	0.701	0.255	0.044	0.003
LCM-36	6	62.95	24.38	0.31	5.03	0.21	7.59	0.78	101.24	0.698	0.255	0.047	0.004
LCM-36	6	61.30	23.94	0.38	5.56	0.14	7.42	0.75	99.49	0.675	0.280	0.045	0.003
LCM-36	6	60.22	24.06	0.46	6.07	0.17	7.44	0.65	99.07	0.663	0.299	0.038	0.003
LCM-36	6	60.94	24.62	0.46	6.16	0.16	7.28	0.65	100.27	0.655	0.306	0.038	0.003
LCM-36	7	62.62	24.07	0.42	4.82	0.17	8.13	0.83	101.06	0.717	0.235	0.048	0.003
LCM-36	7	62.52	24.32	0.31	5.08	0.13	7.91	0.80	101.08	0.703	0.250	0.047	0.002
LCM-36	7	62.21	24.13	0.47	5.29	0.16	7.91	0.74	100.91	0.699	0.258	0.043	0.003
LCM-36	8	63.25	23.29	0.42	4.37	0.17	8.26	0.98	100.73	0.730	0.213	0.057	0.003
LCM-36	8	63.03	23.54	0.36	4.56	0.23	8.20	0.95	100.87	0.723	0.222	0.055	0.004
LCM-36	8	62.74	23.89	0.45	4.64	0.20	7.99	0.96	100.87	0.714	0.229	0.057	0.004
LCM-36	8	60.22	25.03	0.38	6.71	0.08	6.92	0.54	99.88	0.630	0.338	0.032	0.001
LCM-36	8	59.43	25.35	0.41	7.01	0.08	6.89	0.52	99.68	0.620	0.349	0.031	0.001
LCM-36	8	59.84	25.33	0.54	7.14	0.08	6.70	0.50	100.13	0.611	0.360	0.030	0.001
LCM-36	9	59.36	26.50	0.42	7.37	0.09	6.94	0.43	101.10	0.614	0.361	0.025	0.002
LCM-36	9	58.97	26.63	0.38	7.60	0.07	6.64	0.44	100.72	0.597	0.377	0.026	0.001
LCM-36	9	59.25	26.59	0.38	7.68	0.04	6.70	0.41	101.05	0.598	0.378	0.024	0.001
LCM-36	9	58.34	25.55	0.46	7.99	0.08	6.48	0.42	99.32	0.580	0.395	0.025	0.001
LCM-36	10	63.76	23.08	0.27	3.79	0.00	8.44	1.25	100.59	0.743	0.185	0.073	0.000
LCM-36	10	64.17	23.25	0.17	3.79	0.03	8.27	1.25	100.95	0.739	0.187	0.074	0.001
LCM-36	10	62.93	22.74	0.40	4.28	0.24	8.07	1.16	99.81	0.721	0.211	0.068	0.004
LCM-36	10	63.20	23.77	0.19	4.66	0.05	8.18	0.98	101.03	0.718	0.226	0.056	0.001
LCM-36	11	69.24	20.17	0.24	0.01	0.00	11.47	0.15	101.29	0.991	0.001	0.008	0.000
LCM-36	11	67.80	19.87	0.51	0.03	0.01	11.47	0.08	99.76	0.994	0.001	0.004	0.000
LCM-36	11	68.83	19.85	0.69	0.03	0.00	11.32	0.15	100.86	0.990	0.001	0.008	0.000
LCM-36	12	60.54	25.45	0.57	6.19	0.12	7.39	0.57	100.82	0.661	0.306	0.034	0.002
LCM-36	12	60.46	25.78	0.49	6.78	0.08	7.14	0.55	101.27	0.635	0.333	0.032	0.001
LCM-36	12	59.49	26.16	0.51	7.41	0.10	6.96	0.43	101.05	0.614	0.361	0.025	0.002
LCM-36		66.49	19.08	0.42	0.22	0.00	6.95	7.01	100.16	0.595	0.011	0.395	0.000
LCM-36		66.57	19.24	0.41	0.17	0.05	6.94	7.32	100.70	0.586	0.008	0.406	0.001
LCM-36		67.11	19.30	0.41	0.17	0.00	6.75	7.12	100.86	0.586	0.008	0.406	0.000
LCM-36		63.47	19.91	0.18	0.64	1.79	4.34	9.60	99.93	0.395	0.032	0.574	0.032
LCM-36		63.53	19.59	0.24	0.64	1.44	4.34	9.81	99.58	0.389	0.032	0.579	0.025
LCM-36		66.15	19.25	0.33	0.31	0.05	6.94	6.93	99.97	0.595	0.015	0.391	0.001
LCM-36		67.32	19.31	0.40	0.22	0.00	7.00	6.60	100.86	0.611	0.011	0.379	0.000
LCM-36		66.81	19.40	0.39	0.22	0.03	7.24	6.92	101.01	0.608	0.010	0.382	0.001
LCM-36		67.04	19.49	0.37	0.24	0.00	7.13	6.76	101.03	0.609	0.011	0.380	0.000
LCM-36		66.95	19.49	0.44	0.21	0.04	7.05	7.12	101.29	0.595	0.010	0.395	0.001
LCM-36		67.35	19.68	0.42	0.22	0.07	6.86	6.91	101.49	0.595	0.011	0.395	0.001
LCM-36		63.44	20.18	0.20	0.67	1.83	4.29	9.58	100.17	0.391	0.034	0.575	0.033
LCM-36		63.62	19.82	0.23	0.62	1.31	4.33	9.72	99.65	0.391	0.031	0.578	0.023
LCM-37	1	57.55	26.04	0.39	7.63	0.04	6.93	0.47	99.05	0.605	0.368	0.027	0.001
LCM-37	2	64.92	19.16	0.05	0.24	0.07	4.17	10.68	99.29	0.368	0.012	0.620	0.001
LCM-37	2	64.98	19.23	0.06	0.24	0.08	4.08	10.69	99.35	0.363	0.012	0.626	0.001
LCM-37	2	65.42	19.07	0.04	0.25	0.06	4.10	10.75	99.69	0.363	0.012	0.625	0.001
LCM-37	3	61.81	23.69	0.24	4.45	0.09	7.63	2.10	100.01	0.665	0.214	0.120	0.002
LCM-37	3	61.76	23.46	0.14	4.54	0.12	7.42	2.01	99.44	0.660	0.223	0.117	0.002
LCM-37	3	61.64	24.27	0.44	5.11	0.23	7.58	0.89	100.17	0.690	0.257	0.053	0.004
LCM-37	4	62.96	23.12	0.19	3.78	0.01	8.69	1.18	99.92	0.752	0.181	0.067	0.000
LCM-37	4	63.09	23.53	0.29	3.86	0.00	8.65	1.15	100.56	0.750	0.185	0.066	0.000
LCM-37	4	62.31	24.14	0.22	3.88	0.00	8.55	1.04	100.13	0.752	0.188	0.060	0.000
LCM-37	5	60.85	23.98	0.47	5.58	0.16	7.29	0.80	99.12	0.669	0.283	0.048	0.003

LCM-37	5	59.53	25.33	0.33	6.36	0.24	6.92	1.22	99.92	0.616	0.313	0.071	0.004
LCM-37	5	59.30	25.12	0.30	6.45	0.25	7.01	1.23	99.65	0.616	0.313	0.071	0.004
LCM-37	5	59.05	25.20	0.30	6.49	0.22	6.88	1.24	99.39	0.610	0.318	0.072	0.004
LCM-37	6	59.10	26.01	0.40	7.12	0.05	7.12	0.49	100.30	0.625	0.346	0.029	0.001
LCM-37	6	59.20	26.14	0.36	7.25	0.07	7.09	0.49	100.59	0.621	0.351	0.028	0.001
LCM-37	6	58.95	26.18	0.31	7.37	0.07	6.92	0.48	100.27	0.612	0.360	0.028	0.001
LCM-37	7	68.03	19.81	0.34	0.06	0.03	11.44	0.23	99.95	0.984	0.003	0.013	0.001
LCM-37	7	67.94	19.66	0.31	0.56	0.05	10.32	1.75	100.60	0.876	0.026	0.098	0.001
LCM-37	7	67.14	19.46	0.30	1.38	0.05	10.79	0.49	99.60	0.908	0.064	0.027	0.001
LCM-37	7	61.08	23.63	0.38	4.96	0.25	7.97	0.93	99.19	0.704	0.242	0.054	0.004
LCM-37	8	60.55	24.08	0.37	5.84	0.21	7.36	0.78	99.18	0.663	0.291	0.046	0.004
LCM-37	8	60.37	24.74	0.38	6.10	0.13	7.37	0.67	99.76	0.659	0.302	0.040	0.002
LCM-37	8	57.38	27.19	0.32	8.47	0.02	6.18	0.51	100.08	0.552	0.418	0.030	0.000
LCM-37	8	56.86	27.05	0.22	8.56	0.01	6.22	0.53	99.44	0.551	0.419	0.031	0.000
LCM-37	8	57.47	27.35	0.27	8.55	0.02	6.15	0.50	100.30	0.549	0.422	0.029	0.000
LCM-37	9	64.37	22.45	0.19	3.30	0.00	8.49	1.55	100.37	0.749	0.161	0.090	0.000
LCM-37	9	64.17	22.61	0.25	3.38	0.02	8.59	1.61	100.62	0.746	0.162	0.092	0.000
LCM-37	9	63.77	22.47	0.28	3.31	0.00	8.36	1.63	99.82	0.742	0.162	0.095	0.000
LCM-37	10	60.87	24.10	0.45	5.46	0.14	7.65	0.85	99.51	0.681	0.269	0.050	0.002
LCM-37	10	60.42	25.35	0.28	6.54	0.08	7.02	0.87	100.56	0.627	0.322	0.051	0.002
LCM-37	10	59.73	25.62	0.38	6.74	0.09	6.97	0.81	100.33	0.621	0.332	0.047	0.002
LCM-37	10	59.13	26.11	0.36	7.35	0.07	6.71	0.70	100.41	0.597	0.362	0.041	0.001
LCM-37	11	67.44	20.19	0.09	0.21	0.00	11.23	0.22	99.38	0.978	0.010	0.012	0.000
LCM-37	11	67.90	20.40	0.14	0.21	0.00	11.21	0.28	100.13	0.974	0.010	0.016	0.000
LCM-37	11	67.88	20.24	0.09	0.24	0.05	11.35	0.20	100.03	0.977	0.011	0.011	0.001
LCM-37	12	60.03	25.68	0.21	6.62	0.04	7.07	0.66	100.29	0.634	0.328	0.039	0.001
LCM-37	12	59.22	26.21	0.13	7.12	0.03	7.09	0.58	100.38	0.621	0.345	0.034	0.001
LCM-37	12	59.24	26.14	0.19	7.09	0.02	6.99	0.63	100.31	0.617	0.346	0.037	0.000
LCM-37	13	61.64	23.82	0.49	4.89	0.11	8.13	0.88	99.95	0.713	0.237	0.051	0.002
LCM-37	13	61.23	23.99	0.40	5.07	0.19	8.07	0.84	99.81	0.706	0.245	0.048	0.003
LCM-37	13	61.15	23.98	0.37	5.20	0.17	7.92	0.83	99.61	0.698	0.253	0.048	0.003
LCM-37	14	58.60	25.84	0.31	7.23	0.09	6.88	0.51	99.46	0.614	0.356	0.030	0.002
LCM-37	14	58.39	26.15	0.48	7.47	0.08	6.81	0.47	99.83	0.605	0.367	0.028	0.001
LCM-37	14	58.60	25.91	0.45	7.44	0.06	6.78	0.47	99.71	0.605	0.367	0.028	0.001
LCM-37	15	63.63	22.54	0.01	3.46	0.01	8.50	1.49	99.65	0.746	0.168	0.086	0.000
LCM-37	15	63.68	22.84	0.23	3.88	0.03	8.48	1.38	100.51	0.736	0.186	0.079	0.000
LCM-37	15	63.39	23.10	0.13	3.91	0.01	8.36	1.28	100.17	0.736	0.190	0.074	0.000
LCM-37	fel10	60.30	24.15	0.33	5.60	0.20	7.74	0.81	99.14	0.681	0.272	0.047	0.003
LCM-38	1	62.55	23.25	0.37	4.17	0.26	8.42	1.07	100.07	0.737	0.202	0.062	0.005
LCM-38	1	62.85	23.40	0.40	4.32	0.25	8.25	1.07	100.54	0.728	0.210	0.062	0.004
LCM-38	1	62.57	23.68	0.40	4.48	0.25	8.28	0.93	100.58	0.728	0.218	0.054	0.004
LCM-38	2	64.52	18.94	0.01	0.00	0.10	0.79	15.99	100.36	0.070	0.000	0.930	0.002
LCM-38	2	65.14	19.00	0.17	0.00	0.11	2.04	14.36	100.81	0.177	0.000	0.823	0.002
LCM-38	2	64.50	19.02	0.06	0.00	0.08	1.52	14.91	100.09	0.134	0.000	0.866	0.001
LCM-38	3	59.73	24.58	0.44	5.83	0.15	7.54	0.81	99.07	0.668	0.285	0.047	0.003
LCM-38	3	60.16	25.15	0.42	6.28	0.14	7.48	0.57	100.20	0.660	0.306	0.033	0.003
LCM-38	3	60.39	25.03	0.44	6.28	0.13	7.48	0.56	100.31	0.661	0.307	0.033	0.002
LCM-38	4	69.00	19.86	0.04	0.05	0.02	11.57	0.06	100.59	0.994	0.003	0.003	0.000
LCM-38	4	68.62	20.11	0.05	0.09	0.03	11.53	0.10	100.52	0.990	0.004	0.006	0.000
LCM-38	4	68.64	19.92	0.00	0.14	0.02	11.46	0.10	100.29	0.988	0.007	0.005	0.000
LCM-38	4	68.24	20.05	0.05	0.23	0.02	11.65	0.18	100.41	0.979	0.011	0.010	0.000
LCM-38	5	68.05	19.92	0.01	0.07	0.00	11.60	0.06	99.71	0.993	0.003	0.003	0.000
LCM-38	6	62.96	18.80	0.00	0.00	1.08	0.65	15.81	99.31	0.058	0.000	0.941	0.019
LCM-38	6	63.82	19.10	0.01	0.04	0.87	2.04	13.58	99.47	0.186	0.002	0.812	0.016
LCM-38	7	63.72	19.23	0.00	0.00	1.04	1.06	15.02	100.08	0.097	0.000	0.903	0.019
LCM-38	7	66.49	19.42	0.58	0.43	0.10	8.82	3.42	99.26	0.780	0.021	0.199	0.002
LCM-38	7	66.43	19.95	0.95	0.64	0.11	8.43	3.14	99.65	0.777	0.032	0.190	0.002
LCM-38	7	65.59	20.99	0.51	1.70	0.32	8.91	2.35	100.37	0.782	0.082	0.136	0.006
LCM-38	8	65.86	19.61	0.46	0.77	0.18	7.47	5.00	99.34	0.668	0.038	0.294	0.003
LCM-38	8	65.96	19.61	0.37	0.79	0.19	7.30	5.14	99.36	0.656	0.039	0.304	0.003
LCM-38	8	66.37	19.89	0.56	0.84	0.15	8.54	3.53	99.88	0.754	0.041	0.205	0.003
LCM-38	9	68.55	20.02	0.00	0.09	0.05	11.62	0.15	100.47	0.987	0.004	0.008	0.001
LCM-38	9	68.40	19.87	0.05	0.10	0.04	11.69	0.08	100.23	0.991	0.005	0.004	0.001
LCM-38	9	68.01	19.87	0.01	0.33	0.06	11.47	0.14	99.89	0.977	0.016	0.008	0.001
LCM-38	10	68.66	20.08	0.05	0.06	0.00	11.68	0.08	100.61	0.993	0.003	0.005	0.000
LCM-38	10	67.56	19.86	0.00	0.08	0.05	9.01	4.07	100.62	0.768	0.004	0.228	0.001
LCM-39	9	69.10	19.27	0.27	0.13	0.02	10.99	0.67	100.46	0.956	0.006	0.038	0.000
LCM-39	9	65.57	21.37	0.39	2.84	0.13	9.06	1.59	100.95	0.776	0.134	0.089	0.002
LCM-39	10	65.70	20.25	0.28	1.78	0.62	8.27	3.47	100.38	0.717	0.085	0.198	0.011
LCM-39	10	65.65	20.45	0.21	2.03	0.83	8.16	3.36	100.69	0.710	0.098	0.192	0.014
LCM-39	11	62.09	23.28	0.37	5.23	0.12	7.79	1.00	99.89	0.687	0.255	0.058	0.002
LCM-39	11	61.65	23.98	0.41	5.87	0.16	7.80	0.87	100.73	0.671	0.279	0.049	0.003
LCM-39	11	61.18	23.79	0.44	5.82	0.07	7.55	0.87	99.73	0.666	0.283	0.051	0.001
LCM-39		63.54	19.24	0.03	0.11	2.19	2.36	12.40	99.87	0.223	0.006	0.771	0.040

LCM-39	64.58	19.37	0.00	0.12	2.36	2.32	12.40	101.15	0.220	0.006	0.773	0.043	
LCM-39	67.63	19.15	0.34	0.24	0.08	6.92	6.59	100.94	0.608	0.012	0.381	0.001	
LCM-39	64.72	19.36	0.18	0.52	0.55	4.27	10.22	99.81	0.378	0.025	0.596	0.010	
LCM-39	65.56	19.50	0.12	0.53	0.14	4.37	10.14	100.36	0.385	0.026	0.589	0.003	
LCM-39	65.72	19.58	0.16	0.52	0.17	4.36	9.97	100.48	0.389	0.026	0.585	0.003	
LCM-39	65.66	19.19	0.11	0.54	0.19	4.40	10.19	100.27	0.386	0.026	0.588	0.003	
LCM-39	65.75	19.16	0.13	0.55	0.17	4.42	10.23	100.40	0.386	0.026	0.588	0.003	
LCM-39	64.56	19.57	0.20	0.54	1.18	4.10	10.06	100.21	0.373	0.027	0.601	0.021	
LCM-39	64.28	19.44	0.19	0.59	1.03	4.19	9.95	99.67	0.379	0.029	0.592	0.019	
LCM-39	65.79	20.78	0.45	1.52	0.95	8.74	2.86	101.08	0.762	0.073	0.164	0.016	
LCM-39	65.43	20.58	0.29	1.57	0.75	8.61	2.91	100.14	0.756	0.076	0.168	0.013	
LCM-39	65.45	20.51	0.38	1.57	0.78	8.63	2.88	100.20	0.757	0.076	0.166	0.014	
LCM-39	66.32	20.81	0.42	1.56	0.67	8.73	2.63	101.13	0.771	0.076	0.153	0.012	
LCM-39	65.40	20.81	0.35	1.60	0.82	8.53	2.89	100.40	0.754	0.078	0.168	0.014	
LCM-39	66.09	20.95	0.25	1.61	0.74	8.68	2.77	101.10	0.762	0.078	0.160	0.013	
LCM-39	65.65	20.99	0.38	1.66	0.85	8.62	2.81	100.96	0.757	0.081	0.162	0.015	
LCM-39	65.77	20.96	0.24	1.79	0.87	8.52	2.68	100.82	0.756	0.088	0.156	0.015	
LCM-39	64.87	20.97	0.32	1.83	0.91	8.64	2.64	100.19	0.759	0.089	0.153	0.016	
LCM-39	64.13	20.77	0.39	1.87	0.84	8.82	2.64	99.45	0.761	0.089	0.150	0.014	
LCM-39	64.02	21.32	0.28	2.28	0.75	8.66	2.33	99.63	0.756	0.110	0.134	0.013	
LCM-39	65.10	21.72	0.33	2.48	0.53	8.86	1.81	100.81	0.776	0.120	0.104	0.009	
LCM-39	64.90	21.58	0.22	2.77	0.01	9.28	1.38	100.14	0.792	0.131	0.078	0.000	
LCM-39	62.70	23.34	0.12	4.57	0.15	8.71	0.73	100.32	0.744	0.216	0.041	0.003	
LCM-39	61.15	23.90	0.43	5.44	0.15	8.01	0.73	99.79	0.697	0.261	0.042	0.003	
LCM-39	60.60	23.91	0.41	5.75	0.12	7.87	0.65	99.31	0.686	0.277	0.037	0.002	
LCM-39	60.60	24.45	0.37	5.89	0.16	7.83	0.65	99.94	0.680	0.283	0.037	0.003	
LCM-39	60.77	24.54	0.29	6.08	0.12	7.63	0.84	100.27	0.661	0.291	0.048	0.002	
LCM-39	60.20	24.75	0.32	6.17	0.15	7.65	0.81	100.05	0.660	0.294	0.046	0.003	
LCM-39	60.01	24.81	0.34	6.48	0.14	7.33	0.70	99.81	0.645	0.315	0.040	0.002	
LCM-39	59.31	25.04	0.45	6.65	0.14	7.44	0.70	99.72	0.643	0.318	0.040	0.002	
LCM-39	61.00	25.60	0.12	6.58	0.04	7.23	0.65	101.22	0.640	0.322	0.038	0.001	
LCM-39	59.62	25.15	0.34	6.83	0.11	7.17	0.65	99.87	0.631	0.332	0.038	0.002	
LCM-39	59.75	25.36	0.38	6.95	0.04	7.25	0.68	100.40	0.629	0.333	0.039	0.001	
LCM-39	59.57	25.36	0.30	6.99	0.10	7.10	0.66	100.07	0.623	0.339	0.038	0.002	
LCM-39	59.37	25.34	0.40	7.02	0.10	7.08	0.66	99.97	0.621	0.340	0.038	0.002	
LCM-39	59.68	25.66	0.33	7.06	0.11	7.08	0.66	100.57	0.620	0.342	0.038	0.002	
LCM-39	58.61	25.67	0.46	7.34	0.12	6.93	0.88	100.00	0.599	0.351	0.050	0.002	
LCM-40	3a	60.55	24.17	0.52	5.59	0.23	7.77	0.95	99.78	0.677	0.269	0.054	0.004
LCM-40	3b	61.38	23.92	0.52	5.23	0.24	7.75	1.02	100.05	0.685	0.255	0.059	0.004
LCM-40	3c	60.76	24.33	0.41	5.62	0.23	7.67	0.89	99.91	0.675	0.273	0.052	0.004
LCM-40	4a	61.33	24.13	0.38	5.47	0.21	7.61	0.99	100.11	0.674	0.268	0.057	0.004
LCM-40	4b	60.90	23.85	0.56	5.30	0.22	7.80	0.97	99.60	0.686	0.258	0.056	0.004
LCM-40	4c	61.19	24.11	0.43	5.44	0.21	7.59	0.96	99.92	0.676	0.268	0.056	0.004
LCM-40	6a	60.10	24.58	0.49	5.92	0.23	7.42	0.86	99.60	0.659	0.291	0.050	0.004
LCM-40	6b	60.28	24.24	0.46	5.62	0.18	7.71	0.94	99.41	0.674	0.272	0.054	0.003
LCM-40	6c	60.57	24.35	0.34	5.72	0.22	7.55	0.91	99.67	0.668	0.279	0.053	0.004
LCM-40	7a	60.86	24.36	0.44	5.50	0.17	7.77	0.95	100.05	0.680	0.266	0.054	0.003
LCM-40	7b	60.69	24.30	0.52	5.61	0.16	7.63	0.91	99.82	0.673	0.274	0.053	0.003
LCM-40	7c	60.64	24.87	0.46	5.89	0.18	7.48	0.84	100.35	0.662	0.289	0.049	0.003
LCM-40	8a	69.24	18.99	0.25	0.14	0.05	10.92	0.38	99.96	0.971	0.007	0.022	0.001
LCM-40	8c	66.49	20.37	0.61	0.20	0.00	11.28	0.18	99.14	0.980	0.010	0.011	0.000
LCM-40	9b	61.77	24.29	0.45	5.55	0.21	7.69	0.97	100.93	0.675	0.269	0.056	0.004
LCM-40	9c	61.14	24.18	0.45	5.41	0.21	7.71	1.00	100.10	0.679	0.263	0.058	0.004
LCM-9		60.06	24.24	0.67	5.66	0.09	7.36	0.86	98.94	0.666	0.283	0.051	0.002
LCM-9		60.43	24.75	0.52	6.25	0.14	7.17	0.78	100.05	0.644	0.310	0.046	0.003
LCM-9		57.23	26.31	0.42	8.11	0.05	6.64	0.46	99.21	0.581	0.392	0.026	0.001
LCM-9		57.13	26.72	0.38	8.35	0.04	6.44	0.40	99.46	0.569	0.408	0.023	0.001
LCM-9		57.36	26.74	0.31	8.37	0.04	6.28	0.67	99.77	0.553	0.408	0.039	0.001
LCM-9		57.17	26.30	0.37	8.45	0.09	6.32	0.65	99.35	0.554	0.409	0.038	0.002
LCM-9		57.17	26.91	0.34	8.37	0.05	6.39	0.43	99.65	0.565	0.410	0.025	0.001
LCM-9		56.50	26.62	0.39	8.51	0.03	6.39	0.42	98.86	0.562	0.414	0.024	0.001
LCM-9		58.00	26.85	0.35	8.43	0.02	6.33	0.40	100.38	0.563	0.414	0.023	0.000
LCM-9		56.60	26.72	0.45	8.58	0.02	6.26	0.39	99.01	0.556	0.421	0.023	0.000
LCM-9		56.35	26.58	0.26	8.84	0.08	6.30	0.38	98.80	0.551	0.427	0.022	0.001
LCM-9		56.07	27.79	0.43	9.42	0.02	5.58	0.32	99.62	0.508	0.473	0.019	0.000
LCM-9		54.47	27.94	0.80	10.14	0.08	5.11	0.77	99.30	0.455	0.500	0.045	0.001
LCM-9		54.49	27.90	0.62	10.13	0.02	4.98	0.77	98.91	0.450	0.505	0.046	0.000
LCM-9		52.00	30.07	1.02	12.51	0.00	3.76	0.38	99.73	0.344	0.633	0.023	0.000
LCM-9		50.52	30.37	0.93	13.38	0.02	3.53	0.32	99.07	0.317	0.664	0.019	0.000
DQW-21		67.58	19.06	0.37	0.18	0.01	6.51	7.23	100.94	0.573	0.009	0.419	0.000
DQW-21		67.19	19.13	0.30	0.19	0.06	6.45	7.13	100.45	0.573	0.009	0.417	0.001
DQW-21		66.85	18.87	0.31	0.20	0.05	6.56	7.12	99.96	0.578	0.010	0.413	0.001
DQW-21		67.68	19.52	0.24	0.20	0.02	6.67	7.09	101.43	0.583	0.010	0.408	0.000

DQW-21	66.93	18.96	0.25	0.21	0.07	6.79	7.12	100.32	0.586	0.010	0.404	0.001
DQW-21	67.07	19.04	0.35	0.21	0.05	6.79	6.95	100.47	0.591	0.010	0.399	0.001
DQW-21	67.46	19.17	0.35	0.22	0.06	6.80	6.84	100.90	0.595	0.011	0.394	0.001
DQW-21	67.70	19.03	0.28	0.22	0.02	7.02	6.50	100.77	0.615	0.011	0.375	0.000
DQW-21	67.24	18.92	0.46	0.22	0.04	6.76	6.99	100.63	0.589	0.011	0.401	0.001
DQW-21	67.64	19.04	0.29	0.23	0.02	6.78	6.79	100.79	0.596	0.011	0.393	0.000
DQW-21	67.21	18.84	0.28	0.23	0.05	6.65	6.95	100.22	0.586	0.011	0.403	0.001
DQW-21	67.28	19.04	0.25	0.24	0.03	6.74	6.90	100.48	0.591	0.011	0.398	0.000
DQW-21	67.41	19.30	0.22	0.24	0.01	6.83	6.75	100.76	0.599	0.011	0.389	0.000
DQW-21	67.10	19.13	0.20	0.24	0.05	6.67	7.15	100.53	0.580	0.012	0.409	0.001
DQW-21	67.08	18.97	0.37	0.24	0.01	6.02	8.12	100.81	0.523	0.012	0.465	0.000
DQW-21	67.68	19.15	0.40	0.24	0.06	6.79	6.76	101.08	0.597	0.012	0.391	0.001
DQW-21	67.03	18.97	0.35	0.25	0.06	6.82	6.83	100.32	0.596	0.012	0.392	0.001
DQW-21	67.65	19.42	0.28	0.26	0.01	6.99	6.54	101.14	0.611	0.012	0.376	0.000
DQW-21	67.51	19.25	0.24	0.25	0.03	6.67	6.78	100.72	0.592	0.012	0.396	0.001
DQW-21	67.20	19.07	0.28	0.27	0.06	6.75	6.69	100.31	0.597	0.013	0.390	0.001
DQW-21	66.57	19.16	0.17	0.28	0.21	6.07	7.58	100.02	0.541	0.014	0.445	0.004
DQW-21	67.14	19.50	0.38	0.29	0.12	7.02	6.57	101.01	0.610	0.014	0.376	0.002
DQW-21	66.67	19.49	0.24	0.32	0.18	7.11	6.50	100.51	0.615	0.015	0.370	0.003
DQW-21	67.00	19.22	0.33	0.34	0.20	7.02	6.45	100.55	0.613	0.016	0.371	0.003
DQW-21	66.72	19.26	0.31	0.36	0.14	7.14	6.16	100.11	0.627	0.018	0.356	0.003
DQW-21	65.38	19.79	0.25	0.58	1.40	5.69	7.58	100.65	0.517	0.029	0.454	0.025
DQW-21	65.90	21.71	0.27	2.52	0.09	9.08	1.59	101.17	0.788	0.121	0.091	0.002
DQW-21	63.98	22.17	0.22	3.15	0.29	8.51	1.83	100.15	0.743	0.152	0.105	0.005
DQW-21	64.48	22.92	0.25	3.51	0.22	8.94	0.98	101.30	0.776	0.168	0.056	0.004
DQW-21	64.11	22.90	0.26	3.93	0.28	8.36	1.40	101.24	0.730	0.190	0.081	0.005
DQW-21	62.69	22.86	0.29	4.17	0.25	8.52	1.18	99.95	0.735	0.199	0.067	0.004
DQW-21	61.60	23.92	0.33	5.15	0.13	7.87	1.05	100.05	0.690	0.250	0.060	0.002
DQW-21	60.92	24.22	0.33	5.49	0.17	7.88	0.95	99.97	0.683	0.263	0.054	0.003
DQW-21	60.70	24.77	0.34	6.03	0.24	7.42	1.00	100.50	0.650	0.292	0.058	0.004
DQW-21	61.32	24.92	0.43	5.97	0.23	7.31	1.02	101.20	0.648	0.293	0.059	0.004
DQW-21	60.71	24.74	0.45	6.08	0.23	7.35	1.01	100.57	0.646	0.295	0.059	0.004
DQW-21	60.02	25.12	0.39	6.57	0.33	7.30	0.90	100.62	0.634	0.315	0.051	0.006
DQW-21	57.68	25.91	0.53	8.08	0.10	6.33	0.81	99.43	0.559	0.394	0.047	0.002
DQW-21	58.69	26.91	0.35	8.48	0.00	6.36	0.49	101.28	0.559	0.412	0.028	0.000

Electron microprobe analyses of biotite from volcanic ash beds in the Morrison Formation (wt%)

Sample	SiO ₂	TiO ₂	Al ₂ O ₃	FeO	MnO	MgO	CaO	Na ₂ O	K ₂ O	BaO	F	Cl	Sum	H ₂ O*	Total
LCM-1	36.33	5.00	13.75	15.86	0.27	13.70	0.01	0.47	8.82	1.33	0.48	0.17	95.96	3.59	99.54
LCM-1	36.56	4.97	13.88	16.09	0.25	13.93	0.01	0.49	8.97	1.18	0.58	0.18	96.80	3.58	100.38
LCM-1	36.74	5.02	13.78	16.67	0.25	14.35	0.00	0.39	9.19	0.54	0.74	0.21	97.53	3.55	101.08
LCM-1	36.58	4.92	13.71	16.51	0.22	14.33	0.01	0.41	9.28	0.52	1.00	0.17	97.21	3.41	100.62
LCM-1	37.01	4.73	13.80	15.64	0.23	14.30	0.00	0.45	9.00	0.61	0.59	0.17	96.24	3.59	99.83
LCM-1	37.56	4.80	13.58	15.53	0.29	14.29	0.04	0.42	9.15	0.66	0.40	0.19	96.68	3.68	100.36
LCM-1	36.81	4.40	14.14	14.73	0.27	14.83	0.01	0.49	9.10	0.95	1.50	0.05	96.64	3.19	99.83
LCM-1	37.30	4.61	14.46	14.66	0.23	15.09	0.00	0.44	9.11	0.97	1.61	0.07	97.86	3.19	101.05
LCM-1	37.06	4.89	13.78	15.96	0.27	14.24	0.00	0.42	9.24	0.43	0.47	0.21	96.73	3.65	100.38
LCM-1	36.54	4.83	13.62	15.64	0.24	14.07	0.01	0.46	9.04	0.61	0.60	0.15	95.50	3.55	99.05
LCM-1	36.49	4.78	13.69	15.80	0.32	14.12	0.00	0.41	9.17	0.55	0.55	0.17	95.76	3.58	99.34
LCM-1	37.03	4.89	13.79	16.41	0.26	14.42	0.00	0.44	9.29	0.55	0.85	0.19	97.70	3.50	101.20
LCM-1	36.86	4.89	13.79	16.08	0.28	14.19	0.00	0.40	9.20	0.54	0.89	0.19	96.88	3.45	100.33
LCM-1	36.50	4.81	13.43	15.09	0.23	14.63	0.03	0.50	9.07	0.67	0.82	0.10	95.51	3.46	98.97
LCM-1	37.08	4.79	13.54	15.18	0.43	14.87	0.02	0.48	9.23	0.59	0.63	0.10	96.64	3.61	100.25
LCM-1	37.13	4.81	13.99	15.42	0.47	14.79	0.02	0.49	9.00	0.74	0.70	0.11	97.36	3.60	100.96
LCM-1	36.99	4.70	13.70	15.36	0.24	14.49	0.00	0.47	8.91	0.72	0.66	0.17	96.08	3.55	99.63
LCM-1	37.85	4.66	14.10	12.42	0.08	17.00	0.00	0.52	9.23	0.55	3.00	0.17	98.27	2.55	100.82
LCM-1	37.92	4.67	14.16	10.92	0.06	17.69	0.02	0.47	9.30	0.58	3.10	0.19	97.72	2.49	100.21
LCM-1	36.68	4.76	13.93	15.90	0.17	14.62	0.00	0.42	9.05	0.90	1.08	0.18	97.19	3.38	100.57
LCM-1	36.98	4.66	13.67	15.79	0.19	14.27	0.00	0.38	8.96	0.64	0.77	0.18	96.10	3.49	99.59
LCM-1	36.88	4.62	13.61	15.36	0.24	14.61	0.00	0.56	9.12	0.46	0.67	0.15	95.96	3.55	99.51
LCM-1	36.88	4.62	13.61	15.36	0.24	14.61	0.00	0.56	9.12	0.46	1.79	0.25	96.68	2.99	99.67
LCM-1	36.77	4.73	13.84	15.22	0.24	14.65	0.01	0.53	8.70	1.02	0.71	0.10	96.19	3.55	99.74
LCM-1	36.42	4.57	13.65	15.60	0.30	14.40	0.00	0.50	8.79	0.80	1.13	0.10	95.75	3.32	99.07
LCM-1	36.50	4.61	13.86	15.44	0.34	14.45	0.00	0.55	8.76	1.03	0.82	0.11	96.11	3.48	99.58
LCM-1	36.18	4.60	13.72	15.76	0.25	14.07	0.01	0.55	8.74	0.86	0.97	0.09	95.37	3.38	98.75
LCM-1	36.63	4.69	13.61	15.50	0.26	14.82	0.00	0.56	8.82	1.17	0.98	0.11	96.70	3.42	100.12
LCM-1	37.99	4.51	14.05	14.27	0.28	15.44	0.02	0.56	8.91	0.83	1.41	0.10	97.73	3.29	101.02
LCM-1	36.75	4.74	14.11	15.94	0.35	14.87	0.00	0.52	8.89	0.99	0.72	0.10	97.66	3.60	101.26
LCM-1	35.87	4.67	13.79	15.72	0.20	13.92	0.00	0.55	8.99	1.00	0.95	0.10	95.33	3.36	98.69
LCM-1	37.68	3.96	14.37	14.24	0.34	15.39	0.00	0.36	8.28	0.76	0.53	0.09	95.75	3.70	99.45
LCM-1	37.89	3.96	14.41	14.44	0.17	15.62	0.00	0.70	8.72	0.53	0.53	0.11	96.83	3.72	100.55
LCM-3	36.82	4.89	13.98	14.30	0.36	15.05	0.04	0.46	8.31	0.92	0.35	0.08	95.37	3.74	99.11
LCM-3	36.94	4.92	14.04	14.16	0.31	15.14	0.04	0.47	8.30	1.05	0.41	0.08	95.66	3.72	99.38
LCM-3	38.26	4.14	13.92	12.35	0.28	16.88	0.08	0.61	8.01	1.07	0.77	0.05	96.07	3.63	99.70
LCM-3	38.25	4.21	13.79	12.37	0.34	16.97	0.05	0.61	8.07	1.13	0.85	0.07	96.33	3.59	99.92
LCM-3	37.56	4.65	14.12	13.49	0.19	15.47	0.04	0.64	8.10	0.87	0.39	0.08	95.41	3.74	99.15
LCM-3	37.78	4.30	13.51	11.71	0.33	16.73	0.04	0.67	8.22	1.13	0.94	0.05	95.00	3.48	98.48
LCM-3	37.51	4.58	13.84	14.30	0.33	14.56	0.00	0.43	8.61	1.06	0.45	0.07	95.52	3.67	99.19
LCM-3	36.44	4.66	13.86	14.48	0.36	14.25	0.06	0.44	8.52	1.01	0.38	0.06	94.35	3.65	98.01
LCM-5	35.90	3.50	13.95	19.36	0.44	12.60	0.06	0.24	8.09	0.33	0.37	0.08	94.74	3.67	98.41
LCM-5	36.83	3.77	14.28	17.83	0.42	12.79	0.03	0.13	8.44	0.27	0.47	0.11	95.13	3.64	98.77
LCM-5	36.71	4.31	14.81	13.74	0.34	15.23	0.05	0.62	8.48	1.06	0.40	0.09	95.65	3.72	99.37
LCM-5	36.85	4.22	14.65	13.88	0.32	15.32	0.04	0.53	8.41	1.10	0.33	0.08	95.57	3.76	99.33
LCM-5	36.55	3.80	14.42	15.32	0.35	14.07	0.00	0.43	8.82	1.06	0.30	0.08	95.04	3.71	98.75
LCM-5	37.01	3.66	14.57	14.89	0.33	14.40	0.01	0.43	8.77	1.25	0.29	0.08	95.56	3.74	99.30
LCM-5	36.52	3.83	14.46	14.94	0.29	14.22	0.01	0.42	8.70	1.10	0.25	0.09	94.71	3.72	98.43
LCM-5	36.73	3.78	14.72	15.47	0.31	14.40	0.00	0.44	8.77	1.11	0.35	0.07	95.97	3.74	99.71
LCM-5	36.55	4.37	14.41	13.81	0.29	15.19	0.01	0.53	8.66	1.57	0.38	0.08	95.66	3.71	99.37
LCM-5	36.89	4.28	14.39	13.38	0.32	15.40	0.03	0.51	8.61	1.75	0.34	0.08	95.81	3.73	99.54
LCM-5	36.98	4.28	14.31	13.24	0.26	15.37	0.04	0.54	8.39	1.73	0.39	0.06	95.41	3.71	99.12
LCM-5	36.66	4.04	14.97	13.78	0.33	15.60	0.02	0.53	8.41	1.89	0.44	0.04	96.51	3.74	100.25
LCM-5	36.23	4.11	14.49	13.83	0.33	15.31	0.00	0.61	8.68	1.82	0.34	0.04	95.64	3.72	99.36
LCM-5	35.61	4.26	14.26	14.10	0.31	15.34	0.01	0.51	8.61	1.69	0.38	0.05	94.98	3.68	98.66
LCM-5	35.76	4.21	14.49	13.83	0.29	15.52	0.00	0.53	8.63	1.79	0.37	0.04	95.30	3.70	99.00
LCM-5	35.86	4.09	14.60	13.80	0.35	15.64	0.01	0.53	8.56	1.78	0.34	0.03	95.43	3.73	99.16
LCM-5	35.86	4.10	14.50	13.59	0.33	15.31	0.00	0.52	8.69	1.63	0.35	0.04	94.76	3.70	98.46
LCM-6	36.90	5.20	13.74	13.43	0.18	15.81	0.02	0.76	8.54	0.72	0.10	0.08	95.08	3.57	98.65
LCM-6	36.77	5.29	13.63	13.54	0.23	15.87	0.00	0.75	8.49	0.69	0.08	0.08	95.04	3.59	98.63
LCM-6	36.40	5.41	13.67	13.45	0.19	16.00	0.00	0.77	8.66	0.86	0.08	0.08	95.11	3.50	98.61
LCM-6	37.04	5.44	13.59	12.91	0.18	16.04	0.01	0.78	8.69	0.88	0.10	0.08	95.27	3.49	98.76
LCM-6	36.79	5.38	13.89	13.22	0.20	15.38	0.02	0.80	8.53	0.78	0.08	0.08	94.72	3.52	98.24
LCM-6	36.33	5.30	13.51	13.32	0.26	16.08	0.02	0.78	8.84	0.74	0.07	0.07	94.91	3.55	98.46
LCM-6	37.00	5.33	13.76	13.50	0.26	16.37	0.01	0.77	8.73	0.66	0.07	0.07	96.16	3.65	99.81
LCM-6	36.11	5.62	13.59	13.86	0.24	15.46	0.00	0.76	8.66	0.77	0.07	0.07	94.79	3.52	98.31
LCM-6	36.50	5.37	13.51	13.09	0.29	15.86	0.04	0.77	8.64	0.73	0.08	0.08	94.55	3.54	98.09
LCM-9	37.47	5.12	13.34	12.72	0.21	16.36	0.02	0.77	8.65	1.22	1.29	0.05	96.68	3.32	100.00
LCM-9	37.50	5.00	13.19	12.12	0.23	16.52	0.03	0.75	8.65	1.21	1.42	0.06	96.05	3.24	99.29
LCM-9	36.90	4.93	13.53	15.08	0.39	14.60	0.00	0.57	9.00	0.89	0.83	0.14	96.47	3.48	99.95

LCM-9	37.99	4.99	13.50	12.04	0.23	16.25	0.11	0.74	8.21	1.25	1.31	0.07	96.12	3.31	99.43
LCM-9	37.72	5.16	13.58	11.65	0.20	16.70	0.09	0.80	8.32	1.23	1.31	0.06	96.23	3.32	99.55
LCM-9	38.04	4.93	13.14	11.64	0.27	16.70	0.00	0.77	8.69	0.90	1.42	0.07	95.95	3.25	99.20
LCM-9	37.74	4.86	13.18	12.65	0.24	16.64	0.00	0.77	8.69	0.88	1.44	0.05	96.53	3.27	99.80
LCM-9	38.06	5.12	13.50	12.15	0.29	17.06	0.10	0.75	8.34	1.22	1.43	0.05	97.44	3.32	100.76
LCM-9	37.53	5.17	13.69	12.31	0.25	17.14	0.09	0.82	8.31	1.25	1.32	0.05	97.35	3.37	100.72
LCM-9	37.68	5.02	13.45	12.06	0.19	16.82	0.11	0.81	8.18	1.05	1.28	0.04	96.14	3.35	99.49
LCM-9	37.55	4.86	13.60	12.02	0.22	16.32	0.11	0.72	8.05	1.11	1.33	0.06	95.38	3.28	98.66
LCM-9	36.94	5.02	13.24	12.19	0.27	16.63	0.11	0.62	7.94	0.99	1.34	0.10	94.79	3.26	98.05
LCM-9	37.74	4.88	13.32	12.39	0.27	16.47	0.00	0.75	8.59	1.05	1.33	0.06	96.26	3.30	99.56
LCM-9	37.88	4.85	13.20	12.29	0.18	16.67	0.00	0.76	8.59	1.01	1.33	0.07	96.26	3.30	99.56
LCM-9	36.18	4.93	13.65	15.13	0.43	14.18	0.03	0.45	8.44	0.89	0.67	0.12	94.80	3.51	98.31
LCM-13	37.56	4.66	14.48	14.44	0.43	14.81	0.12	0.58	8.48	1.58	0.05	96.51	3.21	99.72	
LCM-13	37.58	4.80	14.26	14.67	0.46	14.87	0.06	0.58	8.90	2.19	0.06	97.49	2.92	100.41	
LCM-13	36.63	5.06	13.93	14.38	0.52	14.61	0.11	0.59	8.20	0.93	0.05	94.61	3.45	98.06	
LCM-13	36.96	4.88	13.77	14.00	0.63	15.33	0.05	0.59	8.34	0.90	0.07	95.12	3.49	98.61	
LCM-13	37.10	4.94	13.77	13.84	0.64	15.47	0.07	0.63	8.32	1.00	0.05	95.38	3.46	98.84	
LCM-13	36.95	4.81	13.89	13.94	0.50	15.52	0.11	0.55	7.91	0.87	0.07	94.73	3.51	98.24	
LCM-13	37.12	5.17	13.96	15.25	0.36	14.76	0.09	0.46	8.13	0.63	0.03	95.68	3.65	99.33	
LCM-13	37.36	4.93	14.23	15.50	0.37	14.53	0.08	0.54	8.37	0.57	0.03	96.26	3.69	99.95	
LCM-13	37.17	4.67	14.49	14.04	0.44	14.84	0.13	0.57	8.51	1.74	0.06	95.92	3.10	99.02	
LCM-13	36.79	4.87	13.60	15.57	0.27	14.20	0.01	0.52	9.32	0.76	0.18	95.72	3.48	99.20	
LCM-13	37.05	4.87	13.51	16.30	0.22	14.48	0.02	0.54	9.35	1.30	0.15	97.20	3.28	100.48	
LCM-14	35.37	5.32	13.62	17.59	0.20	12.71	0.00	0.65	8.80	0.79	0.09	94.78	3.42	98.20	
LCM-14	35.37	5.28	13.35	17.65	0.17	12.76	0.00	0.65	8.88	0.87	0.12	94.71	3.37	98.08	
LCM-14	35.38	5.55	13.78	17.84	0.11	12.49	0.01	0.61	8.71	0.83	0.13	95.05	3.40	98.45	
LCM-14	35.47	5.55	13.81	18.05	0.19	12.37	0.00	0.65	8.90	0.86	0.11	95.58	3.40	98.98	
LCM-14	35.75	5.57	13.67	18.59	0.19	12.50	0.01	0.63	8.92	0.76	0.11	96.36	3.48	99.84	
LCM-14	35.33	5.53	13.38	18.47	0.11	11.83	0.03	0.61	9.12	0.90	0.11	95.01	3.33	98.34	
LCM-14	35.37	5.51	13.58	18.50	0.12	12.14	0.00	0.61	8.88	0.86	0.11	95.29	3.38	98.67	
LCM-14	34.76	6.08	13.51	20.33	0.19	10.88	0.01	0.57	8.66	0.81	0.14	95.57	3.37	98.94	
LCM-14	35.01	5.85	13.85	20.14	0.16	10.74	0.06	0.58	8.46	0.81	0.13	95.43	3.38	98.81	
LCM-14	35.56	5.32	13.62	17.30	0.15	12.63	0.01	0.65	8.83	0.81	0.09	94.61	3.40	98.01	
LCM-16	37.05	4.76	14.35	14.49	0.25	14.35	0.04	0.40	8.53	1.12	0.62	0.13	95.81	3.58	99.39
LCM-16	36.55	4.84	13.93	14.71	0.25	14.44	0.01	0.41	8.69	1.12	0.62	0.14	95.43	3.55	98.98
LCM-16	38.07	4.44	16.65	13.82	0.33	13.64	0.01	0.36	7.93	1.04	0.56	0.12	96.70	3.69	100.39
LCM-16	36.67	4.76	14.00	13.20	0.43	15.47	0.02	0.50	8.33	1.10	0.90	0.07	95.04	3.46	98.51
LCM-16	37.23	4.77	14.34	13.54	0.32	15.47	0.05	0.49	8.30	1.22	0.84	0.07	96.27	3.53	99.80
LCM-16	36.83	4.89	13.89	13.73	0.39	14.97	0.02	0.56	8.33	1.38	0.94	0.07	95.58	3.43	99.01
LCM-16	38.10	4.74	14.26	13.03	0.34	15.50	0.08	0.51	8.20	1.37	0.93	0.06	96.71	3.51	100.22
LCM-16	37.24	4.86	14.09	13.57	0.38	14.92	0.04	0.54	8.24	1.39	0.88	0.09	95.83	3.47	99.30
LCM-16	36.35	4.96	13.84	13.53	0.41	15.09	0.02	0.55	8.51	1.37	1.03	0.07	95.29	3.37	98.66
LCM-16	37.06	4.96	14.07	13.37	0.40	15.31	0.04	0.52	8.35	1.52	0.92	0.08	96.18	3.47	99.65
LCM-16	36.49	4.87	13.52	14.18	0.27	15.26	0.01	0.55	8.77	0.98	0.86	0.09	95.47	3.46	98.93
LCM-16	36.66	4.89	13.75	13.68	0.38	15.17	0.02	0.55	8.72	1.20	0.83	0.09	95.56	3.48	99.04
LCM-18	34.39	4.84	13.46	22.72	0.27	9.62	0.01	0.45	8.82	0.81	0.20	95.20	3.31	98.51	
LCM-18	34.92	4.74	13.31	22.68	0.22	9.75	0.03	0.43	8.90	0.84	0.20	95.61	3.31	98.92	
LCM-18	34.14	4.62	13.35	25.12	0.24	7.90	0.03	0.38	8.80	0.99	0.34	95.42	3.14	98.56	
LCM-18	35.10	4.73	13.15	22.43	0.39	9.62	0.04	0.45	8.70	0.94	0.23	95.31	3.25	98.56	
LCM-18	35.54	4.92	13.15	20.89	0.25	10.57	0.02	0.41	9.01	0.84	0.15	95.37	3.34	98.71	
LCM-18	36.30	4.76	13.28	20.37	0.21	10.31	0.03	0.41	8.83	0.86	0.15	95.11	3.32	98.43	
LCM-18	35.23	4.71	13.55	22.29	0.20	9.85	0.01	0.41	8.74	0.91	0.19	95.65	3.30	98.95	
LCM-18	34.09	4.68	13.37	24.92	0.32	7.93	0.04	0.38	8.63	0.92	0.23	95.07	3.20	98.27	
LCM-18	34.83	4.59	13.16	24.44	0.36	7.83	0.06	0.37	8.63	0.95	0.13	94.91	3.21	98.12	
LCM-18	34.97	4.87	13.18	22.44	0.24	9.71	0.01	0.43	8.78	0.81	0.21	95.26	3.31	98.57	
LCM-18	34.97	4.97	13.19	23.06	0.24	9.81	0.01	0.40	8.81	0.88	0.20	96.13	3.32	99.45	
LCM-18	34.74	4.76	13.15	22.52	0.28	9.62	0.03	0.44	8.73	0.90	0.19	94.94	3.26	98.19	
LCM-18	34.94	4.88	13.58	22.53	0.16	9.79	0.02	0.39	8.81	0.84	0.18	95.73	3.33	99.06	
LCM-18	34.14	4.54	13.16	25.67	0.38	7.85	0.00	0.38	8.83	0.87	0.34	95.70	3.20	98.90	
LCM-18	34.51	4.60	13.36	25.11	0.42	8.01	0.01	0.33	8.84	0.90	0.37	96.01	3.20	99.21	
LCM-18	34.31	4.70	13.31	24.98	0.31	7.99	0.05	0.37	8.63	0.87	0.32	95.39	3.21	98.60	
LCM-18	34.03	4.82	13.22	25.58	0.35	7.84	0.00	0.37	8.80	0.96	0.34	95.83	3.17	99.00	
LCM-18	35.33	4.32	14.04	20.50	0.11	10.86	0.00	0.58	8.40	1.05	0.85	0.12	95.77	3.36	99.13
LCM-18	35.24	4.42	13.74	20.41	0.19	10.56	0.00	0.55	8.55	0.93	0.90	0.13	95.21	3.30	98.51
LCM-18	34.90	4.33	13.33	24.87	0.35	7.91	0.00	0.38	8.62	0.76	0.89	0.30	96.21	3.21	99.42
LCM-18	34.61	4.40	13.34	24.74	0.19	7.73	0.00	0.43	8.59	0.86	0.87	0.33	95.64	3.18	98.82
LCM-18	34.30	4.46	13.48	24.34	0.25	7.83	0.02	0.60	8.47	0.87	0.86	0.26	95.31	3.20	98.51
LCM-18	34.74	4.41	13.46	24.60	0.34	7.89	0.01	0.50	8.55	0.75	0.78	0.28	95.91	3.26	99.17
LCM-18	36.65	4.34	13.76	18.35	0.16	12.27	0.00	0.48	8.48	0.93	0.93	0.13	96.05	3.37	99.42
LCM-18	35.87	4.46	13.65	18.42	0.11	12.17	0.02	0.51	8.44	1.11	0.92	0.14	95.39	3.33	98.72
LCM-18	35.31	4.43	13.64	21.68	0.21	9.88	0.00	0.78	8.43	0.98	0.78	0.13	95.89	3.35	99.24
LCM-18	35.38	4.45	13.64	21.78	0.16	9.73	0.00	0.59	8.48	1.08	0.78	0.18	95.89	3.34	99.23
LCM-18	34.69	4.45	13.44	24.63	0.35	7.81	0.00	0.42	8.45	1.25	0.86	0.28	96.21	3.22	99.43
LCM-18	34.37	4.51	13.42	25.09	0.27	7.88									

LCM-18	34.55	4.39	13.38	24.44	0.24	7.87	0.00	0.42	8.64	0.85	0.89	0.30	95.54	3.18	98.72
LCM-18	34.66	4.61	13.48	24.41	0.18	7.88	0.00	0.51	8.35	1.06	0.83	0.15	95.73	3.26	98.99
LCM-18	34.40	4.41	13.12	24.19	0.30	7.86	0.02	0.42	8.30	1.07	0.93	0.28	94.86	3.14	98.00
LCM-18	35.42	4.43	13.38	21.68	0.18	9.80	0.00	0.50	8.33	0.98	0.85	0.11	95.27	3.31	98.58
LCM-18	35.11	4.48	13.62	22.48	0.23	9.86	0.00	0.41	7.97	0.93	0.76	0.21	95.69	3.36	99.05
LCM-18	35.24	4.45	13.23	24.93	0.27	7.82	0.00	0.40	8.35	1.18	0.85	0.29	96.57	3.24	99.81
LCM-19	35.00	4.45	13.48	24.43	0.39	8.07	0.06	0.32	8.54	0.42	0.68	0.33	95.80	3.32	99.12
LCM-19	34.13	4.45	12.84	25.23	0.29	7.65	0.05	0.27	8.67	0.33	0.61	0.31	94.51	3.29	97.80
LCM-19	34.67	4.68	13.49	25.97	0.34	7.68	0.06	0.33	8.59	1.24	0.67	0.34	97.69	3.34	101.03
LCM-19	34.84	4.70	13.25	24.95	0.31	7.63	0.07	0.31	8.57	1.27	0.73	0.33	96.57	3.27	99.84
LCM-19	34.91	4.62	13.50	25.72	0.35	7.82	0.00	0.28	8.64	0.99	0.72	0.35	97.53	3.33	100.86
LCM-19	34.88	4.53	13.25	25.11	0.21	7.71	0.00	0.29	8.83	0.64	0.72	0.32	96.11	3.28	99.39
LCM-20	36.88	4.67	14.36	18.10	0.27	12.67	0.04	0.43	8.33	1.17	0.78	0.13	97.46	3.51	100.97
LCM-20	37.03	4.83	13.93	12.95	0.33	14.46	0.03	0.47	8.84	0.96	0.78	0.06	94.34	3.46	97.80
LCM-20	34.86	4.89	13.49	21.34	0.25	8.94	0.02	0.31	8.59	1.11	0.61	0.30	94.39	3.31	97.70
LCM-21	38.59	4.44	13.25	14.47	0.37	14.90	0.04	0.52	8.72		1.22	0.09	96.07	3.34	99.41
LCM-21	36.97	4.62	13.19	15.07	0.50	14.85	0.00	0.52	9.04		1.16	0.09	95.51	3.33	98.84
LCM-21	36.34	4.73	13.75	17.45	0.40	14.65	0.02	0.48	8.39		1.05	0.08	96.88	3.46	100.34
LCM-21	36.87	4.76	13.25	14.61	0.37	14.72	0.00	0.50	9.09		1.16	0.08	94.89	3.30	98.19
LCM-21	37.17	4.61	13.88	14.84	0.49	14.26	0.10	0.55	8.62		1.07	0.08	95.19	3.37	98.56
LCM-21	36.50	4.77	13.90	15.46	0.48	14.28	0.00	0.53	9.28		1.09	0.07	95.89	3.36	99.25
LCM-21	37.24	4.69	13.25	14.56	0.48	14.92	0.00	0.51	9.08		1.09	0.08	95.43	3.37	98.80
LCM-21	37.08	4.64	13.65	14.65	0.46	14.74	0.00	0.55	9.18		1.08	0.08	95.63	3.37	99.00
LCM-21	36.96	4.66	13.62	14.91	0.43	14.77	0.00	0.52	8.99		1.15	0.09	95.59	3.34	98.93
LCM-21	37.31	4.55	13.44	14.71	0.45	15.14	0.00	0.54	9.01		1.21	0.09	95.90	3.34	99.24
LCM-21	37.61	4.59	13.29	14.51	0.39	15.20	0.03	0.55	9.07		1.19	0.07	95.97	3.35	99.32
LCM-21	36.99	4.65	13.58	15.07	0.48	14.57	0.00	0.52	9.02		1.14	0.08	95.60	3.34	98.94
LCM-21	36.27	4.48	13.92	15.09	0.32	14.60	0.02	0.54	8.95	0.57	1.06	0.08	95.45	3.36	98.81
LCM-21	36.74	4.45	13.55	14.75	0.40	14.81	0.00	0.49	8.74	0.84	1.11	0.08	95.49	3.34	98.83
LCM-21	35.66	4.33	14.31	15.27	0.40	14.37	0.00	0.57	8.82	1.04	1.13	0.14	95.52	3.29	98.81
LCM-21	36.17	4.31	14.21	15.38	0.39	14.38	0.00	0.54	8.74	0.90	1.03	0.04	95.65	3.39	99.04
LCM-21	37.37	4.45	13.38	14.63	0.31	14.65	0.00	0.57	8.66	0.84	1.17	0.09	95.63	3.31	98.94
LCM-21	37.40	4.48	13.48	14.78	0.34	15.18	0.00	0.50	8.79	0.83	1.16	0.09	96.53	3.36	99.89
LCM-21	35.98	4.60	14.35	15.20	0.31	14.52	0.00	0.56	8.77	1.09	1.05	0.04	96.02	3.38	99.40
LCM-21	35.85	4.50	14.27	15.68	0.41	14.06	0.00	0.52	8.62	1.16	1.02	0.08	95.73	3.37	99.10
LCM-21	36.72	4.53	14.29	15.10	0.41	14.49	0.00	0.49	8.76	0.97	1.03	0.07	96.41	3.41	99.82
LCM-21	37.13	4.47	13.31	14.88	0.35	14.87	0.00	0.53	8.81	0.86	0.99	0.10	95.84	3.40	99.24
LCM-21	37.17	4.55	13.42	14.77	0.36	15.01	0.00	0.51	8.79	0.68	1.01	0.07	95.90	3.42	99.32
LCM-21	37.08	4.51	13.40	14.49	0.46	14.55	0.00	0.56	8.71	0.73	1.07	0.08	95.17	3.34	98.51
LCM-21	36.53	4.33	14.40	14.89	0.35	14.37	0.00	0.61	8.60	1.00	0.98	0.04	95.67	3.41	99.08
LCM-21	36.65	4.48	14.63	15.05	0.37	15.01	0.00	0.55	8.68	0.99	1.09	0.07	97.10	3.43	100.53
LCM-22	37.87	5.35	13.39	13.07	0.12	15.75	0.06	0.46	8.62	1.97	1.05	0.08	97.32	3.43	100.75
LCM-22	37.89	5.55	13.20	12.67	0.25	15.79	0.03	0.49	8.50	2.11	1.22	0.06	97.23	3.34	100.57
LCM-22	37.85	5.37	13.01	13.05	0.21	15.94	0.08	0.43	8.51	1.49	1.24	0.08	96.72	3.33	100.05
LCM-22	37.09	5.31	12.99	12.69	0.19	15.54	0.05	0.46	8.39	1.75	1.26	0.08	95.25	3.25	98.50
LCM-22	37.14	5.25	13.09	12.29	0.18	15.68	0.06	0.48	8.55	1.91	1.18	0.07	95.38	3.29	98.67
LCM-22	38.15	5.29	13.10	11.73	0.21	16.32	0.11	0.46	8.38	1.70	1.35	0.08	96.29	3.28	99.57
LCM-22	37.80	5.41	13.30	12.24	0.11	16.23	0.02	0.49	8.72	2.18	1.37	0.07	97.34	3.27	100.61
LCM-22	37.45	5.29	13.15	12.20	0.16	15.79	0.00	0.50	8.62	2.00	1.30	0.07	95.97	3.26	99.23
LCM-22	38.02	5.29	13.19	12.62	0.16	15.90	0.01	0.47	8.74	1.90	1.19	0.05	97.04	3.36	100.40
LCM-22	37.54	5.34	13.10	12.30	0.24	16.24	0.03	0.48	8.64	2.04	1.25	0.06	96.72	3.32	100.04
LCM-22	37.50	5.42	13.34	12.27	0.17	15.95	0.01	0.47	8.72	2.26	1.09	0.06	96.79	3.38	100.17
LCM-22	37.17	5.27	13.32	13.65	0.21	15.22	0.00	0.50	8.83	1.52	1.12	0.11	96.41	3.34	99.75
LCM-22	37.23	5.32	13.06	13.40	0.17	15.29	0.00	0.53	8.88	1.48	1.46	0.12	96.30	3.17	99.47
LCM-22	36.38	5.25	13.08	14.34	0.27	14.63	0.00	0.57	8.90	1.47	1.09	0.11	95.60	3.30	98.90
LCM-22	37.15	5.27	13.44	14.75	0.11	15.15	0.00	0.56	8.81	1.49	1.28	0.11	97.57	3.30	100.87
LCM-22	37.65	5.36	13.20	12.62	0.20	15.61	0.05	0.46	8.54	1.88	1.11	0.07	96.27	3.36	99.63
LCM-22	38.07	5.32	13.24	12.29	0.24	15.81	0.07	0.43	8.46	1.74	1.06	0.06	96.35	3.41	99.76
LCM-22	37.55	5.39	13.21	12.93	0.20	15.69	0.10	0.43	8.30	1.67	1.13	0.05	96.16	3.37	99.53
LCM-22	37.58	5.43	13.12	13.20	0.21	16.02	0.04	0.47	8.60	1.89	1.05	0.08	97.21	3.43	100.64
LCM-22	37.69	5.32	13.26	12.95	0.23	16.11	0.02	0.45	8.63	1.89	1.16	0.07	97.27	3.38	100.65
LCM-25	38.15	4.95	13.02	12.86	0.26	16.59	0.06	0.59	8.55	0.68	1.43	0.09	96.60	3.28	99.88
LCM-25	38.22	4.97	13.01	12.95	0.34	16.42	0.06	0.56	8.45	0.63	1.51	0.07	96.54	3.24	99.78
LCM-25	37.86	5.16	13.63	12.49	0.31	15.21	0.11	0.45	8.44	0.51	1.31	0.08	95.00	3.26	98.26
LCM-25	38.12	5.18	13.85	12.32	0.29	15.09	0.12	0.46	8.06	0.52	1.22	0.09	94.78	3.31	98.09
LCM-25	38.48	4.93	12.76	12.21	0.29	16.71	0.08	0.52	8.22	0.58	1.48	0.09	95.69	3.24	98.93
LCM-25	38.12	4.87	12.96	12.46	0.29	16.66	0.04	0.59	8.25	0.60	1.45	0.09	95.74	3.25	98.99
LCM-26	37.98	5.16	13.29	12.88	0.32	15.99	0.06	0.55	8.58	0.70	1.32	0.09	96.34	3.31	99.65
LCM-26	36.87	4.78	13.60	15.50	0.32	15.58	0.11	0.53	7.92	0.66	1.32	0.08	96.70	3.33	100.03
LCM-26	36.80	5.26	13.10	12.54	0.33	15.87	0.09	0.64	8.52	1.02	1.36	0.09	95.03	3.21	98.24
LCM-26	36.63	4.89	14.54	14.08	0.33	16.14	0.02	0.55	8.73	0.83	1.28	0.04	97.51	3.39	100.90
LCM-29	36.91	4.14	14.10	15.93	0.26	14.1									

LCM-30	34.30	4.42	13.50	24.08	0.18	9.42	0.12	0.40	8.05		0.67	0.19	94.98	3.39	98.37
LCM-30	34.70	4.29	13.79	21.76	0.23	9.32	0.09	0.41	7.91		0.73	0.18	93.06	3.31	96.37
LCM-31	36.10	3.98	14.11	18.75	0.32	12.16	0.01	0.45	8.83	1.12	0.32	0.13	96.12	3.66	99.78
LCM-31	35.16	3.82	13.93	20.33	0.37	11.54	0.00	0.38	8.83	0.95	1.04	0.12	96.00	3.28	99.28
LCM-31	35.87	3.97	14.28	18.55	0.34	11.31	0.00	0.53	8.96	0.98	0.27	0.11	95.04	3.62	98.66
LCM-31	35.32	4.00	14.08	19.77	0.44	11.12	0.00	0.48	8.92	0.92	0.26	0.11	95.28	3.64	98.92
LCM-31	36.13	3.97	14.02	18.78	0.40	11.42	0.00	0.51	8.76	0.94	0.21	0.12	95.15	3.66	98.81
LCM-31	35.04	4.02	14.80	19.18	0.35	11.14	0.00	0.50	8.81	0.91	0.32	0.14	95.03	3.60	98.63
LCM-31	37.22	4.67	13.32	13.12	0.40	15.74	0.04	0.38	8.20	1.14	1.23	0.07	94.99	3.31	98.31
LCM-31	37.83	4.55	13.36	13.27	0.26	15.72	0.00	0.38	8.53	1.35	1.14	0.09	95.99	3.36	99.35
LCM-35	33.72	7.10	13.83	19.88	0.25	9.57	0.00	0.56	7.83	2.97	0.48	0.08	96.04	3.46	99.50
LCM-35	33.46	7.11	13.98	18.88	0.20	9.46	0.01	0.52	7.93	3.02	0.48	0.08	94.90	3.41	98.31

H2O* = H2O alulated on the assumption that the OH site is full



Electron microprobe analyses of pyroxene from volcanic ash beds in the Morrison Formation (wt%)										End Members			
Samp #	Grain	SiO ₂	TiO ₂	Al ₂ O ₃	FeO t	MnO	MgO	CaO	Na ₂ O	Total	Wollastonite	Enstatite	Ferrosillite
MC-8	1 core	48.12	0.47	4.08	13.80	0.89	8.94	21.83	1.24	99.37	0.477	0.272	0.251
MC-8	1 rim	49.31	0.34	3.66	13.98	1.07	8.73	21.45	1.22	99.79	0.473	0.268	0.259
MC-8	3 core	50.75	0.33	2.75	13.27	0.78	9.23	19.47	2.64	99.23	0.450	0.297	0.254
MC-8	3 rim	50.37	0.38	2.37	11.91	0.73	10.02	20.82	1.88	98.47	0.466	0.312	0.221
MC-8	4 core	50.52	0.36	2.37	11.25	1.12	10.83	22.15	0.93	99.52	0.473	0.321	0.206
MC-8	4 rim	51.93	0.19	1.94	10.99	1.32	11.43	22.05	0.81	100.66	0.464	0.334	0.202
MC-8	5 core	50.01	0.37	2.27	12.05	0.87	10.16	20.94	1.88	98.52	0.464	0.313	0.223
MC-8	5 rim	51.06	0.37	2.23	11.89	0.93	10.76	21.07	1.76	100.07	0.457	0.325	0.218
MC-8	6 core	50.99	0.15	1.57	10.84	1.19	11.20	22.34	0.81	99.08	0.472	0.329	0.199
MC-8	8 core	49.18	0.24	2.61	12.98	1.49	9.47	21.59	1.16	98.72	0.469	0.286	0.246
MC-8	10 core	50.10	0.26	2.58	12.64	1.26	9.90	21.80	1.08	99.61	0.470	0.297	0.234
MC-8	10 core2	50.10	0.21	2.01	11.50	1.24	10.95	22.10	0.90	99.01	0.467	0.322	0.211
MC-8	16 core	46.87	0.78	4.70	13.80	1.02	8.29	21.38	1.37	98.20	0.481	0.259	0.260
MC-8	18	48.52	0.48	3.82	13.50	0.98	8.99	21.51	1.38	99.18	0.474	0.276	0.250
MC-27.5	1 core	52.31	0.17	1.15	8.86	0.67	13.49	21.78	0.33	98.78	0.454	0.391	0.155
MC-27.5	1 b rim	52.55	0.16	1.24	9.02	0.64	13.72	21.67	0.35	99.36	0.449	0.395	0.156
MC-27.5	1 c core	52.20	0.19	1.39	9.12	0.70	13.09	21.64	0.38	98.69	0.455	0.383	0.161
MC-27.5	1 e core	52.29	0.15	0.98	9.00	0.67	13.69	21.72	0.34	98.83	0.450	0.394	0.156
MC-36.5	2 core	49.74	0.33	3.33	12.12	0.58	9.77	21.88	1.40	99.15	0.482	0.299	0.219
MC-36.5	2 core3	48.45	0.43	3.90	12.31	0.53	9.39	21.99	1.25	98.26	0.488	0.290	0.222
MC-36.5	2 rim	47.55	0.48	4.88	13.59	0.60	8.52	21.36	1.72	98.71	0.482	0.268	0.250
MC-36.5	19 rim	43.83	1.04	8.19	12.30	0.39	8.95	22.83	0.67	98.19	0.505	0.276	0.219

Electron microprobe analyses of amphibole from volcanic ash beds in the Morrison Formation (wt%)

Sample	Grain	Location	SiO ₂	TiO ₂	Al ₂ O ₃	FeOt	MnO	MgO	CaO	Na ₂ O	K ₂ O	F	Cl	Subsum	H ₂ O	Total
LCM-32	amph1.1	Little Cedar Mountain	47.00	1.33	7.31	13.65	0.55	13.75	11.36	1.41	0.81	0.39	0.13	97.49	1.83	99.33
LCM-32	amph1.2	Little Cedar Mountain	46.38	1.32	7.07	13.56	0.51	13.68	11.44	1.40	0.81	0.36	0.13	96.46	1.82	98.28
LCM-32	amph1.3	Little Cedar Mountain	46.98	1.32	7.54	14.26	0.56	13.64	11.39	1.37	0.95	0.38	0.13	98.31	1.85	100.16
LCM-32	amph2.1	Little Cedar Mountain	46.09	1.40	7.63	13.97	0.62	13.33	11.51	1.50	0.89	0.52	0.15	97.35	1.75	99.10
LCM-32	amph2.2	Little Cedar Mountain	46.48	1.36	7.72	13.75	0.59	13.66	11.41	1.43	0.91	0.41	0.11	97.62	1.83	99.45
LCM-32	amph2.3	Little Cedar Mountain	46.02	1.48	7.98	14.22	0.46	13.30	11.40	1.42	0.94	0.34	0.14	97.53	1.84	99.37
LCM-32	amph2.4	Little Cedar Mountain	45.62	1.43	7.59	13.75	0.49	13.24	11.47	1.49	0.91	0.49	0.14	96.37	1.74	98.12
LCM-32	amph3.1	Little Cedar Mountain	46.88	1.26	7.07	13.55	0.54	13.91	11.37	1.49	0.96	0.32	0.16	97.34	1.85	99.19
LCM-32	amph3.2	Little Cedar Mountain	45.84	1.33	7.72	13.57	0.59	13.43	11.26	1.41	0.86	0.49	0.13	96.38	1.76	98.14
LCM-32	amph3.3	Little Cedar Mountain	47.26	1.21	6.46	12.74	0.47	14.20	11.59	1.28	0.69	0.46	0.11	96.26	1.78	98.04
LCM-32	amph3.4	Little Cedar Mountain	47.25	1.23	6.70	13.35	0.53	14.12	11.31	1.38	0.79	0.41	0.12	97.00	1.82	98.82
LCM-32	amph3.5	Little Cedar Mountain	47.50	1.27	6.78	13.22	0.58	14.15	11.33	1.35	0.78	0.42	0.12	97.28	1.82	99.10
LCM-32	amph4.1	Little Cedar Mountain	45.59	1.49	8.06	14.06	0.55	13.37	11.48	1.50	0.93	0.41	0.14	97.39	1.81	99.19
LCM-32	amph4.2	Little Cedar Mountain	46.61	1.36	7.14	13.51	0.62	13.89	11.35	1.33	0.78	0.43	0.13	96.93	1.81	98.73
LCM-32	amph4.3	Little Cedar Mountain	45.72	1.36	7.48	14.01	0.53	13.33	11.45	1.42	0.87	0.46	0.12	96.51	1.77	98.28
LCM-32	amph4.5	Little Cedar Mountain	46.67	1.37	7.26	13.87	0.60	13.66	11.45	1.42	0.83	0.40	0.12	97.46	1.83	99.29
LCM-32	amph5.3	Little Cedar Mountain	44.81	1.54	8.35	14.19	0.44	12.73	11.45	1.51	0.97	0.38	0.14	96.34	1.79	98.13
LCM-32	am1a	Little Cedar Mountain	45.12	1.63	8.14	15.09	0.70	12.64	11.34	1.51	1.00	0.38	0.13	97.48	1.82	99.30
LCM-32	am1b rim	Little Cedar Mountain	47.00	1.28	6.90	13.53	0.64	13.77	11.48	1.33	0.76	0.41	0.11	97.02	1.82	98.84
LCM-32	am2a c	Little Cedar Mountain	45.03	1.49	8.11	15.15	0.69	12.92	11.30	1.48	0.98	0.35	0.13	97.45	1.83	99.28
LCM-32	am2b r	Little Cedar Mountain	46.53	1.27	7.16	13.99	0.59	13.46	11.46	1.34	0.85	0.42	0.10	96.97	1.81	98.78
LCM-32	am3a c	Little Cedar Mountain	45.24	1.49	8.36	15.22	0.60	12.83	11.40	1.52	1.03	0.37	0.15	98.02	1.83	99.85
LCM-32	am3b r	Little Cedar Mountain	47.35	1.15	6.59	13.53	0.79	13.77	11.48	1.17	0.74	0.48	0.09	96.90	1.79	98.69
LCM-32	am4a c	Little Cedar Mountain	45.19	1.70	8.92	14.82	0.62	12.59	11.46	1.51	1.04	0.41	0.12	98.18	1.82	100.00
LCM-32	am4b r	Little Cedar Mountain	46.73	1.32	6.88	13.17	0.68	13.92	11.58	1.36	0.83	0.43	0.09	96.79	1.80	98.59
LCM-32	am5b c	Little Cedar Mountain	46.72	1.38	7.30	14.40	0.69	13.57	11.45	1.41	0.87	0.44	0.10	98.13	1.82	99.95
LCM-32	am6c	Little Cedar Mountain	46.41	1.36	7.43	14.41	0.77	13.27	11.52	1.38	0.89	0.47	0.13	97.81	1.79	99.59
LCM-32	am6e	Little Cedar Mountain	45.98	1.40	7.54	14.16	0.70	13.18	11.47	1.38	0.88	0.42	0.12	97.02	1.80	98.83
LCM-32	am7c	Little Cedar Mountain	46.35	1.42	7.61	14.42	0.67	13.02	11.58	1.43	0.86	0.42	0.10	97.68	1.81	99.49
LCM-32	am7e	Little Cedar Mountain	45.49	1.47	7.64	14.58	0.68	12.85	11.46	1.40	0.93	0.44	0.12	96.83	1.78	98.61
LCM-32	am8c	Little Cedar Mountain	45.41	1.49	7.91	14.08	0.69	12.74	11.64	1.47	0.94	0.47	0.13	96.74	1.75	98.50
LCM-32	am8r	Little Cedar Mountain	47.97	1.28	6.63	13.37	0.58	14.15	11.59	1.20	0.71	0.42	0.08	97.78	1.84	99.62
LCM-32	am10c	Little Cedar Mountain	48.24	1.13	6.33	13.64	0.65	14.23	11.48	1.17	0.65	0.49	0.07	97.86	1.82	99.67
LCM-32	am10r	Little Cedar Mountain	46.62	1.42	7.59	13.70	0.58	13.52	11.57	1.41	0.78	0.41	0.09	97.50	1.83	99.33
LCM-32	am11c	Little Cedar Mountain	46.18	1.34	7.48	14.22	0.64	13.22	11.56	1.38	0.89	0.48	0.11	97.26	1.78	99.03
LCM-32	am11r	Little Cedar Mountain	45.11	1.44	7.80	14.89	0.75	12.74	11.38	1.49	0.89	0.45	0.11	96.83	1.77	98.60
LCM-32	am12c	Little Cedar Mountain	46.54	1.29	7.23	13.91	0.72	13.26	11.58	1.37	0.81	0.47	0.10	97.07	1.78	98.84
LCM-32	am12r	Little Cedar Mountain	45.23	1.48	8.10	14.64	0.72	12.74	11.41	1.51	0.96	0.45	0.13	97.14	1.77	98.91
LCM-32	am13r	Little Cedar Mountain	44.60	1.77	8.78	14.78	0.71	12.15	11.51	1.54	1.08	0.42	0.14	97.28	1.78	99.06
LCM-32	am13r	Little Cedar Mountain	45.47	1.47	7.88	14.50	0.66	12.84	11.54	1.46	0.93	0.40	0.12	97.07	1.80	98.87
LCM-32	am14c	Little Cedar Mountain	45.70	1.45	7.86	14.63	0.71	12.90	11.48	1.47	1.02	0.39	0.13	97.55	1.81	99.36
LCM-32	am14r	Little Cedar Mountain	44.94	1.45	8.41	14.54	0.65	12.52	11.55	1.54	1.00	0.38	0.13	96.92	1.80	98.72
LCM-32	am15c	Little Cedar Mountain	45.66	1.54	7.93	14.63	0.67	12.94	11.43	1.44	0.96	0.34	0.11	97.48	1.84	99.32
LCM-32	am15r	Little Cedar Mountain	44.88	1.60	8.33	14.58	0.61	12.30	11.61	1.52	0.98	0.68	0.11	96.89	1.65	98.55
LCM-32	am16c	Little Cedar Mountain	46.30	1.41	7.81	14.21	0.67	13.07	11.41	1.49	0.88	0.58	0.12	97.67	1.73	99.41
LCM-32	am16e	Little Cedar Mountain	45.91	1.43	8.36	14.90	0.74	13.14	11.46	1.54	0.95	0.44	0.12	98.78	1.83	100.60
LCM-32	am17c	Little Cedar Mountain	46.27	1.49	7.63	14.28	0.80	12.94	11.56	1.44	0.85	0.37	0.10	97.55	1.83	99.38
LCM-32	am17r	Little Cedar Mountain	45.97	1.50	7.90	14.50	0.59	13.03	11.51	1.46	0.95	0.47	0.13	97.75	1.78	99.54
LCM-32	am18c	Little Cedar Mountain	46.61	1.43	7.75	14.17	0.67	13.46	11.44	1.40	0.86	0.43	0.11	98.10	1.82	99.93
LCM-32	am18e	Little Cedar Mountain	45.88	1.53	8.21	14.71	0.72	12.87	11.49	1.45	0.96	0.36	0.12	98.13	1.85	99.98
LCM-32	am19c	Little Cedar Mountain	46.71	1.35	7.30	13.98	0.72	13.75	11.53	1.34	0.84	0.47	0.11	97.88	1.80	99.68
LCM-32	am19e	Little Cedar Mountain	45.53	1.44	7.83	13.88	0.67	13.10	11.58	1.48	0.92	0.46	0.13	96.79	1.77	98.56
LCM-32	am20c	Little Cedar Mountain	44.99	1.54	8.48	14.63	0.69	12.38	11.40	1.53	1.06	0.44	0.15	97.08	1.77	98.84
LCM-32	am20e	Little Cedar Mountain	46.83	1.30	7.02	14.24	0.64	13.50	11.46	1.39	0.83	0.51	0.08	97.56	1.78	99.34
LCM-32	am21c	Little Cedar Mountain	47.63	1.28	6.87	13.74	0.69	13.47	11.53	1.27	0.77	0.48	0.10	97.60	1.79	99.39
LCM-32	am21r	Little Cedar Mountain	46.71	1.31	7.07	14.30	0.68	13.32	11.60	1.37	0.85	0.44	0.11	97.54	1.80	99.34
LCM-32	am22c	Little Cedar Mountain	47.08	1.40	7.48	14.37	0.64	13.57	11.52	1.33	0.83	0.38	0.10	98.50	1.87	100.37
LCM-32	am22r	Little Cedar Mountain	46.14	1.35	7.23	14.09	0.71	13.29	11.51	1.37	0.84	0.42	0.12	96.87	1.80	98.66
LCM-32	am23c	Little Cedar Mountain	47.45	1.24	6.95	13.54	0.79	14.06	11.51	1.26	0.77	0.50	0.10	97.93	1.80	99.73
LCM-32	am23r	Little Cedar Mountain	47.63	1.23	6.39	13.15	0.62	14.05	11.70	1.34	0.69	0.39	0.09	97.09	1.83	98.93
LCM-32	am24r	Little Cedar Mountain	45.98	1.41	7.65	14.33	0.74	13.23	11.53	1.50	0.89	0.38	0.11	97.58	1.83	99.41
LCM-32	am24c	Little Cedar Mountain	46.69	1.33	7.54	14.18	0.67	13.34	11.44	1.38	0.80	0.40	0.10	97.68	1.84	99.51
LCM-32	am25c	Little Cedar Mountain	46.02	1.36	7.69	14.40	0.65	13.01	11.56	1.39	0.94	0.39	0.11	97.32	1.82	99.14
LCM-32	am25r	Little Cedar Mountain	43.85	1.66	8.67	15.04	0.68	12.22	11.46	1.61	1.03	0.45	0.14	96.59	1.75	98.34
LCM-32	am26r	Little Cedar Mountain	46.75	1.34	7.01	13.78	0.65	13.35	11.53	1.34	0.81	0.45	0.11	96.90	1.79	98.69
MC-8	12 core	Montezuma Creek	39.66	1.55	11.35	19.55	0.93	8.84	11.10	2.30	1.72					

MC-27.5	2 core	Montezuma Creek	45.07	2.41	9.60	12.72	0.21	14.29	10.88	1.77	0.82	0.53	0.05	98.09	1.82	99.91
MC-27.5	3 rim	Montezuma Creek	44.84	1.62	8.74	15.88	0.41	12.34	11.05	1.49	0.97	0.31	0.11	97.60	1.87	99.47
MC-27.5	3 core	Montezuma Creek	44.80	1.62	8.46	15.28	0.38	12.68	11.09	1.43	0.99	0.29	0.12	96.99	1.86	98.85
MC-27.5	4 core	Montezuma Creek	45.10	1.72	9.60	13.78	0.29	13.99	10.62	1.75	0.68	0.53	0.06	97.86	1.82	99.68
MC-27.5	5 b core	Montezuma Creek	39.83	1.10	12.65	24.84	0.61	6.16	8.59	1.85	1.76	0.45	0.06	97.69	1.75	99.44
MC-27.5	6 rim	Montezuma Creek	45.39	1.74	8.93	13.96	0.40	13.65	10.86	1.40	0.97	0.32	0.13	97.57	1.88	99.45
MC-27.5	7	Montezuma Creek	45.74	1.75	8.12	13.12	0.36	14.24	11.03	1.40	0.75	0.32	0.09	96.77	1.88	98.64
MC-27.5	8 core	Montezuma Creek	47.14	1.63	7.73	12.43	0.38	15.07	10.90	1.31	0.66	0.28	0.08	97.46	1.94	99.40
MC-27.5	8 rim	Montezuma Creek	46.48	1.73	8.16	12.58	0.34	14.73	10.81	1.40	0.71	0.39	0.07	97.21	1.88	99.08
MC-27.5	22 core	Montezuma Creek	44.20	1.71	9.14	14.98	0.50	12.64	10.96	1.44	1.08	0.29	0.12	96.91	1.86	98.77
MC-27.5	22 rim	Montezuma Creek	44.27	1.72	9.35	13.90	0.45	13.89	10.93	1.31	1.05	0.38	0.08	97.14	1.86	99.00
MC-27.5	27	Montezuma Creek	43.98	2.52	10.24	12.08	0.26	14.62	10.89	1.81	0.84	0.52	0.04	97.57	1.82	99.39
MC-27.5	28 b	Montezuma Creek	44.84	1.70	8.95	13.49	0.34	13.99	10.69	1.59	0.66	0.55	0.04	96.59	1.78	98.37
MC-27.5	29	Montezuma Creek	44.97	1.75	8.89	12.94	0.36	14.26	10.91	1.35	0.94	0.30	0.10	96.63	1.89	98.52
MC-36.5	4 core	Montezuma Creek	38.73	1.96	14.00	19.20	0.60	8.19	11.16	2.58	1.78	0.19	0.02	98.33	1.87	100.20
MC-36.5	4 rim	Montezuma Creek	38.36	1.68	13.70	20.08	0.64	7.54	10.96	2.64	1.57	0.36	0.02	97.38	1.77	99.15
MC-36.5	7 core	Montezuma Creek	37.86	1.91	14.00	18.76	0.52	8.20	11.46	2.67	1.44	0.26	0.00	96.96	1.81	98.77
MC-36.5	7 rim	Montezuma Creek	38.02	1.89	13.77	19.12	0.64	7.82	11.20	2.43	1.57	0.23	0.01	96.60	1.82	98.42
MC-36.5	8 rim2	Montezuma Creek	38.68	1.61	13.46	19.45	0.58	8.15	11.16	2.68	1.85	0.25	0.01	97.78	1.83	99.61
MC-36.5	16 core	Montezuma Creek	37.96	1.59	13.58	18.73	0.48	8.72	11.26	2.73	1.44	0.22	0.01	96.62	1.83	98.45
MC-47	1 core	Montezuma Creek	48.10	1.06	6.10	13.32	0.52	14.42	11.43	1.13	0.58	0.33	0.07	96.90	1.88	98.78
MC-47	4 core	Montezuma Creek	46.89	1.61	7.44	12.17	0.47	14.98	11.13	1.32	0.65	0.35	0.07	96.91	1.89	98.80
MC-47	4 rim	Montezuma Creek	47.65	1.72	8.07	12.44	0.38	15.39	10.83	1.31	0.67	0.37	0.08	98.73	1.93	100.66
MC-47	5	Montezuma Creek	51.26	0.67	4.53	12.47	0.62	15.85	11.51	0.60	0.37	0.26	0.05	98.06	1.98	100.04
MC-47	7 rim	Montezuma Creek	47.84	1.61	7.64	12.30	0.40	15.23	11.02	1.29	0.70	0.33	0.09	98.29	1.93	100.22
MC-47	8 rim	Montezuma Creek	48.92	0.95	5.82	12.75	0.62	14.78	11.46	0.97	0.54	0.23	0.05	96.98	1.94	98.92
MC-47	9 rim	Montezuma Creek	45.07	2.06	8.69	12.93	0.35	13.90	11.01	1.54	0.78	0.41	0.08	96.62	1.83	98.45
MC-47	10 rim	Montezuma Creek	44.93	1.35	11.72	10.27	0.08	15.29	10.70	1.94	0.49	0.13	0.04	96.87	2.03	98.90

Electron microprobe analyses of titanite from volcanic ash beds in the Morrison Formation (wt%)

Sample	Grain Spot	SiO ₂	TiO ₂	Al ₂ O ₃	FeO	MnO	MgO	CaO	Nb ₂ O ₅	Ta ₂ O ₅	Y ₂ O ₃	La ₂ O ₃	Ce ₂ O ₃	Nd ₂ O ₃	Sm ₂ O ₃	F	Sum	O=F	Total
LCM-1	a a.2	28.77	33.44	1.51	2.33	0.13	0.05	24.64	0.32	1.02	0.50	2.01	1.41	1.39	0.39	97.90	0.16	97.74	
LCM-1	a a.3	29.57	34.51	1.46	2.07	0.15	0.03	25.72	0.18	0.54	0.50	1.42	0.83	0.93	0.38	98.27	0.16	98.11	
LCM-1	a a.4	29.17	34.42	1.39	1.96	0.12	0.02	25.04	0.32	0.85	0.44	1.66	1.22	1.27	0.27	98.13	0.11	98.02	
LCM-1	a a.5	29.41	34.46	1.53	2.05	0.12	0.02	25.14	0.23	0.86	0.35	1.60	1.15	1.27	0.32	98.50	0.13	98.37	
LCM-1	b b.1	29.48	35.88	1.31	1.78	0.11	0.02	26.63	0.24	0.34	0.41	1.25	0.44	0.47	0.38	98.73	0.16	98.57	
LCM-1	b b.2	29.74	35.71	1.27	1.77	0.13	0.03	26.67	0.18	0.28	0.40	1.34	0.47	0.43	0.44	98.86	0.18	98.67	
LCM-1	b b.3	29.50	36.03	1.18	1.58	0.13	0.01	26.37	0.24	0.29	0.39	1.25	0.52	0.44	0.33	98.25	0.14	98.11	
LCM-1	b b.4	29.56	35.31	1.26	1.90	0.14	0.01	26.24	0.22	0.43	0.34	1.40	0.61	0.66	0.38	98.45	0.16	98.29	
LCM-1	c c.1	29.32	34.66	1.41	1.87	0.17	0.01	26.11	0.20	0.43	0.34	1.18	0.52	0.57	0.37	97.16	0.16	97.00	
LCM-1	c c.2	29.28	34.83	1.32	1.80	0.13	0.01	25.80	0.23	0.59	0.32	1.50	0.79	0.86	0.31	97.77	0.13	97.64	
LCM-1	c c.3	29.54	34.47	1.43	1.91	0.13	0.01	25.69	0.15	0.58	0.44	1.44	0.77	0.81	0.41	97.78	0.17	97.60	
LCM-1	c c.4	29.35	35.14	1.15	1.70	0.13	0.01	25.24	0.29	0.72	0.47	1.59	0.96	0.97	0.22	97.94	0.09	97.85	
LCM-1	d d.1	29.53	35.39	1.26	1.55	0.21	0.02	26.05	0.69	0.51	0.41	1.51	0.74	0.79	0.24	98.87	0.10	98.77	
LCM-1	d d.2	29.59	35.33	1.27	1.79	0.24	0.04	26.23	0.42	0.58	0.32	1.15	0.61	0.76	0.29	98.62	0.12	98.50	
LCM-1	d d.3	29.72	34.47	1.29	1.89	0.25	0.02	26.27	0.45	0.56	0.26	1.13	0.65	0.65	0.39	97.99	0.16	97.82	
LCM-1	d d.4	29.60	34.67	1.36	1.94	0.22	0.02	26.10	0.42	0.57	0.32	1.12	0.59	0.63	0.46	98.01	0.19	97.82	
LCM-1	e e.1	29.38	35.89	1.34	1.85	0.22	0.00	26.34	0.33	0.13	0.39	0.34	1.33	0.78	0.14	98.85	0.16	98.69	
LCM-1	e e.2	29.63	35.63	1.34	1.80	0.18	0.00	26.82	0.39	0.00	0.31	0.30	0.98	0.58	0.11	98.32	0.10	98.22	
LCM-1	f f.1	29.04	34.88	1.44	1.95	0.10	0.00	25.70	0.46	0.00	0.72	0.40	2.01	1.16	0.29	98.39	0.10	98.29	
LCM-1	g g.1	29.35	34.83	1.46	2.05	0.23	0.00	26.32	0.32	0.10	0.58	0.34	1.50	0.90	0.21	98.55	0.15	98.40	
LCM-1	h h.1	29.53	35.14	1.31	2.08	0.26	0.00	26.56	0.34	0.29	0.47	0.43	1.61	0.84	0.18	99.32	0.12	99.21	
LCM-6	a a.1	29.13	33.80	1.27	2.40	0.33	0.00	24.54	0.65	0.00	1.14	0.50	2.10	1.29	0.41	0.00	97.57	0.00	97.57
LCM-6	b b.1	29.60	34.81	1.43	2.40	0.35	0.00	25.48	0.34	0.00	1.01	0.29	1.21	1.05	0.29	0.20	98.47	0.08	98.39
LCM-6	b b.2	29.45	35.22	1.25	2.03	0.29	0.00	25.03	0.44	0.07	1.02	0.38	1.51	1.17	0.31	0.11	98.28	0.05	98.24
LCM-6	c c.1	29.60	35.53	1.31	1.83	0.23	0.00	25.98	0.28	0.14	0.46	0.44	1.53	0.83	0.18	0.36	98.69	0.15	98.53
LCM-6	d d.1	29.57	34.49	1.35	2.73	0.37	0.00	25.52	0.24	0.00	0.96	0.31	1.34	0.93	0.24	0.48	98.52	0.20	98.31
LCM-6	e e.1	29.19	34.22	1.30	2.48	0.28	0.02	25.50	0.27	0.99	0.26	1.20	0.93	0.98	0.39	98.01	0.16	97.84	
LCM-6	e e.2	29.25	34.21	1.20	2.50	0.28	0.02	25.33	0.27	1.00	0.28	1.37	0.94	0.94	0.37	97.95	0.15	97.80	
LCM-6	e e.3	29.18	34.48	1.27	2.39	0.35	0.02	25.39	0.24	0.92	0.37	1.24	0.86	0.82	0.47	97.99	0.20	97.79	
LCM-6	e e.4	28.90	33.85	1.40	2.75	0.28	0.03	25.07	0.28	1.12	0.33	1.32	0.97	1.06	0.42	97.76	0.18	97.59	
LCM-6	e e.5	28.91	33.90	1.34	2.60	0.28	0.02	25.04	0.26	1.14	0.29	1.41	1.08	1.09	0.32	97.66	0.13	97.53	
LCM-6	e e.6	28.69	34.39	1.12	2.28	0.26	0.02	24.55	0.35	1.21	0.45	1.79	1.16	1.27	0.30	97.82	0.12	97.70	
LCM-6	e e.7	28.94	34.51	1.19	2.28	0.29	0.03	24.72	0.42	1.14	0.44	1.62	1.13	1.12	0.34	98.17	0.14	98.03	
LCM-9	c c.1	29.22	33.88	1.29	2.94	0.36	0.01	25.52	0.17	0.00	0.61	0.33	1.42	0.85	0.16	0.73	97.50	0.31	97.19
LCM-9	c c.2	29.44	33.95	1.07	3.15	0.62	0.05	24.32	0.20	0.01	1.28	0.31	1.30	1.20	0.32	0.42	97.64	0.17	97.46
LCM-9	d d.1	29.34	35.12	1.15	2.14	0.49	0.00	25.10	0.36	0.00	0.74	0.34	1.63	1.05	0.22	0.07	97.74	0.03	97.71
LCM-9	e e.1	29.31	34.50	1.62	2.28	0.23	0.04	25.17	0.14	0.54	0.90	0.34	1.68	1.30	0.33	0.20	98.58	0.08	98.50
LCM-9	f f.1	29.48	34.85	1.22	2.73	0.53	0.02	25.30	0.25	0.00	0.86	0.25	1.38	0.93	0.34	0.38	98.51	0.16	98.35
LCM-9	a a.1	29.04	33.15	1.29	2.59	0.32	0.03	25.14	0.28	0.84	0.40	1.39	0.89	0.99	0.48	96.82	0.20	96.61	
LCM-9	a a.2	28.92	33.62	1.23	2.60	0.35	0.04	25.06	0.28	0.83	0.30	1.26	0.86	0.90	0.55	96.80	0.23	96.57	
LCM-9	a a.4	29.15	33.72	1.23	2.49	0.35	0.05	25.45	0.26	0.82	0.34	1.26	0.83	0.89	0.44	97.26	0.18	97.07	
LCM-9	a a.5	28.92	34.03	1.20	2.49	0.38	0.04	25.22	0.26	0.77	0.32	1.24	0.80	0.84	0.44	96.92	0.18	96.74	
LCM-9	a a.6	29.06	34.17	1.22	2.42	0.38	0.03	25.16	0.14	0.73	0.26	1.17	0.71	0.77	0.53	96.75	0.22	96.52	
LCM-9	a a.7	28.87	33.45	1.21	2.37	0.34	0.03	25.56	0.25	0.72	0.34	1.23	0.74	0.70	0.54	96.36	0.23	96.13	
LCM-9	a a.8	28.96	33.53	1.20	2.35	0.33	0.04	25.57	0.22	0.71	0.36	1.24	0.74	0.77	0.51	96.52	0.22	96.31	
LCM-9	a a.9	28.90	33.95	1.17	2.35	0.38	0.04	25.47	0.31	0.68	0.34	1.18	0.73	0.67	0.44	96.61	0.19	96.42	
LCM-9	a a.10	29.18	33.96	1.17	2.33	0.38	0.03	25.28	0.24	0.64	0.35	1.26	0.80	0.81	0.40	96.84	0.17	96.66	
LCM-9	a a.11	29.32	34.21	1.15	2.32	0.37	0.05	25.76	0.32	0.65	0.33	1.25	0.70	0.75	0.50	97.67	0.21	97.46	
LCM-9	a a.12	29.45	34.61	1.12	2.36	0.40	0.05	25.68	0.21	0.68	0.37	1.21	0.69	0.80	0.48	98.11	0.20	97.91	
LCM-9	a a.13	29.58	34.48	1.19	2.41	0.37	0.06	25.60	0.20	0.65	0.35	1.22	0.75	0.71	0.44	98.02	0.19	97.83	
LCM-9	a a.14	29.68	34.58	1.17	2.45	0.41	0.04	25.71	0.25	0.63	0.27	1.30	0.70	0.72	0.44	98.36	0.19	98.17	
LCM-9	a a.15	29.56	33.58	1.24	2.43	0.41	0.04	25.73	0.18	0.67	0.26	1.22	0.77	0.69	0.51	97.29	0.21	97.08	
LCM-9	a a.16	29.55	33.89	1.22	2.44	0.40	0.04	25.78	0.21	0.64	0.33	1.18	0.71	0.84	0.43	97.66	0.18	97.48	
LCM-9	a a.17	29.63	34.05	1.22	2.48	0.39	0.03	25.83	0.13	0.63	0.28	1.25	0.71	0.74	0.53	97.87	0.22	97.65	
LCM-9	a a.18	29.60	34.94	1.17	2.24	0.39	0.03	25.67	0.27	0.48	0.46	1.46	0.67	0.75	0.46	98.58	0.19	98.38	
LCM-9	a a.19	29.45	34.80	1.21	2.20	0.35	0.02	25.68	0.28	0.51	0.44	1.33	0.67	0.66	0.41	98.00	0.17	97.83	
LCM-9	a a.20	29.32	33.77	1.19	2.31	0.37	0.02	25.66	0.14	0.50	0.43	1.37	0.63	0.66	0.53	96.90	0.22	96.68	
LCM-9	b b.1	29.65	34.22	1.17	2.26	0.41	0.04	25.71	0.20	0.58	0.43	1.34	0.62	0.63	0.57	97.81	0.24	97.57	
LCM-9	b b.2	29.75	34.74	1.20	2.32	0.36	0.03	25.74	0.29	0.49	0.37	1.31	0.68						

LCM-12	5.1	28.90	35.07	1.21	2.17	0.41	0.00	25.02	0.35	0.22	0.86	0.37	2.12	1.06	0.29	0.11	98.16	0.05	98.11	
LCM-12	c.1.1	1	29.51	33.06	1.04	3.63	0.63	0.09	24.55	0.00	0.00	1.65	0.36	0.91	1.19	0.38	0.43	97.43	0.18	97.25
LCM-12	c.1.2	2	29.45	32.90	1.09	3.60	0.54	0.08	24.95	0.77	0.19	1.60	0.10	0.79	0.98	0.31	0.66	98.01	0.28	97.73
LCM-12	c.1.3	3	28.99	33.31	0.92	3.42	0.64	0.10	25.08	0.47	0.00	1.59	0.03	1.07	1.06	0.35	0.35	97.36	0.15	97.22
LCM-12	c.1.4	4	28.77	33.16	1.08	3.64	0.66	0.06	25.23	0.68	0.00	1.62	0.14	0.98	1.15	0.39	0.61	98.18	0.26	97.93
LCM-12	c.1.5	5	29.25	33.67	1.07	3.37	0.63	0.05	24.69	0.43	0.14	1.53	0.17	1.04	1.08	0.27	0.59	97.97	0.25	97.72
LCM-12	c.1.6	6	28.78	33.16	1.09	3.52	0.66	0.06	24.83	0.47	0.00	1.47	0.21	1.12	0.89	0.33	0.57	97.18	0.24	96.94
LCM-12	c.1.7	7	29.09	33.20	1.04	3.50	0.61	0.05	25.25	0.17	0.02	1.54	0.21	0.99	0.93	0.24	0.61	97.46	0.26	97.20
LCM-12	c.1.8	8	29.29	33.60	1.01	3.57	0.57	0.05	25.36	0.00	0.06	1.59	0.21	0.99	1.14	0.30	0.41	98.16	0.17	97.99
LCM-12	c.1.9	9	29.06	34.00	1.13	3.54	0.58	0.10	25.03	0.00	0.00	1.49	0.16	0.97	1.14	0.37	0.55	98.12	0.23	97.89
LCM-12	c.1.10	10	29.13	33.71	1.15	3.50	0.64	0.07	25.04	0.00	0.00	1.50	0.24	1.04	1.13	0.37	0.56	98.08	0.24	97.84
LCM-12	c.1.11	11	29.25	32.96	1.13	3.60	0.64	0.05	25.52	0.51	0.13	1.52	0.13	1.00	1.00	0.27	0.46	98.17	0.19	97.98
LCM-12	c.1.12	12	29.31	33.66	1.08	3.72	0.53	0.11	24.97	0.26	0.00	1.53	0.29	1.02	1.13	0.37	0.59	98.54	0.25	98.29
LCM-12	c.1.13	13	28.89	33.28	1.00	3.76	0.66	0.08	25.20	0.13	0.05	1.50	0.20	1.02	1.08	0.31	0.34	97.47	0.14	97.32
LCM-12	c.1.14	14	29.66	31.92	1.04	3.39	0.67	0.05	24.19	0.34	0.00	1.63	0.23	0.93	1.06	0.37	0.45	95.92	0.19	95.74
LCM-12	c.1.15	15	28.99	33.09	1.08	3.45	0.55	0.10	25.02	0.00	0.17	1.45	0.22	0.91	1.18	0.30	0.55	97.06	0.23	96.83
LCM-12	c.1.16	16	28.99	33.52	1.08	3.57	0.63	0.08	25.24	0.00	0.07	1.59	0.12	0.71	0.98	0.37	0.57	97.51	0.24	97.27
LCM-12	c.1.17	17	28.95	33.65	1.10	3.63	0.58	0.07	24.95	0.00	0.08	1.68	0.25	1.23	1.11	0.39	0.52	98.18	0.22	97.95
LCM-12	c.1.18	18	28.99	33.10	1.08	3.50	0.62	0.09	24.95	0.00	0.00	1.67	0.15	1.09	0.94	0.34	0.46	96.98	0.19	96.79
LCM-12	c.1.19	19	29.32	33.45	1.03	3.55	0.64	0.07	25.11	0.04	0.21	1.57	0.13	0.99	1.12	0.40	0.60	98.21	0.25	97.96
LCM-12	c.1.20	20	29.21	33.45	1.02	3.44	0.56	0.05	25.03	0.34	0.18	1.56	0.18	1.28	1.16	0.36	0.61	98.43	0.26	98.17
LCM-12	c.1.21	21	29.12	33.23	1.09	3.64	0.60	0.08	24.97	0.21	0.07	1.54	0.39	1.07	0.90	0.34	0.66	97.89	0.28	97.61
LCM-12	c.1.22	22	29.08	32.81	1.02	3.52	0.54	0.10	25.18	0.13	0.16	1.57	0.22	1.03	1.16	0.32	0.62	97.47	0.26	97.21
LCM-12	c.1.23	23	29.18	32.71	1.02	3.33	0.53	0.10	24.83	0.26	0.06	1.58	0.25	1.04	1.05	0.32	0.48	96.73	0.20	96.53
LCM-12	c.1.24	24	28.80	33.80	0.93	2.98	0.49	0.04	24.65	0.98	0.00	1.70	0.27	1.41	1.29	0.30	0.36	98.00	0.15	97.85
LCM-12	c.1.25	25	28.55	33.70	0.91	3.06	0.55	0.09	24.26	0.51	0.22	1.79	0.27	1.24	1.39	0.40	0.24	97.16	0.10	97.06
LCM-12	c.1.26	26	28.63	33.26	0.85	3.15	0.54	0.08	24.24	0.90	0.12	1.81	0.28	1.34	1.32	0.52	0.32	97.35	0.13	97.22
LCM-12	c.1.27	27	28.80	34.46	0.92	3.01	0.59	0.04	25.02	0.30	0.04	1.65	0.25	1.13	1.19	0.39	0.27	98.06	0.11	97.95
LCM-12	c.1.28	28	28.82	35.09	0.81	2.85	0.65	0.07	24.73	0.26	0.07	1.55	0.33	0.99	1.15	0.41	0.35	98.13	0.15	97.98
LCM-12	c.1.29	29	28.38	34.66	0.94	2.99	0.52	0.09	24.67	0.98	0.03	1.52	0.20	1.19	1.10	0.37	0.26	97.88	0.11	97.77
LCM-12	c.1.30	30	28.78	34.19	0.96	2.68	0.52	0.04	25.10	0.00	0.00	1.30	0.33	1.23	0.90	0.19	0.34	96.58	0.14	96.43
LCM-12	b.1.1	1	29.75	34.94	1.21	2.18	0.40	0.00	26.96	0.04	0.00	0.60	0.38	1.11	0.64	0.17	0.51	98.90	0.21	98.69
LCM-12	b.1.2	2	29.60	34.97	1.28	2.20	0.41	0.03	26.88	0.59	0.04	0.48	0.48	1.14	0.61	0.06	0.31	99.06	0.13	98.93
LCM-12	b.1.3	3	30.13	34.88	1.38	2.30	0.38	0.02	26.78	0.21	0.00	0.61	0.39	1.22	0.62	0.14	0.22	99.29	0.09	99.19
LCM-12	b.1.4	4	30.12	35.31	1.31	2.25	0.39	0.05	26.48	0.34	0.04	0.61	0.31	1.31	0.66	0.15	0.44	99.77	0.18	99.58
LCM-12	b.1.5	5	29.51	34.57	1.16	2.94	0.46	0.06	25.74	0.00	0.00	1.18	0.22	1.22	0.85	0.33	0.33	98.55	0.14	98.41
LCM-12	b.1.6	6	29.31	34.86	1.07	2.72	0.48	0.06	25.75	0.00	0.00	1.11	0.38	1.09	0.97	0.18	0.33	98.32	0.14	98.18
LCM-12	b.1.7	7	29.77	34.32	1.16	2.89	0.45	0.01	25.37	0.09	0.21	1.16	0.35	0.98	1.02	0.30	0.58	98.66	0.25	98.41
LCM-12	b.1.8	8	29.42	34.28	1.19	3.01	0.43	0.08	25.65	0.00	0.12	1.19	0.36	1.09	1.09	0.26	0.46	98.62	0.19	98.43
LCM-12	b.1.9	9	29.43	34.92	1.12	2.99	0.50	0.05	25.72	0.13	0.00	1.27	0.28	1.17	1.00	0.20	0.53	99.30	0.22	99.07
LCM-12	b.1.10	10	29.15	34.41	1.17	2.83	0.47	0.04	26.04	0.21	0.00	1.23	0.27	0.86	1.04	0.15	0.36	98.23	0.15	98.08
LCM-12	b.1.11	11	29.12	34.47	1.02	2.89	0.49	0.04	25.56	0.00	0.00	1.37	0.34	0.99	0.98	0.25	0.28	97.79	0.12	97.67
LCM-12	b.1.12	12	29.10	34.43	1.11	2.67	0.51	0.04	25.01	0.17	0.00	1.19	0.38	1.16	1.03	0.23	0.34	97.36	0.14	97.22
LCM-12	b.1.13	13	29.41	35.06	1.11	2.52	0.40	0.04	25.96	0.34	0.05	0.99	0.30	1.30	0.81	0.22	0.43	98.91	0.18	98.73
LCM-12	b.1.14	14	29.52	35.60	1.24	2.19	0.34	0.02	27.09	0.64	0.00	0.56	0.31	1.28	0.56	0.07	0.31	99.72	0.13	99.59
LCM-12	b.1.15	15	29.64	35.14	1.12	2.15	0.33	0.00	26.71	0.51	0.12	0.53	0.48	1.22	0.51	0.11	0.28	98.85	0.12	98.73
LCM-12	b.1.16	16	29.69	35.17	1.13	2.23	0.36	0.00	26.97	0.17	0.20	0.61	0.27	1.53	0.64	0.21	0.40	99.59	0.17	99.42
LCM-12	b.1.17	17	29.67	35.78	1.10	2.17	0.33	0.02	26.76	0.51	0.00	0.61	0.45	1.59	0.58	0.11	0.35	100.01	0.15	99.87
LCM-12	b.1.18	18	29.36	35.30	1.10	2.03	0.35	0.05	26.15	0.21	0.00	0.58	0.40	1.31	0.69	0.08	0.44	98.04	0.18	97.86
LCM-12	b.1.19	19	29.85	35.30	1.06	2.06	0.26	0.04	26.73	0.00	0.00	0.58	0.64	1.37	0.56	0.12	0.21	98.77	0.09	98.68
LCM-12	b.1.20	20	29.22	34.97	1.20	2.38	0.41	0.05	25.70	0.47	0.26	1.04	0.41	1.25	0.59	0.10	0.71	98.78	0.30	98.48
LCM-12	a.1.1	1	29.68	35.96	1.15	1.67	0.24	0.02	26.76	0.89	0.09	0.60	0.36	1.13	0.64	0.10	0.19	99.48	0.08	99.40
LCM-12	a.1.2	2	29.29	36.29	1.11	1.59	0.26	0.06	26.67	1.57	0.01	0.49	0.43	1.09	0.51	0.13	0.47	99.95	0.20	99.76
LCM-12	a.1.3	3	29.30	35.53	1.19	1.72	0.23	0.02	26.53	0.89	0.11	0.65	0.33	1.25	0.60	0.06	0.20	98.59	0.08	98.51
LCM-12	a.1.4	4	29.31	35.87	1.07	1.46	0.22	0.00	26.77	0.38	0.33	0.48	0.28	1.23	0.59	0.15	0.24	98.39	0.10	98.28
LCM-12	a.1.5	5	29.53	35.58	1.05	1.67	0.24	0.02	27.04	0.59	0.00	0.65	0.20	1.03	0.					

LCM-12	a	6	29.41	31.67	1.35	3.01	0.46	0.06	24.64	0.31	1.27	0.28	1.28	0.72	0.70	0.59	95.76	0.25	95.51	
LCM-12	a	7	29.35	32.45	1.32	3.14	0.47	0.04	24.57	0.28	1.21	0.29	1.21	0.66	0.71	0.72	96.43	0.30	96.12	
LCM-12	a	8	29.15	32.69	1.31	3.17	0.43	0.05	24.76	0.29	1.30	0.31	1.26	0.75	0.76	0.65	96.87	0.27	96.59	
LCM-12	a	9	29.21	33.01	1.35	3.16	0.46	0.05	24.56	0.28	1.35	0.33	1.21	0.73	0.80	0.61	97.12	0.26	96.86	
LCM-12	a	10	29.22	32.72	1.37	3.19	0.42	0.05	24.59	0.21	1.32	0.28	1.19	0.77	0.82	0.64	96.79	0.27	96.52	
LCM-12	a	11	29.20	32.16	1.30	3.14	0.47	0.06	24.75	0.28	1.29	0.25	1.23	0.69	0.79	0.61	96.23	0.26	95.97	
LCM-12	a	12	28.95	33.11	1.16	2.54	0.43	0.04	24.13	0.64	1.41	0.29	1.27	0.78	0.88	0.43	96.06	0.18	95.88	
LCM-12	a	13	28.87	33.52	1.12	2.62	0.43	0.05	24.19	0.71	1.48	0.24	1.32	0.78	0.81	0.37	96.51	0.15	96.35	
LCM-12	a	14	29.36	32.29	1.32	3.23	0.46	0.05	24.57	0.35	1.33	0.25	1.27	0.70	0.77	0.58	96.52	0.24	96.27	
LCM-12	a	15	29.30	32.58	1.40	3.20	0.48	0.05	24.84	0.20	1.30	0.35	1.24	0.68	0.75	0.59	96.94	0.25	96.70	
LCM-12	a	16	29.33	33.21	1.27	3.10	0.43	0.06	24.47	0.36	1.29	0.24	1.27	0.68	0.67	0.56	96.92	0.24	96.69	
LCM-12	a	17	29.11	33.16	1.34	2.89	0.48	0.06	24.20	0.27	1.25	0.32	1.25	0.65	0.68	0.49	96.14	0.21	95.94	
LCM-12	a	18	29.30	32.27	1.35	3.12	0.44	0.06	24.25	0.27	1.26	0.32	1.22	0.73	0.68	0.54	95.80	0.23	95.57	
LCM-12	a	19	29.27	32.65	1.35	3.10	0.44	0.06	24.55	0.24	1.27	0.36	1.28	0.66	0.66	0.61	96.50	0.26	96.24	
LCM-12	a	20	29.34	33.28	1.36	2.72	0.41	0.05	24.53	0.32	1.10	0.34	1.27	0.67	0.71	0.63	96.72	0.26	96.46	
LCM-13	a	1	29.52	33.74	1.34	2.27	0.35	0.02	25.20	0.24	0.91	0.40	1.35	0.77	0.79	0.41	97.31	0.17	97.14	
LCM-13	a	2	29.37	34.23	1.28	2.25	0.35	0.02	25.18	0.31	0.92	0.38	1.37	0.83	0.90	0.38	97.75	0.16	97.59	
LCM-13	a	3	29.38	34.32	1.24	2.18	0.34	0.02	24.76	0.26	0.93	0.41	1.35	0.89	0.89	0.32	97.29	0.13	97.16	
LCM-13	a	4	29.50	34.46	1.31	2.32	0.35	0.03	24.97	0.25	0.94	0.31	1.41	0.82	0.91	0.46	98.03	0.19	97.84	
LCM-13	a	5	29.29	33.34	1.25	2.33	0.38	0.03	24.86	0.30	1.01	0.35	1.32	0.95	1.03	0.32	96.75	0.14	96.61	
LCM-13	a	6	28.97	33.67	1.15	2.07	0.34	0.01	24.53	0.41	1.14	0.42	1.58	0.99	1.03	0.25	96.57	0.11	96.46	
LCM-13	a	7	29.11	33.74	1.24	2.34	0.38	0.02	24.53	0.36	1.07	0.35	1.47	0.92	1.04	0.34	96.89	0.14	96.75	
LCM-13	a	8	29.30	33.60	1.34	2.52	0.39	0.04	24.93	0.24	1.01	0.37	1.39	0.86	0.99	0.39	97.35	0.17	97.18	
LCM-13	a	9	29.33	33.10	1.25	2.37	0.30	0.02	25.15	0.23	0.98	0.33	1.42	0.90	0.95	0.39	96.71	0.17	96.54	
LCM-13	a	10	29.26	33.65	1.37	2.42	0.32	0.03	25.04	0.18	0.96	0.40	1.44	0.81	0.97	0.47	97.30	0.20	97.10	
LCM-13	b	1	29.39	33.43	1.27	2.48	0.34	0.03	24.98	0.17	0.70	0.45	1.36	0.73	0.83	0.52	96.67	0.22	96.45	
LCM-13	b	2	29.74	34.19	1.26	2.37	0.35	0.03	25.08	0.18	0.61	0.37	1.38	0.58	0.69	0.46	97.30	0.19	97.10	
LCM-13	b	3	29.59	32.87	1.32	2.47	0.34	0.03	24.84	0.21	0.73	0.43	1.61	0.75	0.84	0.52	96.55	0.22	96.34	
LCM-13	b	4	29.37	33.34	1.34	2.54	0.29	0.06	24.81	0.24	0.93	0.29	1.37	0.96	1.02	0.44	96.99	0.18	96.80	
LCM-13	b	5	29.27	33.37	1.35	2.59	0.30	0.04	24.46	0.16	1.05	0.35	1.42	1.04	1.05	0.51	96.96	0.21	96.74	
LCM-13	b	6	29.18	33.08	1.40	2.62	0.30	0.03	24.27	0.17	1.07	0.32	1.49	1.06	1.19	0.48	96.65	0.20	96.45	
LCM-13	b	7	29.22	32.11	1.45	2.70	0.29	0.05	24.29	0.16	1.19	0.30	1.44	1.24	1.26	0.47	96.15	0.20	95.95	
LCM-13	b	8	29.09	32.30	1.52	2.95	0.30	0.05	24.36	0.17	1.27	0.38	1.43	1.35	1.43	0.44	97.04	0.19	96.86	
LCM-13	b	9	28.75	33.30	1.22	2.43	0.30	0.06	23.96	0.21	1.28	0.37	1.53	1.35	1.37	0.27	96.40	0.11	96.29	
LCM-13	b	10	28.99	33.06	1.21	2.34	0.27	0.05	24.12	0.20	1.20	0.29	1.47	1.26	1.39	0.30	96.16	0.13	96.03	
LCM-13	b	11	29.45	32.60	1.40	2.60	0.28	0.05	24.50	0.22	1.13	0.32	1.37	1.14	1.21	0.44	96.71	0.18	96.53	
LCM-13	b	12	29.39	33.01	1.41	2.61	0.28	0.07	24.68	0.16	1.04	0.33	1.42	0.99	1.10	0.46	96.95	0.19	96.76	
LCM-13	b	13	29.66	33.14	1.34	2.47	0.35	0.03	24.87	0.11	0.87	0.34	1.61	0.88	1.04	0.49	97.18	0.21	96.97	
LCM-13	b	14	29.82	32.59	1.26	2.40	0.34	0.02	25.17	0.21	0.68	0.39	1.48	0.66	0.78	0.50	96.29	0.21	96.08	
LCM-13	b	15	29.79	33.80	1.24	2.36	0.37	0.02	25.10	0.24	0.70	0.40	1.38	0.65	0.63	0.52	97.22	0.22	97.00	
LCM-13	c	1.1	28.66	34.96	1.24	2.30	0.34	0.00	24.90	0.29	0.00	0.98	0.47	1.96	1.54	0.42	0.16	98.23	0.07	98.16
LCM-13	d	2.1	29.14	35.17	1.32	2.26	0.40	0.02	25.20	0.30	0.18	0.87	0.41	1.78	1.34	0.40	0.25	99.04	0.10	98.94
LCM-13	e	3.1	29.16	35.93	1.18	1.96	0.24	0.00	25.34	0.34	0.00	0.82	0.41	1.79	1.13	0.30	0.28	98.88	0.12	98.76
LCM-13	f	4.1	28.96	34.73	1.24	2.40	0.24	0.01	24.67	0.26	0.00	1.05	0.46	1.99	1.61	0.41	0.10	98.12	0.04	98.08
LCM-13	f	4.2	29.22	35.30	1.28	2.18	0.31	0.01	24.93	0.23	0.06	0.85	0.47	1.88	1.33	0.32	0.21	98.60	0.09	98.51
LCM-15	a	1	29.09	33.12	1.40	2.59	0.21	0.03	23.88	0.14	1.06	0.31	1.47	1.33	1.48	0.38	96.48	0.16	96.31	
LCM-15	a	2	29.16	33.90	1.24	1.91	0.20	0.01	24.21	0.26	0.92	0.45	1.73	1.21	1.43	0.24	96.85	0.10	96.75	
LCM-15	a	3	29.21	33.45	1.19	1.77	0.20	0.02	24.47	0.27	0.90	0.40	1.69	1.27	1.32	0.19	96.34	0.08	96.26	
LCM-15	a	4	29.19	34.12	1.21	1.85	0.21	0.03	24.23	0.28	0.92	0.45	1.86	1.31	1.37	0.21	97.26	0.09	97.17	
LCM-15	a	5	29.36	34.44	1.20	1.86	0.27	0.02	24.05	0.24	0.92	0.50	1.73	1.25	1.33	0.28	97.42	0.12	97.30	
LCM-15	a	6	29.32	33.32	1.27	2.25	0.21	0.02	24.73	0.23	0.94	0.22	1.49	1.08	1.22	0.36	96.65	0.15	96.50	
LCM-15	a	7	29.39	33.77	1.27	2.31	0.29	0.02	25.06	0.00	0.94	0.33	1.37	1.05	1.14	0.31	97.25	0.13	97.11	
LCM-15	a	8	29.34	34.11	1.24	2.19	0.19	0.03	24.58	0.17	1.00	0.33	1.40	1.31	1.34	0.27	97.47	0.11	97.36	
LCM-15	a	9	29.22	34.14	1.19	2.07	0.25	0.03	24.23	0.17	1.08	0.34	1.52	1.38	1.41	0.25	97.27	0.10	97.16	
LCM-15	b	1	29.18	34.03	1.33	2.43	0.25	0.03	24.57	0.09	1.08	0.28	1.50	1.38	1.53	0.42	98.09	0.18	97.91	
LCM-15	b	2	29.24	34.19	1.34	2.36	0.32	0.03	24.66	0.18	1.08	0.31	1.52	1.44	1.45	0.25	98.37	0.10	98.26	
LCM-15	b	3	29.18	34.11	1.35	2.53	0.31	0.03	24.60	0.20	1.15	0.32	1.35	1.17	1.20	0.34	97.84	0.14	97.69	
LCM-15	b	4	29.45	33.76	1.37	2.52	0.27	0.02	24.67	0.25	1.10	0.31	1.44	1.19	1.32	0.34	98.01	0.14	97.87	
LCM-15	b	5	29.26	33.47	1.34	2.59	0.33	0.02	24.69	0.22	1.17	0.32	1.45	1.23	1.12	0.32	97.51	0.13	97.37	
LCM-15	b	6	29.46	33.96	1.37	2.61	0.29	0.05	24.59	0.16	1.16	0.37								

LCM-20	a 8	30.62	36.28	1.55	1.36	0.09	0.01	27.45	0.08	0.15	0.09	0.27	0.21	0.27	0.55	98.99	0.23	98.75
LCM-20	a 9	30.68	35.92	1.52	1.53	0.13	0.00	29.31	0.12	0.16	0.06	0.29	0.22	0.21	0.50	100.64	0.21	100.43
LCM-20	a 10	30.40	35.58	1.60	1.55	0.10	0.00	27.37	0.08	0.16	0.08	0.34	0.26	0.21	0.54	98.26	0.23	98.04
LCM-20	a 11	30.32	35.01	1.59	1.61	0.11	0.00	27.24	0.08	0.11	0.10	0.36	0.29	0.32	0.48	97.63	0.20	97.43
LCM-20	a 12	30.34	35.62	1.64	1.48	0.09	0.00	27.42	0.07	0.11	0.07	0.34	0.31	0.25	0.57	98.29	0.24	98.05
LCM-20	a 13	30.29	35.76	1.55	1.55	0.09	0.00	27.26	0.16	0.15	0.12	0.36	0.35	0.29	0.49	98.42	0.21	98.22
LCM-20	a 14	30.43	35.92	1.64	1.47	0.10	0.00	27.62	0.08	0.12	0.09	0.29	0.26	0.33	0.61	98.94	0.26	98.68
LCM-20	a 15	30.25	35.37	1.57	1.55	0.06	0.00	27.69	0.09	0.14	0.05	0.40	0.29	0.37	0.54	98.36	0.23	98.13
LCM-20	a 16	30.24	35.92	1.36	1.37	0.08	0.00	27.39	0.17	0.13	0.09	0.39	0.31	0.29	0.46	98.21	0.20	98.01
LCM-20	a 17	30.52	35.88	1.56	1.57	0.12	0.01	27.33	0.24	0.13	0.07	0.30	0.22	0.26	0.56	98.78	0.24	98.55
LCM-20	a 18	30.54	35.23	1.45	1.39	0.13	0.01	27.55	0.12	0.16	0.09	0.38	0.27	0.30	0.49	98.10	0.20	97.89
LCM-20	a 19	30.32	35.48	1.52	1.41	0.09	0.01	27.37	0.11	0.15	0.13	0.32	0.36	0.23	0.44	97.94	0.18	97.75
LCM-20	a 20	30.46	36.21	1.44	1.35	0.06	0.02	27.22	0.23	0.16	0.07	0.32	0.33	0.37	0.45	98.70	0.19	98.51
LCM-20	b 1	29.92	34.56	1.33	1.44	0.24	0.00	26.95	0.17	0.19	0.27	0.72	0.29	0.29	0.44	96.81	0.19	96.63
LCM-20	b 2	29.91	35.44	1.29	1.40	0.30	0.02	26.94	0.17	0.15	0.35	0.73	0.28	0.27	0.47	97.72	0.20	97.52
LCM-20	b 3	29.91	35.59	1.29	1.39	0.22	0.02	26.83	0.17	0.16	0.34	0.73	0.28	0.31	0.57	97.80	0.24	97.56
LCM-20	b 4	29.97	35.68	1.30	1.38	0.28	0.02	26.66	0.15	0.13	0.27	0.69	0.32	0.30	0.49	97.64	0.21	97.43
LCM-20	b 5	29.66	35.12	1.33	1.42	0.25	0.03	26.76	0.15	0.18	0.31	0.68	0.33	0.34	0.49	97.03	0.21	96.83
LCM-20	b 6	29.50	34.71	1.27	1.41	0.29	0.03	26.55	0.18	0.18	0.24	0.77	0.30	0.34	0.54	96.31	0.23	96.08
LCM-20	b 7	29.55	35.52	1.30	1.39	0.25	0.01	26.66	0.17	0.19	0.29	0.70	0.26	0.29	0.48	97.07	0.20	96.86
LCM-20	b 8	30.21	36.21	1.34	1.38	0.26	0.01	26.36	0.27	0.17	0.23	0.62	0.21	0.24	0.56	98.06	0.23	97.83
LCM-20	b 9	29.68	35.79	1.29	1.40	0.25	0.00	26.71	0.22	0.19	0.34	0.68	0.33	0.33	0.54	97.75	0.23	97.53
LCM-20	b 10	29.97	35.67	1.30	1.48	0.26	0.02	26.73	0.22	0.19	0.24	0.78	0.25	0.32	0.51	97.92	0.21	97.71
LCM-20	b 11	30.02	35.99	1.37	1.44	0.26	0.01	26.60	0.23	0.21	0.27	0.66	0.26	0.31	0.53	98.16	0.22	97.93
LCM-20	b 12	29.83	35.68	1.34	1.44	0.25	0.01	26.59	0.17	0.20	0.28	0.79	0.24	0.26	0.50	97.59	0.21	97.38
LCM-20	b 13	29.81	34.82	1.38	1.38	0.23	0.02	26.83	0.22	0.15	0.29	0.68	0.25	0.34	0.51	96.91	0.22	96.70
LCM-20	b 14	30.10	34.81	1.35	1.41	0.25	0.02	27.06	0.20	0.18	0.25	0.74	0.27	0.28	0.45	97.35	0.19	97.16
LCM-20	b 15	30.06	35.28	1.35	1.40	0.25	0.01	27.08	0.12	0.16	0.30	0.61	0.22	0.33	0.51	97.66	0.21	97.45
LCM-20	b 16	30.10	35.71	1.39	1.39	0.27	0.01	26.93	0.16	0.17	0.27	0.69	0.30	0.28	0.52	98.17	0.22	97.95
LCM-20	b 17	30.05	34.10	1.39	1.45	0.25	0.01	26.86	0.21	0.14	0.31	0.65	0.27	0.31	0.51	96.50	0.21	96.29
LCM-20	b 18	29.93	35.31	1.47	1.47	0.26	0.01	26.98	0.20	0.17	0.22	0.55	0.20	0.26	0.62	97.66	0.26	97.39
LCM-20	b 19	30.09	35.29	1.45	1.46	0.28	0.01	26.79	0.20	0.17	0.28	0.62	0.24	0.31	0.50	97.69	0.21	97.48
LCM-20	b 20	29.76	34.55	1.44	1.41	0.26	0.02	26.71	0.27	0.18	0.23	0.56	0.26	0.29	0.86	96.80	0.36	96.43
LCM-21	a 1	29.44	34.56	1.35	2.25	0.27	0.03	25.71	0.44	0.55	0.36	1.50	0.85	0.89	0.51	98.70	0.21	98.48
LCM-21	a 2	29.29	34.31	1.42	2.18	0.29	0.04	25.58	0.36	0.58	0.40	1.48	0.87	0.88	0.47	98.16	0.20	97.96
LCM-21	a 3	29.20	34.28	1.29	1.84	0.27	0.02	25.81	0.50	0.52	0.51	1.79	0.84	0.79	0.32	97.97	0.14	97.83
LCM-21	a 5	29.34	34.68	1.23	2.02	0.30	0.03	25.45	0.44	0.59	0.43	1.71	0.76	0.96	0.30	98.24	0.13	98.11
LCM-21	a 6	29.36	34.75	1.29	2.16	0.28	0.05	25.49	0.32	0.60	0.44	1.57	0.78	0.83	0.33	98.24	0.14	98.10
LCM-21	a 7	29.42	34.45	1.36	2.14	0.28	0.04	25.61	0.29	0.64	0.40	1.43	0.88	0.90	0.35	98.17	0.15	98.02
LCM-21	a 8	29.50	34.39	1.35	2.17	0.27	0.03	25.81	0.30	0.60	0.35	1.50	0.77	0.85	0.38	98.27	0.16	98.11
LCM-21	a 9	29.43	34.32	1.40	2.27	0.27	0.03	25.53	0.42	0.59	0.35	1.36	0.73	0.81	0.42	97.92	0.18	97.74
LCM-21	a 10	29.43	34.25	1.45	2.27	0.27	0.02	25.39	0.36	0.55	0.34	1.42	0.70	0.77	0.50	97.73	0.21	97.52
LCM-22	a 1	28.94	33.37	1.39	2.75	0.31	0.05	24.57	0.13	1.21	0.27	1.38	1.11	1.22	0.49	97.17	0.21	96.96
LCM-22	a 2	29.67	34.21	1.30	2.31	0.28	0.03	25.47	0.12	0.60	0.45	1.51	0.76	0.78	0.50	97.98	0.21	97.77
LCM-22	a 3	29.49	34.67	1.31	2.34	0.31	0.02	25.56	0.15	0.54	0.42	1.59	0.68	0.77	0.43	98.27	0.18	98.09
LCM-22	a 4	29.44	34.81	1.28	2.24	0.28	0.02	25.62	0.16	0.62	0.43	1.42	0.61	0.72	0.42	98.06	0.18	97.88
LCM-22	a 5	29.42	34.69	1.28	2.25	0.32	0.03	25.30	0.22	0.65	0.34	1.39	0.76	0.85	0.48	97.99	0.20	97.78
LCM-22	a 6	29.31	33.66	1.35	2.27	0.28	0.04	25.51	0.25	0.71	0.42	1.45	0.79	0.86	0.42	97.31	0.17	97.13
LCM-22	a 7	29.35	33.88	1.33	2.37	0.31	0.04	25.65	0.12	0.71	0.40	1.41	0.75	0.85	0.46	97.62	0.19	97.43
LCM-22	a 8	29.36	34.23	1.34	2.41	0.26	0.04	25.52	0.21	0.67	0.42	1.53	0.78	0.80	0.43	97.99	0.18	97.81
LCM-22	a 9	29.44	33.00	1.36	2.34	0.26	0.04	25.61	0.14	0.69	0.47	1.40	0.77	0.82	0.45	96.78	0.19	96.59
LCM-22	a 10	29.48	34.03	1.31	2.36	0.28	0.04	25.69	0.16	0.68	0.39	1.59	0.78	0.78	0.44	98.00	0.18	97.82
LCM-22	a 11	29.61	34.06	1.33	2.31	0.22	0.04	25.56	0.15	0.62	0.46	1.54	0.73	0.80	0.49	97.91	0.20	97.71
LCM-22	a 12	29.41	34.04	1.33	2.38	0.27	0.03	25.66	0.10	0.63	0.44	1.44	0.74	0.81	0.40	97.69	0.17	97.51
LCM-22	a 13	29.45	34.19	1.32	2.35	0.28	0.03	25.71	0.17	0.60	0.43	1.62	0.67	0.73	0.45	97.99	0.19	97.80
LCM-22	a 14	29.67	34.10	1.29	2.23	0.27	0.01	25.74	0.22	0.60	0.56	1.59	0.74	0.79	0.38	98.19	0.16	98.03
LCM-22	a 15	29.40	34.67	1.29	2.33	0.28	0.02	25.80	0.14	0.52	0.43	1.57	0.71	0.78	0.44	98.36	0.18	98.18
LCM-22	a 16	29.41	34.54	1.22	2.22	0.29	0.03	25.53	0.22	0.56	0.47	1.49	0.71	0.75	0.52	97.95	0.22	97.73
LCM-22	a 17	29.47	34.83	1.23	2.28	0.32	0.03	25.62	0.21	0.59	0.47	1.71	0.75	0.89	0.42	98.80	0.18	98.62
LCM-22	a 18	29.43	34.35	1.27	2.32	0.27	0.03	25.52	0.25	0.58	0.48	1.58	0.74	0.89	0.42	98.11	0.18	97.94
LCM-22	a 19	29.20	33.91	1.32	2.55	0.30	0.04	24.74	0.17	0.96	0.38	1.47	1.31	1.28	0.41	98.04	0.17	97.86
LCM-22	a 20	29.36	33.9															

LCM-23	b	1	29.80	35.22	1.44	1.93	0.12	0.02	25.71	0.26	0.63	0.32	1.20	0.86	0.87	0.42	98.77	0.18	98.60	
LCM-23	b	2	29.73	34.59	1.41	1.98	0.15	0.02	25.96	0.26	0.63	0.36	1.15	0.80	0.89	0.37	98.30	0.15	98.15	
LCM-23	b	3	29.65	34.52	1.48	1.86	0.12	0.03	26.00	0.14	0.66	0.31	1.29	0.90	0.85	0.33	98.14	0.14	98.00	
LCM-23	b	4	29.37	34.81	1.49	1.78	0.10	0.04	25.94	0.19	0.70	0.29	1.26	0.93	0.90	0.35	98.15	0.15	98.00	
LCM-23	b	5	29.72	35.37	1.52	1.89	0.09	0.02	25.85	0.13	0.72	0.21	1.18	0.96	0.98	0.38	99.01	0.16	98.85	
LCM-23	b	6	29.51	34.87	1.52	1.80	0.09	0.03	25.63	0.19	0.73	0.33	1.10	0.88	1.04	0.42	98.15	0.18	97.97	
LCM-23	b	7	29.33	34.88	1.43	1.78	0.12	0.03	25.74	0.24	0.71	0.31	1.10	0.90	0.92	0.31	97.77	0.13	97.64	
LCM-23	b	8	29.38	34.14	1.41	1.79	0.10	0.03	25.75	0.14	0.70	0.31	1.16	0.87	0.92	0.29	96.97	0.12	96.85	
LCM-23	b	9	29.37	34.70	1.40	1.68	0.13	0.02	25.86	0.15	0.71	0.35	1.22	0.91	0.94	0.31	97.74	0.13	97.61	
LCM-23	b	10	29.10	34.65	1.52	1.84	0.10	0.02	25.56	0.20	0.72	0.27	1.13	0.87	0.97	0.42	97.36	0.18	97.18	
LCM-23	c	1.1	29.36	34.46	1.49	1.76	0.11	0.00	25.68	0.17	0.46	0.33	1.29	0.80	0.15	0.15	96.21	0.06	96.15	
LCM-23	d	2.1	29.17	33.90	1.56	1.84	0.14	0.00	25.69	0.15	0.06	0.47	0.30	1.19	0.67	0.10	0.40	95.64	0.17	95.47
LCM-23	e	3.1	28.88	32.93	1.42	2.39	0.27	0.03	24.50	0.24		0.94	0.25	1.57	1.06	0.35	0.25	95.07	0.11	94.96
LCM-25	a	3	29.56	34.55	1.41	1.92	0.17	0.03	25.77	0.21	0.35	0.29	1.12	0.59	0.58	0.46	97.00	0.19	96.81	
LCM-25	a	4	29.20	34.53	1.28	1.74	0.16	0.03	25.72	0.20	0.42	0.32	1.12	0.66	0.71	0.38	96.46	0.16	96.30	
LCM-25	a	5	29.39	32.90	1.32	1.70	0.19	0.03	26.04	0.23	0.45	0.36	1.25	0.66	0.76	0.33	95.60	0.14	95.46	
LCM-25	a	6	29.42	33.97	1.47	1.90	0.23	0.05	25.77	0.28	0.42	0.39	1.33	0.68	0.70	0.45	97.06	0.19	96.87	
LCM-25	a	7	29.25	34.00	1.37	1.94	0.19	0.02	25.54	0.28	0.45	0.41	1.48	0.70	0.74	0.44	96.82	0.18	96.63	
LCM-25	a	8	29.17	32.69	1.49	2.38	0.28	0.03	24.95	0.32	0.56	0.47	1.59	0.77	0.90	0.46	96.06	0.19	95.87	
LCM-25	a	9	29.22	32.88	1.49	2.27	0.30	0.05	25.09	0.20	0.64	0.42	1.55	0.85	0.93	0.48	96.35	0.20	96.15	
LCM-25	a	10	28.75	33.29	1.24	2.06	0.23	0.05	24.43	0.50	0.76	0.45	1.79	0.94	1.08	0.32	95.88	0.13	95.75	
LCM-25	b	1	29.53	33.35	1.48	1.76	0.15	0.02	25.43	0.20	0.40	0.29	1.06	0.53	0.65	0.34	95.17	0.14	95.02	
LCM-25	b	2	29.19	34.00	1.41	1.88	0.17	0.03	25.48	0.21	0.39	0.29	1.20	0.54	0.68	0.43	95.90	0.18	95.72	
LCM-25	b	3	29.37	33.55	1.33	1.69	0.17	0.02	25.79	0.21	0.38	0.32	1.12	0.53	0.66	0.40	95.55	0.17	95.38	
LCM-25	b	4	29.51	34.44	1.34	1.80	0.13	0.02	25.49	0.26	0.37	0.33	1.17	0.65	0.70	0.35	96.57	0.15	96.42	
LCM-25	b	5	29.39	34.52	1.38	1.74	0.20	0.02	25.75	0.18	0.42	0.38	1.18	0.66	0.73	0.43	96.98	0.18	96.80	
LCM-25	b	6	29.87	34.84	1.48	1.84	0.20	0.02	26.14	0.25	0.42	0.34	1.18	0.59	0.69	0.43	98.27	0.18	98.09	
LCM-25	b	8	29.59	33.17	1.49	1.89	0.19	0.04	25.87	0.27	0.40	0.30	1.19	0.66	0.59	0.40	96.04	0.17	95.87	
LCM-25	b	9	29.30	34.22	1.33	1.82	0.18	0.02	25.58	0.25	0.39	0.41	1.26	0.66	0.74	0.42	96.55	0.18	96.38	
LCM-25	b	10	29.43	33.54	1.46	1.90	0.20	0.02	25.49	0.19	0.39	0.36	1.30	0.59	0.70	0.40	95.98	0.17	95.81	
LCM-25	b	11	29.29	32.80	1.35	1.98	0.18	0.04	25.42	0.29	0.43	0.44	1.34	0.77	0.81	0.42	95.55	0.18	95.37	
LCM-25	b	13	28.94	33.31	1.33	1.89	0.17	0.03	25.49	0.19	0.47	0.39	1.42	0.74	0.80	0.35	95.50	0.15	95.35	
LCM-25	b	14	29.19	32.88	1.30	1.85	0.16	0.04	25.71	0.28	0.42	0.42	1.47	0.70	0.78	0.43	95.64	0.18	95.46	
LCM-25	b	15	29.04	33.85	1.29	1.83	0.16	0.04	25.27	0.19	0.00	0.33	1.46	0.74	0.76	0.31	95.27	0.13	95.14	
LCM-25	c	1.1	28.93	33.41	1.37	1.73	0.29	0.01	25.16	0.24	0.00	0.24	0.22	1.24	0.68	0.09	0.29	93.89	0.12	93.77
LCM-32	1.1		29.41	35.45	1.38	1.62	0.20	0.02	26.33		0.32	0.27	0.93	0.49	0.14	0.01	96.58	0.01	96.58	
LCM-32	1.2rim		29.22	34.85	1.33	1.84	0.18	0.01	26.20		0.35	0.24	1.07	0.64	0.07	0.01	95.99	0.01	95.98	
LCM-32	1.3rim		29.37	35.42	1.37	1.58	0.20	0.02	26.31		0.34	0.29	1.02	0.57	0.15	0.02	96.65	0.01	96.64	
LCM-32	.4core		29.16	35.30	1.67	1.62	0.16	0.02	26.42		0.43	0.34	0.95	0.54	0.10	0.00	96.69	0.00	96.69	
LCM-32	.5core		29.53	35.22	1.38	1.65	0.16	0.02	26.29		0.29	0.33	0.98	0.49	0.17	0.01	96.51	0.00	96.51	
LCM-32	.1core		29.51	34.62	1.49	1.71	0.14	0.02	25.88		0.41	0.30	1.19	0.59	0.10	0.02	95.99	0.01	95.99	
LCM-32	.2 rim		28.83	34.69	1.53	1.70	0.18	0.01	25.66		0.42	0.26	1.18	0.71	0.12	0.03	95.31	0.01	95.30	
LCM-32	.3core		29.70	34.36	1.88	1.64	0.16	0.03	25.70		0.43	0.35	1.07	0.63	0.15	0.00	96.11	0.00	96.11	
LCM-32	.2.4rim		29.94	34.50	1.44	1.67	0.18	0.01	26.05		0.45	0.33	1.14	0.59	0.14	0.02	96.46	0.01	96.45	
LCM-32	.5core		29.30	33.90	2.20	1.69	0.18	0.01	25.54		0.35	0.36	1.20	0.55	0.14	0.04	95.44	0.02	95.43	
LCM-32	.1core		29.60	34.85	1.25	1.56	0.17	0.01	26.02		0.37	0.37	1.19	0.58	0.15	0.00	96.11	0.00	96.11	
LCM-32	.3core		29.46	35.13	1.40	1.66	0.16	0.03	26.18		0.43	0.43	1.13	0.60	0.09	0.03	96.71	0.01	96.70	
LCM-32	3.4rim		30.32	34.76	1.40	1.66	0.17	0.02	26.41		0.34	0.34	1.21	0.63	0.15	0.01	97.41	0.01	97.40	
LCM-32	.5core		29.29	34.80	1.42	1.62	0.16	0.01	26.06		0.40	0.31	1.08	0.55	0.13	0.00	95.84	0.00	95.84	
LCM-32	4.1		29.16	34.33	1.46	2.00	0.25	0.03	25.53		0.49	0.37	1.42	0.87	0.18	0.01	96.09	0.00	96.08	
LCM-32	4.2rim		28.49	34.67	1.56	1.69	0.20	0.02	26.06		0.46	0.27	1.13	0.67	0.14	0.00	95.34	0.00	95.34	
LCM-32	4.3rim		29.60	33.88	1.69	2.05	0.20	0.03	25.44		0.49	0.37	1.52	0.80	0.14	0.00	96.21	0.00	96.21	
LCM-32	.4core		29.63	33.91	1.62	2.25	0.27	0.03	25.50		0.56	0.34	1.52	0.80	0.21	0.03	96.67	0.01	96.65	
LCM-32	.1core		29.01	33.71	1.50	2.29	0.28	0.05	25.10		0.73	0.31	1.40	0.90	0.19	0.01	95.47	0.01	95.47	
LCM-32	.3core		29.55	33.62	1.62	2.10	0.25	0.03	25.41		0.51	0.36	1.37	0.74	0.15	0.02	95.72	0.01	95.72	
LCM-32	5.4rim		28.81	33.25	2.17	2.24	0.26	0.04	24.60		0.67	0.40	1.48	0.89	0.18	0.01	95.00	0.00	95.00	
LCM-32	5.5rim		29.48	34.42	1.56	1.65	0.18	0.01	25.81		0.49	0.38	1.10	0.61	0.17	0.01	95.87	0.00	95.86	
LCM-32	.3core		29.66	33.98	1.25	2.02	0.25	0.03	25.04		0.71	0.32	1.41	0.98	0.23	0.03	95.92	0.01	95.91	
LCM-32	6.5rim		29.12	33.24	1.54	2.32	0.27	0.03	24.93		0.85	0.34	1.34	1.15	0.31	0.00	95.44	0.00	95.44	
LCM-32	.1core		28.15	34.70	1.51	1.63	0.20	0.01	25.81		0.36	0.34	1.11	0.61	0.15	0.03	94.61	0.01	94.60	
LCM-32	7.2rim		29.29	33.56	1.57	1.70														

LCM-33	a	7	29.33	34.09	1.27	1.81	0.14	0.03	25.99	0.28	0.46	0.31	1.36	0.66	0.76	0.42	96.90	0.18	96.72	
LCM-33	a	8	29.19	34.37	1.31	1.90	0.20	0.02	25.78	0.25	0.41	0.32	1.28	0.69	0.64	0.41	96.77	0.17	96.60	
LCM-33	a	9	29.06	34.19	1.36	1.79	0.22	0.04	25.62	0.32	0.43	0.42	1.24	0.66	0.74	0.41	96.49	0.17	96.32	
LCM-33	a	10	29.30	34.34	1.28	1.82	0.25	0.05	25.74	0.24	0.43	0.36	1.31	0.69	0.71	0.36	96.88	0.15	96.73	
LCM-33	a	11	29.23	34.25	1.26	1.80	0.16	0.02	25.64	0.27	0.45	0.37	1.30	0.66	0.79	0.33	96.52	0.14	96.38	
LCM-33	a	12	29.20	35.21	1.28	1.54	0.22	0.02	25.57	0.34	0.35	0.53	1.56	0.76	0.73	0.28	97.58	0.12	97.47	
LCM-33	a	13	29.24	35.08	1.14	1.58	0.17	0.02	25.32	0.36	0.42	0.48	1.38	0.76	0.93	0.28	97.17	0.12	97.05	
LCM-33	a	14	29.32	34.31	1.28	1.79	0.20	0.03	25.45	0.27	0.44	0.43	1.38	0.69	0.86	0.35	96.79	0.15	96.65	
LCM-33	a	15	29.33	33.91	1.27	1.75	0.16	0.04	25.93	0.30	0.39	0.34	1.29	0.71	0.71	0.39	96.51	0.16	96.35	
LCM-33	a	16	29.39	34.52	1.29	1.77	0.14	0.03	25.88	0.31	0.45	0.46	1.35	0.69	0.77	0.39	97.41	0.16	97.25	
LCM-33	a	17	29.30	34.12	1.30	1.77	0.18	0.04	25.80	0.25	0.40	0.32	1.24	0.72	0.74	0.31	96.47	0.13	96.34	
LCM-33	a	18	29.41	34.05	1.34	1.80	0.18	0.02	25.85	0.24	0.42	0.41	1.08	0.70	0.68	0.44	96.61	0.18	96.43	
LCM-33	a	19	29.47	34.91	1.31	1.83	0.20	0.01	25.94	0.24	0.39	0.39	1.14	0.64	0.60	0.43	97.47	0.18	97.29	
LCM-33	a	20	29.43	35.16	1.38	1.82	0.16	0.03	25.97	0.21	0.38	0.37	1.12	0.67	0.59	0.47	97.76	0.20	97.57	
LCM-33	b	1	28.77	34.25	1.34	1.52	0.17	0.18	25.23	0.24	0.35	0.37	1.06	0.59	0.59	0.46	95.11	0.19	94.91	
LCM-33	b	2	29.46	34.56	1.37	1.67	0.17	0.02	25.91	0.28	0.44	0.34	1.12	0.59	0.63	0.45	97.02	0.19	96.82	
LCM-33	b	3	29.36	34.72	1.32	1.83	0.15	0.04	25.76	0.22	0.48	0.37	1.28	0.77	0.85	0.37	97.51	0.15	97.35	
LCM-33	b	4	29.00	35.39	1.17	1.75	0.17	0.05	25.72	0.45	0.51	0.37	1.38	0.74	0.79	0.35	97.84	0.15	97.69	
LCM-33	b	5	29.42	34.24	1.36	1.94	0.21	0.04	25.25	0.31	0.45	0.37	1.38	0.65	0.87	0.30	96.77	0.13	96.65	
LCM-33	b	6	29.28	34.24	1.34	2.00	0.22	0.05	25.58	0.31	0.51	0.40	1.46	0.72	0.96	0.40	97.45	0.17	97.28	
LCM-33	b	7	29.31	34.28	1.41	1.95	0.21	0.04	25.40	0.36	0.47	0.37	1.57	0.76	0.86	0.44	97.42	0.18	97.23	
LCM-33	b	8	29.11	33.84	1.37	2.11	0.20	0.05	25.34	0.29	0.43	0.41	1.47	0.76	0.65	0.44	96.46	0.18	96.27	
LCM-33	b	9	29.22	33.73	1.30	2.04	0.24	0.04	25.26	0.25	0.47	0.34	1.44	0.82	0.77	0.40	96.32	0.17	96.15	
LCM-33	b	10	29.17	34.18	1.37	2.11	0.23	0.03	25.44	0.31	0.44	0.40	1.41	0.76	0.73	0.35	96.92	0.15	96.77	
LCM-33	b	11	29.20	34.19	1.31	1.84	0.23	0.03	25.29	0.34	0.49	0.42	1.54	0.88	0.89	0.31	96.96	0.13	96.83	
LCM-33	b	12	29.28	34.53	1.31	1.90	0.18	0.04	24.93	0.41	0.50	0.54	1.70	0.89	0.99	0.26	97.47	0.11	97.36	
LCM-33	b	13	29.20	33.95	1.26	1.88	0.21	0.04	25.14	0.40	0.50	0.45	1.60	0.84	0.98	0.32	96.78	0.13	96.65	
LCM-33	b	14	29.56	34.09	1.47	2.12	0.19	0.04	25.53	0.34	0.49	0.38	1.48	0.73	0.81	0.47	97.69	0.20	97.49	
LCM-33	b	15	29.52	34.17	1.37	1.99	0.20	0.04	24.94	0.28	0.44	0.39	1.40	0.79	0.80	0.49	96.80	0.21	96.59	
LCM-33	c	1	29.16	33.47	1.38	2.09	0.34	0.03	24.84	0.36	0.55	0.44	1.40	0.70	0.12	0.42	95.32	0.18	95.15	
LCM-33	d	2,1	29.26	34.41	1.30	1.65	0.17	0.00	25.86	0.21	0.12	0.26	0.31	1.23	0.61	0.16	0.60	96.14	0.25	95.89
LCM-39	a	1	29.62	35.03	1.32	1.69	0.18	0.03	25.91	0.26	0.41	0.35	1.18	0.63	0.60	0.38	97.57	0.16	97.42	
LCM-39	a	2	29.58	34.47	1.33	1.80	0.16	0.02	25.73	0.17	0.42	0.36	1.23	0.66	0.66	0.42	97.01	0.17	96.84	
LCM-39	a	3	29.42	33.67	1.30	1.86	0.16	0.03	25.89	0.27	0.39	0.40	1.35	0.74	0.76	0.30	96.53	0.13	96.40	
LCM-39	a	4	29.31	33.87	1.28	1.76	0.18	0.02	25.64	0.41	0.41	0.52	1.70	0.79	0.89	0.33	97.09	0.14	96.95	
LCM-39	a	5	29.41	34.71	1.27	1.52	0.18	0.01	25.40	0.40	0.36	0.56	1.61	0.74	0.81	0.24	97.21	0.10	97.11	
LCM-39	a	6	33.21	32.30	1.62	1.45	0.19	0.03	23.98	0.42	0.32	0.47	1.57	0.61	0.72	0.31	97.19	0.13	97.06	
LCM-39	a	7	29.33	34.64	1.28	1.48	0.20	0.02	25.75	0.41	0.37	0.50	1.59	0.72	0.83	0.30	97.40	0.13	97.28	
LCM-39	a	8	29.40	34.56	1.19	1.76	0.18	0.03	25.94	0.30	0.42	0.42	1.32	0.83	0.81	0.33	97.49	0.14	97.35	
LCM-39	a	9	29.48	34.51	1.36	2.14	0.19	0.01	25.91	0.25	0.41	0.29	1.31	0.66	0.74	0.42	97.70	0.18	97.52	
LCM-39	a	10	29.44	35.43	1.15	1.67	0.21	0.01	25.50	0.40	0.41	0.43	1.45	0.72	0.84	0.31	97.96	0.13	97.83	
LCM-39	c	1,1	30.02	35.93	1.31	1.83	0.24	0.00	26.47	0.29	0.30	0.26	0.46	1.44	0.64	0.16	0.38	99.74	0.16	99.58
DQW-21	a	1	28.53	33.06	0.84	3.27	0.59	0.07	23.53	0.15	0.00	1.90	0.25	1.25	0.40	0.36	95.34	0.15	95.19	
DQW-21	a	2	28.84	33.03	0.93	3.14	0.53	0.05	23.93	0.22	0.05	1.84	0.24	1.30	1.15	0.44	0.27	95.95	0.12	95.83
DQW-21	a	3	28.69	33.16	0.98	3.07	0.50	0.08	23.89	0.22	0.00	1.91	0.24	1.21	1.17	0.35	0.46	95.92	0.19	95.73
DQW-21	a	4	28.27	33.11	0.95	3.16	0.48	0.06	23.57	0.33	0.00	1.93	0.26	1.30	1.16	0.44	0.27	95.27	0.12	95.16
DQW-21	a	5	28.60	33.34	0.91	3.15	0.47	0.07	23.72	0.17	0.16	1.94	0.26	1.28	1.27	0.42	0.29	96.05	0.12	95.93
DQW-21	a	6	28.75	33.18	0.99	3.08	0.48	0.07	23.87	0.18	0.00	1.72	0.29	1.32	1.36	0.42	0.31	96.01	0.13	95.88
DQW-21	a	7	28.49	32.83	0.87	3.23	0.53	0.06	23.58	0.01	0.09	1.95	0.26	1.23	1.27	0.45	0.27	95.10	0.12	94.99
DQW-21	a	8	28.72	33.27	0.85	3.17	0.51	0.07	23.60	0.16	0.00	1.92	0.30	1.20	1.19	0.39	0.35	95.70	0.15	95.55
DQW-21	a	9	28.54	33.63	0.81	3.17	0.53	0.07	23.49	0.26	0.00	1.91	0.33	1.12	1.20	0.43	0.31	95.79	0.13	95.67
DQW-21	a	10	28.72	33.19	0.84	3.30	0.53	0.07	23.68	0.08	0.00	1.86	0.25	1.24	1.25	0.45	0.32	95.76	0.13	95.63
DQW-21	a	11	28.79	32.63	0.91	3.47	0.58	0.07	23.80	0.30	0.12	1.95	0.27	1.25	1.11	0.33	0.33	95.91	0.14	95.77
DQW-21	a	12	28.91	33.40	0.78	3.24	0.59	0.04	24.20	0.38	0.00	1.77	0.28	1.22	1.07	0.34	0.36	96.58	0.15	96.43
DQW-21	a	15	28.75	33.47	0.79	3.04	0.53	0.06	24.06	0.12	0.10	1.67	0.25	1.09	1.04	0.39	0.36	95.74	0.15	95.59
DQW-21	a	16	28.64	33.66	0.81	3.25	0.52	0.08	23.76	0.16	0.19	1.82	0.26	1.23	1.12	0.40	0.29	96.19	0.12	96.06
DQW-21	a	17	28.64	33.42	0.77	3.17	0.56	0.07	23.78	0.23	0.05	1.82	0.24	1.23	1.16	0.36	0.35	95.84	0.15	95.69
DQW-21	a	18	28.60	33.01	0.88	3.42	0.62	0.08	23.75	0.18	0.00	1.79	0.27	1.30	1.05	0.32	0.46	95.72	0.19	95.53
DQW-21	a	19	29.02	33.04	0.86	3.29	0.53	0.08	24.22	0.25	0.00	1.74	0.33	1.22	1.04	0.34	0.46	96.42	0.19	96.23</td

DQW-21	b	15	28.87	33.23	0.83	3.14	0.59	0.06	24.14	0.18	0.06	1.78	0.23	1.12	0.95	0.32	0.46	95.95	0.19	95.76
DQW-21	b	16	28.98	33.29	0.82	3.44	0.57	0.08	24.24	0.16	0.00	1.76	0.27	1.09	0.95	0.33	0.44	96.42	0.19	96.24
DQW-21	b	17	29.04	33.38	0.86	3.36	0.56	0.06	24.15	0.27	0.00	1.81	0.24	1.07	0.90	0.35	0.41	96.44	0.17	96.27
DQW-21	b	18	29.13	33.36	0.83	3.40	0.58	0.05	24.62	0.13	0.00	1.65	0.26	0.98	0.87	0.31	0.39	96.55	0.16	96.39
DQW-21	b	19	29.09	32.75	0.82	3.34	0.54	0.08	24.32	0.34	0.00	1.69	0.23	1.03	0.90	0.29	0.51	95.92	0.22	95.70
DQW-21	b	20	29.12	32.94	0.82	3.39	0.60	0.07	24.53	0.20	0.00	1.61	0.21	0.98	0.97	0.31	0.52	96.24	0.22	96.02
DQW-21	c	28.48	32.93	1.01	3.84	0.52	0.07	23.05	0.11	0.00	1.79	0.16	1.20	1.30	0.44	0.62	95.49	0.26	95.23	
DQW-21	c	28.85	33.15	0.87	3.71	0.70	0.08	23.26	0.37	0.14	1.79	0.35	1.12	1.06	0.38	0.35	96.20	0.15	96.05	
DQW-21	c	29.01	33.26	0.95	3.58	0.63	0.06	22.48	0.26	0.00	1.55	0.33	1.32	1.07	0.38	0.72	95.61	0.30	95.30	
DQW-21	d	29.09	33.25	0.90	3.52	0.65	0.06	22.52	0.28	0.00	1.62	0.21	1.23	1.20	0.42	0.45	95.38	0.19	95.19	
DQW-21	e	28.81	33.45	0.92	3.46	0.66	0.07	22.66	0.35	0.01	1.75	0.19	1.33	1.27	0.43	0.36	95.73	0.15	95.58	
MC-8	2.1	30.29	35.98	1.63	1.74	0.23	0.00	26.33	0.10	0.00	0.09	0.13	0.42	0.32	0.11	0.37	97.74	0.16	97.59	
MC-8	3.1	30.08	35.92	1.62	1.75	0.19	0.00	26.48	0.24	0.00	0.17	0.08	0.41	0.31	0.11	0.35	97.71	0.15	97.57	
MC-8	4.1	30.00	35.46	1.74	1.54	0.13	0.00	26.52	0.19	0.42	0.03	0.24	0.67	0.44	0.08	0.50	97.96	0.21	97.75	
MC-8	4.2	29.35	35.38	1.70	1.56	0.18	0.00	26.60	0.18	0.00	0.02	0.30	0.65	0.42	0.14	0.23	96.72	0.10	96.62	
MC-17.9	2.1	29.99	36.21	1.30	1.51	0.20	0.00	26.59	0.45	0.00	0.07	0.26	0.73	0.25	0.11	0.50	98.15	0.21	97.94	
MC-17.9	5.1	30.17	35.49	1.62	1.67	0.12	0.00	25.98	0.30	0.03	0.11	0.16	0.69	0.37	0.11	0.29	97.11	0.12	96.99	
MC-19	1.1	29.62	36.43	1.52	1.86	0.17	0.01	26.94	0.19	0.12	0.32	0.18	0.85	0.46	0.19	0.62	99.47	0.26	99.22	
MC-19	2.1	28.94	35.77	1.30	1.50	0.23	0.00	25.61	0.29	0.00	0.35	0.53	1.97	1.05	0.20	0.00	97.73	0.00	97.73	
MC-19	4.1	28.51	33.47	1.75	2.78	0.28	0.03	24.98	0.18	0.00	1.01	0.34	1.50	1.28	0.39	0.51	97.02	0.21	96.80	
MC-26	1.1	30.00	36.39	1.55	1.58	0.24	0.00	27.44	0.16	0.31	0.13	0.29	0.84	0.28	0.04	0.76	99.99	0.32	99.67	
MC-26	2.1	28.92	36.20	1.31	1.53	0.18	0.00	27.06	0.29	0.00	0.19	0.11	0.68	0.42	0.11	0.01	96.99	0.01	96.98	
MC-26	3.1	30.07	35.50	1.76	2.16	0.11	0.01	27.35	0.21	0.04	0.10	0.30	0.73	0.36	0.09	1.11	99.90	0.47	99.43	
MC-26	3.2	30.15	35.87	1.70	2.12	0.17	0.00	27.52	0.18	0.13	0.00	0.27	0.77	0.30	0.08	1.20	100.45	0.50	99.94	
MC-26	4.1	29.67	36.58	1.49	1.53	0.18	0.00	27.42	0.16	0.02	0.05	0.28	0.71	0.25	0.07	0.50	98.90	0.21	98.69	
MC-27.5	1.1	29.02	34.40	0.64	3.42	0.68	0.05	23.54	0.26	0.00	1.28	0.31	1.34	1.06	0.27	0.31	96.56	0.13	96.43	
MC-27.5	1.2	29.02	34.31	0.66	3.40	0.73	0.02	23.06	0.22	0.00	1.38	0.47	1.26	1.24	0.36	0.18	96.32	0.08	96.24	
MC-27.5	2.1	29.01	35.04	0.51	2.86	0.71	0.04	22.92	0.10	0.27	1.22	0.32	1.64	1.23	0.44	0.34	96.63	0.14	96.49	
MC-27.5	3.1	28.93	34.12	1.54	2.76	0.42	0.01	23.79	0.35	0.00	1.45	0.43	1.01	1.26	0.41	0.17	96.63	0.07	96.56	
MC-27.5	4.1	29.24	35.03	1.31	2.01	0.24	0.00	23.84	0.35	0.08	1.03	0.36	1.54	1.35	0.27	0.16	96.81	0.07	96.74	
MC-27.5	5.1	28.10	33.32	1.49	3.05	0.41	0.01	24.02	0.39	0.00	1.46	0.31	2.15	1.59	0.49	0.17	96.98	0.07	96.90	
MC-27.5	6.1	28.78	34.51	1.44	2.56	0.28	0.00	25.09	0.44	0.17	1.29	0.44	1.61	1.12	0.33	0.44	98.52	0.19	98.34	
MC-27.5	7.1	28.65	34.11	1.38	2.56	0.41	0.00	25.04	0.12	0.00	0.91	0.32	1.41	1.16	0.39	0.22	96.69	0.09	96.60	
MC-43	1.1	30.18	35.16	1.93	1.73	0.18	0.00	26.19	0.17	0.00	0.09	0.23	1.20	0.34	0.07	0.51	97.97	0.21	97.76	
MC-43	3.1	28.92	33.27	1.06	3.23	0.64	0.03	23.29	0.35	0.63	1.65	0.24	1.38	1.08	0.34	0.47	96.58	0.20	96.38	
MC-43	4.1	28.99	33.27	1.00	3.71	0.61	0.05	22.87	0.19	0.00	1.75	0.18	1.30	1.22	0.43	0.62	96.17	0.26	95.91	
MC-43	5.1	29.88	35.62	1.47	2.04	0.15	0.00	26.25	0.25	0.24	0.12	0.16	0.76	0.24	0.00	0.40	97.59	0.17	97.42	
MC-43	6.1	30.07	36.34	1.43	1.76	0.15	0.00	25.76	0.25	0.00	0.12	0.08	0.66	0.39	0.03	0.41	97.44	0.17	97.27	

Electron microprobe analyses of titanite from volcanic ash beds in the Morrison Formation (wt%)																		
Sample	Grain	P2O5	SiO2	Fe2O3	CaO	MnO	Na2O	La2O3	Ce2O3	Nd2O3	F	Cl	Sum	-O=F, Cl	SubTotal	H2O calc	Total	
LCM-1	1	41.12	0.55	0.25	52.51	0.46	0.19	0.34	0.86	0.60	1.96	0.72	99.55	0.99	98.56	0.64	99.20	
LCM-1	1	41.06	0.56	0.38	52.41	0.49	0.14	0.38	0.92	0.57	1.98	0.69	99.58	0.99	98.60	0.63	99.23	
LCM-1	1	40.87	0.55	0.34	52.40	0.45	0.19	0.40	0.94	0.53	1.93	0.71	99.32	0.97	98.34	0.65	98.99	
LCM-1	2	41.67	0.31	0.31	52.81	0.46	0.19	0.22	0.60	0.43	1.98	0.72	99.68	0.99	98.68	0.63	99.31	
LCM-1	2	41.37	0.28	0.26	52.70	0.45	0.21	0.22	0.59	0.55	2.12	0.68	99.44	1.05	98.39	0.57	98.96	
LCM-1	2	41.54	0.55	0.23	52.26	0.45	0.19	0.31	0.87	0.54	2.04	0.68	99.65	1.01	98.64	0.61	99.25	
LCM-1	3	41.28	0.28	0.20	52.85	0.46	0.20	0.25	0.55	0.44	2.05	0.72	99.27	1.02	98.25	0.59	98.84	
LCM-1	3	41.56	0.25	0.15	52.72	0.46	0.16	0.26	0.62	0.37	1.99	0.67	99.22	0.99	98.23	0.63	98.86	
LCM-1	4	41.60	0.29	0.34	53.78	0.06	0.12	0.12	0.23	0.08	1.79	0.37	98.78	0.84	97.95	0.81	98.76	
LCM-1	4	41.95	0.26	0.33	53.84	0.08	0.08	0.07	0.27	0.13	1.67	0.36	99.02	0.78	98.24	0.88	99.12	
LCM-1	4	41.86	0.20	0.41	53.81	0.06	0.14	0.04	0.18	0.10	1.82	0.38	98.98	0.85	98.13	0.80	98.93	
LCM-1	5	41.51	0.45	0.11	52.72	0.43	0.18	0.22	0.67	0.49	2.02	0.68	99.48	1.00	98.48	0.62	99.10	
LCM-1	5	41.34	0.37	0.19	52.80	0.46	0.20	0.27	0.63	0.45	2.01	0.68	99.40	1.00	98.40	0.62	99.02	
LCM-1	5	41.67	0.27	0.17	52.79	0.47	0.17	0.18	0.55	0.39	2.14	0.63	99.42	1.04	98.38	0.57	98.95	
LCM-1	6	41.77	0.35	0.18	52.69	0.43	0.19	0.27	0.62	0.48	1.90	0.67	99.54	0.95	98.59	0.68	99.27	
LCM-1	6	41.63	0.32	0.09	52.70	0.48	0.19	0.27	0.69	0.49	1.92	0.67	99.45	0.96	98.49	0.67	99.16	
LCM-1	6	41.29	0.31	0.15	52.81	0.46	0.21	0.24	0.66	0.50	1.87	0.68	99.18	0.94	98.24	0.69	98.93	
LCM-1	7	41.77	0.33	0.24	53.55	0.17	0.18	0.25	0.42	0.26	2.53	0.77	100.45	1.24	99.21	0.37	99.58	
LCM-1	7	41.80	0.36	0.22	53.39	0.17	0.16	0.28	0.63	0.34	2.84	0.62	100.81	1.34	99.47	0.26	99.73	
LCM-1	7	41.46	0.35	0.11	53.50	0.17	0.17	0.22	0.56	0.27	2.50	0.86	100.16	1.25	98.92	0.35	99.27	
LCM-1	8	41.58	0.30	0.15	52.87	0.42	0.17	0.18	0.57	0.37	2.09	0.69	99.38	1.04	98.35	0.58	98.93	
LCM-1	8	41.55	0.42	0.14	52.83	0.47	0.20	0.27	0.70	0.45	1.96	0.68	99.67	0.98	98.69	0.65	99.34	
LCM-1	8	41.46	0.35	0.19	52.96	0.46	0.16	0.26	0.60	0.37	2.05	0.66	99.51	1.01	98.50	0.61	99.11	
LCM-1	9	41.62	0.29	0.48	53.99	0.07	0.13	0.04	0.07	0.06	1.74	0.37	98.86	0.82	98.04	0.84	98.88	
LCM-1	9	41.39	0.33	0.37	54.06	0.09	0.18	0.03	0.07	0.07	1.83	0.36	98.77	0.85	97.92	0.80	98.72	
LCM-1	9	41.87	0.18	0.32	53.88	0.12	0.14	0.06	0.06	0.07	1.65	0.36	98.68	0.78	97.91	0.89	98.80	
LCM-1	10	40.70	0.58	0.30	52.26	0.47	0.14	0.41	0.89	0.58	1.89	0.67	98.90	0.95	97.95	0.67	98.62	
LCM-1	10	42.03	0.03	0.34	53.52	0.46	0.16	0.16	0.44	0.21	2.04	0.68	100.07	1.01	99.06	0.63	99.69	
LCM-1	10	42.02	0.20	0.17	53.07	0.48	0.16	0.26	0.51	0.37	2.10	0.69	100.04	1.04	99.00	0.59	99.59	
LCM-1	11	41.07	0.18	0.48	53.81	0.10	0.13	0.10	0.23	0.13	1.71	0.50	98.42	0.83	97.59	0.81	98.40	
LCM-1	11	41.07	0.21	0.53	53.76	0.08	0.14	0.12	0.27	0.18	1.54	0.48	98.37	0.76	97.61	0.90	98.51	
LCM-1	11	41.77	0.16	0.67	53.51	0.10	0.12	0.12	0.22	0.21	1.42	0.49	98.79	0.71	98.08	0.96	99.04	
LCM-1	12	41.62	0.36	0.30	53.00	0.45	0.20	0.22	0.66	0.40	2.09	0.69	99.98	1.03	98.95	0.59	99.54	
LCM-1	12	41.82	0.29	0.15	52.92	0.44	0.17	0.20	0.60	0.39	1.97	0.67	99.61	0.98	98.63	0.65	99.28	
LCM-1	12	41.63	0.33	0.17	52.84	0.45	0.20	0.24	0.68	0.38	2.00	0.68	99.58	0.99	98.59	0.63	99.22	
LCM-1	13	41.16	0.16	0.30	53.02	0.46	0.25	0.28	0.56	0.31	1.98	0.69	99.16	0.99	98.17	0.63	98.80	
LCM-1	13	41.91	0.25	0.36	53.04	0.44	0.23	0.23	0.58	0.34	2.08	0.68	100.14	1.03	99.11	0.60	99.71	
LCM-1	13	41.57	0.29	0.21	52.98	0.44	0.22	0.21	0.55	0.35	1.95	0.68	99.43	0.97	98.46	0.66	99.12	
LCM-1	14	42.09	0.18	0.22	53.66	0.03	0.09	0.22	0.52	0.30	3.21	0.43	100.93	1.45	99.48	0.13	99.61	
LCM-1	14	41.83	0.23	0.32	53.82	0.04	0.10	0.21	0.47	0.27	3.47	0.38	101.15	1.54	99.61	0.02	99.63	
LCM-1	14	42.49	0.17	0.24	53.83	0.05	0.09	0.25	0.52	0.28	3.41	0.37	101.69	1.52	100.17	0.06	100.23	
LCM-1	15	41.93	0.20	0.31	54.10	0.15	0.11	0.16	0.25	0.12	3.01	0.91	101.24	1.47	99.76	0.11	99.87	
LCM-1	15	41.74	0.25	0.32	53.95	0.15	0.12	0.09	0.23	0.11	2.92	1.28	101.16	1.52	99.64	0.06	99.70	
LCM-1	15	41.81	0.25	0.29	54.19	0.14	0.14	0.11	0.28	0.15	3.09	0.79	101.22	1.48	99.74	0.10	99.84	
LCM-6	10a	40.91	0.26	0.24	53.40	0.16	0.22	0.21	0.58	0.33	2.14	0.56	99.00	1.03	97.98	0.59	98.57	
LCM-6	10b	41.67	0.27	0.19	53.29	0.20	0.19	0.20	0.48	0.30	2.14	0.66	99.58	1.05	98.53	0.57	99.10	
LCM-6	1a	40.56	0.29	0.38	54.16	0.10	0.15	0.13	0.22	0.18	3.45	0.09	99.70	1.47	98.23	0.09	98.32	
LCM-6	2a	41.42	0.26	0.21	53.48	0.18	0.13	0.17	0.44	0.32	2.04	0.69	99.35	1.02	98.34	0.61	98.95	
LCM-6	2b	41.86	0.28	0.26	53.56	0.20	0.13	0.20	0.44	0.30	2.02	0.68	99.93	1.00	98.93	0.63	99.56	
LCM-6	3a	41.34	0.21	0.22	54.07	0.10	0.07	0.06	0.24	0.16	2.24	0.60	99.31	1.08	98.23	0.54	98.77	
LCM-6	3b	40.76	0.19	0.28	54.12	0.09	0.06	0.11	0.21	0.12	2.22	0.56	98.72	1.06	97.65	0.55	98.20	
LCM-6	4a	41.82	0.24	0.36	53.97	0.05	0.15	0.02	0.08	0.10	2.17	0.32	99.27	0.98	98.28	0.66	98.94	
LCM-6	4b	41.43	0.27	0.18	54.04	0.07	0.14	0.07	0.07	0.14	2.04	0.34	98.79	0.94	97.85	0.70	98.55	
LCM-6	8a	41.46	0.33	0.29	53.16	0.19	0.17	0.15	0.54	0.27	2.05	0.74	99.35	1.03	98.32	0.59	98.91	
LCM-6	8b	41.28	0.37	0.25	53.24	0.20	0.18	0.21	0.51	0.29	2.00	0.71	99.23	1.00	98.23	0.62	98.85	
LCM-6	9a	41.09	0.31	0.21	53.70	0.19	0.14	0.15	0.47	0.27	2.04	0.67	99.22	1.01	98.21	0.62	98.83	
LCM-6	9b	41.17	0.33	0.21	53.57	0.18	0.16	0.14	0.37	0.20	2.06	0.66	99.04	1.02	98.03	0.61	98.64	
LCM-9	2	41.77	0.32	0.31	54.19	0.10	0.11	0.10	0.07	0.15	2.10	0.29	99.50	0.95	98.55	0.70	99.25	
LCM-9	2	41.14	0.31	0.33	54.21	0.09	0.10	0.11	0.12	0.19	2.11	0.28	98.98	0.95	98.03	0.69	98.72	
LCM-9	2	41.96	0.25	0.27	54.19	0.08	0.15	0.03	0.11	0.07	2.17	0.26	99.52	0.97	98.55	0.68	99.23	
LCM-9	4	41.31	0.41	0.45	54.17	0.11	0.03	0.17	0.44	0.29	2.58	0.22	100.16	1.14	99.03	0.49	99.52	
LCM-9	4	42.30	0.23	0.32	54.64	0.10	0.02	0.11	0.22	0.19	2.53	0.25	100.90	1.12	99.78	0.52	100.30	
LCM-9	4	41.66	0.28	0.34	54.61	0.07	0.03	0.09	0.37	0.28	2.53	0.22	100.48	1.11	99.36	0.52	99.88	
LCM-9	7	41.91	0.16															

LCM-9	15	41.76	0.25	0.50	54.34	0.09	0.11	0.01	0.01	0.02	1.99	0.24	99.31	0.89	98.42	0.77	99.19
LCM-9	15	41.12	0.22	0.42	53.97	0.10	0.11	0.09	0.03	0.10	1.92	0.26	98.37	0.87	97.50	0.77	98.27
LCM-13	1	40.50	0.60	0.10	52.40	0.40	0.24	0.41	0.97	0.50	2.58	0.43	99.12	1.18	97.94	0.40	98.34
LCM-13	1	41.06	0.44	0.21	52.55	0.39	0.24	0.39	0.91	0.57	2.35	0.45	99.56	1.09	98.47	0.52	98.99
LCM-13	1	40.78	0.68	0.19	51.75	0.41	0.23	0.48	1.05	0.62	2.68	0.44	99.30	1.23	98.07	0.35	98.42
LCM-13	2	40.00	2.66	0.13	50.99	0.29	0.26	0.36	0.75	0.57	2.22	0.46	98.69	1.04	97.65	0.56	98.21
LCM-13	3	40.62	0.48	0.14	52.59	0.39	0.24	0.36	0.85	0.56	2.29	0.43	98.93	1.06	97.87	0.55	98.42
LCM-13	3	40.88	0.49	0.14	52.52	0.41	0.21	0.34	0.85	0.58	2.30	0.41	99.12	1.06	98.06	0.55	98.61
LCM-13	3	40.98	0.29	0.07	53.26	0.34	0.25	0.30	0.64	0.44	2.34	0.44	99.35	1.08	98.27	0.53	98.80
LCM-13	4	40.20	0.87	0.18	52.10	0.35	0.19	0.51	1.09	0.72	2.45	0.44	99.10	1.13	97.97	0.46	98.43
LCM-13	4	40.47	0.80	0.24	52.08	0.41	0.21	0.45	1.12	0.80	2.39	0.44	99.40	1.11	98.30	0.49	98.79
LCM-13	4	40.49	0.73	0.13	52.17	0.38	0.16	0.39	1.05	0.66	2.48	0.48	99.11	1.15	97.96	0.44	98.40
LCM-13	5	41.28	0.20	0.23	53.32	0.37	0.28	0.23	0.56	0.36	2.41	0.39	99.61	1.10	98.51	0.52	99.03
LCM-13	5	40.99	0.25	0.10	53.08	0.36	0.32	0.30	0.67	0.45	2.48	0.43	99.45	1.14	98.31	0.46	98.77
LCM-13	5	41.03	0.52	0.29	52.62	0.39	0.23	0.36	0.86	0.57	2.49	0.43	99.78	1.15	98.64	0.46	99.10
LCM-13	6	40.55	0.43	0.23	53.39	0.20	0.26	0.24	0.50	0.31	2.18	0.33	98.63	0.99	97.63	0.63	98.26
LCM-13	6	41.07	0.45	0.17	53.18	0.23	0.25	0.22	0.56	0.42	2.29	0.33	99.18	1.04	98.14	0.58	98.72
LCM-13	6	40.55	0.62	0.21	52.91	0.23	0.25	0.28	0.66	0.47	2.23	0.32	98.71	1.01	97.70	0.60	98.30
LCM-13	7	41.27	0.33	0.12	52.90	0.39	0.25	0.27	0.71	0.43	2.35	0.43	99.45	1.09	98.37	0.52	98.89
LCM-13	7	41.36	0.28	0.13	53.26	0.38	0.26	0.28	0.58	0.33	2.35	0.43	99.64	1.09	98.56	0.53	99.09
LCM-13	8	40.61	0.73	0.09	52.25	0.37	0.18	0.48	1.05	0.76	2.48	0.42	99.43	1.14	98.29	0.45	98.74
LCM-13	8	40.16	0.77	0.18	52.11	0.38	0.20	0.42	1.09	0.67	2.38	0.43	98.79	1.10	97.69	0.49	98.18
LCM-13	8	40.44	0.69	0.31	52.17	0.39	0.18	0.45	1.07	0.72	2.42	0.41	99.24	1.11	98.13	0.48	98.61
LCM-13	9	40.89	0.39	0.34	53.45	0.21	0.15	0.22	0.61	0.38	2.78	0.49	99.90	1.28	98.62	0.31	98.93
LCM-13	9	40.37	0.79	0.29	52.55	0.23	0.11	0.28	0.86	0.59	2.46	0.50	99.03	1.15	97.88	0.44	98.32
LCM-13	9	41.35	0.46	0.18	53.21	0.21	0.15	0.24	0.65	0.43	2.53	0.49	99.91	1.18	98.74	0.43	99.17
LCM-13	10	40.19	0.83	0.20	52.36	0.41	0.18	0.43	1.13	0.73	2.48	0.44	99.37	1.14	98.23	0.45	98.68
LCM-13	10	40.18	0.73	0.14	52.35	0.39	0.18	0.41	1.16	0.76	2.48	0.40	99.17	1.13	98.04	0.46	98.50
LCM-13	10	40.42	0.66	0.20	52.37	0.42	0.20	0.46	1.04	0.71	2.43	0.46	99.35	1.12	98.23	0.47	98.70
LCM-13	11	40.61	0.61	0.31	52.41	0.38	0.19	0.44	0.98	0.65	2.40	0.44	99.42	1.11	98.31	0.49	98.80
LCM-13	11	41.22	0.66	0.19	52.20	0.39	0.22	0.36	1.02	0.62	2.43	0.43	99.74	1.12	98.62	0.48	99.10
LCM-13	11	40.00	1.51	0.21	51.84	0.38	0.26	0.34	0.93	0.54	2.37	0.40	98.78	1.09	97.70	0.51	98.21
LCM-13	12	41.19	0.26	0.10	53.60	0.30	0.24	0.18	0.48	0.32	3.61	0.46	100.74	1.62	99.11	0.00	99.11
LCM-13	12	40.81	0.35	0.14	53.40	0.30	0.20	0.21	0.51	0.40	3.49	0.43	100.24	1.57	98.67	0.00	98.66
LCM-13	12	41.30	0.23	0.13	53.63	0.30	0.21	0.18	0.41	0.39	3.57	0.44	100.78	1.60	99.18	0.00	99.18
LCM-13	13	40.87	0.68	0.24	52.31	0.39	0.19	0.37	0.92	0.59	2.37	0.43	99.36	1.09	98.27	0.51	98.78
LCM-13	13	40.64	0.70	0.32	52.47	0.37	0.20	0.40	1.00	0.66	2.43	0.40	99.59	1.11	98.48	0.49	98.97
LCM-13	13	40.41	0.70	0.26	52.31	0.42	0.17	0.43	1.03	0.75	2.40	0.45	99.33	1.11	98.22	0.48	98.70
LCM-13	14	40.80	0.51	0.22	52.93	0.42	0.20	0.28	0.77	0.60	2.59	0.43	99.75	1.19	98.56	0.41	98.97
LCM-13	14	40.96	0.35	0.11	53.32	0.35	0.26	0.33	0.69	0.40	2.57	0.45	99.80	1.18	98.62	0.42	99.04
LCM-13	14	40.67	0.39	0.24	53.07	0.35	0.24	0.28	0.67	0.40	2.53	0.45	99.29	1.17	98.12	0.43	98.55
LCM-13	15	40.93	0.49	0.23	53.50	0.15	0.13	0.23	0.61	0.42	2.64	0.48	99.80	1.22	98.59	0.38	98.97
LCM-13	15	41.02	0.48	0.25	53.46	0.15	0.17	0.21	0.60	0.39	2.77	0.45	99.95	1.27	98.68	0.33	99.01
LCM-13	15	40.85	0.48	0.25	53.37	0.20	0.13	0.25	0.58	0.33	2.62	0.42	99.48	1.20	98.28	0.40	98.68
LCM-14	10a	41.57	0.12	0.38	54.06	0.15	0.08	0.01	0.37	0.12	1.78	0.76	99.40	0.92	98.48	0.72	99.20
LCM-14	10b	42.17	0.11	0.37	53.97	0.18	0.09	0.13	0.16	0.10	1.92	0.73	99.94	0.97	98.96	0.67	99.63
LCM-14	10c	41.68	0.16	0.36	53.91	0.15	0.10	0.15	0.22	0.09	1.80	0.72	99.35	0.92	98.43	0.72	99.15
LCM-14	1b	41.88	0.12	0.33	53.38	0.22	0.07	0.05	0.21	0.15	1.94	0.74	99.08	0.98	98.10	0.65	98.75
LCM-14	1c	42.07	0.14	0.33	53.71	0.20	0.07	0.12	0.22	0.16	1.81	0.77	99.58	0.94	98.65	0.71	99.36
LCM-14	2a	41.46	0.21	0.36	53.61	0.24	0.16	0.13	0.43	0.14	2.18	0.69	99.61	1.07	98.54	0.55	99.09
LCM-14	2b	42.20	0.21	0.39	52.90	0.26	0.17	0.15	0.44	0.27	2.12	0.73	99.83	1.06	98.77	0.56	99.33
LCM-14	3a	41.91	0.19	0.33	53.66	0.22	0.10	0.24	0.44	0.12	2.18	0.73	100.12	1.08	99.04	0.55	99.59
LCM-14	3b	41.61	0.27	0.39	53.58	0.25	0.12	0.21	0.37	0.18	1.96	0.77	99.69	1.00	98.70	0.64	99.34
LCM-14	4a	41.22	0.14	0.33	52.84	0.25	0.10	0.18	0.36	0.23	1.93	0.80	98.37	0.99	97.38	0.62	98.00
LCM-14	4b	41.67	0.10	0.35	53.67	0.22	0.07	0.13	0.24	0.15	2.05	0.78	99.43	1.04	98.39	0.58	98.97
LCM-14	4c	40.93	0.14	0.37	53.35	0.30	0.10	0.14	0.37	0.11	2.07	0.76	98.65	1.05	97.61	0.56	98.17
LCM-14	5a	42.09	0.15	0.45	53.63	0.10	0.08	0.20	0.20	0.07	2.20	0.50	99.68	1.04	98.64	0.59	99.23
LCM-14	5b	42.11	0.14	0.39	53.83	0.11	0.08	0.12	0.31	0.10	1.97	0.48	99.62	0.94	98.68	0.71	99.39
LCM-14	5c	41.61	0.15	0.42	54.14	0.13	0.03	0.02	0.36	0.18	2.12	0.47	99.63	1.00	98.63	0.64	99.27
LCM-14	6a	41.72	0.32	0.42	53.37	0.21	0.08	0.37	0.50	0.21	2.06	0.70	99.94	1.02	98.92	0.60	99.52
LCM-14	6b	40.63	0.32	0.43	53.46	0.21	0.11	0.28	0.46	0.28	2.20	0.81	99.19	1.11	98.09	0.50	98.59
LCM-14	8a	41.50	0.32	0.39	53.72	0.24	0.08	0.32	0.62	0.20	1.82	0.74	99.95	0.93	99.02	0.71	99.73
LCM-14	8b	41.21	0.19	0.35	53.21	0.23	0.07	0.18	0.43	0.11	1.84	0.73	98.55	0.94	97.61	0.68	98.29
LCM-14	9a	40.98	0.13	0.47	53.93	0.08	0.09	0.04	0.24	0.13	1.86	0.37	98.32	0.87	97.45	0.77	98.22
LCM-14	9b	41.66	0.21	0.55	54.19	0.10	0.11	0.10	0.08	0.07	2.08	0.43	99.57	0.97			

LCM-16	5b	41.33	0.24	0.73	54.38	0.04	0.15	0.05	0.04	0.03	2.01	0.28	99.28	0.91	98.37	0.74	99.11
LCM-16	6a	40.73	0.26	0.79	53.82	0.06	0.12	0.05	0.06	0.01	1.98	0.26	98.15	0.89	97.25	0.74	97.99
LCM-16	7a	41.82	0.22	0.71	54.56	0.02	0.16	0.00	0.00	0.04	2.30	0.23	100.07	1.02	99.05	0.63	99.68
LCM-16	7b	41.72	0.26	0.59	54.37	0.03	0.16	0.00	0.12	0.00	2.31	0.27	99.86	1.03	98.82	0.61	99.43
LCM-16	7c	41.46	0.24	0.67	54.22	0.03	0.13	0.06	0.05	0.00	2.31	0.26	99.43	1.03	98.40	0.61	99.01
LCM-17	10a	40.93	0.86	0.37	53.14	0.05	0.06	0.29	0.82	0.45	2.64	0.48	100.08	1.22	98.86	0.38	99.24
LCM-17	10b	40.83	0.71	0.42	53.50	0.08	0.09	0.22	0.69	0.30	2.71	0.46	100.00	1.24	98.75	0.35	99.10
LCM-17	10c	40.66	1.18	0.34	53.12	0.13	0.08	0.36	0.71	0.44	2.66	0.57	100.23	1.25	98.98	0.35	99.33
LCM-17	1a	42.40	0.29	0.07	54.95	0.03	0.10	0.01	0.12	0.12	3.31	0.10	101.51	1.42	100.10	0.19	100.29
LCM-17	1b	41.36	0.35	0.05	54.43	0.00	0.10	0.04	0.15	0.08	3.15	0.10	99.82	1.35	98.47	0.24	98.71
LCM-17	1c	41.96	0.25	0.17	53.92	0.10	0.10	0.01	0.12	0.09	3.26	0.10	100.06	1.39	98.67	0.19	98.86
LCM-17	2a	41.60	0.39	0.41	54.24	0.14	0.13	0.22	0.28	0.20	2.73	0.54	100.87	1.27	99.60	0.34	99.94
LCM-17	2b	40.57	0.40	0.43	54.06	0.14	0.12	0.08	0.50	0.20	2.65	0.51	99.66	1.23	98.43	0.37	98.80
LCM-17	2b	41.91	0.36	0.38	53.60	0.10	0.12	0.16	0.44	0.26	2.58	0.50	100.41	1.20	99.21	0.41	99.62
LCM-17	3a	41.22	0.40	0.41	53.80	0.12	0.07	0.18	0.37	0.20	2.50	0.50	99.77	1.17	98.60	0.44	99.04
LCM-17	3b	42.13	0.22	0.39	54.00	0.11	0.10	0.04	0.35	0.18	2.56	0.51	100.59	1.19	99.39	0.43	99.82
LCM-17	4a	41.83	0.17	0.43	54.53	0.14	0.15	0.12	0.18	0.20	2.47	0.49	100.70	1.15	99.56	0.49	100.05
LCM-17	4b	41.82	0.27	0.42	54.45	0.11	0.15	0.08	0.29	0.21	2.77	0.49	101.05	1.28	99.77	0.34	100.11
LCM-17	5a	40.92	0.32	0.41	54.01	0.07	0.12	0.08	0.39	0.14	2.44	0.49	99.40	1.14	98.26	0.47	98.73
LCM-17	5b	41.32	0.30	0.41	54.24	0.07	0.18	0.18	0.30	0.20	2.53	0.50	100.23	1.18	99.05	0.44	99.49
LCM-17	6a	41.35	0.23	0.54	53.60	0.19	0.18	0.19	0.26	0.11	2.46	0.49	99.59	1.15	98.44	0.46	98.90
LCM-17	6b	41.58	0.25	0.44	54.13	0.13	0.17	0.10	0.15	0.16	2.54	0.53	100.18	1.19	99.00	0.43	99.43
LCM-17	6c	42.06	0.26	0.38	53.70	0.11	0.16	0.15	0.39	0.16	2.65	0.49	100.50	1.23	99.27	0.39	99.66
LCM-17	7a	41.15	0.31	0.45	54.15	0.14	0.18	0.06	0.32	0.16	2.62	0.53	100.08	1.22	98.85	0.39	99.24
LCM-17	7b	41.76	0.26	0.43	53.95	0.10	0.15	0.10	0.42	0.21	2.52	0.54	100.43	1.18	99.25	0.44	99.69
LCM-17	8a	41.79	0.10	0.52	54.17	0.06	0.10	0.07	0.13	0.15	2.22	0.49	99.79	1.05	98.74	0.59	99.33
LCM-17	8b	41.90	0.24	0.59	53.75	0.08	0.11	0.08	0.29	0.15	2.13	0.47	99.78	1.00	98.78	0.63	99.41
LCM-17	8c	42.43	0.19	0.53	54.04	0.05	0.07	0.10	0.21	0.14	2.16	0.46	100.39	1.01	99.37	0.64	100.01
LCM-17	9a	41.48	0.45	0.40	53.02	0.03	0.11	0.23	0.43	0.33	2.42	0.47	99.36	1.12	98.24	0.48	98.72
LCM-17	9b	41.48	0.29	0.39	53.53	0.09	0.17	0.23	0.29	0.19	2.49	0.52	99.66	1.17	98.49	0.44	98.93
LCM-18	10a	41.25	0.36	0.55	53.96	0.15	0.17	0.09	0.29	0.13	1.85	0.92	99.73	0.99	98.74	0.65	99.39
LCM-18	10b	41.64	0.25	0.42	53.74	0.13	0.18	0.07	0.31	0.06	1.97	0.93	99.71	1.04	98.67	0.59	99.26
LCM-18	10c	41.69	0.28	0.53	54.10	0.14	0.15	0.16	0.28	0.14	1.84	0.99	100.29	1.00	99.29	0.65	99.94
LCM-18	1a	41.28	0.30	0.54	54.10	0.06	0.02	0.10	0.42	0.18	2.35	0.30	99.66	1.05	98.60	0.57	99.17
LCM-18	1b	41.54	0.28	0.47	54.50	0.02	0.04	0.15	0.27	0.25	2.12	0.36	99.99	0.97	99.02	0.68	99.70
LCM-18	2a	42.24	0.18	0.35	54.54	0.06	0.09	0.14	0.22	0.11	2.74	0.43	101.10	1.25	99.85	0.37	100.22
LCM-18	2b	42.20	0.17	0.40	54.19	0.02	0.09	0.05	0.20	0.12	2.92	0.48	100.86	1.34	99.52	0.27	99.79
LCM-18	2c	42.02	0.17	0.41	54.41	0.05	0.09	0.09	0.20	0.08	2.64	0.48	100.65	1.22	99.43	0.40	99.83
LCM-18	3a	41.53	0.33	0.43	53.66	0.22	0.04	0.24	0.56	0.27	2.77	0.42	100.45	1.26	99.20	0.34	99.54
LCM-18	3b	41.45	0.23	0.31	53.80	0.13	0.07	0.25	0.44	0.16	2.81	0.44	100.07	1.28	98.79	0.31	99.10
LCM-18	4a	42.25	0.13	0.47	53.80	0.09	0.04	0.04	0.10	0.08	2.63	0.35	99.97	1.19	98.79	0.43	99.22
LCM-18	4b	42.59	0.17	0.44	54.33	0.06	0.02	0.05	0.20	0.05	2.68	0.35	100.94	1.21	99.73	0.42	100.15
LCM-18	4c	41.62	0.16	0.50	54.13	0.06	0.02	0.17	0.23	0.15	2.60	0.30	99.93	1.16	98.77	0.45	99.22
LCM-18	6a	41.74	0.27	0.48	54.32	0.09	0.04	0.15	0.38	0.11	3.09	0.43	101.09	1.40	99.69	0.20	99.89
LCM-18	6b	42.21	0.26	0.41	54.10	0.08	0.04	0.23	0.26	0.18	3.37	0.25	101.38	1.47	99.91	0.11	100.02
LCM-18	6c	42.01	0.24	0.49	54.13	0.08	0.05	0.16	0.42	0.27	2.84	0.37	101.05	1.28	99.77	0.33	100.10
LCM-18	6d	42.23	0.26	0.44	53.60	0.04	0.05	0.00	0.40	0.20	3.01	0.33	100.57	1.34	99.23	0.25	99.48
LCM-18	7a	42.20	0.27	0.48	54.34	0.07	0.08	0.08	0.21	0.14	2.72	0.49	101.08	1.26	99.83	0.36	100.19
LCM-18	7b	41.77	0.33	0.44	54.40	0.06	0.06	0.15	0.35	0.31	2.82	0.44	101.13	1.29	99.85	0.33	100.18
LCM-18	7c	41.98	0.34	0.47	53.73	0.06	0.07	0.18	0.37	0.31	2.66	0.49	100.65	1.23	99.42	0.38	99.80
LCM-18	8a	42.11	0.30	0.31	54.35	0.17	0.06	0.14	0.51	0.31	2.63	0.38	101.27	1.20	100.07	0.43	100.50
LCM-18	8b	41.99	0.35	0.31	54.36	0.15	0.04	0.15	0.38	0.37	2.60	0.42	101.11	1.19	99.92	0.44	100.36
LCM-18	8c	41.93	0.25	0.24	54.44	0.12	0.05	0.19	0.38	0.30	2.67	0.38	100.95	1.21	99.74	0.41	100.15
LCM-18	9a	42.44	0.13	0.61	54.39	0.12	0.01	0.04	0.19	0.07	1.67	0.50	100.17	0.82	99.35	0.86	100.21
LCM-18	9b	42.50	0.11	0.64	54.65	0.11	0.01	0.08	0.13	0.01	1.80	0.47	100.51	0.86	99.65	0.81	100.46
LCM-18	9c	42.25	0.15	0.82	54.11	0.06	0.02	0.00	0.13	0.20	1.83	0.48	100.05	0.88	99.17	0.79	99.96
LCM-19	1a	41.75	0.16	0.45	54.09	0.04	0.06	0.09	0.21	0.09	2.42	0.43	99.77	1.12	98.66	0.50	99.16
LCM-19	1b	42.24	0.28	0.56	53.76	0.09	0.04	0.05	0.27	0.23	2.14	0.34	99.99	0.98	99.01	0.67	99.68
LCM-19	2a	41.82	0.19	0.74	54.22	0.11	0.02	0.06	0.09	0.05	1.86	0.18	99.33	0.83	98.51	0.84	99.35
LCM-19	2b	42.19	0.20	0.67	54.27	0.11	0.00	0.00	0.04	0.10	1.81	0.19	99.56	0.80	98.76	0.87	99.63
LCM-19	2c	41.79	0.19	0.66	54.25	0.06	0.03	0.12	0.15	0.13	1.89	0.21	99.48	0.84	98.63	0.82	99.45
LCM-19	3a	41.77	0.20	0.42	54.40	0.06	0.11	0.17	0.22	0.08	2.60	0.40	100.44	1.18	99.26	0.44	99.70
LCM-19	3b	41.54	0.20	0.29	54.03	0.04	0.12	0.07	0.31	0.11	2.76	0.40	99.87	1.25	98.61	0.35	98.96
LCM-19	3c	42.10	0.19	0.32	54.48	0.02	0.11	0.08	0.12	0.15	2.70	0.41	100.67	1.23	99.44	0.39	99.83
LCM-19	4a	42.10	0.22	0.32	54.10												

LCM-21	1a	41.40	0.20	0.52	54.07	0.10	0.03	0.00	0.12	0.15	2.29	0.59	99.45	1.10	98.35	0.52	98.87
LCM-21	1b	41.57	0.19	0.36	54.30	0.04	0.05	0.08	0.25	0.12	2.20	0.58	99.74	1.06	98.68	0.57	99.25
LCM-21	1c	41.49	0.23	0.45	53.87	0.02	0.02	0.10	0.23	0.21	2.42	0.60	99.66	1.16	98.50	0.45	98.95
LCM-21	4a	41.12	0.14	0.62	54.26	0.05	0.02	0.00	0.00	0.01	1.77	0.34	98.33	0.82	97.51	0.83	98.34
LCM-21	4b	41.87	0.08	0.69	53.97	0.10	0.04	0.01	0.00	0.13	1.64	0.36	98.89	0.77	98.12	0.89	99.01
LCM-21	4c	41.86	0.11	0.64	53.82	0.03	0.04	0.00	0.13	0.11	1.73	0.31	98.77	0.80	97.98	0.86	98.84
LCM-21	5a	40.69	0.58	0.36	52.96	0.31	0.16	0.38	0.84	0.47	2.63	0.41	99.80	1.20	98.59	0.39	98.98
LCM-21	5b	40.86	0.41	0.38	52.89	0.34	0.14	0.30	0.73	0.43	2.55	0.43	99.45	1.17	98.28	0.42	98.70
LCM-22	1a	41.62	0.26	0.64	54.81	0.06	0.10	0.02	0.06	0.08	2.68	0.21	100.53	1.18	99.36	0.46	99.82
LCM-22	1b	41.87	0.27	0.68	54.37	0.07	0.16	0.10	0.00	0.08	3.79	0.05	101.45	1.61	99.84	0.00	99.84
LCM-22	2a	41.62	0.24	0.52	53.43	0.09	0.18	0.13	0.30	0.13	2.69	0.40	99.72	1.22	98.50	0.38	98.88
LCM-22	2b	41.58	0.31	0.45	53.49	0.10	0.14	0.14	0.27	0.14	2.81	0.36	99.80	1.27	98.53	0.33	98.86
LCM-22	2c	41.47	0.25	0.60	53.77	0.13	0.18	0.14	0.33	0.09	2.80	0.41	100.17	1.27	98.90	0.33	99.23
LCM-22	3a	40.60	0.59	0.33	52.90	0.25	0.18	0.33	0.83	0.59	2.14	0.63	99.37	1.04	98.33	0.57	98.90
LCM-22	3b	41.05	0.63	0.36	52.90	0.28	0.12	0.36	0.78	0.41	2.16	0.64	99.70	1.05	98.65	0.56	99.21
LCM-22	4a	40.87	0.34	0.79	53.28	0.30	0.31	0.22	0.71	0.22	2.16	0.95	100.14	1.12	99.02	0.50	99.52
LCM-22	4b	41.64	0.21	0.75	53.16	0.31	0.26	0.23	0.55	0.22	2.05	0.81	100.19	1.04	99.14	0.59	99.73
LCM-22	4c	41.40	0.15	0.79	52.93	0.27	0.23	0.19	0.43	0.18	2.29	0.84	99.69	1.15	98.54	0.45	98.99
LCM-22	5a	41.26	0.32	0.38	53.49	0.24	0.23	0.20	0.53	0.18	2.18	0.67	99.69	1.07	98.62	0.55	99.17
LCM-22	5b	41.63	0.22	0.29	53.75	0.21	0.19	0.18	0.55	0.22	2.20	0.67	100.10	1.08	99.03	0.55	99.58
LCM-22	6a	41.25	0.27	0.52	54.43	0.05	0.14	0.00	0.18	0.14	2.55	0.46	100.00	1.18	98.82	0.44	99.26
LCM-22	6b	41.71	0.28	0.53	54.21	0.08	0.13	0.15	0.28	0.18	2.68	0.42	100.63	1.22	99.41	0.40	99.81
LCM-22	7a	41.18	0.31	0.57	54.39	0.25	0.26	0.14	0.33	0.12	2.05	0.92	100.52	1.07	99.45	0.57	100.02
LCM-22	7b	41.60	0.25	0.45	54.14	0.23	0.22	0.14	0.35	0.18	1.97	0.78	100.28	1.00	99.28	0.64	99.92
LCM-22	8a	41.47	0.26	0.38	53.91	0.15	0.25	0.13	0.49	0.27	2.27	0.94	100.51	1.17	99.34	0.45	99.79
LCM-22	8c	41.21	0.26	0.36	53.69	0.15	0.31	0.30	0.63	0.21	2.24	0.95	100.29	1.16	99.13	0.46	99.59
LCM-23	2a	41.81	0.39	0.32	53.91	0.18	0.08	0.25	0.36	0.17	2.61	0.60	100.69	1.24	99.46	0.38	99.84
LCM-23	2b	41.86	0.28	0.20	54.32	0.12	0.08	0.15	0.48	0.11	2.93	0.49	101.01	1.35	99.67	0.26	99.93
LCM-23	2c	42.11	0.25	0.29	54.51	0.15	0.08	0.12	0.43	0.16	2.81	0.56	101.47	1.31	100.16	0.31	100.47
LCM-23	3a	41.73	0.38	0.35	52.89	0.22	0.20	0.30	0.68	0.20	2.39	0.45	99.79	1.11	98.68	0.51	99.19
LCM-23	3b	41.58	0.19	0.35	53.84	0.21	0.23	0.10	0.48	0.19	2.36	0.49	100.02	1.11	98.92	0.52	99.44
LCM-23	3c	41.20	0.38	0.37	53.30	0.18	0.18	0.23	0.76	0.29	2.39	0.47	99.75	1.11	98.64	0.50	99.14
LCM-23	4a	42.06	0.18	0.08	55.00	0.06	0.02	0.02	0.13	0.06	3.44	0.00	101.05	1.45	99.60	0.15	99.75
LCM-23	4b	42.73	0.11	0.06	55.56	0.08	0.04	0.00	0.19	0.07	3.27	0.04	102.14	1.39	100.76	0.24	101.00
LCM-23	5a	41.88	0.48	0.15	53.96	0.07	0.06	0.39	0.69	0.42	2.39	0.80	101.27	1.19	100.09	0.44	100.53
LCM-23	5b	41.95	0.28	0.20	54.33	0.18	0.09	0.19	0.24	0.13	2.15	0.81	100.54	1.09	99.45	0.55	100.00
LCM-23	5c	41.88	0.28	0.21	54.98	0.16	0.09	0.28	0.37	0.11	2.31	0.83	101.49	1.16	100.33	0.48	100.81
LCM-25	1a	41.72	0.32	0.41	54.59	0.06	0.22	0.24	0.40	0.20	2.87	0.43	101.46	1.31	100.16	0.31	100.47
LCM-25	1b	41.52	0.34	0.52	54.60	0.09	0.17	0.14	0.43	0.24	2.96	0.45	101.45	1.35	100.11	0.27	100.38
LCM-25	1c	40.93	0.23	0.44	54.29	0.12	0.18	0.20	0.56	0.24	2.95	0.42	100.56	1.34	99.22	0.26	99.48
LCM-25	2a	41.11	0.30	0.34	53.96	0.25	0.24	0.20	0.59	0.40	2.75	0.59	100.73	1.29	99.44	0.31	99.75
LCM-25	2b	41.71	0.26	0.42	53.52	0.25	0.21	0.21	0.52	0.29	2.78	0.53	100.70	1.29	99.41	0.31	99.72
LCM-25	2c	41.58	0.26	0.54	53.64	0.34	0.22	0.34	0.52	0.32	2.85	0.49	101.08	1.31	99.77	0.29	100.06
LCM-25	3a	41.11	0.79	0.27	54.06	0.17	0.12	0.36	0.87	0.45	2.97	0.52	101.68	1.37	100.31	0.23	100.54
LCM-25	3b	40.51	0.86	0.26	52.97	0.19	0.14	0.33	1.00	0.65	2.69	0.47	100.06	1.24	98.82	0.36	99.18
LCM-25	4a	41.22	0.18	0.32	53.92	0.18	0.20	0.31	0.60	0.34	2.73	0.52	100.52	1.26	99.26	0.34	99.60
LCM-25	4b	41.16	0.18	0.33	53.26	0.16	0.25	0.22	0.58	0.31	2.73	0.52	99.70	1.27	98.43	0.32	98.75
LCM-25	5b	42.59	0.22	0.39	54.20	0.07	0.06	0.11	0.23	0.16	2.49	0.77	101.29	1.22	100.07	0.40	100.47
LCM-25	5b	42.55	0.29	0.42	54.56	0.09	0.05	0.12	0.24	0.14	2.31	0.83	101.61	1.16	100.45	0.48	100.93
LCM-25	6a	41.81	0.23	0.64	54.23	0.26	0.17	0.00	0.25	0.22	2.49	0.50	100.80	1.16	99.64	0.47	100.11
LCM-25	6b	41.86	0.19	0.72	53.75	0.21	0.10	0.10	0.25	0.17	2.29	0.48	100.12	1.07	99.04	0.56	99.60
LCM-25	6c	42.12	0.15	0.54	53.80	0.23	0.17	0.08	0.25	0.20	2.23	0.50	100.28	1.05	99.23	0.59	99.82
LCM-26	1	40.84	0.64	0.15	52.79	0.35	0.18	0.35	0.83	0.00	2.43	0.32	98.88	1.09	97.79	0.51	98.30
LCM-26	1	40.79	0.28	0.16	53.16	0.32	0.32	0.20	0.52	0.99	2.54	0.33	99.60	1.14	98.46	0.46	98.92
LCM-26	1	41.17	0.23	0.10	53.39	0.35	0.31	0.22	0.52	0.36	2.74	0.33	99.71	1.23	98.48	0.37	98.85
LCM-26	2	41.28	0.34	0.20	54.08	0.08	0.15	0.01	0.07	0.09	2.26	0.27	98.82	1.01	97.81	0.62	98.43
LCM-26	2	41.55	0.28	0.35	54.06	0.13	0.16	0.01	0.06	0.10	2.11	0.23	99.03	0.94	98.09	0.70	98.79
LCM-26	2	41.06	0.53	0.29	53.87	0.12	0.17	0.05	0.01	0.05	2.01	0.25	98.41	0.90	97.51	0.74	98.25
LCM-26	3	41.41	0.25	0.08	53.69	0.30	0.24	0.17	0.46	0.31	2.61	0.36	99.87	1.18	98.69	0.43	99.12
LCM-26	3	40.91	0.26	0.19	53.68	0.29	0.24	0.14	0.43	0.31	2.46	0.39	99.30	1.12	98.17	0.49	98.66
LCM-26	3	40.89	0.50	0.22	53.29	0.27	0.15	0.27	0.70	0.53	2.68	0.34	99.84	1.21	98.64	0.39	99.03
LCM-26	4	41.48	0.33	0.37	53.74	0.05	0.08	0.05	0.15	0.08	2.33	0.27	98.93	1.04	97.89	0.58	98.47
LCM-26	4	41.31	0.28	0.40	53.97	0.05	0.07	0.04	0.09	0.12	2.27	0.28	98.89	1.02	97.87	0.61	98.48
LCM-26	4	41.42	0.25	0.42	53.81	0.07	0.10	0.01	0.08	0.03	2.34	0.27	98.81	1.05	97.76	0.58	98.34
LCM-26	5	40.48	0.22	0.26	53.34	0.32	0.29										

LCM-26	12	40.65	0.60	0.06	53.15	0.32	0.17	0.29	0.75	0.58	2.41	0.36	99.33	1.10	98.24	0.51	98.75
LCM-26	12	40.99	0.60	0.21	53.19	0.27	0.15	0.30	0.72	0.45	2.58	0.34	99.79	1.16	98.63	0.44	99.07
LCM-26	13	40.87	0.75	0.20	52.66	0.29	0.15	0.33	0.86	0.65	2.90	0.33	99.98	1.29	98.68	0.29	98.97
LCM-26	13	40.62	0.75	0.10	52.83	0.26	0.16	0.36	0.84	0.58	2.69	0.38	99.56	1.22	98.34	0.37	98.71
LCM-26	13	40.64	0.71	0.22	52.73	0.27	0.16	0.26	0.81	0.62	2.79	0.37	99.58	1.26	98.32	0.32	98.64
LCM-26	14	41.20	0.24	0.09	53.68	0.28	0.25	0.17	0.51	0.34	2.62	0.33	99.71	1.18	98.53	0.43	98.96
LCM-26	14	41.29	0.25	0.18	53.66	0.30	0.27	0.11	0.45	0.28	2.53	0.33	99.65	1.14	98.51	0.47	98.98
LCM-26	14	40.88	0.29	0.12	53.26	0.29	0.29	0.19	0.44	0.28	2.52	0.36	98.92	1.14	97.78	0.46	98.24
LCM-26	15	40.69	0.65	0.16	53.20	0.29	0.11	0.35	0.80	0.54	2.66	0.35	99.79	1.20	98.59	0.40	98.99
LCM-26	15	40.75	0.52	0.07	53.16	0.26	0.12	0.32	0.69	0.47	2.55	0.37	99.27	1.16	98.11	0.44	98.55
LCM-26	15	40.68	0.68	0.10	52.91	0.27	0.14	0.35	0.81	0.70	2.75	0.35	99.74	1.24	98.50	0.35	98.85
LCM-27	10a	40.44	0.63	0.25	54.02	0.27	0.20	0.32	0.81	0.61	2.25	0.00	99.81	0.95	98.86	0.70	99.56
LCM-27	10b	40.17	0.61	0.34	54.01	0.26	0.17	0.35	0.88	0.61	2.18	0.01	99.60	0.92	98.68	0.72	99.40
LCM-27	11a	40.70	0.27	0.36	54.16	0.25	0.23	0.21	0.51	0.27	1.92	0.01	98.89	0.81	98.08	0.85	98.93
LCM-27	11b	41.03	0.50	0.34	53.74	0.25	0.18	0.30	0.80	0.56	1.86	0.01	99.56	0.79	98.77	0.88	99.65
LCM-27	2a	41.35	0.26	0.42	55.20	0.22	0.21	0.15	0.37	0.26	2.39	0.01	100.84	1.01	99.83	0.66	100.49
LCM-27	2b	41.43	0.27	0.44	55.03	0.24	0.14	0.13	0.33	0.23	2.43	0.01	100.66	1.02	99.64	0.63	100.27
LCM-27	3a	40.55	0.32	0.38	54.85	0.23	0.19	0.15	0.55	0.27	1.90	0.01	99.38	0.80	98.58	0.87	99.45
LCM-27	3b	40.92	0.28	0.40	54.68	0.23	0.20	0.18	0.47	0.32	1.81	0.01	99.47	0.76	98.71	0.92	99.63
LCM-27	4a	41.27	0.36	0.58	54.93	0.14	0.18	0.12	0.47	0.35	2.59	0.01	100.99	1.09	99.90	0.56	100.46
LCM-27	4b	41.10	0.27	0.54	55.24	0.11	0.19	0.19	0.44	0.21	2.72	0.00	101.02	1.15	99.87	0.50	100.37
LCM-27	5a	40.60	0.39	0.76	55.14	0.06	0.07	0.08	0.29	0.20	2.76	0.01	100.36	1.17	99.20	0.46	99.66
LCM-27	5b	40.69	0.35	0.63	55.13	0.07	0.10	0.12	0.30	0.18	2.57	0.00	100.14	1.08	99.05	0.56	99.61
LCM-27	6a	41.11	0.25	0.26	54.70	0.23	0.21	0.21	0.49	0.36	1.91	0.00	99.73	0.81	98.93	0.87	99.80
LCM-27	6b	41.51	0.28	0.37	54.56	0.21	0.21	0.27	0.52	0.38	2.01	0.00	100.32	0.85	99.47	0.83	100.30
LCM-27	7a	39.33	1.01	0.37	53.43	0.28	0.22	0.42	1.08	0.79	2.08	0.01	99.00	0.88	98.13	0.76	98.89
LCM-27	7b	39.87	0.78	0.29	54.09	0.29	0.21	0.39	0.96	0.71	2.19	0.00	99.78	0.92	98.85	0.72	99.57
LCM-27	8a	40.61	0.68	0.29	53.79	0.26	0.22	0.29	0.87	0.58	2.02	0.01	99.62	0.85	98.77	0.80	99.57
LCM-27	8b	40.13	0.69	0.38	54.14	0.27	0.21	0.34	0.89	0.79	1.89	0.01	99.72	0.80	98.92	0.87	99.79
LCM-27	9a	41.37	0.21	0.41	53.70	0.23	0.17	0.20	0.50	0.36	1.90	0.00	99.04	0.80	98.24	0.86	99.10
LCM-27	9b	41.34	0.23	0.28	54.33	0.24	0.17	0.19	0.54	0.35	2.00	0.01	99.68	0.84	98.83	0.82	99.65
LCM-29	10a	41.70	0.18	0.79	53.81	0.03	0.12	0.07	0.30	0.11	1.73	0.42	99.26	0.82	98.44	0.84	99.28
LCM-29	10b	41.81	0.20	0.68	53.81	0.12	0.12	0.08	0.37	0.07	1.92	0.42	99.61	0.91	98.70	0.75	99.45
LCM-29	10c	42.33	0.23	0.64	53.11	0.07	0.11	0.14	0.31	0.13	1.93	0.47	99.47	0.92	98.55	0.72	99.27
LCM-29	1a	41.92	0.18	0.31	54.46	0.12	0.09	0.04	0.23	0.21	1.82	0.61	100.00	0.90	99.10	0.76	99.86
LCM-29	1b	42.24	0.15	0.39	54.56	0.15	0.08	0.11	0.32	0.16	1.92	0.64	100.72	0.96	99.76	0.71	100.47
LCM-29	1c	41.64	0.21	0.43	54.63	0.20	0.10	0.07	0.29	0.13	1.86	0.64	100.19	0.93	99.26	0.74	100.00
LCM-29	2a	42.01	0.15	0.79	54.20	0.11	0.10	0.08	0.26	0.09	1.91	0.55	100.26	0.93	99.33	0.73	100.06
LCM-29	2b	42.59	0.24	0.52	54.73	0.11	0.06	0.21	0.33	0.23	1.86	0.51	101.40	0.90	100.50	0.78	101.28
LCM-29	3a	42.38	0.22	0.54	54.25	0.33	0.08	0.06	0.37	0.22	2.03	0.68	101.15	1.01	100.15	0.65	100.80
LCM-29	3b	41.70	0.21	0.29	54.15	0.09	0.06	0.09	0.33	0.18	1.94	0.64	99.69	0.96	98.73	0.68	99.41
LCM-29	4a	41.41	0.20	0.52	54.43	0.13	0.12	0.07	0.22	0.08	1.86	0.88	99.92	0.98	98.93	0.66	99.59
LCM-29	4b	41.39	0.26	0.55	54.24	0.17	0.14	0.09	0.24	0.18	1.68	0.92	99.84	0.91	98.92	0.74	99.66
LCM-29	5a	41.47	0.15	0.43	54.40	0.21	0.08	0.17	0.33	0.09	1.92	0.62	99.88	0.95	98.93	0.70	99.63
LCM-29	5b	42.37	0.21	0.35	55.32	0.18	0.08	0.12	0.26	0.18	2.01	0.66	101.72	0.99	100.73	0.68	101.41
LCM-29	6a	41.07	0.23	0.50	54.25	0.20	0.10	0.07	0.30	0.14	1.74	0.69	99.28	0.89	98.39	0.77	99.16
LCM-29	6b	41.49	0.24	0.44	53.98	0.15	0.15	0.12	0.28	0.17	1.99	0.70	99.70	0.99	98.70	0.65	99.35
LCM-29	7a	41.28	0.18	0.32	53.51	0.24	0.18	0.20	0.26	0.25	2.18	0.71	99.31	1.08	98.23	0.54	98.77
LCM-29	7b	41.01	0.17	0.52	53.82	0.30	0.14	0.15	0.33	0.21	2.09	0.74	99.47	1.05	98.42	0.57	98.99
LCM-29	8a	40.77	0.22	0.40	53.96	0.28	0.15	0.20	0.32	0.17	2.03	0.72	99.23	1.02	98.21	0.61	98.82
LCM-29	8b	40.81	0.18	0.41	53.57	0.30	0.15	0.24	0.37	0.26	2.12	0.77	99.16	1.06	98.09	0.55	98.64
LCM-29	9a	42.14	0.14	0.35	54.65	0.15	0.04	0.13	0.36	0.24	1.95	0.68	100.83	0.97	99.85	0.68	100.53
LCM-29	9b	42.01	0.18	0.37	54.46	0.24	0.10	0.11	0.25	0.18	2.00	0.62	100.52	0.98	99.54	0.67	100.21

Whole-rock chemical composition and zircon morphology of volcanic ash beds in the Morrison Formation

